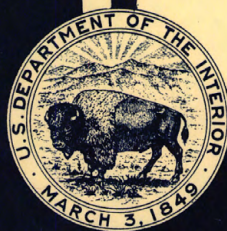
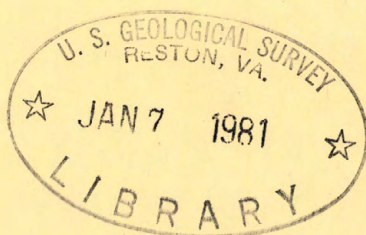


1971

R
(200)
Ga 3
WYOMING
1971
pt. 2

Water Resources Data for Wyoming

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

Prepared in cooperation with the State of Wyoming
and with other agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER 1970

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER 1970

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JANUARY 1971

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY 1971

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

MARCH 1971

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL 1971

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY 1971

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE 1971

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY 1971

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST 1971

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER 1971

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

1971

Water Resources Data for Wyoming

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

Prepared in cooperation with the State of Wyoming
and with other agencies

Prepared in cooperation with

Office of the Wyoming State Engineer
Wyoming Department of Economic Planning and Development
Wyoming State Department of Agriculture
Wyoming Game and Fish Commission
Bureau of Land Management, U. S. Department of the Interior
Bureau of Reclamation, U. S. Department of the Interior
Environmental Protection Agency

Water resources records, 1971, for Wyoming are in the following reports of the U. S. Geological Survey:

1. Water Resources Data for Wyoming
Part 1: Surface-Water Records
2. Water Resources Data for Wyoming
Part 2: Water-Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U. S. Geological Survey
215 East Eighth Avenue
P. O. Box 2087
Cheyenne, Wyoming 82001

CONTENTS

	Page
List of water-quality stations, in downstream order, for which records are published.	IV
Introduction	1
Cooperation.	2
Definition of terms.	2
Special networks and programs.	7
Downstream order and station number.	8
Well number.	9
Collection and examination of data	9
Solutes.	11
Temperature.	12
Sediment	12
Water-supply papers.	13
Selected references.	14
Water-quality records.	16
Index.	241

ILLUSTRATIONS

Figure 1. Map of Wyoming showing locations of sites where data were obtained on the quality of surface water	245
Figure 2. Map of Wyoming showing locations of sites where data were obtained on the quality of ground water.	247

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

[Letters after station name designate type of data:
(c), chemical; (t), water temperature; (s), sediment]

	Page
<u>MISSOURI RIVER BASIN</u>	
<u>YELLOWSTONE RIVER BASIN</u>	
Yellowstone River at Corwin Springs, Mont. (c)	16
Clarks Fork Yellowstone River below Falls Creek, near Clark (t)	18
Clarks Fork Yellowstone River near Belfry, Mont. (cs)	19
Silver Tip Creek near Belfry, Mont. (cts)	20
Wind River (head of Bighorn River) near Dubois (c)	25
Wind River at Riverton (ct)	26
Little Wind River above Arapahoe (c)	28
Beaver Creek near Arapahoe (c)	29
Little Wind River near Riverton (ct)	30
Muskrat Creek near Shoshoni (s)	32
Fivemile Creek above Wyoming Canal, near Pavillion (ts)	33
Fivemile Creek near Shoshoni (c)	35
Badwater Creek at Lysite (ts)	36
Bridger Creek near Lysite (ts)	39
Dry Creek near Bonneville (s)	42
Badwater Creek at Bonneville (ts)	42
Muddy Creek near Pavillion (ts)	46
Wind River below Boysen Reservoir (ct)	48
Bighorn River:	
Bighorn River at Lucerne (c)	50
Fifteen Mile Creek near Worland (ts)	51
Bighorn River at Worland (c)	54
Nowood River near Ten Sleep (c)	55
Tensleep Creek:	
Canyon Creek below Cooks Canyon, near Ten Sleep (cs)	56
Paint Rock Creek near mouth, below Hyattville (c)	58
Nowood River at Manderson (c)	59
Greybull River near Basin (c)	60
Shell Creek near Greybull (c)	61
Bighorn River at Kane (cts)	62
Shoshone River below Buffalo Bill Reservoir (c)	67
Bitter Creek near Garland (ct)	68
Whistle Creek near Garland (ct)	72
Shoshone River near Lovell (ct)	76
Sage Creek at Sidon Canal, near Deaver (ct)	80
Crooked Creek:	
Big Coulee near Lovell (s)	84
Bighorn River near St. Xavier, Mont. (ct)	86
Little Bighorn River below Pass Creek, near Wyola, Mont. (cts)	90
Tongue River near Dayton (c)	96
Goose Creek below Sheridan (c)	97
Tongue River at State line, near Decker, Mont. (ct)	98

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED

V

Page

MISSOURI RIVER BASIN--Continued

YELLOWSTONE RIVER BASIN--Continued

Powder River near Kaycee (c)	100
South Fork Powder River near Kaycee (c).	101
Salt Creek near Sussex (c)	102
Crazy Woman Creek at upper station, near Arvada (c).	103
Powder River at Arvada (cts)	104
Clear Creek near Arvada (c).	109
Powder River at Moorhead, Mont. (c).	110

CHEYENNE RIVER BASIN

Cheyenne River:

Beaver Creek near Newcastle (c).	113
Cheyenne River at Edgemont, S. Dak. (c).	114
Belle Fourche River at Devils Tower (c).	117
Belle Fourche River at Wyoming-South Dakota State line (ct).	118

PLATTE RIVER BASIN

North Platte River (head of Platte River)

near Northgate, Colo. (ct)	122
Encampment River above Hog Park Creek, near Encampment (cs).	124
Encampment River at mouth, near Encampment (c)	126
North Platte River above Seminole Reservoir, near Sinclair (c).	127
Medicine Bow River:	
Little Medicine Bow River near Medicine Bow (c).	128
Medicine Bow River above Seminole Reservoir, near Hanna (c)	129
North Platte River above Pathfinder Reservoir (c).	130
Sweetwater River:	
Rock Creek at Atlantic City (ts)	131
Sweetwater River near Alcova (c)	134
North Platte River at Alcova (c)	135
Bates Creek near Alcova (c).	136
North Platte River at Mills (c).	137
Middle Fork Casper Creek (head of Casper Creek) near Bucknum (c)	138
Casper Creek at Casper (c)	139
North Platte River below Casper (c).	141
Deer Creek below Millar wasteway, at Glenrock (ct)	144
North Platte River below Deer Creek, near Glenrock (t)	146
North Platte River near Glenrock (ct).	148
North Platte River near Careyhurst (t)	150
North Platte River at Orpha (t).	152
North Platte River at Orin (c)	154
North Platte River below Glendo Reservoir (c).	155
North Platte River below Guernsey Reservoir (c).	156
North Platte River at recorder station, below Whalen (c)	157
Laramie River at Two Rivers (c).	158
Little Laramie River at Two Rivers (c)	159
Laramie River near Fort Laramie (ct)	160
North Platte River near Lingle (cs).	162
Rawhide Creek above Interstate Canal, near Lingle (c).	164
Rawhide Creek near Lingle (c).	165
Cherry Creek drain near Torrington (c)	167

MISSOURI RIVER BASIN--ContinuedPLATTE RIVER BASIN--Continued

North Platte River at Wyoming-Nebraska State line (ct)	168
Horse Creek at WyCross Ranch, near La Grange (cs)	172
Horse Creek at lower station, near Yoder (c)	174

COLORADO RIVER BASINGREEN RIVER BASIN

Green River at Warren Bridge, near Daniel (c)	175
Green River near Big Piney (c)	176
New Fork River near Boulder (c)	177
New Fork River near Big Piney (c)	178
Dry Piney Creek near Big Piney (ts)	179
Green River near La Barge (ct)	182
Green River below Fontenelle Reservoir (ct)	186
Big Sandy River below Eden (c)	189
Green River at Big Island, near Green River (c)	190
Bitter Creek near Green River (cs)	191
Green River near Green River (cts)	192
Blacks Fork near Lyman (ct)	198
Hams Fork near Granger (c)	201
Blacks Fork near Little America (cts)	202
Henrys Fork near Lonetree (c)	207
Henrys Fork at Linwood, Utah (ct)	208
Green River near Greendale, Utah (c)	212
Yampa River:	
Little Snake River near Baggs (c)	214

THE GREAT BASINGREAT SALT LAKE BASINBEAR RIVER BASIN

Bear River above reservoir, near Woodruff, Utah (c)	215
Bear River at Border (ct)	216

SNAKE RIVER BASIN

Snake River:

FLAT CREEK BASIN

Flat Creek:

Cache Creek near Jackson (cs)	218
---	-----

Snake River above reservoir, near Alpine (c)	220
--	-----

SALT RIVER BASIN

Salt River above reservoir, near Etna (c)	221
---	-----

Analyses of samples collected at miscellaneous sites in Grand Teton and Yellowstone National Parks, Wyoming	222
---	-----

Analyses of samples collected at miscellaneous sites in Wyoming, excluding Grand Teton and Yellowstone National Parks	228
---	-----

Analyses of sediment samples collected at miscellaneous sites in Wyoming	233
--	-----

Analyses of samples of ground water in Wyoming	234
--	-----

WATER RESOURCES DATA FOR WYOMING, 1971

PART 2. WATER QUALITY RECORDS

INTRODUCTION

Water-resources data for the 1971 water year for Wyoming include records of data for the chemical and physical characteristics of surface and ground water. Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently. At some sites water-temperature data were recorded on charts by recorders. Data are given for 190 sampling stations of which 107 are continuous-record stations and 83 are miscellaneous sites. Chemical analyses also are given for 118 ground-water sites. Locations of surface water-quality stations are shown in figure 1 and locations of ground-water sites are shown in figure 2. Data on a few pertinent stations in bordering States are also included. The data were collected by the Water Resources Division of the U.S. Geological Survey under the direction of Robert L. Cushman, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

The Geological Survey has published records of chemical quality, water temperatures, and sediment since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Water of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published later in Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

Wyoming Department of Agriculture, Glenn J. Hertzler, Jr.,
commissioner

Wyoming State Engineer, Floyd A. Bishop

Wyoming Department of Economic Planning and Development,
Myron W. Goodson, Chief of Water Development

Wyoming Game and Fish Commission, James B. White, commissioner

Agencies furnishing assistance were:

Bureau of Land Management, U.S. Department of the Interior
Bureau of Reclamation, U.S. Department of the Interior
Environmental Protection Agency

Funds for many stations were provided under the Missouri River Basin Development Program for collection of data to meet the needs of several agencies of the Department of the Interior.

DEFINITION OF TERMS

Terms related to water quality and hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, ac-ft) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inches from 1 square mile.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Color refers to the appearance of water that is free from suspended solids. It is expressed in units of the platinum-cobalt scale. One unit of color is produced by one milligram per liter of platinum in the form of the chloroplatinate ion.

Cubic foot per second (cfs, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (cfs)." An exception to this is in the "Mean discharge (cfs)" column for a continuous station, where the discharge given for "Analyses of Additional Samples" is that for the time shown.

Drainage area of a stream at a specified location is that area, measured in horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Micrograms per liter ($\mu\text{g/l}$, UG/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 5. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 5.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling) (Guy, 1969).

Particle-size classification, used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

pH indicates the degree of acidity or alkalinity of water and is expressed in terms of pH units. The pH value of a solution is the negative logarithm of the concentration of hydrogen ions, in moles per liter. A pH of 7.0 indicates that the water is neither acid nor alkaline. pH readings progressively lower than 7.0 denote increasing acidity and those progressively higher than 7.0 denote increasing alkalinity. The pH of most natural surface waters ranges between 6 and 8.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multi- ply by	Ion	Multi- ply by
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1}).....	.01639	Lithium (Li^{+1})*.....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2}).....	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*....	.03640
Carbonate (CO_3^{-2})....	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate (NO_3^{-1}).....	.01613
Chromium (Cr^{+6})*.....	.11539	Nitrite (NO_2^{-1}).....	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3})....	.03159
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1}).....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*....	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2}).....	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time (Colby and Hembree, 1955).

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual water-supply paper series, "Quality of Surface Water for Irrigation, Western States."

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of water-quality stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each water-quality station, gaging station, and miscellaneous site has been assigned a station number. These are in the same downstream order used in this report. Water-quality stations located at or near gaging stations have the same number as the gaging station. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 06259000 which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "259000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 6 (Missouri River basin), Part 9 (Colorado River basin), Part 10 (The Great Basin), and Part 13 (Snake River basin). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

WELL NUMBER

The well numbers used in this report indicate the well location. The numbering system is based on the Federal system of land subdivision. The number shows the location of the well by township, range, section, and position within the section. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, and the third the quarter-quarter-quarter section. The letters are assigned within the section in a counterclockwise direction beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section and quarter-quarter section in the same manner. Where two or more locations are within the smallest subdivision, consecutive numbers beginning with 1 are added to the letters in the order in which the wells were inventoried. For example, 30-110-15daa2 indicates a well in the northeast quarter of the northeast quarter of the southeast quarter of sec. 15, T. 30 N., R. 110 W., and shows that this is the second well inventoried in the quarter-quarter-quarter section.

For a small irregularly-shaped area in west central Wyoming the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counterclockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given above.

Because the Federal system of land subdivision does not extend to Yellowstone National Park, a well-code numbering system based on latitude and longitude is used in this report for that area. The six digits before the letter N denote the latitude; the remaining seven digits denote the longitude. The degree, minute, and second symbols have been omitted for brevity. For example, the number 441025N1103045 would indicate the well or spring is located at latitude 44°10'25" north, longitude 110°30'45" west.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment discharge. Discharge records for streams in Wyoming have been released in the report, "Water Resources Data for Wyoming, 1971, Part 1. Surface Water Records."

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of

record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for stream-flow gaging stations. For ground-water sampling stations, no descriptive statements are given. However, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical quality, biological, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per liter (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per millions and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 3, page 11.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," page 2.)

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

* °C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge depending on the source of material and the turbulence and the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

The daily chemical quality data in this report generally represent equal-volume composites for 2- to 30-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

Ground water does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are analyzed individually.

Temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken at about the same time each day when sample is collected. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and for each month.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

Table 4 below shows the annual series of water-supply papers that give information on quality of surface waters in Wyoming. Data for the Missouri River basin are given in parts 5-6. Data for the Colorado River basin, the Great Basin, and the Snake River basin are given in parts 9-14 prior to 1964, in parts 9-11 and 12-15 for 1964, and in parts 9-11 and 12-16 after 1964.

Table 4.--Water-supply paper numbers and parts,
water years, 1948-68

<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Parts</u> <u>9-14</u>	<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Parts</u> <u>9-14</u>
1948	1132	A1133	1956	1451	1453
1949	1162	A1163	1957	1521	1523
1950	1187	1189	1958	1572	1574
1951	1198	1200	1959	1643	1645
1952	1251	1253	1960	1743	1745
1953	1291	1293	1961	1883	1885
1954	1351	1353	1962	1943	1945
1955	1401	1403	1963	1949	1951
<u>Year</u>	<u>Parts</u> <u>5-6</u>	<u>Parts</u> <u>9-11</u>	<u>Parts</u> <u>12-16</u>		
1964	1956	1958	B1959		
1965	1963	1965	1966		
1966	1993	1995	1996		
1967	2013	2015	2016		
1968	CD2095	CE2098	C2100		

A Parts 7-14.
B Parts 12-15.
C In press.

D Part 6.
E Parts 9-10.

SELECTED REFERENCES

- American Public Health Association, and others, 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.
- Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.
- Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.
- Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U.S. Geol. Survey Water-Supply Paper 1357, 187 p.
- Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.
- Guy, H. P., 1970, Fluvial sediment concepts: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C1, 55 p.
- _____, 1969, Laboratory theory and methods for sediment analysis: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C1, 58 p.
- Guy, H. P., and Norman, V. W., 1970, Field methods for measurement of fluvial sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C2, 59 p.
- Hem, J. D., 1970, Study and interpretation of the chemical characteristics of natural water, Revised edition: U.S. Geol. Survey Water-Supply Paper 1473, 363 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.
- Porterfield, George, 1972, Computations of fluvial-sediment discharge: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C3, 66 p.
- Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p.

U.S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.

_____ 1941, Methods of analyzing sediment samples: Rept. 4.

_____ 1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.

_____ 1957, The development and calibration of visual-accumulation tube: Rept. 11.

_____ 1957, Some fundamentals of particle size analysis: Rept. 12.

_____ 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.

_____ 1961, The single stage sampler for suspended sediment: Rept. 13.

_____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

LOCATION.--Lat 45°06'43", long 110°47'37", in SE¼NW¼ sec.30, T.8 S., R.8 E., Park County, at gaging station, at highway bridge at Corwin Springs, 1.3 miles upstream from Mol Herron Creek, 7 miles northwest of Gardiner, and at mile 530.5.

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.									
23...	1330	1570	15	5.0	20	29	10	.9	.40
JAN.									
26...	0830	1130	16	5.4	13	38	13	1.0	--
APR.									
27...	1550	1510	20	6.4	15	32	12	.7	--
JULY									
26...	1800	7990	9.2	3.0	10	60	5.4	.5	--

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	CYANIDE (CN) (MG/L)
OCT.									
23...	1330	1570	20	0	350	0	0	0	.00
JAN.									
26...	0830	1130	--	0	470	0	--	0	.00
APR.									
27...	1550	1510	0	0	390	0	0	18	.00
JULY									
26...	1800	7990	5	0	170	0	0	1	.00

[illegible]

YELLOWSTONE RIVER BASIN

17

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MONT.--Continued

DRAINAGE AREA.--2,623 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 18C C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	DIS-SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT. 23...	--	149	.23	632	58	.03	.060	1.0
JAN. 26...	.40	174	.24	531	62	.08	--	.7
APR. 27...	.10	190	.26	775	76	.11	.060	1.1
JULY 26...	1.9	84	.11	1810	35	.06	.060	1.0

DATE	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLY- BDENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE- NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 23...	0	11	.0	3	1	4	0	10
JAN. 26...	0	0	--	2	0	--	1	10
APR. 27...	0	20	.1	0	23	0	0	20
JULY 26...	0	760	1.8	3	1	4	0	0

ANALYSES OF ADDITIONAL SAMPLES

DATE	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	MALA- THION (UG/L)	PARA- THION (UG/L)	DI- AZINON (UG/L)	METHYL PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT. 23...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN., 1971 26...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR. 27...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY 26...	.00	.00	--	--	--	--	.00	.00	.00

FIELD DETERMINATIONS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 23...	1330	5.5	5.0	220	11.0	8.3	88
JAN. 26...	0830	3.0	4.0	260	11.4	7.7	39
APR. 27...	1550	7.0	9.0	255	12.2	8.4	7
JULY 26...	1800	16.0	27.0	130	8.6	7.5	24

YELLOWSTONE RIVER BASIN

06206570 CLARKS FORK YELLOWSTONE RIVER BELOW FALLS CREEK, NEAR CLARK, WYO.

LOCATION.--Lat 44°50'59", long 109°17'51", in NE¼SW¼NW¼ sec.8, T.56 N., R.103 W., Park County, temperature recorder 2.1 miles downstream from Falls Creek, 8 miles southwest of Clark, and 25 miles northwest of Cody.

PERIOD OF RECORD.--Water temperatures: May to September 1971 (discontinued).

EXTREMES.--May to September 1971:

Water temperatures: Maximum, 18.5°C Aug. 5; minimum, 2.0°C May 18.

REMARKS.--Records furnished by Wyoming Game and Fish Commission.

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	13.0	8.0	6.5	3.0	13.0	8.0	16.0	13.5	11.0	8.0
2	---	---	11.0	7.0	6.5	4.0	13.0	9.5	16.0	14.0	11.0	7.0
3	---	---	9.0	6.5	8.0	4.5	10.0	7.0	17.0	14.5	8.5	4.5
4	---	---	9.5	6.0	---	---	11.0	6.0	17.0	14.5	6.0	4.5
5	---	---	9.5	6.5	---	---	12.0	8.0	18.5	15.5	8.0	5.0
6	---	---	9.0	7.0	10.0	8.0	13.5	9.0	16.5	15.0	10.0	7.0
7	---	---	9.5	6.5	11.0	6.5	11.0	7.0	16.5	14.5	8.5	6.5
8	---	---	9.0	7.0	---	---	10.0	6.5	17.0	14.5	9.5	6.5
9	---	---	8.5	6.5	---	---	11.5	8.0	16.0	13.5	15.0	9.5
10	---	---	8.0	6.0	11.0	7.0	13.0	8.5	15.5	13.5	12.0	10.5
11	---	---	7.0	5.5	8.0	5.0	11.5	8.5	16.5	13.5	15.0	10.5
12	---	---	10.0	5.0	10.0	5.0	11.0	7.0	18.0	14.5	13.5	10.0
13	---	---	10.0	5.5	10.0	6.5	12.0	8.5	16.5	13.5	14.0	10.5
14	---	---	9.0	5.0	10.5	6.0	13.5	9.0	18.0	13.5	11.0	9.0
15	---	---	10.0	5.0	10.0	5.0	14.0	9.5	18.0	14.0	9.5	7.0
16	---	---	10.0	6.0	10.0	5.0	---	---	18.0	15.0	8.0	4.5
17	---	---	8.0	4.0	10.0	5.0	---	---	17.0	14.0	5.0	4.0
18	---	---	5.0	2.0	11.0	5.0	---	---	18.0	14.0	8.0	3.0
19	---	---	6.5	4.0	8.5	5.0	14.0	10.0	18.0	13.5	9.0	4.5
20	---	---	6.5	5.5	10.0	5.0	13.5	11.0	18.0	14.5	6.5	4.5
21	---	---	6.5	4.5	10.0	5.0	13.5	11.0	14.5	12.0	7.0	4.0
22	---	---	5.0	4.0	10.5	6.0	13.0	10.5	14.5	10.5	8.0	3.5
23	---	---	8.0	4.5	12.0	7.0	---	---	14.0	8.0	9.5	4.5
24	---	---	8.0	7.0	12.0	6.0	---	---	11.5	7.0	11.0	6.0
25	---	---	9.5	8.0	11.5	7.0	---	---	13.0	8.0	11.0	6.5
26	---	---	10.0	5.5	10.5	5.5	---	---	14.5	10.0	10.5	5.5
27	---	---	10.5	5.0	8.5	6.0	14.0	11.0	13.0	10.0	9.5	5.0
28	---	---	10.0	4.5	7.0	4.5	12.0	10.5	12.0	9.5	9.5	4.5
29	---	---	8.5	4.0	8.5	4.5	13.5	10.5	10.5	8.0	9.5	4.5
30	---	---	5.0	3.5	10.0	5.5	14.5	12.0	10.0	7.0	6.0	4.5
31	---	---	5.0	3.0	---	---	14.5	13.0	10.5	8.0	---	---
MONTH	---	---	13.0	2.0	12.0	3.0	---	---	18.5	7.0	15.0	3.0

YELLOWSTONE RIVER BASIN

19

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MONT.

LOCATION.--Lat 45°00'40", long 109°04'00", in E½NE¼ sec.31, T.9 S., R.22 E., Carbon County, at bridge on county road, 0.4 mile downstream from gaging station, just upstream from Sand Coulee, 0.8 mile north of Wyoming-Montana State line, 9.5 miles southwest of Belfry, and at mile 78.1.

DRAINAGE AREA.--1,154 sq mi (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.

Water temperatures: October 1965 to September 1969.

Sediment records: April to August 1971 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 12...	1525	346	10	60	36	10	10	1.3	141	0	34	.9
NOV. 16...	1645	311	8.3	90	48	7.1	10	1.6	137	6	47	.1
DEC. 10...	1120	346	8.7	60	42	9.1	9.2	1.1	140	0	42	5.0
JAN. 19...	1515	306	11	10	40	12	10	.9	137	0	49	2.2
MAR. 15...	1450	222	12	90	31	20	10	1.3	153	0	52	3.2
MAY 13...	1625	2900	10	210	23	3.1	5.3	.9	81	0	16	1.1
JUNE 08...	1255	4710	9.2	30	15	1.6	2.2	.4	55	0	4.9	.3
JULY 15...	1700	3790	6.7	60	11	2.6	3.3	.4	48	0	5.8	.6
AUG. 03...	1630	1630	5.4	150	17	2.4	5.9	.9	62	0	12	.0
SEP. 08...	1630	823	9.0	140	29	4.4	6.0	1.3	85	6	20	1.0

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO ₃) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NCN-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 12...	.1	.5	0	170	.23	159	130	14	.4	298	8.2	10.0
NOV. 16...	.2	.6	120	196	.27	165	150	28	.4	336	8.4	6.5
DEC. 10...	.2	.4	0	187	.25	175	140	25	.3	299	8.3	1.5
JAN. 19...	.2	1.1	10	193	.26	159	150	38	.4	329	7.5	--
MAR. 15...	.2	.4	30	205	.28	123	160	34	.3	327	8.3	6.0
MAY 13...	.5	.5	20	101	.14	791	70	4	.3	152	7.9	--
JUNE 08...	.1	.3	10	61	.08	776	45	0	.1	106	7.7	10.0
JULY 15...	.1	.2	100	55	.07	563	39	0	.2	85	7.9	15.5
AUG. 03...	.1	.2	20	74	.10	326	51	0	.4	132	8.1	19.5
SEP. 08...	.2	.6	10	120	.16	267	90	10	.3	198	8.4	16.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMPERATURE (DEG C)	DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
APR. 29...	1100	9.0	477	582	750	68	91	100	--	--	--
MAY 28...	1045	9.0	4660	1910	24000	14	28	56	72	91	100
JUNE 24...	1500	10.0	9400	516	13100	--	--	--	--	--	--
AUG. 18...	1150	16.5	862	13	30	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06207540 SILVER TIP CREEK NEAR BELFRY, MONT.

LOCATION.--Lat 45°09'30", long 108°58'30", in N½ sec.12, T.8 S., R.22 E., Carbon County, at gaging station, 2 miles upstream from mouth, and 2 miles northeast of Belfry.

DRAINAGE AREA.--87.6 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1971.

Water temperatures: October 1969 to September 1971.

Sediment records: October 1968 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 5,510 mg/l June 16-30, Aug. 23-31; minimum, 1,310 mg/l Feb. 13-17.

Hardness: Maximum, 1,400 mg/l July 1-6, Aug. 23-31; minimum, 380 mg/l Feb. 13-17.

Specific conductance: Maximum daily, 7,850 micromhos July 30; minimum daily, 225 micromhos Feb. 13.

Water temperatures: Maximum observed, 28.0°C June 23, July 23; minimum, freezing point on several days during November, December, and February.

Sediment concentrations: Maximum daily, 36,800 mg/l Mar. 20; minimum daily, no flow for many days during year.

Sediment discharge: Maximum daily, 559 tons Mar. 12; minimum daily, 0 tons on many days during year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	MEAN DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)
OCT.												
01-31	--	.72	--	15	--	260	120	1060	73	326	0	2700
NOV.												
01-30	--	.62	--	13	--	270	120	1040	64	325	0	2700
DEC.												
01-11	--	.39	--	12	100	240	120	1100	54	224	0	2600
FEB.												
13-17	--	11	--	6.1	40	97	34	270	17	178	--	700
18-22	--	.56	--	7.6	40	230	100	820	34	295	--	2100
MAR.												
09-17	--	5.1	--	11	30	140	53	520	26	258	--	1200
19-21	--	.20	--	14	80	240	100	940	35	215	--	2300
24-31	--	2.1	--	14	60	230	94	830	40	314	--	2200
APR.												
01-23	--	.91	--	12	30	250	110	980	18	312	0	2300
24-30	--	1.1	--	12	20	250	120	1000	17	354	0	2400
MAY												
09-12	--	.08	--	13	10	260	160	1200	36	297	0	3100
18-25	--	1.6	--	13	20	250	110	940	36	261	0	2300
JUNE												
01-10	--	.74	--	12	20	250	110	1100	42	291	0	2700
16-30	--	.18	--	17	20	290	150	1200	55	289	0	3100
JULY												
01-06	--	.63	--	15	10	340	140	1200	71	333	0	3000
AUG.												
23-31	--	.56	--	16	10	300	150	1200	57	288	0	3200
SEP.												
01-05	--	2.6	--	14	10	270	110	950	59	301	0	2500
06-11	--	.61	--	14	10	290	130	1100	69	297	0	2900
15-30	--	1.3	--	15	0	280	130	1100	71	309	0	2700
WTD. AVG. -		--	--	12	--	207	89	778	40	272	0	1940
TIME WTD.												
AVG.	--	0.75	--	13	--	256	117	1010	51	299	0	2540
TONS												
PER DAY	--	--	--	.0	--	.7	.3	2.7	.1	1	0	6.6

ANALYSES OF ADDITIONAL SAMPLES

FEB.												
15...	1430	16	.0	5.3	280	110	34	370	21	180	0	800
MAR.												
12...	1430	8.1	.5	6.3	140	130	54	510	22	225	0	1100
JUNE												
02...	1415	6.9	18.5	12	200	170	62	600	14	283	0	1400
SEP.												
04...	1215	8.5	13.0	7.1	20	160	58	650	44	323	0	1600

a Mean discharge based on 365 days; mean discharge for 211 days of chemical analyses, 1.3 cfs.

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
FEB.					
15...	1430	16	.030	880	0
MAR.					
12...	1430	8.1	.030	--	150
JUNE					
02...	1415	6.9	.060	1200	310
SEP.					
04...	1215	8.5	.11	1600	140

06207540 SILVER TIP CREEK NEAR BELFRY, MONT.--Continued

EXTREMES.--Continued

Period of record:

Dissolved solids: Maximum, 6,240 mg/l Dec. 22-27, 1968; minimum, 1,310 mg/l Feb. 13-17, 1971.

Hardness: Maximum, 1,510 mg/l Dec. 22-27, 1968; minimum, 380 mg/l Feb. 13-17, 1971.

Specific conductance: Maximum daily, 8,100 micromhos Dec. 22, 23, 1968; minimum daily, 225 micromhos Feb. 13, 1971.

Water temperatures (1969-71): Maximum observed, 28.0°C June 23, 1970, June 23, July 23, 1971; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 60,300 mg/l July 12, 1970; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 40,200 tons June 26, 1969; minimum daily, 0 tons on many days each year.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality at this station. No flow for many days during water year. Flow affected by ice most of winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO-PHOSPHATE (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
01-31	410	1.5	--	--	4790	6.77	9.68	1200	900	14	5950	7.7
NOV.												
01-30	390	1.1	--	--	4760	6.77	8.34	1200	910	13	5700	8.0
DEC.												
01-11	380	.9	.00	.20	4600	6.26	4.84	1100	920	15	6010	8.2
FEB.												
13-17	96	.8	.60	.25	1310	1.78	38.9	380	240	6.0	1810	8.0
18-22	270	1.1	.20	.06	3710	5.05	5.61	990	740	11	4410	8.1
MAR.												
09-17	180	.6	.10	.00	2260	3.07	31.1	570	360	9.5	3230	8.3
19-21	370	.8	.10	.09	4110	5.59	2.22	1000	830	13	5410	8.0
24-31	310	.8	.00	.09	3870	5.26	22.8	960	700	12	4990	8.0
APR.												
01-23	290	.7	.01	.03	4110	5.59	10.1	1100	820	13	5340	7.8
24-30	360	.9	.01	.03	4330	5.89	12.9	1100	830	13	5680	8.2
MAY												
09-12	490	1.3	.01	.06	5410	7.36	1.17	1300	1100	14	6940	7.9
18-25	330	1.0	.02	.06	4110	5.59	17.8	1100	860	12	5470	8.1
JUNE												
01-10	380	1.3	.28	.09	4740	6.45	12.0	1100	840	15	5900	8.0
16-30	550	1.4	.67	.18	5510	7.49	2.68	1300	1100	14	7620	8.0
JULY												
01-06	520	1.7	.02	.09	5450	7.41	9.27	1400	1200	14	6990	7.2
AUG.												
23-31	440	1.4	.25	.12	5510	7.49	8.33	1400	1100	14	7200	8.0
SEP.												
01-05	410	1.6	.35	.12	4460	6.07	31.3	1100	880	12	5930	8.0
06-11	460	1.8	.54	.17	5110	6.95	8.42	1300	1000	13	6400	8.1
15-30	450	1.7	.32	.09	4900	6.66	17.2	1200	980	14	6270	8.0
WTD. AVG.	287	1.0	--	--	3490	4.78	--	888	662	11	4530	8.0
TIME WTD. AVG.	382	1.2	--	--	4520	6.23	--	1130	880	13	5740	7.9
TONS PER DAY	.0	.0	--	--	12	--	--	--	--	--	--	--

ANALYSES OF ADDITIONAL SAMPLES

FEB.												
15...	140	.6	.00	.10	1600	2.18	69.1	420	270	7.9	2180	7.4
MAR.												
12...	160	.8	.10	.20	2100	2.86	45.9	540	360	9.5	3090	7.4
JUNE												
02...	230	.9	.52	.15	2600	3.54	48.4	680	450	10	3720	7.1
SEP.												
04...	230	1.3	.60	.12	2890	3.93	66.3	640	370	11	3780	7.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMPERATURE (DEG C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
MAR.										
12...	1430	.5	8.1	25900	564	25	38	78	98	100
19...	1715	3.0	.10	40200	11	30	47	89	99	100
27...	1700	10.0	2.5	25400	171	52	77	99	100	--
APR.										
01...	1715	6.0	2.1	17600	100	50	70	98	100	--
22...	1545	7.0	1.4	7700	29	84	94	100	--	--
MAY										
23...	1030	8.0	3.6	28400	276	53	68	95	100	--
JUNE										
02...	1415	18.5	6.9	56200	1000	57	72	91	98	100
SEP.										
04...	1215	13.0	8.5	35700	800	65	78	92	99	100
04...	1700	20.0	4.3	28000	325	71	86	95	99	100

06207540 SILVER TIP CREEK NEAR BELFRY, MONT.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

YELLOWSTONE RIVER BASIN

23

06207540 SILVER TIP CREEK NEAR BELFRY, MONT.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.09	1130	.27	.70	2160	4.1	.30	760	.62
2	.10	1200	.32	.50	890	1.2	.40	550	.59
3	.50	4290	5.8	.18	1240	.60	.50	1400	1.9
4	.66	6840	12	.64	1690	2.9	.40	800	.86
5	.62	1710	2.9	1.6	4530	20	.30	560	.45
6	.66	1310	2.3	1.0	2850	7.7	.40	795	.86
7	.62	1240	2.1	.80	1990	4.3	.50	1160	1.6
8	.62	1650	2.8	.66	1950	3.5	.50	1620	2.2
9	.70	1810	3.4	.85	2640	6.1	.40	790	.85
10	.90	4330	11	1.1	4090	12	.35	560	.53
11	1.2	4230	14	.75	2560	5.2	.20	685	.37
12	1.3	3610	13	1.1	2850	8.5	0	0	0
13	1.3	4170	15	.85	3510	8.1	0	0	0
14	.66	1390	2.5	.50	2040	2.8	0	0	0
15	.34	1230	1.1	.62	1870	3.1	0	0	0
16	.66	1550	2.8	1.2	4890	16	0	0	0
17	.66	1340	2.4	.85	2990	6.9	0	0	0
18	1.1	3590	11	1.0	2580	7.0	0	0	0
19	1.1	4450	13	1.1	3230	9.6	0	0	0
20	1.3	3670	13	1.4	2700	10	0	0	0
21	.70	1660	3.1	.40	1280	1.4	0	0	0
22	.62	2080	3.5	0	0	0	0	0	0
23	.50	1520	2.1	0	0	0	0	0	0
24	.66	1120	2.0	.05	110	.01	0	0	0
25	.62	1170	2.0	.30	2230	1.8	0	0	0
26	.46	1160	1.4	0	0	0	0	0	0
27	.34	1370	1.3	0	0	0	0	0	0
28	.58	4340	6.8	0	0	0	0	0	0
29	1.1	4290	13	.10	220	.06	0	0	0
30	.90	3950	9.6	.30	3260	2.6	0	0	0
31	.90	3310	8.0	--	--	--	0	0	0
TOTAL	22.47	--	183.49	18.55	--	145.47	4.25	--	10.83

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	0	0	0
2				0	0	0	0	0	0
3				0	0	0	0	0	0
4				0	0	0	0	0	0
5				0	0	0	0	0	0
6				0	0	0	0	0	0
7				0	0	0	0	0	0
8				0	0	0	.20	100	.05
9				0	0	0	3.0	350	2.8
10				0	0	0	9.0	1010	25
11				0	0	0	13	14700	516
12				.10	30	.01	8.0	25900	559
13				17	1870	86	4.5	22800	277
14				16	6120	264	3.5	29900	283
15				16	2460	106	2.5	32700	221
16				5.0	2440	33	1.5	4500	18
17				1.0	1070	2.9	.50	1600	2.2
18				.90	995	2.4	0	0	0
19				.70	2410	4.6	.10	22800	6.2
20				.50	995	1.3	.30	36800	30
21				.40	410	.44	.20	5050	2.7
22				.30	390	.32	0	0	0
23				.20	340	.18	0	0	0
24				0	0	0	1.0	19200	52
25				0	0	0	2.3	19800	123
26				0	0	0	2.3	21700	135
27				0	0	0	2.5	24300	164
28				0	0	0	2.1	22600	128
29				--	--	--	2.1	12800	73
30				--	--	--	2.1	14100	80
31				--	--	--	2.5	16700	113
TOTAL	0	--	0	58.10	--	501.15	63.20	--	2810.95

06207540 SILVER TIP CREEK NEAR BELFRY, MONT.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.1	17300	98	0	0	0	1.9	6150	32
2	2.5	9800	66	0	0	0	4.6	31500	391
3	1.4	10500	40	0	0	0	1.1	10600	31
4	1.3	13200	46	0	0	0	.75	9500	19
5	1.3	14900	52	.22	2210	1.3	.08	2830	1.0
6	1.5	15000	61	0	0	0	.04	4320	.68
7	1.1	13400	40	0	0	0	.22	6220	7.6
8	.80	6750	15	0	0	0	.31	8820	8.6
9	.40	7600	8.2	.16	1050	.45	.32	9070	9.8
10	.30	12100	9.8	0	830	0	.03	3520	.29
11	.20	3400	1.8	0	1180	0	0	0	0
12	.30	2950	2.4	.15	1750	.71	.05	2230	1.8
13	.40	1250	1.4	0	0	0	.01	5350	.29
14	.50	3900	5.3	0	0	0	0	0	0
15	.46	3410	4.2	0	0	0	0	0	0
16	.46	3300	4.1	0	0	0	.11	2100	2.5
17	.46	2910	3.6	0	0	0	.19	5460	4.3
18	.46	3800	4.7	.40	2130	2.3	.19	4220	4.7
19	.42	3380	3.8	.38	4100	4.2	.38	6520	6.7
20	.75	4090	8.3	.33	3320	3.0	.15	4180	2.4
21	.80	3620	7.8	.33	2010	1.8	.06	2090	.75
22	1.4	8050	30	4.9	21300	392	.10	2780	1.6
23	1.7	7700	35	4.7	25600	386	.18	3580	2.9
24	1.3	4320	15	.92	5850	15	.03	946	.27
25	1.6	2910	13	.56	4500	6.8	.02	1080	.17
26	1.9	8610	44	.13	1970	1.2	.06	2140	.84
27	2.2	9470	56	.09	2040	.73	.29	4370	3.8
28	.54	2960	4.3	.02	783	.11	.40	5720	6.2
29	.05	1530	.21	0	0	0	.25	5400	3.6
30	.14	1980	.75	.72	5320	11	.35	3110	6.0
31	--	--	--	1.5	7510	30	--	--	--
TOTAL	28.74	--	681.66	15.51	--	856.60	12.17	--	549.79

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.53	4080	5.9	0	0	0	1.1	3340	9.9
2	.65	4100	7.2	.04	250	.34	.54	1810	2.6
3	1.3	18100	64	.05	281	.30	2.7	4650	54
4	.75	5700	12	0	0	0	7.4	23900	487
5	.35	2710	4.0	0	0	0	1.5	9380	38
6	.20	1760	2.5	.88	2240	13	.92	5860	15
7	0	0	0	0	0	0	.75	3750	7.6
8	0	0	0	0	0	0	.68	3520	6.5
9	.19	904	1.6	0	0	0	.58	3500	5.5
10	0	0	0	0	0	0	.32	1410	2.1
11	0	0	0	0	0	0	.40	2520	2.7
12	0	0	0	0	0	0	.05	283	.28
13	0	0	0	0	0	0	.36	2230	2.4
14	0	0	0	0	0	0	.10	544	.33
15	0	0	0	0	0	0	.44	3320	3.9
16	0	0	0	0	0	0	.58	2580	4.0
17	.07	374	.54	0	0	0	1.1	4390	13
18	.04	260	.25	0	0	0	1.1	5100	15
19	0	0	0	.05	419	.41	1.1	5690	17
20	0	0	0	.09	608	.58	1.4	7480	28
21	0	0	0	.04	205	.17	1.8	5520	27
22	.16	975	1.7	.12	907	1.1	1.2	5090	16
23	.43	3410	5.0	.12	597	.56	1.3	6640	23
24	.07	570	.62	0	0	0	1.5	6650	27
25	0	0	0	.24	1310	2.9	1.3	6070	21
26	0	0	0	.34	1780	2.4	1.5	3020	12
27	0	0	0	.25	1190	2.2	1.3	5600	20
28	0	0	0	.44	1050	1.2	1.5	5150	21
29	.23	1990	4.9	.63	2390	6.0	1.4	4960	19
30	.36	2780	4.6	1.9	5410	28	1.6	3200	14
31	.12	900	1.1	1.1	3150	9.4	--	--	--
TOTAL	5.45	--	115.91	6.29	--	68.60	37.52	--	914.81

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

272.25

6839.26

YELLOWSTONE RIVER BASIN

25

06218500 WIND RIVER NEAR DUBOIS, WYO.

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, at gaging station, 2.5 miles upstream from Warm Springs Creek, and 7 miles northwest of Dubois.

DRAINAGE AREA.--232 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1948, October 1949 to December 1950, June to September 1953, July 1965 to September 1971.
Water temperatures: April 1947 to September 1948.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.												
03...	1510	59	23	50	30	4.6	8.2	2.4	119	0	12	6.1
30...	1300	a67	24	120	23	5.1	7.1	2.2	103	0	10	3.2
JAN.												
06...	1340	a40	24	50	26	6.3	8.3	1.9	117	0	14	1.2
FEB.												
02...	1035	a76	24	20	27	3.5	8.7	3.3	104	0	14	2.2
APR.												
05...	1110	a76	25	90	29	3.8	9.8	2.9	116	0	12	2.2
MAY												
13...	1420	410	19	150	21	2.7	7.6	2.2	85	0	5.8	2.2
JUNE												
08...	1530	831	19	100	14	1.6	5.3	1.8	63	0	2.5	1.0
JULY												
12...	1300	527	22	0	13	2.2	4.9	1.8	62	0	4.1	1.1
AUG.												
06...	1020	246	25	250	19	1.2	7.8	1.6	77	0	6.6	.3

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
NOV.												
03...	.2	.0	20	145	.20	23.1	94	0	.4	214	8.3	1.5
30...	.2	.4	10	126	.17	22.8	79	0	.3	183	8.1	1.0
JAN.												
06...	.2	.1	10	140	.19	15.1	91	0	.4	212	7.7	.0
FEB.												
02...	.2	.2	10	134	.18	27.5	83	0	.4	205	7.6	.0
APR.												
05...	.3	.1	20	142	.19	29.1	89	0	.5	201	8.0	2.0
MAY												
13...	.3	.4	30	103	.14	114	63	0	.4	157	7.8	4.0
JUNE												
08...	.2	.4	0	77	.10	173	43	0	.4	108	7.9	8.0
JULY												
12...	.2	.0	20	80	.11	114	43	0	.3	105	7.8	10.5
AUG.												
06...	.2	.1	20	100	.14	66.4	52	0	.5	136	7.7	29.0

06228000 WIND RIVER AT RIVERTON, WYO.

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Wind River Indian Reservation, 265 ft upstream from gaging station at bridge on State Highway 789, 1.1 miles southeast of post office in Riverton, and 1.6 miles upstream from Little Wind River.

DRAINAGE AREA.--2,309 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1947 to September 1949, November 1949 to December 1950, May and June 1953, October 1965 to September 1971.

Water temperatures: April 1947 to September 1949, April to September 1953, August 1954 to September 1956, October 1965 to September 1971.

Sediment records: October 1948 to December 1953, August 1954 to September 1958, October 1959 to September 1964, June 1965.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 09...	1515	162	15	30	54	14	44	2.3	189	12	98	12
NOV. 03...	1500	475	16	20	55	13	28	2.9	177	12	76	7.8
DEC. 02...	1405	435	16	190	57	14	27	2.7	183	12	83	6.7
JAN. 14...	1640	347	17	0	58	16	27	2.4	214	0	77	6.7
FEB. 09...	1530	356	18	90	65	20	31	3.1	241	0	97	7.6
MAR. 03...	1520	378	18	10	67	19	29	2.9	237	0	93	8.1
APR. 02...	1350	310	16	10	56	13	34	3.1	200	0	89	6.5
MAY 12...	1030	712	15	10	34	8.5	18	2.4	119	0	50	4.4
JUNE 14...	1400	5620	12	390	20	3.8	6.5	2.0	76	0	9.9	1.8
JULY 27...	1700	1270	11	160	20	6.6	10	1.6	81	0	21	7.5
AUG. 04...	1005	452	12	40	31	5.8	17	1.8	110	0	45	2.2
SEP. 22...	1250	635	15	10	40	11	20	2.2	145	4	61	4.2

a Daily mean discharge.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

EXTREMES.--1970-71:

Period of record:

Water temperatures: Maximum, 27.0°C July 23, Aug. 4, 1969, Aug. 7, 1970; minimum, freezing point on many days during winter period.

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 09...	.5	.3	50	340	.46	149	190	15	1.4	533	8.4	8.0
NOV. 03...	.3	.1	70	298	.41	382	190	25	.9	485	8.4	4.0
DEC. 02...	.4	.2	30	309	.42	363	200	30	.8	484	8.4	.5
JAN. 14...	.4	1.2	60	311	.42	291	210	34	.8	524	7.9	.0
FEB. 09...	.5	.9	40	361	.49	347	240	42	.9	528	8.2	.5
MAR. 03...	.4	.7	30	354	.48	361	250	56	.8	521	8.3	.0
APR. 02...	.4	.5	60	317	.43	265	190	26	1.1	457	8.0	7.5
MAY 12...	.3	.3	20	192	.26	369	120	22	.7	285	7.9	12.0
JUNE 14...	.2	.4	10	95	.13	1440	65	3	.3	152	8.2	14.5
JULY 27...	.5	.1	20	118	.16	405	78	12	.5	199	8.1	22.5
AUG. 04...	.2	.1	30	169	.23	206	100	10	.7	286	8.0	17.5
SEP. 22...	.4	.0	40	229	.31	393	140	14	.7	373	8.4	9.0

[illegible]

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
JUNE 19...	0830	13.0	9220	2500	62200

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WYO.

LOCATION.--Lat 42°57'37", long 108°29'54", in NE¼SE¼ sec.22, T.1 S., R.3 E., Fremont County, Wind River Indian Reservation, at bridge on county road, 0.5 mile west of Arapahoe, and 1.2 miles upstream from Popo Agie River.

DRAINAGE AREA.--716 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 09...	1000	122	9.6	40	100	57	120	3.0	244	0	530	19
NOV. 03...	1515	128	7.7	110	82	37	71	2.6	195	0	340	11
DEC. 08...	1430	141	8.0	210	72	30	49	2.2	149	9	260	11
JAN. 14...	1140	80	9.7	150	80	31	53	2.0	171	0	270	9.7
FEB. 02...	1345	124	9.5	60	55	45	59	2.7	159	0	290	9.7
MAR. 05...	1430	74	7.5	0	72	34	46	2.0	180	0	250	11
APR. 02...	1430	93	6.6	0	84	35	70	2.2	177	0	340	12
MAY 06...	1600	364	10	0	95	70	140	4.0	176	0	650	16
JUNE 10...	1155	1090	6.0	260	27	10	14	1.6	79	0	72	4.4
JULY 23...	1015	800	5.4	50	40	14	31	1.8	98	0	140	8.2
AUG. 04...	1130	136	3.3	140	80	36	82	2.7	173	0	350	11
SEP. 01...	1540	122	8.8	80	100	58	130	1.1	233	0	560	

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CONO- UCTANCE, (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 09...	.8	2.0	180	960	1.31	316	500	300	2.4	1310	8.3	4.5
NOV. 03...	.5	1.2	130	644	.88	223	360	200	1.6	936	8.3	5.5
DEC. 08...	.4	.9	210	519	.71	198	300	163	1.2	769	8.4	.5
JAN. 14...	.5	1.5	100	540	.73	117	320	180	1.3	824	7.9	.0
FEB. 02...	.4	1.1	90	551	.75	184	320	190	1.4	809	8.0	.0
MAR. 05...	.5	.9	70	509	.69	102	320	172	1.1	711	8.2	.0
APR. 02...	.6	.4	110	636	.87	160	350	205	1.6	863	8.3	7.5
MAY 06...	.7	1.4	210	1080	1.47	1060	530	386	2.7	1380	8.2	9.5
JUNE 10...	.2	.4	30	176	.24	518	110	45	.6	268	7.9	13.5
JULY 23...	.3	.6	80	285	.39	616	160	80	1.1	427	7.7	19.0
AUG. 04...	.5	.4	140	654	.89	240	350	208	1.9	972	8.3	18.0
SEP. 01...	.7	2.1	210	1000	1.36	329	500	309	2.6	1360	8.2	22.0

YELLOWSTONE RIVER BASIN

29

06235000 BEAVER CREEK NEAR ARAPAHOE, WYO.

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼NE¼ sec.29, T.1 S., R.4 E., Fremont County, Wind River Indian Reservation, at former gaging station, 1.0 mile upstream from mouth, and 3.8 miles east of Arapahoe.

DRAINAGE AREA.--354 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1951, October 1967 to September 1971.
Sediment records: April 1950 to September 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
DEC. 08...	0945	1.2	18	80	220	64	220	9.0	304	0	790	150
FEB. 02...	1450	20	18	200	160	58	190	7.6	235	0	670	120
MAR. 05...	1045	7.3	15	20	160	39	170	7.2	253	0	580	100
APR. 01...	1620	33	15	0	130	31	110	7.6	195	0	430	67
MAY 11...	1500	78	16	50	61	12	43	4.2	139	0	160	23
JUNE 11...	1430	74	18	220	64	12	41	4.9	140	0	150	23

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
DEC. 08...	1.3	.5	400	162	.22	.52	800	551	3.4	2150	8.2	.0
FEB. 02...	1.0	.1	370	1340	1.82	72.4	630	437	3.3	1860	8.1	.0
MAR. 05...	1.0	.0	270	1210	1.65	23.9	570	362	3.1	1620	8.1	.0
APR. 01...	.9	.6	160	888	1.21	79.1	450	290	2.3	1220	8.0	12.0
MAY 11...	.5	.4	60	384	.52	80.9	200	86	1.3	552	8.1	19.0
JUNE 11...	.4	.6	80	384	.52	76.7	210	95	1.2	576	7.9	19.0

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 2,160 micromhos Apr. 23; minimum daily, 182 micromhos June 27.

Water temperatures: Maximum, 26.0°C Aug. 5, 6, 12, 18; minimum, freezing point on many days during November to March.

Period of record:

Specific conductance (1965-71): Maximum daily, 2,160 micromhos Apr. 23, 1971; minimum daily, 109 micromhos

Feb. 17, 1970.

Water temperatures: Maximum, 28.0°C Aug. 7, 1949, Aug. 4, 1969; minimum, freezing point on many days during winter period.

DATE	DIS-	DIS-	DIS-	DIS-	DIS-	DIS-	HARD- NESS (CA,MG) (MG/L)	NON-	SODIUM	SPECI-	PH	TEMP- ERATURE (DEG C)
	SOLVED FLUO- RIDE (F) (MG/L)	SOLVED NITRATE (NO3) (MG/L)	SOLVED BORON (B) (UG/L)	SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L)	SOLVED SOLIDS (TONS PER AC-FT)	SOLVED SOLIDS (TONS PER DAY)		CAR- BONATE HARD- NESS (MG/L)	AD- SORP- TION RATIO	FIC COND- UCTANCE (MICRO- MHOS)		
OCT.												
09...	.7	.4	140	852	1.16	603	460	267	2.0	1190	8.4	8.5
NOV.												
16...	.6	1.1	60	727	.99	514	410	237	1.6	1090	8.2	4.5
DEC.												
02...	.5	.8	230	631	.86	324	370	193	1.4	916	8.3	.0
JAN.												
15...	.4	1.7	80	544	.74	279	340	164	1.1	812	7.8	.0
FEB.												
09...	.6	2.2	80	661	.90	357	400	217	1.5	910	7.9	.0
MAR.												
03...	.5	1.1	80	651	.89	439	390	210	1.4	896	8.2	.0
APR.												
01...	.6	.9	100	658	.89	426	380	220	1.6	892	8.2	5.0
MAY												
12...	.4	.6	60	457	.62	913	280	145	1.1	649	8.2	14.0
JUNE												
08...	.2	.4	30	168	.23	1290	110	40	.5	253	8.0	11.0
JULY												
23...	.2	.5	50	247	.34	907	150	70	.9	375	7.7	19.0
AUG.												
04...	.4	.1	90	486	.66	486	290	147	1.3	744	8.3	20.0
SEP.												
21...	.5	.2	80	592	.81	759	350	192	1.3	863	8.4	9.5

[illegible]

YELLOWSTONE RIVER BASIN

06235500 LITTLE WIND RIVER NEAR RIVERTON, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
JUNE 15...	0940	13.0	5090	427	5870	56	70	87	98	100

06239000 MUSKRAT CREEK NEAR SHOSHONI, WYO.

LOCATION.--Lat 43°08'55", long 108°09'30", in NW¼SW¼ sec.15, T.2 N., R.6 E., Fremont County, Wind River Indian Reservation, at gaging station, 2 miles upstream from mouth, and 7 miles southwest of Shoshoni.

DRAINAGE AREA.--733 sq mi.

PERIOD OF RECORD.--Sediment records: June 1950 to September 1958, October 1959 to September 1971.

EXTREMES.--1970-71:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days during year.

Sediment discharge: Maximum daily, 233,000 (estimated) tons May 31; minimum daily, 0 tons on many days during year.

Period of record:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 851,000 tons Feb. 10, 1962; minimum daily, 0 tons on many days each year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	MEAN	MAXIMUM	MINIMUM	WEIGHTED MEAN	MAXIMUM OBSERVED
OCTOBER 1970.....	0	0	0	0	0	0		
NOVEMBER.....	0	0	0	0	0	0		
DECEMBER.....	0	0	0	0	0	0		
JANUARY 1971.....	0	0	0	0	0	0		
FEBRUARY.....	0	0	0	0	0	0		
MARCH.....	0	0	0	0	0	0		
APRIL.....	13.00	26	1,392	46	327	0		
MAY.....	883.50	1,750	251,248	8,100	233,000	0		
JUNE.....	184	365	42,500	1,420	42,500	0		
JULY.....	0	0	0	0	0	0		
AUGUST.....	0	0	0	0	0	0		
SEPTEMBER.....	99.4	197	12,050	402	10,800	0		
WATER YEAR.....	1,180.20	2,340	307,190	842	233,000	0		

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
MAY 05...	1705	12.5	6.2	28000	469	90	93	100

YELLOWSTONE RIVER BASIN

33

06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WYO.

LOCATION.--Lat 43°18'04", long 108°42'04", in NW¼NE¼ sec.25, T.4 N., R.1 E., Fremont County, at gaging station, 1,400 ft upstream from Wyoming Canal siphon, and 4 miles north of Pavillion.

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1950 to November 1951.

Water temperatures: October 1950 to September 1951, April to September 1961, April 1965 to September 1966, April to September 1967, May to September 1968, May to September 1969, May to September 1970, May to September 1971.
Sediment records: October 1949 to September 1958, April 1961 to September 1964, April 1965 to September 1966, April to September 1967, May to September 1968, May to September 1969, May to September 1970, May to September 1971.

EXTREMES.--May to September 1971:

Water temperatures: Maximum, 35.5°C July 16; minimum, 2.0°C Sept. 17.

Sediment concentrations: Maximum daily, 5,140 mg/l May 30; minimum daily, 3 mg/l June 27, Sept. 28, 29.

Sediment discharge: Maximum daily, 396 tons May 30; minimum daily, 0 tons on many days during June, July, and August.

Period of record:

Water temperatures (1961, 1965-71): Maximum, 35.5°C July 16, 1971; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 82,000 mg/l Sept. 20, 1950; minimum daily, no flow for many days most years.

Sediment discharge: Maximum daily, 123,000 tons Sept. 20, 1950; minimum daily, 0 tons on many days most years.

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	15.0	20.0	19.5	18.0
2	---	---	---	---	---	---	---	---	14.0	22.0	18.0	16.0
3	---	---	---	---	---	---	---	23.0	19.5	14.0	17.5	10.5
4	---	---	---	---	---	---	---	16.0	14.0	13.0	20.5	14.0
5	---	---	---	---	---	---	---	9.5	22.0	22.0	18.5	19.0
6	---	---	---	---	---	---	---	18.0	14.0	26.0	17.5	10.5
7	---	---	---	---	---	---	---	15.0	13.0	16.0	24.0	15.0
8	---	---	---	---	---	---	---	18.0	27.0	26.0	27.5	15.5
9	---	---	---	---	---	---	---	14.0	15.0	15.0	20.0	20.0
10	---	---	---	---	---	---	---	16.0	17.0	13.5	31.0	15.5
11	---	---	---	---	---	---	---	19.0	13.5	30.0	18.5	22.0
12	---	---	---	---	---	---	---	15.5	25.0	30.0	20.0	17.5
13	---	---	---	---	---	---	---	11.0	19.0	19.0	19.0	20.0
14	---	---	---	---	---	---	---	20.0	16.0	18.0	22.0	14.5
15	---	---	---	---	---	---	---	14.0	18.0	19.0	24.0	13.0
16	---	---	---	---	---	---	---	10.0	20.0	35.5	20.0	3.0
17	---	---	---	---	---	---	---	4.0	19.5	21.5	19.0	2.0
18	---	---	---	---	---	---	---	6.0	24.0	24.0	18.0	2.5
19	---	---	---	---	---	---	---	17.0	26.5	17.0	16.5	2.5
20	---	---	---	---	---	---	---	10.5	31.0	21.5	18.0	11.0
21	---	---	---	---	---	---	---	10.5	31.5	29.0	25.0	4.5
22	---	---	---	---	---	---	---	6.0	19.5	16.5	17.0	4.0
23	---	---	---	---	---	---	---	5.5	26.0	19.0	21.5	12.0
24	---	---	---	---	---	---	---	16.5	29.5	23.0	19.5	4.0
25	---	---	---	---	---	---	---	8.0	26.0	17.0	16.0	13.5
26	---	---	---	---	---	---	---	12.0	20.0	17.0	16.0	9.5
27	---	---	---	---	---	---	---	15.5	17.5	16.0	21.0	6.5
28	---	---	---	---	---	---	---	15.0	15.5	24.0	27.0	5.5
29	---	---	---	---	---	---	---	15.0	22.5	21.5	17.0	5.5
30	---	---	---	---	---	---	---	12.0	12.5	17.0	15.0	6.5
31	---	---	---	---	---	---	---	16.0	---	16.0	17.5	---
MONTH	---	---	---	---	---	---	---	13.5	20.0	11.0	20.0	11.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, MAY TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SED- IMENT (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAY											
30...	1545	12.0	38	8510	873	61	76	90	95	99	100

06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, MAY TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	--	--	--	4.3	60	.70	15	550	22
2	--	--	--	4.0	42	.45	11	320	9.5
3	--	--	--	3.8	32	.33	8.4	200	4.5
4	--	--	--	5.6	192	5.4	6.7	62	1.1
5	--	--	--	11	635	19	5.3	33	.47
6	--	--	--	6.7	288	5.2	4.6	21	.26
7	--	--	--	5.7	61	.94	4.3	18	.21
8	--	--	--	4.6	43	.53	4.3	20	.23
9	--	--	--	4.0	22	.24	4.0	16	.17
10	--	--	--	4.0	12	.13	3.8	23	.24
11	--	--	--	3.8	10	.10	3.5	18	.17
12	--	--	--	3.5	31	.29	3.5	18	.17
13	--	--	--	3.2	10	.09	2.8	12	.09
14	--	--	--	3.0	4	.03	2.2	10	.06
15	--	--	--	2.8	10	.08	1.8	12	.06
16	--	--	--	2.8	8	.06	1.6	12	.05
17	--	--	--	2.8	8	.06	1.5	19	.08
18	--	--	--	2.8	8	.06	.66	29	.05
19	--	--	--	3.5	10	.09	.82	20	.04
20	--	--	--	3.5	8	.08	.66	14	.02
21	--	--	--	3.5	7	.07	.35	24	.02
22	--	--	--	4.6	27	.34	.42	10	.01
23	--	--	--	4.3	8	.09	.42	8	.01
24	--	--	--	4.0	7	.08	.09	12	0
25	--	--	--	3.5	7	.07	.02	16	0
26	--	--	--	3.2	5	.04	.02	6	0
27	--	--	--	3.0	10	.08	.02	3	0
28	--	--	--	2.8	44	.33	.02	4	0
29	--	--	--	18	3010	211	.02	10	0
30	--	--	--	24	5140	396	.02	4	0
31	--	--	--	22	2280	135	--	--	--
TOTAL	--	--	--	178.3	--	776.96	87.84	--	39.51

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.02	8	0	.06	44	.01	.23	59	.04
2	.02	10	0	.06	47	.01	.23	62	.04
3	.02	8	0	.06	63	.01	1.8	186	2.3
4	.02	15	0	.06	74	.01	4.0	429	5.9
5	.06	15	0	.06	67	.01	6.0	220	3.6
6	.06	19	0	.06	52	.01	4.6	80	.99
7	.01	13	0	.06	68	.01	2.8	59	.45
8	.01	15	0	.06	68	.01	2.0	29	.16
9	.01	13	0	.13	80	.03	1.4	45	.17
10	.02	24	0	.06	64	.01	1.0	109	.29
11	.01	90	0	.13	67	.02	.58	93	.15
12	.01	56	0	.13	61	.02	.58	49	.08
13	.01	19	0	.13	80	.03	.58	44	.07
14	.01	10	0	.13	60	.02	.58	27	.04
15	.01	61	0	.13	65	.02	.74	12	.02
16	.01	41	0	.13	53	.02	1.1	8	.02
17	.01	12	0	.13	63	.02	1.6	7	.03
18	.01	17	0	.13	76	.03	2.0	10	.05
19	.01	6	0	.13	100	.04	1.6	9	.04
20	.01	16	0	.13	83	.03	2.0	7	.04
21	.01	35	0	.13	80	.03	2.0	5	.03
22	.01	26	0	.13	79	.03	2.0	6	.03
23	.01	22	0	.13	93	.03	2.4	5	.03
24	.01	26	0	.13	112	.04	2.4	8	.05
25	.01	27	0	.13	97	.03	2.4	12	.08
26	.01	30	0	.13	100	.04	2.4	27	.17
27	.01	48	0	.13	56	.02	2.4	4	.03
28	.01	44	0	.13	41	.01	2.4	3	.02
29	.02	49	0	.13	69	.02	2.4	3	.02
30	.06	68	.01	.01	63	0	2.6	6	.04
31	.06	63	.01	.23	52	.03	--	--	--
TOTAL	.57	--	.02	3.38	--	.65	58.82	--	14.98

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR PERIOD (TONS)

328.91

832.12

YELLOWSTONE RIVER BASIN

35

06253000 FIVEMILE CREEK NEAR SHOSHONI, WYO.

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, at gaging station, 1.2 miles upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft, and 5 miles west of Shoshoni.

DRAINAGE AREA.--418 sq mi, of which 133 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: September 1949 to November 1951, April to September 1953, July 1965 to September 1971.

Water temperatures: December 1948 to September 1969.

Sediment records: August 1948 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.												
16...	1255	75	6.9	300	160	43	390	3.6	275	0	1100	31
DEC.												
07...	1030	a63	6.8	200	170	77	370	3.8	296	0	1200	34
JAN.												
11...	1150	a61	7.7	0	170	43	410	3.8	336	0	1200	33
FEB.												
03...	1110	a60	7.9	510	210	82	360	4.0	296	0	1300	35
MAR.												
11...	1420	a51	7.5	20	210	92	380	4.7	290	0	1400	34
APR.												
13...	1450	30	6.4	0	210	69	430	4.2	283	0	1500	36
MAY												
03...	1700	79	8.2	40	130	36	270	3.8	225	0	820	27
JUNE												
10...	1050	263	11	180	70	19	140	2.9	168	0	400	12
JULY												
10...	1610	350	11	60	59	15	140	2.7	171	0	340	11
29...	1600	426	11	100	59	15	130	3.1	168	0	330	19
SEP.												
27...	1045	260	9.1	80	85	24	200	2.9	218	0	530	16

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
NOV.												
16...	1.2	15	0	1930	2.62	391	580	354	7.1	2580	7.9	3.5
DEC.												
07...	1.2	15	60	2060	2.80	350	740	497	5.9	2600	8.1	.0
JAN.												
11...	1.0	17	180	2020	2.75	333	600	324	7.3	2650	8.2	2.0
FEB.												
03...	1.2	17	160	2150	2.92	348	850	607	5.3	2760	7.7	1.0
MAR.												
11...	1.2	18	240	2320	3.16	319	900	662	5.5	2710	7.9	1.0
APR.												
13...	1.1	20	230	2360	3.21	191	800	568	6.6	2850	8.0	12.0
MAY												
03...	.9	8.4	120	1410	1.92	301	470	285	5.4	1770	8.1	21.0
JUNE												
10...	.9	3.1	90	747	1.02	530	260	122	3.8	1040	8.1	17.5
JULY												
10...	.5	3.6	140	665	.90	628	210	70	4.2	905	7.8	24.5
29...	.5	2.6	70	651	.89	749	210	72	3.9	948	7.8	18.5
SEP.												
27...	.6	4.1	110	972	1.32	682	310	131	4.9	1330	8.0	10.5

YELLOWSTONE RIVER BASIN

06256650 BADWATER CREEK AT LYSITE, WYO.

LOCATION.--Lat 43°15'53", long 107°41'44", in NE¼SW¼NW¼ sec.13, T.38 N., R.91 W., Fremont County, at gaging station, 2.2 miles upstream from Bridger Creek, and 0.4 mile southwest of Lysite. Prior to Oct. 26, 1970, at site 0.1 mile upstream.

DRAINAGE AREA.--415 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1971.
Sediment records: November 1965 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 30.0°C Aug. 15; minimum, 0.5°C Jan. 2.
Sediment concentrations: Maximum daily, 40,000 mg/l May 5; minimum daily, 13 mg/l Oct. 6.
Sediment discharge: Maximum daily, 34,300 tons May 5; minimum daily, 0.03 tons Aug. 28, 30, 31.

Period of record:

Water temperatures (1966-71): Maximum, 30.0°C Aug. 15, 1971; minimum, freezing point on many days during winter period most years.
Sediment concentrations: Maximum daily, 76,000 mg/l June 15, 1967; minimum daily, 3 mg/l Oct. 18, 1969.
Sediment discharge: Maximum daily, 460,000 tons June 8, 1968; minimum daily, 0 tons Sept. 30, Oct. 1, 5, 6, 1969.

REMARKS.--Flow affected by ice Oct. 28, 29, Nov. 2, 4, 11-13, 18-27, Dec. 1 to Jan. 2, 6-31, Feb. 10-14, 16, 17, 19, Feb. 21 to Mar. 9, 15-22.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	6.0	4.5	1.5	1.0	1.0	7.0	19.0	14.0	21.0	22.0	18.5
2	14.0	5.0	5.0	0.5	5.0	1.0	4.5	19.0	16.0	20.0	20.0	17.0
3	16.5	4.0	5.0	2.0	5.0	2.0	6.0	21.0	15.0	17.0	25.5	13.0
4	17.0	5.0	2.5	1.5	1.5	1.5	9.0	23.5	14.0	19.5	20.0	12.5
5	15.0	2.0	2.5	1.0	1.0	1.0	11.0	13.0	16.5	16.5	21.5	19.5
6	10.0	6.0	4.0	2.5	1.0	1.5	11.0	11.5	15.5	20.0	26.0	21.0
7	8.0	3.0	4.5	1.0	1.0	1.5	14.0	13.0	20.0	21.0	18.0	14.0
8	6.5	5.0	3.0	2.0	1.0	3.0	17.0	12.0	24.0	21.5	21.5	17.0
9	10.0	4.5	4.0	3.0	1.0	2.0	12.0	10.0	24.5	24.0	21.0	19.5
10	14.0	3.0	3.0	3.5	1.0	4.0	11.0	10.0	15.0	17.0	26.0	25.5
11	12.0	4.0	1.0	1.0	1.0	4.0	10.0	18.0	15.0	21.0	29.5	15.0
12	14.0	5.0	1.0	1.5	1.0	5.0	7.0	17.0	17.5	23.0	26.0	18.0
13	12.5	3.5	2.5	2.5	1.0	6.0	16.0	16.0	20.0	19.0	28.0	15.5
14	11.0	4.0	3.5	3.0	1.0	5.5	16.5	14.5	20.0	20.5	18.5	14.5
15	9.0	3.0	2.0	1.0	1.0	4.5	13.0	14.0	20.0	23.0	30.0	10.0
16	12.0	4.0	3.0	2.0	1.0	5.0	---	9.5	18.5	23.5	22.0	8.0
17	10.0	4.0	2.0	2.0	1.0	1.5	11.0	13.0	20.0	21.0	21.0	10.0
18	8.0	4.0	1.0	3.5	1.0	5.0	9.0	11.0	21.0	23.0	25.0	---
19	12.0	2.0	1.0	2.0	1.0	4.0	6.0	15.5	17.0	22.0	24.0	18.0
20	11.0	4.5	1.5	4.0	1.0	5.0	12.0	13.0	21.0	21.5	24.5	---
21	10.0	2.0	1.5	1.0	1.0	5.5	9.5	15.5	25.5	23.0	20.0	12.0
22	9.0	1.0	2.0	1.5	4.0	8.0	13.0	8.5	21.0	21.0	23.5	17.5
23	10.5	4.0	1.0	1.0	3.0	11.0	15.0	9.5	20.0	25.5	22.0	19.0
24	10.0	3.5	2.0	4.0	2.0	6.5	11.0	15.0	23.5	18.0	12.0	10.0
25	6.0	2.5	1.5	2.0	3.0	6.0	5.0	19.0	25.0	14.0	22.5	12.5
26	7.0	5.0	2.0	4.0	1.0	9.0	9.0	22.0	18.0	19.0	19.0	14.5
27	6.0	3.0	1.5	5.0	1.0	3.0	12.0	17.0	21.5	23.5	27.0	16.0
28	4.0	5.0	1.0	5.5	2.0	10.0	14.0	18.5	21.5	18.0	---	16.5
29	5.5	4.5	2.0	3.0	---	10.0	17.0	12.0	17.0	18.0	17.5	14.0
30	6.0	3.0	2.5	2.0	---	12.0	19.0	10.5	22.5	24.0	25.0	9.5
31	4.5	---	---	4.0	---	5.0	---	15.5	---	19.0	18.0	---
MONTH	10.0	4.0	2.5	2.5	1.5	5.0	11.5	14.5	19.5	20.5	22.5	15.5
YEAR	10.5											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SED- IMENT (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
28...	0900	3.0	26	4800	337	10	13	17	21	56	87	100
APR.												
11...	1130	9.5	16	1450	63	49	61	71	77	90	100	--
MAY												
05...	0820	7.0	281	59300	45000	45	66	83	93	99	100	--
05...	1525	9.5	424	69000	79000	45	61	81	92	99	100	--
06...	0945	7.5	94	7910	2010	70	83	87	93	100	--	--
30...	1900	10.5	114	12600	3880	59	78	83	88	96	100	--

06256650 BADWATER CREEK AT LYSITE, WYO.- continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.1	15	.09	2.5	49	.33	8.0	200	4.3
2	2.1	43	.24	2.7	98	.71	7.8	309	6.5
3	2.1	23	.13	2.8	223	1.7	7.8	180	3.8
4	2.1	100	.57	2.7	74	.54	7.5	99	2.0
5	2.1	62	.35	2.8	77	.58	7.1	99	1.9
6	2.2	13	.08	2.0	91	.49	7.2	162	3.1
7	2.2	15	.09	2.0	103	.56	7.4	332	6.6
8	2.2	50	.30	2.8	155	1.2	7.6	422	8.7
9	2.2	45	.27	8.0	150	3.2	7.6	68	1.4
10	2.2	20	.12	8.4	216	4.9	7.1	227	4.4
11	2.1	25	.14	6.8	190	3.5	6.2	40	.67
12	2.2	35	.21	7.0	112	2.1	5.7	160	2.5
13	2.2	43	.26	7.7	168	3.5	5.9	105	1.7
14	2.2	28	.17	8.0	115	2.5	6.0	130	2.1
15	2.2	47	.28	7.4	183	3.7	6.1	90	1.5
16	2.2	39	.23	9.0	223	5.4	6.3	78	1.3
17	2.2	33	.20	8.0	110	2.4	6.0	120	1.9
18	2.2	53	.31	7.5	31	.63	5.8	120	1.9
19	2.2	37	.22	6.8	76	1.4	5.4	150	2.2
20	2.2	29	.17	6.8	125	2.3	5.0	64	.86
21	2.3	30	.19	7.0	135	2.6	5.4	90	1.3
22	2.3	48	.30	6.4	148	2.6	5.7	111	1.7
23	2.3	48	.30	6.0	197	3.2	5.4	30	.44
24	2.4	82	.53	8.2	160	3.5	5.5	40	.59
25	2.4	125	.81	11	278	8.3	5.6	71	1.1
26	2.3	85	.53	9.3	365	9.2	6.0	38	.62
27	2.4	160	1.0	8.7	200	4.7	6.3	58	.99
28	2.5	96	.65	9.4	640	16	6.5	35	.61
29	2.7	85	.62	10	765	21	6.6	28	.50
30	2.8	68	.51	10	260	7.0	6.3	133	2.3
31	3.0	35	.28	--	--	--	6.9	60	1.1
TOTAL	70.8	--	10.15	197.7	--	119.74	199.7	--	70.58

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6.3	72	1.2	11	280	8.3	6.3	210	3.6
2	5.8	45	.70	10	145	3.9	6.1	350	5.8
3	5.6	96	1.5	9.9	272	7.3	7.0	470	8.9
4	5.1	1000	14	8.7	265	6.2	7.0	600	11
5	5.3	425	6.1	8.0	178	3.8	7.2	530	10
6	4.8	232	3.0	7.4	173	3.5	6.7	375	6.8
7	5.3	90	1.3	8.0	190	4.1	7.3	320	6.3
8	5.6	100	1.5	8.7	225	5.3	7.4	530	11
9	6.2	79	1.3	9.4	270	6.9	7.9	730	16
10	6.5	111	1.9	9.8	460	12	8.4	560	13
11	6.8	78	1.4	10	500	14	8.0	570	12
12	7.0	125	2.4	10	715	19	10	800	22
13	6.6	47	.84	11	780	23	13	860	30
14	6.2	150	2.5	11	625	19	9.4	600	15
15	6.4	44	.76	10	650	18	8.9	370	8.9
16	6.8	26	.48	9.3	600	15	8.2	1270	28
17	7.1	30	.58	9.4	550	14	7.7	1550	32
18	7.4	442	8.8	9.4	325	8.2	7.3	1660	33
19	7.2	280	5.4	8.5	550	13	7.8	370	7.8
20	7.5	328	6.6	8.0	440	9.5	8.3	670	15
21	7.3	195	3.8	7.8	520	11	8.5	790	18
22	7.0	160	3.0	7.2	320	6.2	8.5	740	17
23	7.2	129	2.5	7.7	300	6.2	9.0	275	6.7
24	7.6	80	1.6	8.5	490	11	12	1000	32
25	8.2	122	2.7	7.9	550	12	14	1460	55
26	8.7	69	1.6	7.2	180	3.5	13	1100	39
27	9.1	112	2.8	6.9	170	3.2	35	16500	1560
28	9.5	58	1.5	6.6	220	3.9	22	1800	107
29	9.8	125	3.3	--	--	--	14	1350	51
30	11	40	1.2	--	--	--	14	1630	62
31	11	485	14	--	--	--	24	1950	126
TOTAL	221.9	--	100.26	247.3	--	271.0	333.9	--	2369.8

YELLOWSTONE RIVER BASIN

06256650 BADWATER CREEK AT LYSITE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	400	13	2.5	30	.20	62	3500	586
2	9.0	250	6.1	3.4	70	.64	43	1520	176
3	13	375	13	3.7	140	1.4	39	1230	130
4	10	320	8.6	6.0	675	15	33	1100	98
5	9.4	270	6.9	260	40000	34300	30	950	77
6	10	330	8.9	95	9700	2490	26	550	39
7	10	490	13	58	2300	360	26	490	34
8	8.0	370	8.0	45	940	114	16	390	17
9	5.4	220	3.2	54	2120	309	12	210	6.8
10	5.8	250	3.9	50	1410	190	13	190	6.7
11	9.4	1020	26	31	1090	91	12	200	6.5
12	8.4	430	9.8	20	910	49	16	215	9.3
13	3.4	220	2.0	24	980	64	14	158	6.0
14	2.5	110	.74	31	1530	128	10	158	4.3
15	4.0	120	1.3	34	1380	127	9.0	105	2.6
16	5.8	130	2.0	34	1280	118	7.0	108	2.0
17	3.0	170	1.4	35	1220	115	10	103	2.8
18	4.0	80	.86	30	700	57	11	89	2.6
19	4.6	4150	52	33	580	52	5.8	71	1.1
20	8.4	3800	86	24	430	28	5.0	71	.96
21	4.3	325	3.8	11	540	16	6.2	48	.80
22	3.0	300	2.4	15	360	15	8.0	64	1.4
23	2.5	110	.74	14	400	15	8.4	80	1.8
24	2.8	50	.38	13	320	11	6.6	62	1.1
25	4.3	250	2.9	11	370	11	5.8	45	.70
26	4.3	890	10	14	450	17	6.6	28	.50
27	3.4	620	5.7	13	280	9.8	5.4	35	.51
28	3.4	70	.64	13	900	32	5.8	32	.50
29	2.8	50	.38	74	17900	5440	5.8	35	.55
30	2.2	40	.24	112	23000	8270	5.8	38	.60
31	--	--	--	202	20400	13200	--	--	--
TOTAL	179.1	--	293.88	1367.6	--	65646.04	464.2	--	1217.12

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2.5	52	.35	1.8	65	.32	.70	27	.05
2	1.8	73	.35	2.2	77	.46	.62	42	.07
3	2.5	67	.45	2.8	80	.60	.70	23	.04
4	1.8	80	.39	3.0	55	.45	.88	58	.14
5	2.0	90	.49	1.8	53	.26	.79	42	.09
6	1.5	87	.35	2.0	65	.35	.70	27	.05
7	1.8	85	.41	3.4	70	.64	.79	22	.05
8	2.2	88	.52	4.0	72	.78	1.6	1340	5.8
9	2.2	77	.46	4.0	70	.76	.88	240	.57
10	2.2	74	.44	3.4	75	.69	1.3	102	.36
11	2.5	67	.45	1.5	67	.27	1.2	87	.28
12	2.0	68	.37	1.2	75	.24	1.1	45	.13
13	2.0	58	.31	.98	80	.21	.98	153	.40
14	2.0	71	.38	.88	52	.12	.88	48	.11
15	2.0	58	.31	.88	71	.17	.88	42	.10
16	2.0	52	.28	.79	60	.13	1.2	68	.22
17	2.0	46	.25	.98	62	.16	1.3	42	.15
18	1.8	47	.23	.70	56	.11	1.5	50	.20
19	1.6	45	.19	.70	43	.08	1.1	40	.12
20	1.6	40	.17	.70	57	.11	1.5	44	.18
21	1.8	27	.13	.62	32	.05	1.6	40	.17
22	1.6	25	.11	.62	40	.07	1.6	33	.14
23	2.0	25	.14	.62	36	.06	1.5	34	.14
24	1.8	23	.11	.88	37	.09	1.5	30	.12
25	2.2	24	.14	.88	25	.06	1.3	25	.09
26	2.0	28	.15	1.5	17	.07	1.3	22	.08
27	1.8	40	.19	.98	14	.04	1.5	25	.10
28	1.8	69	.34	.88	14	.03	1.3	30	.11
29	2.5	68	.46	1.2	19	.06	1.5	37	.15
30	2.8	87	.66	.79	15	.03	1.3	38	.13
31	3.4	68	.62	.70	15	.03	--	--	--
TOTAL	63.7	--	10.20	47.38	--	7.50	35.00	--	10.34

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

3428.28

70126.61

06256800 BRIDGER CREEK NEAR LYSITE, WYO.

LOCATION.--Lat 43°17'22", long 107°43'16", in NE¼NE¼SW¼ sec.2, T.38 N., R.91 W., Fremont County, at gaging station, 0.3 mile upstream from mouth, and 2.2 miles northwest of Lysite. Prior to Oct. 27, 1970, at site 800 ft upstream.

DRAINAGE AREA.--182 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1966 to September 1971.
Sediment records: November 1965 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 27.0°C June 21, July 23; minimum, 0.5°C on several days during December to February.

Sediment concentrations: Maximum daily, 6,460 mg/l May 5; minimum daily, no flow for many days during August and September.

Sediment discharge: Maximum daily, 913 tons Mar. 28; minimum daily, 0 tons on many days during August and September.

Period of record:

Water temperatures (1966-71): Maximum, 29.0°C Aug. 7, 1968, July 26, 1970; minimum, freezing point on many days during winter period most years.

Sediment concentrations: Maximum daily, 40,000 mg/l June 23, 1967; minimum daily, no flow for many days during July, August, September 1966, August and September 1971.

Sediment discharge: Maximum daily, 55,000 tons June 23, 1967; minimum daily, 0 tons on many days during July, August, September 1966, August and September 1971.

REMARKS.--Flow affected by ice Nov. 2-6, 11, 12, 15-19, Nov. 25 to Dec. 24, Jan. 6-25, Feb. 9 to Mar. 7, 9-17, 20, 21. No flow Aug. 2-28, Aug. 30 to Sept. 3.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	5.0	5.0	1.0	0.5	1.0	5.0	16.5	16.5	23.5	21.5	---
2	12.0	4.0	4.0	0.5	4.0	2.0	4.0	18.0	19.0	24.0	---	---
3	13.0	3.0	5.5	1.0	0.5	2.0	4.0	21.0	19.0	20.0	---	---
4	14.5	4.5	3.0	2.0	1.0	2.0	5.0	18.0	17.0	18.5	---	12.5
5	13.0	5.0	1.5	0.5	1.0	1.0	7.0	11.0	20.0	19.5	---	17.5
6	14.0	1.0	4.0	2.0	1.0	1.0	8.5	14.0	17.5	22.0	---	21.0
7	7.0	2.5	3.0	1.0	1.0	2.0	10.0	16.0	21.5	23.0	---	13.5
8	5.5	4.0	2.5	1.0	1.0	2.0	12.0	---	24.5	23.0	---	22.0
9	8.0	2.0	3.5	2.5	1.0	1.5	8.0	13.5	24.5	25.0	---	18.0
10	11.0	4.0	3.5	3.0	1.0	1.0	11.0	15.0	19.0	21.0	---	23.0
11	10.0	5.0	0.5	2.0	1.0	1.5	10.0	18.0	18.0	24.0	---	19.0
12	12.0	6.0	0.5	1.0	1.0	1.0	6.0	17.0	19.0	24.0	---	19.5
13	12.0	4.0	2.0	2.0	1.0	1.0	10.5	19.0	20.5	22.0	---	18.0
14	10.0	2.0	3.0	1.0	1.0	1.0	13.0	19.0	25.0	23.0	---	14.0
15	5.0	3.0	3.0	1.0	1.0	1.0	13.0	17.0	22.5	23.5	---	11.0
16	10.0	3.0	3.5	3.5	1.0	2.0	---	15.0	21.0	22.0	---	9.0
17	7.0	4.0	2.0	1.5	1.0	1.0	12.0	9.0	22.5	21.0	---	9.5
18	9.5	3.0	0.5	3.0	1.0	2.0	9.0	12.0	23.0	22.0	---	---
19	10.0	1.5	1.0	3.0	1.0	2.0	5.0	15.0	20.0	23.0	---	14.0
20	9.0	5.0	1.0	3.0	1.0	1.5	9.0	13.0	24.5	22.0	---	---
21	8.0	3.0	0.5	2.0	1.0	1.5	8.5	15.5	27.0	22.5	---	11.0
22	7.0	5.0	1.0	1.5	4.0	2.5	10.0	9.0	25.0	23.5	---	14.0
23	9.0	4.5	1.0	1.0	3.0	2.0	14.5	10.5	23.0	27.0	---	15.0
24	6.0	4.0	1.0	1.0	2.0	1.0	11.0	14.0	25.0	20.5	---	10.5
25	5.0	3.0	0.5	1.0	2.0	2.0	6.0	18.0	25.0	16.5	---	13.0
26	5.0	4.0	1.0	4.0	2.0	2.5	7.0	23.0	21.0	21.0	---	15.0
27	4.0	3.0	1.0	4.5	1.0	4.0	9.5	21.0	22.0	22.0	---	15.0
28	2.0	4.5	0.5	5.0	3.0	4.5	12.5	21.0	22.5	19.0	---	16.0
29	6.0	5.5	1.0	4.0	---	5.0	15.0	16.0	19.5	19.5	18.0	15.0
30	5.0	2.5	2.0	2.0	---	7.5	16.5	12.0	22.5	22.0	---	9.5
31	4.0	---	1.0	5.0	---	4.0	---	14.5	---	20.5	---	---
MONTH	8.5	3.5	2.0	2.0	1.5	2.0	9.5	15.5	21.5	22.0	---	15.0
YEAR	9.5											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT (MG/L)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
25...	1620	4.5	50	3930	531	30	44	81	93	97	99	100
28...	0830	2.0	a100	2420	653	37	52	92	100	--	--	--
28...	1750	4.5	a100	3600	972	15	21	50	86	99	100	--
MAY												
05...	0840	9.0	66	13400	2390	77	90	99	100	--	--	--
05...	1340	9.0	43	4990	579	70	80	93	99	100	--	--
06...	1130	10.0	32	2560	221	43	53	79	97	100	--	--
30...	1130	11.0	17	6520	299	54	74	93	99	100	--	--

a Daily mean discharge.

YELLOWSTONE RIVER BASIN

06256800 BRIDGER CREEK NEAR LYSITE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12	80	2.6	12	84	2.7	10	143	3.9
2	12	101	3.3	12	148	4.8	9.6	138	3.6
3	12	99	3.2	12	167	5.4	9.5	90	2.3
4	12	99	3.2	13	102	3.6	9.3	95	2.4
5	12	111	3.6	14	120	4.5	9.3	78	2.0
6	12	78	2.5	13	120	4.2	9.6	170	4.4
7	12	75	2.4	12	108	3.5	10	51	1.4
8	12	90	2.9	12	108	3.5	10	272	7.3
9	12	78	2.5	12	98	3.2	10	68	1.8
10	14	49	1.9	12	138	4.5	9.5	150	3.8
11	14	80	3.0	12	128	4.1	9.1	35	.86
12	14	99	3.7	10	102	2.8	8.7	110	2.6
13	14	54	2.0	11	167	5.0	8.7	98	2.3
14	14	108	4.1	12	93	3.0	8.7	226	5.3
15	14	120	4.5	12	168	5.4	9.0	120	2.9
16	13	63	2.2	12	280	9.1	9.5	105	2.7
17	13	70	2.5	13	161	5.7	9.4	197	5.0
18	13	148	5.2	13	30	1.1	9.0	182	4.4
19	13	77	2.7	12	112	3.6	8.6	198	4.6
20	13	77	2.7	12	257	8.3	8.8	89	2.1
21	13	79	2.8	11	181	5.4	9.0	82	2.0
22	13	88	3.1	11	210	6.2	8.7	218	5.1
23	13	70	2.5	10	91	2.5	8.4	72	1.6
24	13	82	2.9	11	117	3.5	8.2	78	1.7
25	13	74	2.6	13	147	5.2	8.3	112	2.5
26	13	85	3.0	14	160	6.0	8.7	77	1.8
27	13	95	3.3	13	103	3.6	9.0	38	.92
28	13	280	9.8	12	275	8.9	9.4	90	2.3
29	14	347	13	12	363	12	9.5	61	1.6
30	13	96	3.4	11	201	6.0	9.5	77	2.0
31	13	46	1.6	--	--	--	9.0	57	1.4
TOTAL	401	--	108.7	361	--	147.3	284.0	--	88.58
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.6	119	2.8	14	129	4.9	8.7	100	2.3
2	8.0	31	.67	13	180	6.3	8.6	81	1.9
3	7.6	242	5.0	12	285	9.2	9.0	215	5.2
4	7.4	255	5.1	11	251	7.5	10	321	8.7
5	7.4	88	1.8	10	229	6.2	11	240	7.1
6	7.4	38	.76	10	160	4.3	10	180	4.9
7	7.6	32	.66	11	146	4.3	9.9	155	4.1
8	7.8	70	1.5	12	172	5.6	9.8	600	16
9	8.6	48	1.1	13	190	6.7	11	580	17
10	9.4	73	1.9	14	206	7.8	12	320	10
11	10	30	.81	15	193	7.8	14	490	19
12	10	90	2.4	15	184	7.5	16	710	31
13	11	30	.89	16	204	8.8	18	700	34
14	10	80	2.2	16	305	13	18	630	31
15	9.0	32	.78	17	311	14	16	670	29
16	9.5	13	.33	17	418	19	14	730	28
17	10	37	1.0	16	280	12	12	380	12
18	11	90	2.7	14	190	7.2	11	270	8.0
19	11	81	2.4	13	191	6.7	12	290	9.4
20	12	69	2.2	12	210	6.8	13	770	27
21	11	62	1.8	11	189	5.6	14	850	32
22	10	62	1.7	10	230	6.2	16	500	22
23	11	60	1.8	11	153	4.5	19	880	45
24	12	48	1.6	12	220	7.1	19	1130	58
25	12	75	2.4	11	248	7.4	46	1950	242
26	13	81	2.8	10	161	4.1	44	3880	461
27	13	82	2.9	9.5	120	3.1	60	3500	567
28	14	90	3.4	9.2	92	2.3	100	3380	913
29	14	100	3.8	--	--	--	80	2660	575
30	15	100	4.1	--	--	--	70	1400	265
31	15	160	6.5	--	--	--	80	1410	305
TOTAL	323.3	--	69.80	354.7	--	206.1	792.0	--	3790.6

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.5	38	.15	.02	95	.01	0	0	0
2	1.7	62	.28	0	0	0	0	0	0
3	1.7	45	.21	0	0	0	0	0	0
4	.90	80	.19	0	0	0	.01	92	0
5	1.2	70	.23	0	0	0	.01	96	0
6	1.9	80	.41	0	0	0	.01	105	0
7	1.4	61	.23	0	0	0	.01	128	0
8	.80	60	.13	0	0	0	.01	116	0
9	.35	51	.05	0	0	0	.01	97	0
10	.60	48	.08	0	0	0	.10	49	.01
11	.80	70	.15	0	0	0	.08	64	.01
12	1.5	82	.33	0	0	0	.05	42	.01
13	.90	72	.17	0	0	0	.04	35	0
14	.95	97	.25	0	0	0	.04	44	0
15	1.7	80	.37	0	0	0	.04	19	0
16	1.2	71	.23	0	0	0	.04	15	0
17	1.4	56	.21	0	0	0	.05	8	0
18	1.4	65	.25	0	0	0	.08	11	0
19	1.2	70	.23	0	0	0	.14	17	.01
20	.17	66	.03	0	0	0	.20	21	.01
21	.56	65	.10	0	0	0	.26	20	.01
22	.40	55	.06	0	0	0	.26	24	.02
23	.14	52	.02	0	0	0	.30	28	.02
24	.50	50	.07	0	0	0	.23	31	.02
25	.90	70	.17	0	0	0	.20	21	.01
26	1.2	60	.19	0	0	0	.20	19	.01
27	1.4	76	.29	0	0	0	.22	24	.01
28	1.4	71	.27	0	0	0	.28	27	.02
29	1.0	70	.19	.02	64	0	.22	33	.02
30	1.0	73	.20	0	0	0	.20	38	.02
31	.40	55	.06	0	0	0	--	--	--
TOTAL	32.17	--	5.80	.04	--	.01	3.29	--	.21

3455.39
6969.44

YELLOWSTONE RIVER BASIN

06256900 DRY CREEK NEAR BONNEVILLE, WYO.

LOCATION.--Lat 43°16'52", long 107°54'45", in NW¼NW¼ sec.8, T.38 N., R.92 W., Fremont County, at gaging station, 0.4 mile upstream from mouth, and 8 miles east of Bonneville.

DRAINAGE AREA.--52.6 sq mi.

PERIOD OF RECORD.--Sediment records: September 1965 to September 1971.

EXTREMES.--1970-71:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days during year.
Sediment discharge: Maximum daily, 241 tons May 5, 30; minimum daily, 0 tons on many days during year.

Period of record:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.
Sediment discharge: Maximum daily, 19,000 tons June 15, 1967; minimum daily, 0 tons on many days each year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			WEIGHTED MEAN	MAXIMUM OBSERVED
				MEAN	MAXIMUM	MINIMUM		
OCTOBER 1970.....	0	0	0	0	0	0		
NOVEMBER.....	.06	.1	0	0	0	0		
DECEMBER.....	.17	.3	0	0	0	0		
JANUARY 1971.....	.10	.2	0	0	0	0		
FEBRUARY.....	.09	.2	0	0	0	0		
MARCH.....	.47	.9	.02	.006	.01	0		
APRIL.....	.04	.08	0	0	0	0		
MAY.....	170.62	338	641.80	20.7	241	0		
JUNE.....	38.93	77	56.69	1.89	29	0		
JULY.....	0	0	0	0	0	0		
AUGUST.....	0	0	0	0	0	0		
SEPTEMBER.....	0	0	0	0	0	0		
WATER YEAR.....	210.48	417	698.51	1.91	241	0		

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D DIS- CHARGE (T/DAY)	SUS.	SUS.	SUS.	SUS.	SUS.
						SED. FALL DIAM. % FINER THAN .004 MM	SED. FALL DIAM. % FINER THAN .016 MM	SED. FALL DIAM. % FINER THAN .062 MM	SED. FALL DIAM. % FINER THAN .125 MM	SED. FALL DIAM. % FINER THAN .250 MM
MAY 06...	1335	14.0	14	751	28	36	45	72	89	100

06257000 BADWATER CREEK AT BONNEVILLE, WYO.

LOCATION.--Lat 43°16'09", long 108°04'46", in NW¼NE¼ sec.14, T.38 N., R.94 W., Fremont County, at gaging station, 0.4 mile west of Bonneville, and 3 miles upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft.

DRAINAGE AREA.--808 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1951, April to June 1953.

Water temperatures: October 1963 to September 1971.

Sediment records: October 1947 to February 1954, August 1954 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 29.5°C May 26; minimum observed, freezing point Dec. 4, Feb. 4, 5.

Sediment concentrations: Maximum daily, 57,300 mg/l May 5; minimum daily, no flow for many days during December, January, June to September.

Sediment discharge: Maximum daily, 156,000 tons May 5; minimum daily, 0 tons on many days during December, January, June to September.

Period of record:

Water temperatures (1963-71): Maximum, 35.0°C July 4, 1970; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 117,000 mg/l July 11, 1949; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 1,100,000 tons June 9, 1968; minimum daily, 0 tons on many days each year.

REMARKS.--Flow affected by ice Nov. 13-21, Nov. 25 to Dec. 16, Feb. 2, 4, 5, 12, 17-19, 23, 24, 26, Mar. 1-5, 8-12, 15-19. No flow Dec. 21 to Jan. 15, June 18 to Sept. 6, 8-30.

06257000 BADWATER CREEK AT BONNEVILLE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	---	3.0	---	---	2.0	4.5	20.0	12.5	---	---	---
2	---	2.0	2.0	---	3.0	2.0	13.0	25.0	22.0	---	---	---
3	---	3.0	2.5	---	---	2.0	---	19.0	19.5	---	---	---
4	---	2.0	0.0	---	0.0	2.5	---	10.0	23.0	---	---	---
5	---	2.0	---	---	0.0	2.0	17.5	11.0	---	---	---	---
6	---	---	---	---	---	---	4.5	16.5	---	---	---	---
7	---	4.5	3.0	---	---	---	15.0	16.0	19.5	---	---	---
8	---	---	3.0	---	---	3.0	20.5	18.0	28.0	---	---	---
9	---	3.0	2.0	---	---	2.5	17.0	15.0	27.0	---	---	---
10	---	2.5	---	---	---	3.0	---	16.0	23.0	---	---	---
11	---	---	2.0	---	---	2.5	---	17.0	27.0	---	---	---
12	---	4.0	---	---	3.0	3.0	14.0	20.5	---	---	---	---
13	---	1.5	---	---	---	---	20.0	15.0	---	---	---	---
14	---	---	---	---	---	---	23.5	---	27.0	---	---	---
15	---	---	2.0	---	---	3.0	25.5	6.0	15.5	---	---	---
16	2.5	7.0	---	---	2.5	3.0	11.0	---	24.0	---	---	---
17	---	7.5	---	---	2.0	2.0	---	14.5	27.5	---	---	---
18	---	3.0	---	---	---	2.0	---	15.5	---	---	---	---
19	2.0	2.5	---	---	2.0	2.5	6.0	22.0	---	---	---	---
20	4.0	5.0	---	---	---	---	17.0	17.5	---	---	---	---
21	4.5	---	---	---	---	---	9.5	11.5	---	---	---	---
22	---	---	---	---	---	3.0	7.5	---	---	---	---	---
23	3.0	---	---	---	2.0	3.5	21.0	---	---	---	---	---
24	---	---	---	---	2.5	2.5	---	22.0	---	---	---	---
25	---	---	---	---	---	3.0	---	15.0	---	---	---	---
26	4.5	---	---	---	2.0	3.5	10.5	29.5	---	---	---	---
27	2.0	---	---	---	---	4.0	18.0	29.0	---	---	---	---
28	1.5	---	---	---	---	---	21.0	28.0	---	---	---	---
29	5.5	---	---	---	---	4.0	7.0	15.0	---	---	---	---
30	10.5	---	---	---	---	4.0	23.0	12.5	---	---	---	---
31	---	---	---	---	---	4.0	---	19.5	---	---	---	---
MONTH	---	---	---	---	---	---	---	17.5	---	---	---	---

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
MAR. 29...	1035	3.5	234	7210	4560	23	33
APR. 01...	1540	4.5	134	4470	1620	33	52
MAY 05...	1905	11.0	710	58000	111000	46	67
06...	0725	6.0	222	45300	27200	42	58
06...	1430	15.5	150	24300	9840	54	72
12...	1830	20.5	38	3660	376	36	52
29...	1950	15.0	690	35600	66300	58	79
JUNE 02...	1430	25.0	102	5800	1600	37	52

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
MAR. 29...	64	92	100	--	--	--
APR. 01...	77	90	100	--	--	--
MAY 05...	86	96	100	--	--	--
06...	71	79	92	97	99	100
06...	90	98	100	--	--	--
12...	82	95	100	--	--	--
29...	93	98	100	--	--	--
JUNE 02...	85	96	100	--	--	--

YELLOWSTONE RIVER BASIN

06257000 BADWATER CREEK AT BONNEVILLE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	44	820	97	64	360	62	14	260	9.8
2	31	760	64	31	340	28	15	500	20
3	38	650	67	51	490	67	15	330	13
4	18	560	27	24	270	17	15	340	14
5	14	410	15	24	280	18	14	410	15
6	38	700	72	14	390	15	13	400	14
7	51	920	127	70	1000	189	13	490	17
8	18	605	29	142	1260	483	14	930	35
9	18	750	36	58	1080	169	14	950	36
10	24	830	54	14	940	36	13	540	19
11	24	860	56	8.3	870	19	11	310	9.2
12	24	830	54	4.8	1050	14	8.0	260	5.6
13	14	860	33	7.0	420	7.9	6.0	240	3.9
14	18	900	44	10	200	5.4	5.0	210	2.8
15	24	1900	123	13	200	7.0	4.0	190	2.1
16	51	2370	326	14	1940	73	3.0	175	1.4
17	51	1060	146	14	2660	101	2.0	175	.95
18	18	800	39	15	2590	105	1.0	190	.51
19	10	830	22	15	480	19	.50	180	.24
20	10	860	23	13	2040	72	.10	145	.04
21	38	830	85	11	2120	63	0	0	0
22	14	1010	38	8.0	670	14	0	0	0
23	10	1450	39	6.0	340	5.5	0	0	0
24	38	650	67	5.0	390	5.3	0	0	0
25	31	1000	84	6.0	670	11	0	0	0
26	10	1250	34	7.0	420	7.9	0	0	0
27	8.0	390	8.4	9.0	380	9.2	0	0	0
28	51	240	33	10	610	16	0	0	0
29	58	700	110	12	590	19	0	0	0
30	64	1640	283	13	310	11	0	0	0
31	64	1420	245	--	--	--	0	0	0
TOTAL	924.0	--	2480.4	693.1	--	1669.2	180.60	--	219.54
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	35	210	20	8.0	258	5.6
2	0	0	0	34	203	19	8.0	232	5.0
3	0	0	0	33	192	17	9.0	249	6.1
4	0	0	0	33	193	17	11	228	6.8
5	0	0	0	30	199	16	15	219	8.9
6	0	0	0	20	195	11	20	222	12
7	0	0	0	10	181	4.9	19	202	10
8	0	0	0	5.0	181	2.4	26	343	24
9	0	0	0	2.0	198	1.1	31	700	59
10	0	0	0	3.0	197	1.6	37	510	51
11	0	0	0	5.0	178	2.4	41	730	81
12	0	0	0	7.0	153	2.9	45	680	83
13	0	0	0	9.0	142	3.5	45	760	92
14	0	0	0	10	140	3.8	40	770	83
15	0	0	0	10	149	4.0	35	3200	302
16	.50	80	.11	10	149	4.0	30	4720	382
17	1.0	95	.26	9.0	143	3.5	25	2120	143
18	2.0	115	.62	8.0	148	3.2	21	1350	77
19	3.0	140	1.1	7.6	150	3.1	24	2130	138
20	4.7	155	2.0	7.0	151	2.9	30	780	63
21	4.6	160	2.0	7.0	158	3.0	42	410	46
22	4.0	182	2.0	8.0	190	4.1	58	3050	478
23	6.0	213	3.5	9.0	232	5.6	110	6690	1990
24	9.0	235	5.7	10	249	6.7	174	3270	1540
25	12	230	7.5	10	249	6.7	174	2500	1170
26	16	210	9.1	9.0	230	5.6	210	4000	2270
27	22	188	11	9.0	218	5.3	198	5400	2890
28	28	178	13	8.0	238	5.1	234	7400	4680
29	31	183	15	--	--	--	126	5500	1870
30	34	197	18	--	--	--	70	3500	662
31	35	207	20	--	--	--	110	3400	1010
TOTAL	212.80	--	110.89	357.6	--	185.4	2026.0	--	20238.4

06257000 BADWATER CREEK AT BONNEVILLE, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	102	3600	991	2.8	1350	10	142	11600	4450
2	86	1900	441	2.8	1700	13	118	6900	2200
3	86	1300	302	2.8	1550	12	94	6150	1560
4	51	1500	207	10	3500	95	94	5500	1400
5	24	2100	136	883	57300	156000	64	3750	648
6	24	2600	168	222	34800	20900	78	3500	737
7	31	2300	193	110	11500	3420	78	3750	790
8	58	2500	392	86	8500	1970	24	2800	181
9	14	2700	102	94	6300	1600	18	1450	70
10	13	2200	77	102	6100	1680	24	1800	117
11	21	1300	74	70	6900	1300	4.8	1500	19
12	24	1750	113	31	6500	544	10	1800	49
13	18	1300	63	18	12700	617	3.0	1400	11
14	14	2200	83	31	4750	398	1.0	1300	3.5
15	1.0	2100	5.7	18	5500	267	1.0	650	1.8
16	1.0	1500	4.1	24	5300	343	.80	650	1.4
17	1.0	1800	4.9	24	3850	249	.50	500	.68
18	1.0	1250	3.4	44	3150	374	0	0	0
19	10	1900	51	24	2700	175	0	0	0
20	24	2350	152	18	3200	156	0	0	0
21	10	2400	65	5.0	5150	70	0	0	0
22	7.0	2300	43	14	3450	130	0	0	0
23	1.0	1900	5.1	18	2100	102	0	0	0
24	1.0	1600	4.3	38	2800	287	0	0	0
25	7.0	1650	31	24	2000	130	0	0	0
26	44	1900	226	10	1800	49	0	0	0
27	18	1900	92	4.1	1150	13	0	0	0
28	1.0	2250	6.1	1.7	900	4.1	0	0	0
29	2.8	1700	13	314	21100	30400	0	0	0
30	1.0	900	2.4	877	33000	92600	0	0	0
31	--	--	--	606	29000	47400	--	--	--
TOTAL	696.8	--	4051.0	3729.2	--	361308.1	755.10	--	12239.38

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1							0	0	0
2							0	0	0
3							0	0	0
4							0	0	0
5							0	0	0
6							0	0	0
7							5.9	191	3.0
8							0	0	0
9							0	0	0
10							0	0	0
11							0	0	0
12							0	0	0
13							0	0	0
14							0	0	0
15							0	0	0
16							0	0	0
17							0	0	0
18							0	0	0
19							0	0	0
20							0	0	0
21							0	0	0
22							0	0	0
23							0	0	0
24							0	0	0
25							0	0	0
26							0	0	0
27							0	0	0
28							0	0	0
29							0	0	0
30							0	0	0
31							--	--	--
TOTAL	0	--	0	0	--	0	5.9	--	3.0

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

9581.10
402505.31

YELLOWSTONE RIVER BASIN

06257500 MUDDY CREEK NEAR PAVILLION, WYO.

LOCATION.--Lat 43°21'46", long 108°36'08", in NW¼SE¼ sec.35, T.5 N., R.2 E., Fremont County, at gaging station, 600 ft upstream from Wyoming Canal siphon, 4.1 miles downstream from Sheep Creek, and 9.2 miles northeast of Pavilion.

DRAINAGE AREA.--267 sq mi.

PERIOD OF RECORD.--Water temperatures: March to July 1949, October 1954 to September 1958, April 1961 to September 1962, August 1965 to September 1966, April to September 1967, May to September 1968, May to September 1969, May to September 1970, May to September 1971.

Sediment records: March 1949 to November 1953, October 1954 to September 1958, April 1961 to September 1964, August 1965 to September 1966, April to September 1967, May to September 1968, May to September 1969, May to September 1970, May to September 1971.

EXTREMES.--May to September 1971:

Water temperatures: Maximum, 27.0°C June 17, 19; minimum, 7.0°C Sept. 17.

Sediment concentrations: Maximum daily, 13,400 mg/l Aug. 30; minimum daily, no flow for many days during June to September.

Sediment discharge: Maximum daily, 6,420 tons Aug. 30; minimum daily, 0 tons on many days during June to September.

Period of record:

Water temperatures (1954-58, 1961-62, 1965-71): Maximum, 32.0°C June 5, 1957; minimum, freezing point on many days during winter period.

Sediment concentrations (1961-64, 1965-71): Maximum daily, 56,000 mg/l Sept. 19, 1961, June 16, 1963; minimum daily, no flow for many days.

Sediment discharge: Maximum daily, 140,000 (estimated) tons July 4, 1950; minimum daily, 0 tons on many days.

REMARKS.--No flow June 22 to Aug. 11, 14-16, 20-29, Sept. 11-14.

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	16.0	17.5	---	---	22.0
2	---	---	---	---	---	---	---	19.0	16.0	---	---	23.0
3	---	---	---	---	---	---	---	20.0	16.0	---	---	14.0
4	---	---	---	---	---	---	---	16.0	17.0	---	---	15.0
5	---	---	---	---	---	---	---	12.0	18.0	---	---	16.0
6	---	---	---	---	---	---	---	15.0	19.0	---	---	21.0
7	---	---	---	---	---	---	---	13.0	23.0	---	---	16.0
8	---	---	---	---	---	---	---	16.0	26.0	---	---	20.0
9	---	---	---	---	---	---	---	14.0	24.0	---	---	20.0
10	---	---	---	---	---	---	---	16.0	11.0	---	---	20.0
11	---	---	---	---	---	---	---	18.0	22.0	---	---	---
12	---	---	---	---	---	---	---	18.0	26.0	---	---	---
13	---	---	---	---	---	---	---	18.0	25.0	---	---	---
14	---	---	---	---	---	---	---	17.0	26.0	---	---	---
15	---	---	---	---	---	---	---	19.0	25.0	---	---	---
16	---	---	---	---	---	---	---	15.0	26.0	---	---	10.0
17	---	---	---	---	---	---	---	9.0	27.0	---	25.0	7.0
18	---	---	---	---	---	---	---	9.0	25.0	---	26.0	---
19	---	---	---	---	---	---	---	14.0	27.0	---	23.0	---
20	---	---	---	---	---	---	---	16.0	26.0	---	---	11.0
21	---	---	---	---	---	---	---	17.0	24.0	---	---	10.0
22	---	---	---	---	---	---	---	12.0	---	---	---	13.0
23	---	---	---	---	---	---	---	16.0	---	---	---	14.0
24	---	---	---	---	---	---	---	17.0	---	---	---	13.0
25	---	---	---	---	---	---	---	21.0	---	---	---	---
26	---	---	---	---	---	---	---	24.0	---	---	---	---
27	---	---	---	---	---	---	---	22.0	---	---	---	14.0
28	---	---	---	---	---	---	---	24.0	---	---	---	13.0
29	---	---	---	---	---	---	---	14.0	---	---	---	12.0
30	---	---	---	---	---	---	---	12.0	---	---	18.0	9.0
31	---	---	---	---	---	---	---	14.0	---	---	21.0	---
MONTH	---	---	---	---	---	---	---	16.0	---	---	---	---

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, MAY TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAY											
05...	1000	10.0	68	1790	329	81	96	100	--	--	--
29...	0900	8.0	28	10400	786	51	82	98	100	--	--
JUNE											
01...	1415	17.0	9.2	1840	46	82	97	100	--	--	--
10...	1830	11.0	16	10200	441	66	93	97	97	99	100
AUG.											
17...	1510	25.0	5.8	15600	244	84	100	--	--	--	--
30...	1530	18.0	171	20500	9470	71	98	99	100	--	--

06257500 MUDDY CREEK NEAR PAVILLION, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, MAY TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	--	--	--	4.2	70	.79	14	2780	123
2	--	--	--	4.0	83	.90	7.8	1300	27
3	--	--	--	3.8	77	.79	5.8	700	11
4	--	--	--	7.5	390	32	4.6	265	3.3
5	--	--	--	57	1720	265	3.8	205	2.1
6	--	--	--	15	770	31	3.2	102	.88
7	--	--	--	6.2	351	5.9	2.7	78	.57
8	--	--	--	5.8	350	5.5	2.6	95	.67
9	--	--	--	4.6	230	2.9	3.1	100	.84
10	--	--	--	3.6	180	1.7	3.9	1980	59
11	--	--	--	3.0	116	.94	2.0	818	4.4
12	--	--	--	2.4	89	.58	1.3	150	.53
13	--	--	--	2.1	48	.27	.90	112	.27
14	--	--	--	2.0	84	.45	.60	117	.19
15	--	--	--	1.8	49	.24	.35	108	.10
16	--	--	--	2.1	52	.29	.25	75	.05
17	--	--	--	2.2	65	.39	.20	78	.04
18	--	--	--	2.4	73	.47	1.1	162	1.0
19	--	--	--	2.4	64	.41	.30	171	.14
20	--	--	--	1.8	37	.18	.25	127	.09
21	--	--	--	1.6	26	.11	.25	124	.08
22	--	--	--	1.5	51	.21	0	0	0
23	--	--	--	1.4	46	.17	0	0	0
24	--	--	--	1.3	36	.13	0	0	0
25	--	--	--	1.3	35	.12	0	0	0
26	--	--	--	1.3	22	.08	0	0	0
27	--	--	--	1.2	19	.06	0	0	0
28	--	--	--	1.1	33	.10	0	0	0
29	--	--	--	27	6020	613	0	0	0
30	--	--	--	50	7500	1140	0	0	0
31	--	--	--	43	5240	657	--	--	--
TOTAL	--	--	--	264.6	--	2761.68	59.00	--	235.25

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	4.6	601	7.5
2				0	0	0	3.6	100	.97
3				0	0	0	8.5	391	35
4				0	0	0	15	2730	118
5				0	0	0	5.5	400	5.9
6				0	0	0	4.2	202	2.3
7				0	0	0	4.2	80	.91
8				0	0	0	.50	28	.04
9				0	0	0	.10	16	0
10				0	0	0	.02	30	0
11				0	0	0	.0	0	0
12				11	11900	353	0	0	0
13				.44	5700	6.8	0	0	0
14				0	0	0	0	0	0
15				0	0	0	.86	21	.05
16				0	0	0	3.4	52	.48
17				3.3	7190	161	2.8	60	.45
18				3.0	700	5.7	3.0	90	.73
19				.80	200	.43	3.4	93	.85
20				0	0	0	3.0	102	.83
21				0	0	0	4.5	87	1.0
22				0	0	0	3.2	91	.79
23				0	0	0	1.6	93	.40
24				0	0	0	1.4	87	.33
25				0	0	0	1.4	62	.23
26				0	0	0	1.3	45	.16
27				0	0	0	1.3	80	.28
28				0	0	0	1.3	67	.24
29				0	0	0	1.5	68	.28
30				80	13400	6420	1.6	67	.29
31				20	10400	915	--	--	--
TOTAL	0	--	0	118.54	--	7861.93	81.78	--	178.01

TOTAL DISCHARGE FOR PERIOD (CFS-DAYS)

523.92

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR PERIOD (TONS)

11036.87

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 943 micromhos Mar. 23; minimum daily, 385 micromhos July 19.
Water temperatures: Maximum, 22.0°C Aug. 16-22; minimum, 4.0°C on many days December to January.

Period of record:

Specific conductance: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 385 micromhos July 19, 1971.

Water temperatures: Maximum (1960-71), 22.0°C on several days in 1961, 1970, 1971; minimum, 1.0°C Dec. 17, 18, 1964.

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECIFIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 02...	.3	.2	60	430	.58	894	190	60	2.1	671	8.3	15.0
NOV. 02...	.6	.5	10	463	.63	949	220	85	1.9	720	8.1	7.0
DEC. 07...	.5	.3	40	493	.67	1460	240	100	2.0	727	8.4	5.5
JAN. 18...	.6	.5	60	504	.69	1630	240	97	2.0	766	8.1	--
FEB. 22...	.5	.0	90	527	.72	2750	280	135	1.8	740	8.4	4.0
APR. 01...	.5	.7	80	556	.76	2780	260	117	2.1	799	8.3	5.0
MAY 03...	.6	.3	70	545	.74	2870	270	110	2.1	769	8.5	11.0
JUNE 29...	.3	.9	60	261	.36	5840	140	48	1.3	423	7.7	17.0
JULY 30...	.3	.2	40	246	.33	1710	130	40	1.2	410	7.8	20.0
SEP. 08...	.3	.3	50	269	.37	1210	140	45	1.3	433	8.0	19.0

[illegible]

YELLOWSTONE RIVER BASIN

06264700 BIGHORN RIVER AT LUCERNE, WYO.

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, at bridge on Black Mountain road, 0.7 mile upstream from Kirby Creek, 0.8 mile east of Lucerne, and 1 mile downstream from Owl Creek.

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 02...	1500	840	7.6	250	63	20	72	3.6	182	0	220	13
NOV. 02...	1540	800	8.5	90	67	20	68	3.6	183	0	230	17
DEC. 07...	1305	1140	8.6	80	68	23	73	2.9	189	0	250	14
JAN. 18...	1530	1290	8.6	30	67	22	76	2.7	189	0	240	14
FEB. 22...	1500	2100	10	130	71	21	73	2.4	183	0	260	12
APR. 01...	1645	1860	8.8	120	78	23	83	3.1	162	0	290	13
MAY 03...	1110	2370	6.4	100	74	26	76	3.1	195	0	270	13
JUNE 29...	1715	8800	8.9	290	37	11	35	2.2	110	0	110	6.7
JULY 30...	1515	2700	8.1	140	38	12	34	2.2	112	3	110	9.2
SEP. 08...	1430	1720	8.9	140	46	14	42	2.7	134	0	140	8.3

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 02...	.4	.0	80	490	.67	1110	240	91	2.0	758	8.3	17.0
NOV. 02...	.7	.1	30	508	.69	1100	250	100	1.9	808	8.1	9.0
DEC. 07...	.4	.2	70	530	.72	1630	260	105	2.0	779	8.2	5.0
JAN. 18...	.5	.5	120	528	.72	1840	260	105	2.1	818	7.7	--
FEB. 22...	.5	.1	100	543	.74	3080	260	110	2.0	764	8.3	5.5
APR. 01...	.6	16	90	594	.81	2980	290	157	2.1	856	8.0	9.0
MAY 03...	.6	.2	80	569	.77	3640	290	130	1.9	794	8.3	11.0
JUNE 29...	.3	.7	60	268	.36	6370	140	50	1.3	413	7.7	18.5
JULY 30...	.3	.1	50	271	.37	1980	140	43	1.2	445	8.4	21.0
SEP. 08...	.4	.6	220	328	.45	1520	170	60	1.4	527	8.3	20.0

06268500 FIFTEEN MILE CREEK NEAR WORLAND, WYO.

LOCATION.--Lat 44°01'14", long 108°00'42", in NW¼NW¼NE¼ sec.27, T.47 N., R.93 W., Washakie County, at gaging station, 300 ft upstream from Bighorn Canal spillway, 2.0 miles upstream from mouth, and 2.8 miles west of Worland.

DRAINAGE AREA.--518 sq mi.

PERIOD OF RECORD.--Water temperatures: October 1960 to September 1971.
Sediment records: March 1951 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum observed, 27.0°C June 16; minimum observed, freezing point Feb. 17, 20, Mar. 11, 15.

Sediment concentrations: Maximum daily, 71,600 mg/l June 11; minimum daily, no flow for many days.

Sediment discharge: Maximum daily, 114,000 tons Aug. 30; minimum daily, 0 tons on many days.

Period of record:

Water temperatures (1960-71): Maximum, 32.0°C July 10, 1969; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 135,000 mg/l Apr. 16, 1952; minimum daily, no flow for many days each year.

Sediment discharge: Maximum daily, 418,000 tons May 22, 1952; minimum daily, 0 tons on many days each year.

REMARKS.--Flow affected by ice Feb. 15-24, Mar. 11-15, 25. No flow Oct. 1 to Feb. 14, Feb. 25 to Mar. 10, 16-24, Mar. 31 to Apr. 19, May 4-21, June 7-10, June 22 to Aug. 29, Sept. 17-30. Bureau of Land Management has extensive spreader systems on some of the tributaries above station.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	21.0	18.0	---	---	20.0
2	---	---	---	---	---	---	---	22.0	19.0	---	---	18.0
3	---	---	---	---	---	---	---	---	19.0	---	---	14.5
4	---	---	---	---	---	---	---	---	22.0	---	---	14.0
5	---	---	---	---	---	---	---	---	---	---	---	19.0
6	---	---	---	---	---	---	---	---	18.0	---	---	20.5
7	---	---	---	---	---	---	---	---	---	---	---	16.0
8	---	---	---	---	---	---	---	---	---	---	---	20.0
9	---	---	---	---	---	---	---	---	---	---	---	19.0
10	---	---	---	---	---	---	---	---	---	---	---	21.0
11	---	---	---	---	---	0.0	---	---	19.0	---	---	21.0
12	---	---	---	---	---	9.5	---	---	16.0	---	---	---
13	---	---	---	---	---	---	---	---	17.0	---	---	22.0
14	---	---	---	---	---	---	---	---	18.0	---	---	---
15	---	---	---	---	---	0.0	---	---	24.0	---	---	13.0
16	---	---	---	---	0.5	---	---	---	27.0	---	---	---
17	---	---	---	---	0.0	---	---	---	19.5	---	---	---
18	---	---	---	---	2.0	---	---	---	21.0	---	---	---
19	---	---	---	---	1.0	---	---	---	24.0	---	---	---
20	---	---	---	---	0.0	---	---	---	---	---	---	---
21	---	---	---	---	---	---	4.0	---	---	---	---	---
22	---	---	---	---	---	---	16.0	---	---	---	---	---
23	---	---	---	---	0.5	---	18.0	8.0	---	---	---	---
24	---	---	---	---	2.0	---	6.0	13.0	---	---	---	---
25	---	---	---	---	---	10.0	4.0	21.0	---	---	---	---
26	---	---	---	---	---	3.0	8.0	---	---	---	---	---
27	---	---	---	---	---	4.0	5.0	---	---	---	---	---
28	---	---	---	---	---	6.0	12.0	---	---	---	---	---
29	---	---	---	---	---	6.0	16.0	13.0	---	---	---	---
30	---	---	---	---	---	15.5	21.0	16.0	---	---	19.0	---
31	---	---	---	---	---	---	---	12.0	---	---	21.0	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SED- IMENT (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAR.											
11...	2130	2.0	a4.0	24400	264	78	97	100	--	--	--
25...	0805	2.0	a14	61300	2320	66	88	99	100	--	--
APR.											
22...	1400	16.0	15	37000	1500	93	98	100	--	--	--
25...	1620	4.0	47	59200	7510	84	99	100	--	--	--
26...	1000	4.5	96	67600	17500	74	86	97	99	100	--
MAY											
23...	1030	8.0	90	63900	15500	59	74	96	99	100	--
29...	1610	--	37	46300	4630	72	91	99	100	--	--
JUNE											
12...	1010	16.0	146	61500	24200	53	69	94	99	100	--
AUG.											
30...	1020	16.0	960	48000	124000	62	80	89	94	98	100
30...	1530	19.0	1080	57800	169000	70	89	94	95	98	100
31...	0905	17.0	492	34400	45700	64	82	95	99	100	--

a Daily mean discharge.

YELLOWSTONE RIVER BASIN

06268500 FIFTEEN MILE CREEK NEAR WORLAND, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
TOTAL	0	--	0	0	--	0	0	--	0
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION* (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	0	0	0
2				0	0	0	0	0	0
3				0	0	0	0	0	0
4				0	0	0	0	0	0
5				0	0	0	0	0	0
6				0	0	0	0	0	0
7				0	0	0	0	0	0
8				0	0	0	0	0	0
9				0	0	0	0	0	0
10				0	0	0	0	0	0
11				0	0	0	4.0	5010	54
12				0	0	0	7.2	14300	278
13				0	0	0	9.0	11800	287
14				0	0	0	2.0	5500	30
15				8.5	6600	151	.10	2310	.62
16				14	11700	442	0	0	0
17				5.0	8400	113	0	0	0
18				2.3	6650	41	0	0	0
19				.75	5600	11	0	0	0
20				.25	4850	3.3	0	0	0
21				.20	2000	1.1	0	0	0
22				.15	445	.18	0	0	0
23				.10	415	.11	0	0	0
24				.10	335	.09	0	0	0
25				0	0	0	14	59500	2250
26				0	0	0	18	49400	2400
27				0	0	0	9.2	31900	792
28				0	0	0	5.4	24000	350
29				--	--	--	2.0	21000	113
30				--	--	--	.10	14800	4.0
31				--	--	--	0	0	0
TOTAL	0	--	0	31.35	--	762.78	71.00	--	6558.62

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1				0	0	0	204	30100	16600
2				0	0	0	120	12200	3950
3				0	0	0	80	16400	4300
4				0	0	0	210	52500	36700
5				0	0	0	77	15100	3140
6				0	0	0	39	8520	846
7				0	0	0	23	18200	1130
8				0	0	0	21	12600	714
9				0	0	0	20	10500	567
10				0	0	0	19	10600	544
11				0	0	0	17	10200	468
12				0	0	0	13	7800	274
13				0	0	0	7.5	4400	89
14				0	0	0	1.6	3250	14
15				0	0	0	.21	2650	1.5
16				0	0	0	.10	1200	.32
17				0	0	0	0	0	0
18				0	0	0	0	0	0
19				0	0	0	0	0	0
20				0	0	0	0	0	0
21				0	0	0	0	0	0
22				0	0	0	0	0	0
23				0	0	0	0	0	0
24				0	0	0	0	0	0
25				0	0	0	0	0	0
26				0	0	0	0	0	0
27				0	0	0	0	0	0
28				0	0	0	0	0	0
29				0	0	0	0	0	0
30				824	44200	114000	0	0	0
31				643	35000	54100	--	--	--
TOTAL	0	--	0	1467	--	168100	852.41	--	69337.82

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	3462.81
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	394216.23

YELLOWSTONE RIVER BASIN

06268600 BIGHORN RIVER AT WORLAND, WYO.

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, 40 ft downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mile downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

Water temperatures: July 1965 to September 1969.

Sediment records: July 1965 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV.												
02...	1630	850	8.1	90	74	27	89	4.0	214	0	290	21
DEC.												
07...	1425	1190	8.9	120	78	24	93	3.8	202	0	300	22
FEB.												
03...	1555	1200	12	70	64	33	91	3.8	207	0	300	19
MAR.												
08...	1110	2060	8.7	50	75	29	82	3.3	178	0	300	15
APR.												
19...	1430	1470	7.4	120	74	23	85	2.9	189	0	290	15
MAY												
25...	1400	2050	6.3	--	70	27	97	3.1	195	0	320	17
JUNE												
24...	0900	7100	9.6	190	44	13	42	2.9	122	0	140	5.7
JULY												
23...	0820	3320	8.9	820	40	11	40	2.9	121	0	120	9.9
AUG.												
23...	1135	752	7.7	60	53	17	60	3.1	164	0	190	10
SEP.												
07...	1430	1160	9.6	130	52	16	55	3.3	153	0	180	10

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
NOV.												
02...	.7	.4	60	623	.85	1430	300	124	2.3	947	8.2	9.0
DEC.												
07...	.5	.3	100	630	.86	2020	290	124	2.4	942	8.1	3.5
FEB.												
03...	.6	.8	90	626	.85	2030	300	130	2.3	946	8.1	5.0
MAR.												
08...	.6	6.1	70	606	.82	3370	300	154	2.0	853	8.2	5.5
APR.												
19...	.5	.5	80	588	.80	2330	280	125	2.2	832	8.3	13.0
MAY												
25...	.5	.7	100	637	.87	3530	280	120	2.5	904	8.1	17.5
JUNE												
24...	.3	1.5	50	321	.44	6150	160	60	1.4	493	7.7	18.5
JULY												
23...	.3	.4	70	297	.40	2660	150	51	1.4	446	8.1	19.5
AUG.												
23...	.4	.9	80	423	.58	859	200	65	1.8	675	8.2	19.0
SEP.												
07...	.4	.9	100	402	.55	1260	200	74	1.7	636	8.1	18.0

YELLOWSTONE RIVER BASIN

55

06270000 NOWOOD RIVER NEAR TEN SLEEP, WYO.

LOCATION (revised).--Lat 44°00'50", long 107°25'44", in SW¼SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, at former gaging station, 1.8 miles southeast of Ten Sleep, and 3 miles upstream from Tensleep Creek.

DRAINAGE AREA.--803 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 20...	1100	97	12	60	110	35	18	1.8	212	0	280	1.8
NOV. 12...	1500	97	10	60	110	31	16	1.8	198	0	270	3.2
DEC. 07...	1500	107	12	100	110	31	13	2.2	220	0	240	2.1
JAN. 21...	1555	82	13	10	110	33	12	1.6	214	0	230	3.2
MAR. 01...	1500	127	14	90	120	30	14	1.8	220	0	270	2.2
APR. 07...	1500	90	13	100	130	28	17	2.0	192	0	290	4.3
MAY 10...	1200	576	12	40	41	10	4.9	1.6	98	0	64	2.2
JUNE 18...	1505	108	11	110	87	24	18	2.4	175	0	200	2.0
JULY 21...	1430	35	11	30	140	36	38	2.4	232	0	380	6.7
AUG. 18...	1520	25	12	70	140	50	47	2.9	228	0	460	1.7
SEP. 09...	1500	57	12	70	130	41	29	2.7	220	0	380	2.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 20...	.3	.6	60	570	.78	149	430	256	.4	803	7.9	5.0
NOV. 12...	.5	.9	10	533	.72	140	400	238	.3	786	8.1	3.5
DEC. 07...	.3	2.4	100	519	.71	150	400	220	.3	771	8.0	1.0
JAN. 21...	.4	3.2	30	506	.69	112	400	224	.3	744	7.6	.0
MAR. 01...	.4	4.9	40	561	.76	192	420	240	.3	759	8.2	2.0
APR. 07...	.4	1.9	50	574	.78	139	430	272	.4	776	8.2	10.5
MAY 10...	.2	2.9	10	187	.25	291	140	60	.2	263	8.0	12.0
JUNE 18...	.3	.1	50	433	.59	126	320	176	.4	615	7.6	23.5
JULY 21...	.4	.1	80	733	1.00	69.3	510	320	.7	938	8.1	25.0
AUG. 18...	.4	.0	120	826	1.12	55.8	560	373	.9	1130	8.2	26.0
SEP. 09...	.5	.4	50	704	.96	108	500	320	.6	994	8.1	19.5

YELLOWSTONE RIVER BASIN

06270450 CANYON CREEK BELOW COOKS CANYON, NEAR TEN SLEEP, WYO.

LOCATION.--Lat 44°00'30", long 107°17'40", in NW¼SE¼ sec.27, T.47 N., R.87 W., Washakie County, at gaging station, 0.4 mile downstream from Cooks Canyon, 8 miles east of Ten Sleep, and 9.5 miles upstream from mouth.

DRAINAGE AREA.--72 sq mi.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 20...	1500	7.6	14	40	42	22	1.5	.8	228	0	6.6	.8
NOV. 12...	1050	6.6	12	10	41	20	1.6	1.1	214	0	5.8	1.4
DEC. 07...	1045	8.2	12	100	44	21	1.6	1.8	195	15	9.1	1.1
JAN. 21...	1200	5.5	11	10	44	21	1.6	.4	220	0	12	2.7
MAR. 01...	1145	6.2	13	100	46	19	1.6	9.0	207	6	8.2	3.2
APR. 08...	1430	6.5	11	30	46	19	2.2	1.1	201	6	9.9	3.2
MAY 10...	1630	45	12	20	22	7.9	2.7	1.3	96	0	6.6	3.1
JUNE 04...	1550	73	12	120	15	5.0	1.6	.9	68	0	3.3	1.1
JULY 21...	1300	6.6	12	20	41	20	4.9	1.3	217	0	8.2	2.5
AUG. 04...	1710	7.2	12	60	41	20	1.6	1.8	218	0	5.8	.6
SEP. 09...	1315	7.6	12	160	40	21	1.5	.9	214	0	5.8	1.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
OCT. 20...	1500	7.0	7.6	4	.08	--	--
NOV. 12...	1050	6.0	6.6	4	.07	--	--
DEC. 07...	1045	7.0	8.2	6	.13	--	--
JAN. 21...	1200	--	5.5	18	.27	--	--
MAR. 01...	1145	5.0	6.2	39	.65	--	--
APR. 08...	1430	9.0	6.5	7	.12	--	--
MAY 23...	1500	10.5	6.2	5	.08	--	--
JUNE 04...	1550	8.0	73	119	23	--	--
JULY 15...	1510	12.5	47	41	5.2	--	--
AUG. 04...	1710	12.5	7.2	4	.08	--	--
SEP. 09...	1315	10.0	7.6	2	.04	--	--

YELLOWSTONE RIVER BASIN

57

06270450 CANYON CREEK BELOW COOKS CANYON, NEAR TEN SLEEP, WYO.--Continued

PERIOD OF RECORD.--Chemical analyses: April 1969 to September 1971 (discontinued).
Sediment records: April 1969 to September 1971 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 20...	.2	1.8	0	202	.27	4.15	200	13	.0	346	8.1	7.0
NOV. 12...	.3	2.3	0	191	.26	3.40	180	4	.1	354	8.2	6.0
DEC. 07...	.1	2.4	50	204	.28	4.52	200	15	.0	352	8.5	7.0
JAN. 21...	.2	2.7	0	204	.28	3.03	200	20	.0	401	7.9	--
MAR. 01...	.2	2.6	0	203	.28	3.40	200	20	.1	334	8.4	5.0
APR. 08...	.3	2.6	10	201	.27	3.53	190	15	.1	335	8.4	9.0
MAY 10...	.2	2.2	0	105	.14	12.8	88	9	.1	163	7.9	8.0
JUNE 04...	.2	.8	0	74	.10	14.6	59	3	.1	122	7.8	8.0
JULY 21...	.2	2.4	20	200	.27	3.56	180	2	.2	329	8.2	12.0
AUG. 04...	.2	2.2	20	192	.26	3.73	180	1	.1	346	8.2	12.5
SEP. 09...	.3	2.7	10	190	.26	3.90	180	4	.0	346	8.3	10.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
OCT. 20...	--	--	--	--	--	--
NOV. 12...	--	--	--	--	--	--
DEC. 07...	--	--	--	--	--	--
JAN. 21...	--	--	--	--	--	--
MAR. 01...	--	--	--	--	--	--
APR. 08...	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--
14...	76	87	91	94	97	100
29...	71	82	87	98	100	--
JUNE 04...	--	--	--	--	--	--
15...	--	--	--	--	--	--
AUG. 04...	--	--	--	--	--	--
SEP. 09...	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WYO.

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, at bridge on county road, 0.5 mile south of State Secondary Highway 0201, 1.0 mile upstream from mouth, and 6.4 miles southwest of Hyattville.

DRAINAGE AREA.--376 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: January 1951 to September 1953, October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 08...	1300	38	15	130	180	49	66	3.6	292	0	520	3.1
NOV. 04...	1315	62	13	10	120	29	35	2.4	201	0	320	2.5
30...	1300	57	12	60	120	29	35	2.4	207	0	310	2.8
JAN. 15...	1220	40	15	0	100	33	32	1.8	214	0	260	2.2
MAR. 09...	1150	44	11	60	110	28	31	2.0	207	0	280	3.2
APR. 09...	1130	41	10	130	110	27	34	2.0	177	0	280	3.2
MAY 04...	1645	57	9.8	110	82	32	27	1.8	159	12	220	4.3
31...	1615	940	6.9	320	27	5.6	7.1	1.1	70	0	44	3.9
JUNE 24...	1200	890	4.7	90	16	4.0	4.4	.7	45	0	26	3.3
JULY 22...	1135	115	12	180	110	16	28	2.4	190	0	240	3.9
AUG. 17...	1145	39	13	90	150	39	56	2.9	245	0	450	1.9
SEP. 10...	1130	60	13	190	130	36	43	2.7	214	0	370	2.5

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 08...	.5	.1	150	980	1.33	101	640	400	1.1	1330	8.1	8.0
NOV. 04...	.6	.2	50	613	.83	103	410	245	.7	885	7.7	4.0
30...	.4	1.1	130	612	.83	94.2	420	250	.7	893	7.9	5.0
JAN. 15...	.4	2.5	50	560	.76	60.5	400	224	.7	809	7.6	.0
MAR. 09...	.5	.7	60	562	.76	66.8	380	210	.7	760	8.2	4.0
APR. 09...	.5	27	70	580	.79	64.2	380	235	.8	782	7.5	9.0
MAY 04...	.4	.2	60	464	.63	71.4	340	190	.6	631	8.5	17.5
31...	.2	.6	30	131	.18	332	90	33	.3	205	7.7	10.0
JUNE 24...	.2	.3	30	82	.11	197	57	20	.3	138	7.3	14.0
JULY 22...	.4	.1	90	498	.68	155	340	184	.7	684	8.1	18.0
AUG. 17...	.5	.0	130	842	1.15	88.7	540	339	1.1	1160	8.2	22.0
SEP. 10...	.5	.2	70	705	.96	114	470	294	.9	963	8.1	17.0

YELLOWSTONE RIVER BASIN

59

06274220 NOWOOD RIVER AT MANDERSON, WYO.

LOCATION.--Lat 44°16'34", long 107°57'35", in NE¼SW¼ sec.30, T.50 N., R.92 W., Big Horn County, at bridge on State Secondary Highway 0201 and 0.5 mile upstream from mouth near corporate limit of Manderson.

DRAINAGE AREA.--2,000 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 08...	1645	172	8.5	110	140	49	52	2.8	211	0	470	3.8
NOV. 04...	1530	247	9.4	100	120	37	34	2.0	198	0	360	3.2
30...	1530	226	11	50	120	34	30	3.1	195	0	340	3.2
JAN. 25...	1155	168	13	10	120	38	25	1.1	214	0	290	3.2
MAR. 31...	1100	243	9.6	130	120	32	33	2.7	168	0	340	4.8
MAY 24...	1340	789	11	100	52	11	11	1.3	110	0	99	3.3
JUNE 29...	1545	798	6.2	220	39	10	14	.9	82	0	93	2.1
AUG. 02...	1250	148	6.5	90	110	33	48	2.4	163	0	380	2.3
SEP. 10...	1100	177	11	90	140	45	50	3.1	195	0	460	3.5

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 08...	.3	.0	120	830	1.13	385	560	387	1.0	1160	8.0	9.0
NOV. 04...	.5	.4	20	668	.91	445	460	293	.7	936	8.0	4.5
30...	.4	1.7	110	640	.87	391	440	280	.6	909	7.9	2.0
JAN. 25...	.5	2.7	50	591	.80	268	440	264	.5	859	7.7	.0
MAR. 31...	.5	1.5	70	620	.84	407	420	282	.7	811	7.8	7.0
MAY 24...	.2	1.2	50	244	.33	520	180	90	.4	371	7.9	15.5
JUNE 29...	.2	.2	50	207	.28	--	140	73	.5	327	7.8	19.0
AUG. 02...	.4	.0	90	669	.91	267	420	286	1.0	972	8.1	24.0
SEP. 10...	.5	.4	120	813	1.11	389	530	370	.9	1090	8.1	19.0

YELLOWSTONE RIVER BASIN

06277500 GREYBULL RIVER NEAR BASIN, WYO.

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, at gaging station, at bridge on State Secondary Highway 0200, 3.0 miles upstream from Dorsey Creek, and 8 miles west of Basin.

DRAINAGE AREA.--1,115 sq mi.

PERIOD OF RECORD.--Chemical analyses: January 1951 to September 1953, July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 16...	1100	52	17	20	76	32	140	3.7	318	0	350	8.9
NOV. 06...	1530	134	14	50	72	31	97	2.2	275	0	290	7.8
DEC. 03...	1500	139	16	80	80	31	93	3.8	305	0	280	7.4
JAN. 25...	1500	103	16	100	88	34	91	.9	299	0	290	6.5
MAR. 31...	1445	294	12	90	74	28	73	2.9	241	0	250	7.0
MAY 04...	1215	20	13	80	78	29	137	3.6	255	12	360	13
JUNE 11...	1435	1400	15	70	35	6.9	24	2.2	140	0	53	2.2
JULY 15...	1600	45	16	90	50	16	93	3.3	216	8	190	11
AUG. 19...	1045	40	20	210	78	19	150	3.8	304	0	310	10
SEP. 10...	1625	50	18	120	63	22	110	3.1	268	0	260	10

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORDON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 16...	.6	1.5	100	778	1.06	109	320	59	3.4	1080	8.0	6.5
NOV. 06...	.6	.7	0	647	.88	234	300	74	2.4	968	8.2	5.5
DEC. 03...	.4	1.7	130	660	.90	248	320	70	2.2	978	8.0	.0
JAN. 25...	.4	2.3	70	673	.92	187	360	115	2.1	983	7.7	.0
MAR. 31...	.4	.9	70	567	.77	450	300	102	1.8	791	8.1	5.5
MAY 04...	.6	.3	100	777	1.06	42.0	320	91	3.4	1060	8.5	16.0
JUNE 11...	.2	.2	30	208	.28	786	120	5	1.0	313	7.5	--
JULY 15...	.5	.6	100	496	.67	60.3	190	0	2.9	700	8.5	27.0
AUG. 19...	.6	1.3	120	745	1.01	80.5	270	21	4.0	1060	8.3	19.5
SEP. 10...	.5	1.2	100	621	.84	83.8	250	30	3.0	923	8.2	22.0

YELLOWSTONE RIVER BASIN

61

06279090 SHELL CREEK NEAR GREYBULL, WYO.

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, at bridge on county road, 0.4 mile upstream from mouth, and 1.5 miles north of post office in Greybull.

DRAINAGE AREA.--560 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: January to September 1951, July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 14...	.4	1.7	250	1000	1.36	238	560	357	1.9	1320	7.8	9.5
NOV. 06...	.6	2.2	10	771	1.05	210	440	240	1.5	1060	8.0	5.0
DEC. 03...	.4	2.9	180	735	1.00	181	420	225	1.5	1080	7.6	4.0
JAN. 08...	.5	3.0	90	618	.84	118	420	225	1.0	898	8.0	.0
FEB. 03...	.4	2.7	100	625	.85	111	400	201	1.1	899	8.0	.0
APR. 14...	.5	.9	110	588	.80	117	370	205	1.2	803	8.1	17.0
MAY 24...	.4	.4	140	614	.84	189	360	215	1.4	832	8.3	17.5
JUNE 10...	.2	.1	30	195	.27	579	140	42	.5	306	7.7	15.0
JULY 15...	.6	.1	170	929	1.26	110	510	320	1.9	1190	8.0	23.5
AUG. 06...	.6	.1	220	1070	1.46	127	560	368	2.4	1400	8.0	27.5
SEP. 16...	.6	.6	210	1180	1.60	159	660	466	2.0	1500	7.9	12.0

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 14...	1510	88	12	80	140	48	100	2.3	247	0	570	2.9
NOV. 06...	1345	101	11	50	120	36	75	2.0	244	0	400	3.2
DEC. 03...	1300	91	10	--	110	34	70	1.8	238	0	380	3.2
JAN. 08...	1200	71	11	10	110	37	48	1.1	238	0	290	3.2
FEB. 03...	1100	66	13	40	69	55	50	1.8	243	0	310	3.2
APR. 14...	1700	74	7.6	90	90	34	52	2.2	201	0	300	4.9
MAY 24...	1530	114	6.3	170	88	34	62	2.2	177	0	330	4.4
JUNE 10...	1645	1100	5.3	440	41	8.8	13	1.3	119	0	65	1.1
JULY 15...	1410	44	9.5	10	130	41	98	3.3	227	0	530	4.1
AUG. 06...	1550	44	11	30	150	46	130	3.1	234	0	610	3.3
SEP. 16...	1200	50	9.4	220	170	58	120	3.3	237	0	700	3.8

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WYO.

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, sampled at Magcobar Corp. bridge 24.5 miles upstream from gaging station.

DRAINAGE AREA.--15,765 sq mi (at gaging station).

PERIOD OF RECORD.--Chemical analyses: March to August 1947, June 1948 to July 1949, December 1949 to September 1953, June 1955 to September 1957, December 1960 to September 1971.

Water temperatures: July to September 1949, October 1950 to September 1971.

Sediment records: March 1946 to September 1964, December 1969 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 1,150 micromhos Oct. 10; minimum daily, 441 micromhos June 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
01...	1220	1190	--	20	--	--	--	--	--	--	--	--
JAN.												
26...	1340	a1650	--	27	--	--	--	--	--	--	--	--
MAR.												
03...	1300	a2300	11	150	80	37	85	3.3	204	0	330	17
APR.												
13...	1530	2430	7.3	40	82	29	87	3.8	207	0	320	16
MAY												
07...	1700	3090	10	10	80	26	88	4.4	189	0	320	17
JUNE												
25...	1530	9920	9.9	190	43	11	35	2.4	116	0	120	7.2
JULY												
02...	1330	8420	--	--	--	--	--	--	--	--	--	--
15...	1305	3170	10	110	60	18	59	2.7	165	0	210	8.3
AUG.												
06...	1245	1970	8.6	100	65	20	66	3.8	170	0	240	9.7
SEP.												
15...	1610	1710	10	220	74	22	69	3.3	183	0	260	11

a Daily mean discharge.

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	1080	1060	---	---	939	962	989	716	493	692	901
2	1130	1080	---	---	---	929	976	975	740	515	693	837
3	1120	1080	---	---	---	942	1020	986	699	519	714	---
4	1120	1080	---	---	---	939	985	973	650	608	744	---
5	1130	1070	---	---	---	936	991	946	633	557	746	861
6	1130	1060	---	---	---	964	994	885	623	496	743	866
7	1130	1090	1030	---	---	961	975	850	628	497	763	843
8	1120	1100	1050	---	---	948	---	842	629	495	747	811
9	1120	1100	1060	---	---	948	983	824	603	558	786	819
10	1150	1090	1020	---	---	949	983	819	506	548	765	793
11	1140	1080	1020	---	---	944	959	791	514	545	848	---
12	1130	1080	1010	---	---	947	959	800	494	544	904	797
13	1130	1090	1040	---	---	973	940	812	492	586	888	846
14	1100	1090	1030	---	---	967	935	756	474	---	893	791
15	---	1080	1050	---	---	---	946	677	472	626	893	821
16	---	1080	1020	---	---	---	938	674	453	609	885	797
17	1080	1070	1020	---	---	---	930	706	462	612	888	823
18	1080	1080	982	---	---	974	946	758	441	626	900	---
19	1080	1070	1080	---	982	1030	926	802	482	616	919	---
20	1070	1020	1090	---	994	1090	---	879	470	648	890	810
21	1060	---	1120	---	976	1010	937	882	444	604	890	814
22	1060	1010	1120	---	973	959	965	933	499	608	885	814
23	1060	1060	---	---	954	967	970	939	---	597	888	823
24	1080	1010	---	---	965	1100	1020	884	445	575	885	---
25	1080	1000	---	---	964	1110	---	822	454	572	891	816
26	1080	1050	---	---	967	---	1020	818	472	620	890	813
27	1070	1050	---	---	970	1040	1020	768	472	602	913	807
28	1060	1040	---	---	962	1020	1040	672	551	625	880	816
29	1050	1030	---	---	---	1040	1020	---	456	662	903	805
30	1060	1030	---	---	---	1030	994	560	483	666	707	812
31	1070	---	---	---	---	988	---	649	---	---	1190	---
MONTH	1100	1060	---	---	---	987	975	822	533	580	846	822

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 25.5°C Aug. 11; minimum, freezing point on many days during November to February.

Period of record:

Specific conductance (1955-57, 1960-71): Maximum daily, 3,030 micromhos July 7, 1961; minimum daily, 382 micromhos June 23, 1968.

Water temperatures: Maximum, 29.0°C July 14, 30, 1953, July 12, 1954; minimum, freezing point on many days during winter period.

REMARKS.--Temperature recorder at gaging station 24.5 miles downstream from sampling site July 3 to Sept. 30. No appreciable inflow between sampling point and gaging station except during periods of intense local precipitation. Stream frozen Dec. 23 to Feb. 18. Maximum water temperature recorded, 28.0°C Aug. 6, 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
01...	--	--	130	--	--	--	--	--	--	--	--	7.0
JAN.												
26...	--	--	110	--	--	--	--	--	--	--	--	.0
MAR.												
03...	.5	3.4	100	666	.91	4140	350	183	2.0	910	8.2	2.0
APR.												
13...	.6	.5	100	644	.88	4230	320	150	2.1	902	8.1	10.5
MAY												
07...	.5	2.5	90	636	.87	5310	300	145	2.2	854	7.9	17.0
JUNE												
25...	.3	1.5	50	292	.40	7820	150	55	1.2	446	7.7	21.0
JULY												
02...	--	--	60	--	--	--	--	--	--	529	7.9	20.0
15...	.4	1.5	150	449	.61	3840	220	85	1.7	647	8.0	22.0
AUG.												
06...	.5	.6	80	495	.67	2630	240	101	1.8	761	8.2	25.5
SEP.												
15...	.6	1.3	100	547	.74	2530	280	130	1.8	831	8.2	14.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	3.5	3.0	---	---	1.0	3.5	13.0	11.0	20.0	21.0	21.0
2	13.0	3.0	---	---	---	1.5	4.0	17.5	12.0	20.0	25.0	20.5
3	12.5	3.0	---	---	---	2.5	7.5	16.5	12.5	20.5	---	---
4	14.5	2.5	---	---	---	3.5	8.5	17.0	14.0	20.0	---	---
5	14.0	2.5	---	---	---	3.0	9.0	16.0	14.5	20.0	---	17.5
6	9.5	2.5	---	---	---	3.0	9.5	16.5	17.5	20.0	---	17.0
7	8.5	5.5	1.5	---	---	3.5	10.5	16.5	17.5	20.5	24.0	19.0
8	8.5	7.0	2.0	---	---	2.0	---	16.5	19.5	20.0	23.0	19.5
9	8.0	6.0	2.0	---	---	2.0	13.0	15.5	19.5	20.5	23.0	19.0
10	9.0	5.5	0.5	---	---	3.5	12.5	12.5	16.0	22.0	24.5	19.0
11	9.0	4.0	0.0	---	---	4.0	11.5	12.5	17.0	22.0	25.5	---
12	7.0	4.5	0.0	---	---	3.0	9.5	13.0	18.0	22.0	25.0	16.5
13	6.5	4.0	0.0	---	---	6.0	10.5	12.0	18.0	22.0	24.0	16.0
14	6.0	4.0	0.0	---	---	5.5	11.0	12.5	18.5	---	24.5	15.0
15	---	3.0	0.0	---	---	---	12.5	16.5	19.5	23.0	25.0	13.0
16	---	4.5	0.0	---	---	---	13.5	14.0	19.5	24.0	25.0	11.0
17	9.5	5.0	0.0	---	---	---	13.5	15.5	19.5	25.0	24.5	9.0
18	9.5	4.5	0.0	---	---	5.5	9.5	12.5	19.0	21.0	25.0	---
19	9.0	4.0	0.0	---	1.0	5.0	7.0	12.5	16.0	23.0	25.0	---
20	8.5	4.0	0.0	---	2.5	6.0	---	12.5	16.5	23.0	25.0	13.0
21	8.0	---	0.0	---	2.5	4.0	7.5	12.0	21.0	23.5	25.0	13.0
22	8.0	0.0	0.0	---	2.5	4.0	8.0	13.0	21.5	23.5	21.0	12.0
23	8.0	0.0	---	---	3.0	5.5	8.5	13.5	---	23.0	21.0	12.5
24	7.0	0.0	---	---	2.0	7.0	11.0	16.0	18.5	22.5	17.0	---
25	7.0	1.5	---	---	1.0	6.5	---	18.5	18.0	19.5	18.0	14.0
26	6.0	3.0	---	---	0.5	---	8.5	18.5	18.5	21.0	18.5	13.0
27	5.0	1.5	---	---	1.5	7.5	9.5	19.0	19.0	20.5	19.5	15.0
28	4.5	2.5	---	---	1.5	8.5	11.0	19.0	17.5	20.5	25.0	14.0
29	4.5	3.0	---	---	---	6.0	10.5	---	17.5	22.0	20.0	13.5
30	6.5	3.0	---	---	---	10.0	13.0	10.0	18.0	22.0	20.0	13.5
31	6.0	---	---	---	---	6.5	---	10.0	---	---	21.0	---
MONTH	8.5	3.5	---	---	---	4.5	10.0	14.5	17.5	21.5	23.0	15.5

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	24.0	22.5	19.5	19.0
2	---	---	---	---	---	---	---	---	25.0	23.5	20.0	19.0
3	---	---	---	---	---	---	20.0	19.0	25.5	24.5	19.0	15.5
4	---	---	---	---	---	---	19.5	19.0	26.5	24.5	15.5	14.5
5	---	---	---	---	---	---	19.5	18.5	27.0	25.0	16.0	14.5
6	---	---	---	---	---	---	20.0	19.0	28.0	25.5	17.0	16.0
7	---	---	---	---	---	---	20.5	19.0	27.5	26.0	17.0	16.5
8	---	---	---	---	---	---	19.5	19.0	27.0	25.0	17.0	15.5
9	---	---	---	---	---	---	19.5	18.5	26.0	25.0	18.0	16.5
10	---	---	---	---	---	---	21.5	19.0	25.5	24.0	18.5	17.0
11	---	---	---	---	---	---	22.0	19.5	27.0	23.0	18.5	17.0
12	---	---	---	---	---	---	22.0	20.5	28.0	23.0	18.0	16.5
13	---	---	---	---	---	---	23.0	20.5	27.5	23.0	18.0	16.5
14	---	---	---	---	---	---	23.5	21.0	26.5	22.0	16.0	15.0
15	---	---	---	---	---	---	23.0	21.0	27.0	22.0	15.0	13.0
16	---	---	---	---	---	---	23.5	22.5	26.0	21.5	13.0	11.5
17	---	---	---	---	---	---	24.5	23.0	25.0	23.0	11.5	10.5
18	---	---	---	---	---	---	23.5	22.0	25.0	22.0	12.0	10.0
19	---	---	---	---	---	---	23.0	21.5	25.5	22.5	12.0	11.0
20	---	---	---	---	---	---	23.5	22.5	25.0	22.5	12.0	10.0
21	---	---	---	---	---	---	23.5	23.0	25.0	22.0	10.5	9.5
22	---	---	---	---	---	---	23.5	23.0	25.0	22.0	11.5	10.5
23	---	---	---	---	---	---	24.0	22.5	23.5	20.5	12.0	10.5
24	---	---	---	---	---	---	24.0	23.0	22.0	19.0	12.5	11.5
25	---	---	---	---	---	---	23.5	21.5	23.0	19.5	13.5	12.5
26	---	---	---	---	---	---	22.0	21.0	24.0	21.0	14.0	13.0
27	---	---	---	---	---	---	22.0	21.0	25.0	21.5	13.5	13.0
28	---	---	---	---	---	---	21.5	21.0	24.0	22.0	13.0	12.0
29	---	---	---	---	---	---	21.5	20.0	22.5	20.5	12.5	11.5
30	---	---	---	---	---	---	22.5	21.0	21.5	20.0	12.0	10.5
31	---	---	---	---	---	---	22.5	21.5	21.0	19.0	---	---
MONTH	---	---	---	---	---	---	24.5	18.5	28.0	19.0	20.0	9.5

YELLOWSTONE RIVER BASIN

65

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BISMUTH (BI) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)
OCT. 01...	1220	1190	32	<10	60	<2	<15	<1	<15
JAN. 26...	1340	a1650	20	0	66	<2	<8	0	<8
APR. 13...	1530	2430	74	60	39	<3	<12	0	<12
JULY 02...	1330	8420	--	3	--	0	--	--	--

a Daily mean discharge

DATE	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED GALLIUM (GA) (UG/L)	DIS- SOLVED GER- MANIUM (GE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
OCT. 01...	<9	4	ND	<15	<15	41	5	<3	<15
JAN. 26...	<8	4	<5	<10	<5	36	9	3	<10
APR. 13...	<5	1	<12	<12	<12	29	9	4	<24
JULY 02...	--	--	--	--	--	--	0	0	--

DATE	DIS- SOLVED RUBI- DIUM (RB) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED TI- TANIUM (TI) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L)
OCT. 01...	<5	<1	940	<15	<9	<15	30	ND
JAN. 26...	2	<.5	930	<8	7	<5.0	--	<25
APR. 13...	4	<2	720	<12	<12	<12	20	<12
JULY 02...	--	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
OCT. 14...	1200	7.5	1460	186	733	--	--	--	--	--	--	--
NOV. 02...	1610	5.0	1520	86	353	--	--	--	--	--	--	--
DEC. 02...	1200	4.5	1750	186	879	--	--	--	--	--	--	--
JAN. 26...	1340	.0	a1650	116	517	--	--	--	--	--	--	--
MAR. 03...	1300	2.0	a2300	688	4270	9	16	37	59	83	99	100
APR. 13...	1310	10.5	2500	350	2360	22	32	51	65	96	100	--
MAY 07...	1700	17.0	3090	2500	20900	50	73	87	94	100	--	--
JUNE 09...	1145	19.5	4890	1220	16100	15	25	57	79	97	100	--
25...	1325	21.0	9870	3140	83700	17	29	63	83	96	98	100
JULY 15...	1305	22.0	3170	472	4040	24	37	70	90	100	--	--
AUG. 06...	1245	25.5	1970	238	1270	--	--	--	--	--	--	--
SEP. 15...	1445	14.0	1830	164	810	44	60	81	90	100	--	--

a Daily mean discharge.

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
APR. 13...	1310	10.5	2500	0	0	25	85
JUNE 25...	1325	21.0	9870	0	1	22	55
SEP. 15...	1445	14.0	1830	0	1	20	30

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.00 MM
APR. 13...	89	90	90	91	91	93
JUNE 25...	59	60	61	63	69	86
SEP. 15...	36	37	38	42	56	100

YELLOWSTONE RIVER BASIN

67

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WYO.

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, at gaging station, 0.5 mile downstream from Trail Creek, 1 mile west of Cody city limits, and 5.5 miles downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 sq mi.

PERIOD OF RECORD.--Chemical analyses: April 1947 to September 1949, October 1964 to September 1971.
Water temperatures: April 1947 to September 1949.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 12...	1745	899	14	150	43	9.3	14	2.3	143	0	53	2.0
NOV. 16...	1230	586	12	130	65	10	16	3.1	189	0	77	3.3
DEC. 09...	1205	595	14	60	65	11	18	2.9	195	0	78	6.0
JAN. 20...	1400	549	16	20	73	17	23	3.6	217	0	110	4.3
MAR. 16...	1330	794	15	130	46	18	20	2.4	183	0	77	4.3
MAY 14...	1700	3070	15	200	31	5.6	20	1.3	107	0	43	4.4
JUNE 30...	1520	5620	15	80	14	2.2	6.0	1.1	56	0	11	1.4
AUG. 03...	1130	1630	16	120	33	5.1	10	1.1	86	0	56	1.2
SEP. 09...	1435	904	16	50	41	7.8	12	2.2	124	0	54	1.7

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 12...	.3	.0	60	210	.29	510	140	23	.5	342	6.6	10.5
NOV. 16...	.4	.0	170	280	.38	443	200	45	.5	459	6.9	5.5
DEC. 09...	.4	.1	60	292	.40	469	210	50	.5	461	7.0	5.0
JAN. 20...	.7	.7	100	351	.48	520	250	72	.6	566	6.7	--
MAR. 16...	.4	.1	110	273	.37	216	190	40	.6	423	7.0	6.0
MAY 14...	.2	.5	50	173	.24	1430	100	12	.9	273	7.7	9.0
JUNE 30...	.1	.6	50	80	.11	1210	45	0	.4	121	6.8	13.0
AUG. 03...	.2	.3	40	165	.22	726	100	29	.4	260	6.8	17.0
SEP. 09...	.3	.3	50	196	.27	478	140	38	.5	323	7.0	15.5

YELLOWSTONE RIVER BASIN

06284500 BITTER CREEK NEAR GARLAND, WYO.

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, at bridge on county road, 100 ft upstream from gaging station, 1 mile upstream from mouth, 4 miles southeast of Garland, and 5 miles southwest of Byron.

DRAINAGE AREA.--80.5 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1951 to December 1953 (partial-record station), August 1958 to September 1961, April 1969 to September 1971.
Water temperatures: July 1969 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 1,310 mg/l Feb. 12-28; minimum, 364 mg/l June 18-30.

Hardness: Maximum, 460 mg/l Feb. 12-28; minimum, 150 mg/l June 18 to July 8.

Specific conductance: Maximum daily, 2,300 micromhos Jan. 30; minimum daily, 552 micromhos July 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01-26	244	16	60	19	89	2.7	230	0	220	4.6	.7
27-31	79	18	73	27	190	3.1	318	6	410	10	1.2
NOV.											
01-15	46	18	67	30	220	3.3	326	0	460	12	1.5
16-30	30	19	77	32	250	3.2	350	0	540	14	1.2
DEC.											
01-08	30	18	92	44	230	3.6	354	0	570	16	1.2
09-20	20	18	94	30	240	3.6	366	0	550	18	1.2
21-31	16	20	88	28	200	3.3	365	0	440	18	1.2
JAN.											
01-09	14	22	82	44	190	3.1	342	0	460	15	1.3
10-20	16	21	81	37	200	3.1	330	0	450	15	1.2
21-31	24	20	88	47	240	3.6	348	0	600	17	1.2
FEB.											
01-11	18	20	87	37	230	3.3	354	0	540	16	1.2
12-28	18	16	99	51	270	3.6	360	0	660	18	1.2
MAR.											
01-11	15	19	82	39	240	3.3	330	0	580	17	1.2
12-31	18	13	78	43	280	2.9	290	0	700	18	1.2
APR.											
01-14	20	21	76	34	230	4.0	284	0	560	16	1.0
15-30	162	20	59	15	79	3.1	201	0	200	8.9	.6
MAY											
01-21	264	17	32	27	76	2.2	197	0	180	6.4	.6
22-31	292	17	54	14	87	2.0	189	0	210	6.5	.7
JUNE											
01-17	233	17	43	14	73	2.2	181	0	160	6.1	.6
18-30	284	17	41	12	65	2.4	171	0	130	6.7	.6
JULY											
01-08	297	16	40	13	69	2.2	186	0	150	3.1	.6
09-31	285	18	44	15	79	2.4	200	0	170	3.5	.7
AUG.											
01-12	323	19	52	16	80	3.0	218	0	180	5.9	.6
13-31	347	19	54	17	80	3.1	217	0	180	5.9	.5
SEP.											
01-15	331	18	55	19	84	3.3	220	0	200	5.4	.5
16-30	296	18	56	19	84	3.9	224	0	220	5.2	.6
WTD. AVG.	--	18	51	19	90	2.8	215	0	210	6.2	.7
TIME WTD.											
AVG.	159	18	65	27	152	3.0	266	0	357	10	.9
TONS PER DAY	--	7.6	22	8.0	39	1.2	92	0	90	2.7	.3

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN.												
05...	1215	14	21	20	80	30	200	3.0	363	0	440	14
MAR.												
16...	1530	17	16	140	82	36	270	3.1	287	23	640	17

YELLOWSTONE RIVER BASIN

69

06284500 BITTER CREEK NEAR GARLAND, WYO.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 23.0°C Aug. 11; minimum, freezing point on many days during December to March.

Period of record (July 1969 to September 1971):

Dissolved solids: Maximum, 1,320 mg/l Mar. 1-17, 1970; minimum, 364 mg/l June 18-30, 1971.

Hardness: Maximum, 460 mg/l Feb. 12-28, 1971; minimum, 150 mg/l June 18 to July 8, 1971.

Specific conductance: Maximum daily, 2,300 micromhos Jan. 30, 1971; minimum daily, 552 micromhos July 5, 1971.

Water temperatures: Maximum, 23.0°C June 23, July 20, 1970, Aug. 11, 1971; minimum, freezing point on many days during winter period.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRITE PLUS NITRATE (MG/L)	DIS- SOLVED BORON (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
OCT.										
01-26	1.5	150	532	350	.72	230	39	2.6	791	7.9
27-31	3.6	200	908	194	1.23	290	22	4.8	1310	8.4
NOV.										
01-15	3.6	210	989	123	1.35	290	23	5.6	1440	8.2
16-30	3.4	210	1120	90.7	1.52	320	33	6.0	1600	8.2
DEC.										
01-08	4.3	210	1170	94.7	1.59	410	120	4.9	1600	8.3
09-20	5.0	200	1160	62.6	1.58	360	60	5.5	1580	8.2
21-31	5.6	210	1010	43.6	1.37	340	41	4.8	1440	8.2
JAN.										
01-09	6.1	190	1010	38.2	1.37	380	99	4.2	1440	7.8
10-20	5.4	170	993	42.9	1.35	360	89	4.6	1420	8.0
21-31	5.2	170	1210	78.4	1.65	420	135	5.1	1690	8.2
FEB.										
01-11	5.2	240	1140	55.4	1.55	370	80	5.2	1520	8.0
12-28	4.1	240	1310	63.7	1.78	460	165	5.5	1690	8.2
MAR.										
01-11	4.5	220	1160	47.0	1.58	360	89	5.5	1560	8.1
12-31	3.6	200	1300	63.2	1.77	370	132	6.3	1720	8.3
APR.										
01-14	2.2	220	1090	58.9	1.48	330	97	5.5	1460	8.2
15-30	1.3	130	496	217	.67	210	45	2.4	700	8.0
MAY										
01-21	1.1	150	442	315	.60	190	28	2.4	669	7.3
22-31	1.5	120	495	390	.67	190	35	2.7	719	7.5
JUNE										
01-17	1.4	150	409	257	.56	170	22	2.5	627	7.8
18-30	1.6	120	364	279	.50	150	10	2.3	578	7.6
JULY										
01-08	1.3	100	391	314	.53	150	1	2.4	579	7.0
09-31	1.5	150	438	337	.60	170	8	2.6	439	7.0
AUG.										
01-12	1.8	180	472	412	.64	200	17	2.5	715	7.6
13-31	1.9	190	475	445	.65	200	27	2.4	739	7.6
SEP.										
01-15	1.7	150	501	448	.68	220	35	2.5	776	7.6
16-30	1.8	150	525	420	.71	220	34	2.5	788	7.7
WTD. AVG.	--	154	511	339	.70	205	29	2.7	738	7.6
TIME WTD.										
AVG.	--	176	777	219	1.06	273	55	3.8	1090	7.8
TONS PER DAY	--	0	219	--	--	--	--	--	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JAN.											
05...	1.3	220	992	1.35	37.5	320	22	4.8	1420	7.9	.0
MAR.											
16...	1.1	200	1250	1.70	57.4	360	86	6.3	1640	8.6	6.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT. 13...	1500	230	--	.020
DEC. 01...	1200	31	--	.18
JAN. 05...	1215	14	--	.46
FEB. 01...	1215	27	--	.040
MAR. 16...	1530	17	--	.36
APR. 12...	1410	16	--	.030
MAY 05...	1540	241	--	.15
JULY 01...	1500	287	.15	--
AUG. 04...	1125	310	.45	--
SEP. 10...	1435	302	.28	--

[illegible]

71

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WYO.

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, at gaging station, 330 ft upstream from Elk-Lovell Canal, 5.6 miles southeast of Garland, and 6.3 miles southwest of Byron.

DRAINAGE AREA.--101 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1958 to May 1960, April 1969 to September 1971.
Water temperatures: July 1969 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 4,900 mg/l Dec. 11-20; minimum, 253 mg/l June 12-30.

Hardness: Maximum, 1,400 mg/l Jan. 1-10; minimum, 88 mg/l May 14-31.

Specific conductance: Maximum daily, 8,560 micromhos Jan. 28; minimum daily, 326 micromhos June 29.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01-21	30	12	73	26	140	2.9	202	0	400	8.2	.3
22-31	3.1	7.4	190	110	860	5.8	397	0	2400	8.9	.4
NOV.											
01-16	2.4	7.6	180	110	950	6.4	397	0	2600	48	.5
17-25	2.1	8.2	200	130	1000	6.8	467	0	2800	51	.5
26-30	2.1	8.7	140	74	710	6.3	388	0	1800	34	.5
DEC.											
01-10	2.0	8.0	220	110	910	5.6	369	0	2600	49	1.0
11-20	.99	9.5	270	140	1100	6.9	470	0	3100	58	1.1
21-31	.28	9.8	250	160	1000	6.7	525	0	2800	48	1.1
JAN.											
01-10	.15	10	220	200	910	6.5	458	0	2900	26	1.2
11-17	.12	11	140	98	390	4.2	391	0	1200	12	.9
18-31	.31	12	190	190	820	6.5	494	0	2500	28	1.2
FEB.											
01-11	.35	10	140	120	540	5.3	406	0	1600	29	1.0
12-22	.84	8.3	65	35	120	3.3	201	0	370	11	.5
23-28	.91	9.4	190	160	840	5.8	442	0	2400	46	1.1
MAR.											
01-05	.98	7.4	66	41	270	3.8	168	0	720	19	.7
06-12	1.4	7.6	160	120	680	4.7	317	0	2000	39	1.0
13-28	4.3	7.5	140	96	580	4.7	311	0	1700	33	.9
29-31	.84	7.9	190	200	910	6.0	372	0	2800	56	1.1
APR.											
01-16	.84	7.9	190	200	910	6.0	372	0	2800	56	1.1
17-30	62	14	32	8.1	110	4.4	180	0	200	7.6	.5
MAY											
01-13	50	14	47	14	53	2.4	154	0	150	4.2	.4
14-31	69	13	25	6.2	79	2.9	139	0	140	3.4	.5
JUNE											
01-11	39	16	40	12	59	2.4	127	0	170	8.9	.4
12-30	64	16	31	10	35	2.2	103	0	100	8.3	.3
JULY											
01-11	57	14	30	9.1	40	1.9	113	0	110	2.2	.3
12-31	53	14	40	13	56	2.7	127	0	150	2.8	.4
AUG.											
01-11	58	15	43	13	48	2.8	150	0	150	4.2	.3
12-31	56	15	51	16	65	3.3	170	0	200	5.9	.5
SEP.											
01-12	84	16	49	15	65	3.7	164	0	190	3.8	.3
13-30	60	15	55	18	61	3.1	171	0	200	3.8	.3
WTD. AVG.	--	14	45	15	83	3.0	154	0	222	5.9	.4
TIME WTD.											
AVG.	28	12	109	70	408	4.3	268	0	1180	21	.6
TONS											
PER DAY	--	1.2	3.6	1.2	6.6	.2	12	0	18	.5	.0

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN.												
05...	1440	.07	9.4	20	250	150	1000	6.4	509	0	3000	24
MAR.												
02...	1345	.80	9.8	130	240	200	1000	6.3	511	0	3000	56

06284800 WHISTLE CREEK NEAR GARLAND, WYO.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 26.0°C July 16, 19, 23, 24, Aug. 6; minimum, freezing point on many days during November to March.

Period of record (July 1969 to September 1971):

Dissolved solids: Maximum, 10,000 mg/l Jan. 7-10, 1970; minimum, 230 mg/l June 24-30, 1970.

Hardness: Maximum, 2,010 mg/l Jan. 7-10, 1970; minimum, 88 mg/l May 14-31, 1971.

Specific conductance: Maximum daily, 12,300 micromhos Jan. 10, 1970; minimum daily, 301 micromhos June 28, 1970.

Water temperatures: Maximum, 28.0°C July 17, 1970; minimum, freezing point on many days during winter period.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.										
01-21	.43	120	767	62.1	1.04	290	124	3.6	1090	8.2
22-31	3.6	240	3750	31.4	5.10	920	594	12	4640	8.2
NOV.										
01-16	4.1	240	4110	26.6	5.59	910	584	14	5080	8.2
17-25	4.5	240	4470	25.3	6.08	1000	617	14	5590	8.2
26-30	3.4	160	2970	16.8	4.04	670	352	12	3910	8.2
DEC.										
01-10	5.0	210	4070	22.0	5.54	1000	697	13	4980	8.2
11-20	6.3	250	4900	13.1	6.66	1200	814	14	5850	8.1
21-31	5.9	210	4610	3.49	6.27	1300	869	12	5610	8.0
JAN.										
01-10	5.0	180	4480	1.81	6.09	1400	1020	11	5220	7.9
11-17	2.3	120	2100	.68	2.86	750	429	6.2	2700	7.9
18-31	4.5	170	3980	3.33	5.41	1200	795	10	4820	7.9
FEB.										
01-11	2.9	180	2660	2.51	3.62	860	527	8.1	3240	8.0
12-22	.56	70	711	1.61	.97	300	135	3.0	975	7.9
23-28	4.1	200	3900	9.58	5.30	1200	837	11	4500	8.0
MAR.										
01-05	13	70	1270	3.36	1.73	330	192	6.4	1680	7.3
06-12	5.4	140	3210	12.1	4.37	910	650	9.9	3760	8.0
13-28	2.5	120	2710	31.4	3.69	750	495	9.2	3330	8.1
29-31	3.2	190	4320	9.80	5.88	1300	995	11	4960	8.2
APR.										
01-16	3.2	190	4320	9.80	5.88	1300	995	11	4960	8.2
17-30	.81	100	466	78.0	.63	110	0	4.5	673	8.1
MAY										
01-13	.16	100	363	49.0	.49	180	54	1.7	541	7.9
14-31	.43	70	337	62.8	.46	88	0	3.7	510	8.3
JUNE										
01-11	.20	70	368	38.8	.50	150	46	2.1	551	7.7
12-30	.14	50	253	43.7	.34	120	36	1.4	375	7.7
JULY										
01-11	.04	70	263	40.5	.36	110	20	1.6	390	6.9
12-31	.31	80	343	49.1	.47	150	49	2.0	502	7.3
AUG.										
01-11	.12	100	351	55.0	.48	160	38	1.6	539	7.8
12-31	.22	160	441	66.7	.60	190	54	2.0	667	7.8
SEP.										
01-12	.39	100	425	96.4	.58	180	50	2.1	660	7.6
13-30	.11	110	441	71.4	.60	210	71	1.8	691	7.8
WTD. AVG. TIME WTD. AVG. TONS PER DAY	--	96	465	60.4	.63	175	56	2.6	675	7.8
	--	137	1940	37.3	2.63	560	343	6.4	2400	7.9
	--	0	37	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
JAN. 05...	.4	230	4770	6.49	.90	1200	782	12	5690	7.8	.0
MAR. 02...	1.2	240	4800	6.53	10.4	1400	981	12	5380	8.0	.5

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT.				
13...	1025	29	--	.000
NOV.				
05...	1230	2.3	--	.000
DEC.				
01...	1600	2.4	--	.000
JAN.				
05...	1440	.07	--	.000
MAR.				
02...	1345	.80	--	.13
APR.				
12...	1230	.34	--	.050
MAY				
06...	1735	53	--	.10
JULY				
01...	1615	58	.15	--
AUG.				
04...	1005	78	.50	--
SEP.				
10...	1600	69	.23	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

75

06284800 WHISTLE CREEK NEAR GARLAND, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, at gaging station, 30 ft upstream from bridge on U.S. Highway 310, and 1.5 miles west of Lovell.

DRAINAGE AREA.--2,350 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1971.

Water temperatures: October 1966 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 620 mg/l Feb. 1-14; minimum, 189 mg/l June 23-30.

Hardness: Maximum, 370 mg/l Jan. 12-31; minimum, 93 mg/l June 23-30.

Specific conductance: Maximum daily, 957 micromhos Nov. 25; minimum daily, 262 micromhos June 29, 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01-15	1030	14	63	21	70	2.9	200	0	210	7.2	.4
16-31	1030	14	63	21	70	2.6	202	0	220	7.6	.4
NOV.											
01-12	1070	15	66	22	70	3.2	210	0	220	8.2	.5
13-30	806	14	74	25	75	3.6	228	0	260	9.8	.6
DEC.											
01-14	755	15	87	28	71	4.0	238	0	260	13	.7
15-31	645	14	84	31	63	4.2	250	0	240	12	.6
JAN.											
01-11	646	16	86	35	39	3.8	244	0	220	13	.7
12-31	713	16	93	34	65	4.0	256	0	250	13	.7
FEB.											
01-14	700	16	96	27	68	4.4	250	0	270	15	.7
15-28	689	15	96	23	68	4.4	250	0	270	13	.7
MAR.											
01-15	674	15	87	33	67	4.2	250	0	260	14	.7
16-31	1010	14	77	19	59	3.3	192	0	210	9.7	.6
APR.											
01-14	523	14	84	28	68	4.0	232	0	260	12	.7
15-30	1060	14	57	18	65	3.1	182	0	190	8.6	.5
MAY											
01-13	977	15	53	14	56	2.4	171	0	160	6.4	.5
14-31	2360	15	37	12	43	1.8	137	0	120	3.9	.4
JUNE											
01-22	2250	16	35	12	35	2.2	124	0	98	7.8	.4
23-30	4120	16	25	7.1	24	2.0	92	0	61	7.0	.2
JULY											
01-19	3730	15	27	7.6	25	1.4	108	0	62	1.4	.3
20-31	2120	16	34	11	38	1.9	135	0	100	2.8	.4
AUG.											
01-15	769	16	51	16	65	3.0	191	0	180	10	.4
16-31	758	17	61	18	77	3.4	211	0	210	9.8	.4
SEP.											
01-16	1000	17	60	20	72	3.4	204	0	210	8.8	.5
17-30	832	16	59	21	71	3.5	199	0	210	8.8	.4
WTD. AVG.	--	15	52	17	50	2.7	168	0	157	7.3	.4
TIME WTD.											
AVG.	1250	15	65	21	60	3.2	198	0	198	9.2	.5
TONS											
PER DAY	--	52	176	56	169	9.0	569	0	531	25	1.3

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN.												
06...	1600	654	15	30	87	24	60	3.6	256	0	230	10
MAR.												
03...	1600	662	15	150	97	28	60	4.2	244	0	250	13

YELLOWSTONE RIVER BASIN

77

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 24.5°C Aug. 5, 6, 8; minimum, 1.0°C on several days during December to January.

Period of record:

Dissolved solids: Maximum, 867 mg/l Nov. 1-30, 1966; minimum, 183 mg/l June 29 to July 17, 1967.

Hardness: Maximum, 434 mg/l Feb. 1-6, 1970; minimum, 93 mg/l June 23-30, 1971.

Specific conductance: Maximum daily, 1,360 micromhos July 21, 1968; minimum daily, 257 micromhos June 30, 1970.

Water temperatures: Maximum, 30.0°C June 6, 1969; minimum, freezing point on many days during winter period.

REMARKS.--Daily samples for chemical analyses composited by discharge. Additional samples were collected for more comprehensive definition of water quality.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHQS)	PH (UNITS)
OCT.										
01-15	.56	140	493	1370	.67	240	76	2.0	735	8.0
16-31	.54	130	501	1390	.68	240	74	2.0	752	8.1
NOV.										
01-12	.45	140	515	1490	.70	260	88	1.9	784	8.2
13-30	.54	160	573	1250	.78	290	103	1.9	875	8.2
DEC.										
01-14	.59	150	602	1230	.82	330	135	1.7	891	8.2
15-31	.59	160	577	1000	.78	340	135	1.5	834	8.2
JAN.										
01-11	.56	130	532	928	.72	360	160	.9	837	7.9
12-31	.63	140	609	1170	.83	370	160	1.5	869	8.1
FEB.										
01-14	.54	200	620	1170	.84	350	145	1.6	855	8.1
15-28	.41	190	612	1140	.83	340	135	1.6	848	8.2
MAR.										
01-15	.43	170	604	1100	.82	360	155	1.6	846	8.1
16-31	.29	140	490	1340	.67	270	112	1.6	713	8.0
APR.										
01-14	.32	150	582	822	.79	320	130	1.6	805	8.3
15-30	.50	110	450	1290	.61	210	61	1.9	637	8.2
MAY										
01-13	.88	120	397	1050	.54	190	50	1.8	590	7.8
14-31	.52	80	298	1900	.41	140	28	1.6	457	7.9
JUNE										
01-22	.23	80	268	1630	.36	140	38	1.3	393	7.7
23-30	.29	50	189	2100	.26	93	18	1.1	282	7.8
JULY										
01-19	.01	100	193	1940	.26	99	10	1.1	298	7.0
20-31	.51	80	273	1560	.37	130	19	1.5	424	7.1
AUG.										
01-15	.86	190	439	912	.60	190	37	2.0	675	7.6
16-31	1.2	190	506	1040	.69	230	53	2.2	764	7.8
SEP.										
01-16	1.0	150	497	1340	.68	230	65	2.1	776	7.7
17-30	.88	140	492	1110	.67	230	71	2.0	763	7.9
WTD. AVG.	--	117	386	1510	.53	199	61	1.6	574	7.8
TIME WTD.										
AVG.	--	137	471	1310	.64	248	85	1.7	695	7.9
TONS										
PER DAY	--	0	1310	--	--	--	--	--	--	--

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHQS)	PH (UNITS)	TEMP- ERATURE (DEG C)
JAN.											
06...	.6	180	556	.76	982	320	110	1.5	844	8.2	.5
MAR.											
03...	.6	170	587	.80	1050	360	160	1.4	811	8.3	1.0

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT. 12...	1320	980	--	.000
NOV. 03...	1120	1220	--	.000
DEC. 02...	1545	808	--	.010
JAN. 06...	1600	654	--	.000
FEB. 02...	1445	743	--	.000
MAR. 03...	1600	662	--	.070
APR. 14...	1520	836	--	.090
MAY 06...	0935	1430	--	.10
JULY 01...	1105	4810	.10	--
AUG. 05...	1515	989	.30	--
SEP. 10...	1055	990	.24	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

79

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WYO.

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, at gaging station, 300 ft downstream from Polecat Creek, 800 ft upstream from Sidon Canal crossing, and 2.4 miles east of Deaver.

DRAINAGE AREA.--341 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1958 to May 1960, April 1969 to September 1971.
Water temperatures: July 1969 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 3,410 mg/l Dec. 26-31; minimum, 809 mg/l June 1-11.

Hardness: Maximum, 1,600 mg/l Dec. 26-31; minimum, 370 mg/l June 1-11.

Specific conductance: Maximum daily, 4,790 micromhos Dec. 29; minimum daily, 1,040 micromhos Apr. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	MEAN DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
01-13	137	13	120	49	150	3.6	241	0	600	8.2	.6
14-31	127	13	130	58	180	3.9	252	0	710	10	.6
NOV.											
01-15	33	11	200	120	380	4.7	311	0	1500	21	.9
16-30	26	12	230	130	430	5.0	388	0	1600	24	.9
DEC.											
01-09	27	11	200	160	380	4.7	333	0	1700	24	1.0
10-25	18	13	230	180	410	4.7	406	0	1800	26	1.1
26-31	15	13	270	210	520	6.7	488	0	2100	29	1.2
JAN.											
01-09	13	13	240	170	390	4.4	427	0	1800	25	1.2
10-21	14	13	220	170	390	4.4	409	0	1700	25	1.5
22-31	17	13	230	180	380	4.9	409	0	1700	28	1.2
FEB.											
01-14	13	13	220	150	390	5.3	397	0	1600	25	1.2
15-28	10	13	210	160	400	6.7	369	0	1700	30	1.2
MAR.											
01-11	7.5	12	140	180	370	4.7	360	0	1600	26	1.2
12-31	26	11	180	110	310	4.7	296	0	1300	23	1.1
APR.											
01-16	26	13	180	120	330	5.3	317	0	1300	17	1.0
17-30	94	16	95	45	130	4.2	220	0	500	12	.7
MAY											
01-21	68	14	110	45	170	3.3	208	0	610	13	.7
22-31	153	14	99	46	180	3.8	187	0	610	13	.7
JUNE											
01-11	156	14	84	39	120	3.3	189	0	440	9.7	.7
12-30	69	14	100	48	160	3.8	202	0	590	11	.7
JULY											
01-19	73	13	100	51	170	3.9	216	0	590	8.4	.6
20-31	65	12	100	49	180	4.0	232	0	640	7.5	.6
AUG.											
01-09	71	14	110	49	170	4.4	244	0	640	10	.4
10-31	74	15	120	55	160	4.6	254	0	670	13	.5
SEP.											
01-13	156	16	100	86	140	3.9	219	0	680	8.8	.4
14-30	110	15	110	47	150	1.4	233	0	600	9.1	.4
WTD. AVG.	--	14	118	65	186	3.8	242	0	746	12	.7
TIME WTD.											
AVG.	63	13	150	97	250	4.3	290	0	1060	17	.8
TONS											
PER DAY	--	2.4	22	11	30	.6	41	0	127	2.1	.1

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN.												
06...	1200	12	12	60	250	130	430	4.4	434	0	1700	23

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WYO.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 27.0°C June 23; minimum, freezing point on several days during December to January.

Period of record (July 1969 to September 1971):

Dissolved solids: Maximum, 3,410 mg/l Dec. 26-31, 1971; minimum, 809 mg/l June 1-11, 1971.

Hardness: Maximum, 1,600 mg/l Dec. 26-31, 1970; minimum, 370 mg/l June 1-11, 1971.

Specific conductance: Maximum daily, 4,790 micromhos Dec. 29, 1970; minimum daily, 1,040 micromhos Apr. 18, 1971.

Water temperatures: Maximum, 27.0°C June 23, 1971; minimum, freezing point on many days during winter period.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	
OCT.											
01-13	.50	240	1060	392	1.44	490	292	2.9	1480	8.2	
14-31	.68	260	1220	418	1.66	560	353	3.3	1870	8.1	
NOV.											
01-15	1.3	430	2420	216	3.29	980	725	5.2	3010	8.1	
16-30	1.9	440	2670	187	3.63	1100	782	5.6	3300	8.1	
DEC.											
01-09	2.0	430	2630	192	3.58	1200	927	4.9	3170	7.9	
10-25	2.7	400	2870	139	3.90	1300	967	4.9	3420	7.8	
26-31	3.4	470	3410	138	4.64	1600	1200	5.8	4040	7.8	
JAN.											
01-09	2.5	300	2820	99.0	3.84	1300	950	4.7	3380	7.9	
10-21	2.5	430	2740	104	3.73	1200	864	4.8	3250	7.8	
22-31	2.1	320	2720	125	3.70	1300	964	4.6	3280	7.8	
FEB.											
01-14	2.3	400	2660	93.4	3.62	1200	874	5.0	3040	8.1	
15-28	1.8	400	2660	71.8	3.62	1200	897	5.1	3010	8.0	
MAR.											
01-11	1.8	320	2480	50.2	3.37	1100	805	4.9	2900	8.0	
12-31	1.1	280	2050	144	2.79	880	637	4.5	2450	8.0	
APR.											
01-16	.99	300	2140	150	2.91	930	670	4.7	2600	8.1	
17-30	.54	180	915	232	1.24	420	240	2.8	1210	7.9	
MAY											
01-21	.70	220	1070	196	1.46	460	289	3.4	1400	7.6	
22-31	.45	200	1060	438	1.44	440	287	3.7	1370	7.5	
JUNE											
01-11	.47	400	809	341	1.10	370	215	2.7	1130	7.9	
12-30	.81	320	1030	192	1.40	450	284	3.3	1380	7.8	
JULY											
01-19	1.1	240	1050	207	1.43	460	280	3.5	1420	7.4	
20-31	.80	240	1110	195	1.51	450	260	3.7	1490	7.0	
AUG.											
01-09	1.2	300	1120	215	1.52	480	280	3.4	1560	8.0	
10-31	1.2	330	1170	234	1.59	530	320	3.0	1670	8.1	
SEP.											
01-13	.78	220	1140	480	1.54	880	700	.2	1360	7.7	
14-30	.74	230	1050	312	1.43	470	280	3.0	1470	7.8	
WTD. AVG.	--	276	1270	293	1.73	596	397	3.2	1680	7.8	
TIME WTD. AVG.	--	312	1750	216	2.39	790	552	3.9	2200	7.9	
TONS PER DAY	--	0	216	--	--	--	--	--	--	--	
DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
JAN. 06...	.9	410	2800	3.81	90.7	1200	844	5.5	3360	7.9	.0

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEEVER, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)
OCT.				
12...	1600	149	--	.010
NOV.				
06...	1120	36	--	.000
DEC.				
03...	1050	18	--	.000
JAN.				
06...	1200	12	--	.010
FEB.				
02...	1050	18	--	.000
APR.				
14...	1030	24	--	.050
MAY				
06...	1330	74	--	.10
JULY				
01...	1300	76	.050	--
AUG.				
05...	1105	87	.62	--
SEP.				
10...	1230	134	.26	--

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

83

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

YELLOWSTONE RIVER BASIN

06286258 BIG COULEE NEAR LOVELL, WYO.

LOCATION.--Lat 44°58'14", long 108°17'24", in SE¼NE¼NE¼ sec.34, T.58 N., R.95 W., Big Horn County, at gaging station, 300 ft downstream from county road, 0.6 mile upstream from mouth, and 10 miles northeast of Lovell.

DRAINAGE AREA.--30.1 sq mi.

PERIOD OF RECORD.--Sediment records: April 1970 to September 1971.

EXTREMES.--April to September 1970:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days during period.
Sediment discharge: Maximum daily, 11 tons July 22, Aug. 26; minimum daily, 0 tons on many days during period.

1970-71:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days.
Sediment discharge: Maximum daily, 15 tons Mar. 9; minimum daily, 0 tons on many days.

Period of record:

Sediment concentrations: Maximum daily, not determined; minimum daily, no flow for many days each year.
Sediment discharge: Maximum daily, 15 tons Mar. 9, 1971; minimum daily, 0 tons on many days each year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, APRIL TO SEPTEMBER 1970

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-Feet)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			WEIGHTED MEAN	MAXIMUM OBSERVED
				MEAN	MAXIMUM	MINIMUM		
APRIL 1970.....	0	0	0	0	0	0		
MAY.....	0	0	0	0	0	0		
JUNE.....	0	0	0	0	0	0		
JULY.....	.15	.3	11	.35	11	0		
AUGUST.....	.15	.3	11	.35	11	0		
SEPTEMBER.....	0	0	0	0	0	0		
PERIOD (APRIL TO SEPTEMBER).	.30	.6	22		11	0		

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, APRIL TO SEPTEMBER 1970

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS- PENDED SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.
						% FINER THAN .004 MM	% FINER THAN .016 MM	% FINER THAN .062 MM
JULY 22...	1545	26.0	.15	18300	7.4	77	99	100
AUG. 26...	2115	17.5	.15	49900	20	50	92	100

YELLOWSTONE RIVER BASIN

85

06286258 BIG COULEE NEAR LOVELL, WYO.--Continued

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT				CONCENTRATION (MG/L)	
			DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			WEIGHTED MEAN	MAXIMUM OBSERVED
				MEAN	MAXIMUM	MINIMUM		
OCTOBER 1970.....	0	0	0	0	0	0		
NOVEMBER.....	0	0	0	0	0	0		
DECEMBER.....	0	0	0	0	0	0		
JANUARY 1971.....	0	0	0	0	0	0		
FEBRUARY.....	3.85	7.6	19.5	.70	7.0	0		
MARCH.....	2.47	4.9	17.1	.55	15	0		
APRIL.....	0	0	0	0	0	0		
MAY.....	0	0	0	0	0	0		
JUNE.....	0	0	0	0	0	0		
JULY.....	0	0	0	0	0	0		
AUGUST.....	0	0	0	0	0	0		
SEPTEMBER.....	.10	.2	3.3	.1	3.3	0		
WATER YEAR.....	6.42	13	39.9	.109	15	0		

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED DIS- CHARGE (T/DAY)	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL	SUS. SED. FALL
						DIAM. % FINER THAN .004 MM	DIAM. % FINER THAN .016 MM	DIAM. % FINER THAN .062 MM	DIAM. % FINER THAN .125 MM	DIAM. % FINER THAN .250 MM
MAR. 09...	1525	3.0	1.7	29500	135	31	68	90	97	100

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MONT.

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼NE¼ sec.16, T.6 S., R.31 E., Big Horn County, at gaging station, 800 ft downstream from Yellowtail afterbay dam, 1,500 ft downstream from Lime Kiln Creek, and 14 miles southwest of St. Xavier.

DRAINAGE AREA.--19,667 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1971.
Water temperatures: December 1962 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 656 mg/l Oct. 1-31; minimum, 322 mg/l Aug. 1-31.

Hardness: Maximum, 310 mg/l Oct. 1-31, Apr. 1-30; minimum, 160 mg/l Sept. 1-18.

Specific conductance: Maximum daily, 994 micromhos Oct. 7; minimum daily, 492 micromhos Aug. 28.

Water temperatures: Maximum, 18.0°C Aug. 15, 27; minimum, 1.0°C on many days during February and March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	MEAN DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.												
01-31	--	2570	--	12	--	86	23	94	4.3	208	0	320
NOV.												
02-30	--	3160	--	12	--	75	24	80	4.4	196	0	290
DEC.												
01-31	--	4010	--	11	--	65	24	73	3.8	186	0	260
JAN.												
01-30	--	3820	--	11	90	76	24	63	3.7	198	0	230
FEB.												
04-28	--	3540	--	11	10	75	27	73	3.9	214	--	270
MAR.												
01-31	--	4550	--	12	10	76	26	80	4.8	230	2	280
APR.												
01-30	--	5540	--	11	10	77	28	79	3.8	216	0	280
MAY												
01-31	--	6990	--	10	10	62	27	88	3.9	215	0	250
JUNE												
01-30	--	7960	--	8.9	10	74	25	82	4.0	213	0	280
JULY												
01-09	--	6640	--	9.4	10	56	19	65	3.2	178	0	220
10-19	--	6450	--	9.8	10	51	17	58	2.9	162	0	190
20-31	--	5090	--	9.9	10	46	15	49	2.4	146	0	160
AUG.												
01-31	--	3350	--	11	10	45	13	40	2.0	137	0	140
SEP.												
01-18	--	2590	--	12	0	44	13	42	2.5	136	0	140
19-23	--	2590	--	12	80	53	16	53	2.8	153	0	180
24-30	--	2600	--	11	0	65	21	78	4.0	182	0	260
WTD. AVG.	--	--	--	11	--	67	23	73	3.7	197	0	249
TIME WTD.												
AVG.	--	a4509	--	11	--	67	23	72	3.7	193	0	246
TONS												
PER DAY	--	--	--	130	--	824	285	896	45	2410	2	3040

ANALYSES OF ADDITIONAL SAMPLES

DEC.												
01...	1230	2760	--	11	30	73	23	79	3.8	192	0	270
MAR.												
16...	1430	4430	3.0	14	140	82	27	79	3.8	263	0	280
JUNE												
04...	1315	8190	9.0	8.9	20	80	28	89	3.7	220	0	320
SEP.												
10...	1005	2570	17.0	11	10	43	14	43	2.5	146	0	140

a Mean discharge based on 365 days; mean discharge for 360 days of chemical analyses, 4520 cfs.

YELLOWSTONE RIVER BASIN

87

06287000 BIGHORN RIVER NEAR ST. XAVIER, MONT.--Continued

EXTREMES.--Continued

Period of record:

Dissolved solids: Maximum, 842 mg/l Jan. 1-31, 1967; minimum, 322 mg/l Aug. 1-31, 1971.

Hardness: Maximum, 394 mg/l Mar. 1-31, 1967; minimum, 160 mg/l Sept. 1-18, 1971.

Specific conductance: Maximum daily, 1,180 micromhos on several days during 1966-67; minimum daily, 492 micromhos Aug. 28, 1971.

Water temperatures: Maximum, 24.5°C on several days during 1963-65; minimum, freezing point on many days during winter period most years prior to regulation.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality at this station. Maximum observed during water year: Hardness, 320 mg/l Mar. 16. Thermograph records furnished by Montana Fish and Game Department. Flow regulated since Nov. 3, 1965, by Bighorn Lake.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED ORTHO PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CON- DUCTANCE (MICRO- MHOS)	PH (UNITS)
OCT. 01-31	11	.5	--	--	656	.95	4870	310	140	2.3	969	7.9
NOV. 02-30	9.6	.6	--	--	595	.86	5380	290	130	2.1	854	8.0
DEC. 01-31	9.6	.3	--	--	543	.77	6140	260	110	2.0	794	8.2
JAN. 01-30	9.8	.5	.20	.00	510	.69	5260	290	130	1.6	823	8.3
FEB. 04-28	9.9	.8	.30	.00	577	.78	5520	300	120	1.8	852	8.3
MAR. 01-31	13	.4	.10	.03	608	.83	7470	300	100	2.0	910	8.4
APR. 01-30	11	.4	.34	.03	598	.81	8950	310	130	2.0	919	8.2
MAY 01-31	11	.4	.32	.03	560	.76	10600	270	90	2.3	922	8.2
JUNE 01-30	10	.7	.25	.03	591	.80	12700	290	110	2.1	890	8.1
JULY 01-09	8.4	.8	.25	.00	470	.64	8430	220	72	1.9	720	8.0
10-19	7.5	.7	.20	.00	417	.57	7260	200	64	1.8	639	7.8
20-31	6.6	.8	.09	.06	362	.49	4980	180	57	1.6	576	7.9
AUG. 01-31	3.4	.1	.10	.00	322	.44	2910	170	53	1.4	517	7.8
SEP. 01-18	6.0	.3	.03	.03	327	.44	2290	160	52	1.4	515	8.1
19-23	7.8	.3	.10	.03	401	.55	2800	200	73	1.6	616	8.2
24-30	9.9	.4	.08	.03	539	.73	3780	250	99	2.2	809	8.1
WTD. AVG. TIME WTD. AVG. TONS PER DAY	9.6	.5	--	--	536	.74	--	267	102	2.0	821	8.1
	9.4	.5	--	--	529	.73	--	264	103	1.9	806	8.1
	118	6.1	--	--	6540	--	--	--	--	--	--	--

ANALYSES OF ADDITIONAL SAMPLES

DEC. 01...	12	.5	--	--	563	.79	4320	280	120	2.1	812	7.8
MAR. 16...	6.7	.6	.30	.05	630	.86	7540	320	100	1.9	899	7.3
JUNE 04...	12	.4	.35	.03	652	.89	14400	310	130	2.2	930	7.9
SEP. 10...	6.2	.6	.44	.03	334	.45	2320	160	45	1.5	517	7.7

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MONT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT.					
01...	1130	1700	.020	--	--
NOV.					
02...	1300	3440	.020	--	--
DEC.					
01...	1230	2760	.040	110	--
31...	1200	4650	.050	--	--
FEB.					
04...	1330	3540	.000	--	--
MAR.					
16...	1430	4430	.050	170	130
APR.					
12...	1115	5890	.050	--	--
MAY					
12...	1600	6450	.050	--	--
JUNE					
04...	1315	8190	.020	90	0
JULY					
01...	1300	7780	.020	--	--
AUG.					
11...	1000	3640	.050	--	--
SEP.					
10...	1005	2570	.080	110	0

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

[illegible]

YELLOWSTONE RIVER BASIN

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MONT.

LOCATION.--Lat 45°10'38", long 107°23'36", in W5SW4 sec.35, T.7 S., R.35 E., Big Horn County, at gaging station, 3.5 miles north of Wyola, and 6 miles downstream from Pass Creek.

DRAINAGE AREA.--428 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1969 to September 1971.

Water temperatures: October 1969 to September 1971.

Sediment records: October 1969 to September 1971.

EXTREMES.--1970-71:

Dissolved solids: Maximum, 433 mg/l Apr. 1-30; minimum, 201 mg/l June 1-24.

Hardness: Maximum, 300 mg/l Apr. 1-30; minimum, 170 mg/l Feb. 11-15, June 1-24, June 25-30.

Specific conductance: Maximum daily, 792 micromhos Apr. 6; minimum daily, 323 micromhos June 10.

Water temperatures: Maximum, 22.5°C July 16, Aug. 8; minimum, freezing point on many days during November to March.

Sediment concentrations: Maximum daily, 3,510 mg/l Apr. 25; minimum daily, 17 mg/l Oct. 30, Nov. 3.

Sediment discharge: Maximum daily, 9,110 tons Apr. 25; minimum daily, 6.8 tons Nov. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	MEAN DIS- CHARGE (CFS)	TEMP- ERATURE (DEG C)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT.												
01-10	--	158	--	7.5	--	55	27	20	1.8	229	0	100
11-31	--	155	--	7.9	--	59	28	22	1.8	233	0	110
NOV.												
01-10	--	150	--	9.1	--	49	28	22	1.8	210	0	110
11-30	--	155	--	8.1	--	53	28	23	1.8	219	0	120
DEC.												
01-31	--	148	--	7.4	--	58	29	22	1.5	229	0	120
JAN.												
01-31	--	136	--	8.0	140	67	27	21	2.2	171	60	100
FEB.												
01-10	--	139	--	7.7	10	70	29	26	2.5	256	6	120
11-15	--	370	--	7.8	40	43	16	21	4.5	171	--	85
16-28	--	160	--	8.0	10	60	29	40	2.8	200	--	160
MAR.												
01-31	--	187	--	8.8	10	63	28	41	3.1	234	--	170
APR.												
01-30	--	262	--	9.2	20	69	30	33	2.6	238	0	170
MAY												
01-08	--	354	--	8.0	10	64	27	20	1.3	256	0	100
09-26	--	461	--	7.0	10	46	20	13	1.2	204	0	66
27-31	--	897	--	6.6	20	46	15	8.2	1.1	186	0	39
JUNE												
01-24	--	814	--	5.9	0	43	15	6.3	1.0	183	0	38
25-30	--	436	--	6.5	0	37	18	9.4	1.1	170	0	53
JULY												
01-09	--	305	--	6.8	10	51	21	12	1.3	228	0	68
10-31	--	174	--	7.5	10	59	25	17	1.6	252	0	94
AUG.												
01-31	--	127	--	8.1	10	63	27	19	1.4	252	0	110
SEP.												
01-30	--	130	--	7.6	0	58	29	25	1.3	236	0	120
WTD. AVG. -	--	--	--	7.4	--	54	23	19	1.7	212	3	93
TIME WTD.												
AVG.		245	--	7.8	--	58	26	23	1.9	222	6	112
TONS												
PER DAY	--	--	--	4.9	--	36	15	12	1.1	140	2	62

ANALYSES OF ADDITIONAL SAMPLES

DEC.												
02...	1600	153	--	6.9	40	70	28	23	1.5	270	0	110
MAR.												
03...	1800	136	.0	7.2	50	73	29	26	1.6	269	0	130
JUNE												
02...	1345	850	11.0	6.0	30	51	17	7.8	.7	204	0	46
SEP.												
01...	1415	115	19.0	8.9	30	70	31	27	2.2	288	0	120

YELLOWSTONE RIVER BASIN

91

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MONT.--Continued

EXTREMES.--Continued

Period of record:

Dissolved solids: Maximum, 473 mg/l Mar. 20-31, 1970; minimum, 201 mg/l June 1-24, 1971.

Hardness: Maximum, 303 mg/l Apr. 13-26, Apr. 27 to May 3, 1970; minimum, 170 mg/l Feb. 11-15, June 1-24, June 25-30, 1971.

Specific conductance: Maximum daily, 792 micromhos Apr. 6, 1971; minimum daily, 323 micromhos June 10, 1971.

Water temperatures: Maximum, 22.5°C Aug. 7, 1970, July 16, Aug. 8, 1971; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 3,510 mg/l Apr. 25, 1971; minimum daily, 17 mg/l Oct. 30, Nov. 3, 1970.

Sediment discharge: Maximum daily, 9,110 tons Apr. 25, 1971; minimum daily, 6.5 tons Jan. 16, 1970.

REMARKS.--Daily samples for chemical analysis composited by discharge. Additional samples were collected for more comprehensive definition of water quality at this station. Flow affected by ice Nov. 22-24, Dec. 11-16, Dec. 19 to Mar. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.												
01-10	1.4	.2	--	--	331	.45	142	250	61	.6	538	7.9
11-31	1.2	.2	--	--	348	.48	147	260	72	.6	552	8.1
NOV.												
01-10	1.2	.2	--	--	322	.46	136	240	64	.6	517	8.2
11-30	1.2	.3	--	--	340	.46	141	250	69	.6	540	8.3
DEC.												
01-31	1.4	.1	--	--	352	.47	139	270	77	.6	580	8.1
JAN.												
01-31	1.5	.3	.10	.04	370	.50	136	280	40	.5	561	8.4
FEB.												
01-10	1.4	.5	.00	.00	395	.54	148	290	74	.7	612	8.5
11-15	1.6	.4	.50	.31	266	.36	266	170	33	.7	413	8.3
16-28	1.5	.5	.10	.00	401	.55	173	270	110	1.1	629	8.3
MAR.												
01-31	2.1	.1	.20	.06	432	.59	218	270	81	1.1	688	8.1
APR.												
01-30	1.6	.2	.14	.09	433	.59	306	300	100	.8	705	8.0
MAY												
01-08	1.3	.4	.02	.00	348	.47	333	270	61	.5	570	8.0
09-26	1.2	.1	.02	.00	255	.35	317	200	30	.4	463	8.2
27-31	1.0	.1	.00	.03	209	.28	506	180	24	.3	365	8.0
JUNE												
01-24	1.1	.4	.00	.00	201	.27	442	170	19	.2	338	8.3
25-30	1.1	.4	.01	.00	210	.29	247	170	27	.3	350	8.3
JULY												
01-09	.7	.4	.01	.00	273	.37	225	210	27	.4	451	8.2
10-31	.7	.4	.01	.00	329	.45	155	250	44	.5	536	8.2
AUG.												
01-31	.9	.0	.00	.03	353	.48	121	270	62	.5	572	8.2
SEP.												
01-30	1.7	.3	.03	.03	359	.49	126	260	71	.7	580	8.1
WTD. AVG.	1.3	.3	--	--	307	.42	--	231	51	.5	503	8.2
TIME WTD. AVG.	1.3	.2	--	--	345	.47	--	253	62	.6	556	8.2
TONS PER DAY	.8	.2	--	--	203	--	--	--	--	--	--	--

ANALYSES OF ADDITIONAL SAMPLES

DEC.												
02...	1.2	.2	--	--	377	.54	164	290	66	.6	602	8.3
MAR.												
03...	1.9	.3	.10	.00	400	.54	147	300	79	.7	672	8.4
JUNE												
02...	.8	.2	.19	.03	231	.31	530	200	30	.2	389	8.0
SEP.												
01...	1.7	.7	.10	.03	404	.55	125	300	66	.7	649	8.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
OCT. 07...	1700	157	.010	--	--
NOV. 05...	1515	145	.000	--	--
DEC. 02...	1600	153	.000	70	--
JAN. 08...	1350	142	.000	--	--
FEB. 03...	1700	140	.000	--	--
MAR. 03...	1800	136	.030	40	70
APR. 06...	1910	170	.050	--	--
MAY 04...	1920	344	.060	--	--
JUNE 02...	1345	850	.030	10	0
JULY 07...	1630	284	.020	--	--
AUG. 05...	1245	155	.020	--	--
SEP. 01...	1415	115	.070	130	10

[illegible]

YELLOWSTONE RIVER BASIN

93

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MONT.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	4.0	4.0	0.0	0.0	0.0	4.0	11.0	9.5	13.0	16.0	19.5
2	11.0	3.0	2.5	0.0	0.0	0.0	5.5	11.0	13.0	16.0	19.5	17.0
3	9.5	3.0	1.5	0.0	0.0	1.5	4.0	13.5	12.0	12.5	19.5	14.5
4	10.5	3.5	2.5	0.0	0.0	0.5	3.0	12.0	12.0	13.0	21.0	11.5
5	12.5	2.5	0.0	0.0	0.0	2.0	6.5	12.0	10.0	17.0	19.5	16.0
6	9.5	6.5	1.0	0.0	0.0	0.5	7.5	10.5	10.0	14.0	22.0	17.0
7	6.0	5.0	3.5	0.0	0.0	0.0	8.0	11.0	11.5	16.0	19.5	14.5
8	6.0	5.0	3.5	0.5	0.0	4.5	7.5	10.5	10.5	13.5	22.5	15.5
9	6.0	6.0	0.0	0.0	0.0	2.5	11.0	12.5	14.0	20.5	20.5	14.0
10	6.0	5.5	2.5	0.0	0.0	5.5	11.0	10.5	12.5	17.5	19.0	18.0
11	5.0	4.0	0.0	0.0	0.0	4.5	7.0	9.5	13.0	16.5	21.5	16.0
12	7.0	5.0	0.0	0.0	0.0	5.0	8.0	12.0	12.0	18.0	20.0	18.0
13	6.0	4.0	0.0	0.5	2.0	2.5	5.5	12.5	14.5	15.5	22.0	16.5
14	6.5	3.5	0.5	0.0	2.0	1.0	9.5	14.5	14.5	18.0	18.0	12.5
15	4.5	3.0	0.0	1.0	1.5	4.0	12.0	10.0	13.0	16.5	18.0	11.0
16	7.0	5.0	0.5	0.5	1.5	3.0	11.5	9.0	13.0	22.5	21.5	9.0
17	6.0	5.0	1.0	0.5	2.0	2.0	9.5	9.5	16.5	18.0	19.5	9.0
18	7.0	5.0	0.0	0.5	1.0	2.0	7.5	7.0	15.5	17.5	22.0	7.0
19	7.0	3.5	0.0	0.5	2.0	4.0	6.5	8.5	14.5	19.0	17.5	9.0
20	5.5	4.0	0.0	0.5	2.0	5.0	6.0	8.0	16.0	19.0	21.5	9.5
21	8.0	0.0	0.0	0.0	0.5	1.5	6.5	9.5	17.5	20.0	17.5	8.0
22	5.5	0.0	0.0	0.5	1.5	1.0	7.0	8.5	15.0	20.0	17.5	9.5
23	6.0	0.0	0.0	0.5	1.0	2.0	9.5	8.0	20.0	20.0	19.0	9.5
24	6.5	1.0	0.0	0.5	4.0	6.0	9.0	14.5	16.0	19.0	15.5	12.5
25	6.0	3.0	0.0	0.5	2.0	5.0	6.0	12.5	16.5	17.0	19.0	11.5
26	5.0	1.0	0.0	0.0	1.0	6.5	6.0	14.0	14.5	17.5	19.5	11.0
27	2.5	1.5	0.0	1.0	0.0	5.5	5.0	12.5	13.5	16.0	22.0	11.5
28	3.0	0.5	1.0	0.5	1.0	3.0	8.5	13.5	12.0	12.5	19.5	10.5
29	4.0	1.5	0.5	0.5	---	7.5	9.0	9.5	12.5	13.5	18.0	10.5
30	5.5	3.5	0.5	0.0	---	8.0	11.5	8.5	15.0	17.0	18.5	8.5
31	4.0	---	1.0	0.0	---	4.5	---	8.5	---	16.5	17.0	---
MONTH	6.5	3.5	1.0	0.5	1.0	3.0	7.5	11.0	13.5	17.0	19.5	12.5
YEAR	8.0											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
FEB.											
12...	1335	.0	400	1700	1840	74	97	100	--	--	--
MAR.											
13...	1045	2.5	278	430	323	79	95	100	--	--	--
25...	1140	5.0	220	657	390	81	97	100	--	--	--
APR.											
22...	1100	7.0	362	1280	1250	67	86	98	100	--	--
25...	1025	6.0	1170	5130	16200	64	82	96	99	100	--
JUNE											
02...	1350	11.0	850	229	526	31	46	86	95	99	100

YELLOWSTONE RIVER BASIN

06290500 LITTLE BIGHORN RIVER BELOW PASS CREEK, NEAR WYOLA, MONT.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	162	33	14	153	22	9.1	170	207	95
2	162	28	12	150	19	7.7	153	81	33
3	165	29	13	148	17	6.8	153	58	24
4	157	30	13	145	19	7.4	148	42	17
5	150	29	12	145	27	11	141	31	12
6	155	28	12	150	26	11	143	36	14
7	155	21	8.8	148	35	14	148	35	14
8	155	30	13	153	40	17	148	37	15
9	153	37	15	148	26	10	145	32	13
10	170	52	24	162	58	25	139	30	11
11	162	75	33	160	107	46	145	26	10
12	170	54	25	155	86	36	150	34	14
13	175	189	89	165	92	41	155	35	15
14	162	98	43	160	122	53	160	42	18
15	150	71	29	153	75	31	160	39	17
16	157	69	29	153	50	21	150	75	30
17	155	50	21	150	42	17	139	57	21
18	153	37	15	153	39	16	143	55	21
19	153	36	15	153	35	14	130	37	13
20	155	35	15	155	33	14	125	61	21
21	155	37	15	155	33	14	130	41	14
22	153	36	15	130	30	11	135	35	13
23	153	27	11	100	53	14	135	37	13
24	153	33	14	185	155	77	140	45	17
25	155	24	10	177	142	68	150	37	15
26	148	22	8.8	160	52	22	150	27	11
27	143	34	13	157	47	20	155	29	12
28	145	18	7.0	153	44	18	155	45	19
29	148	20	8.0	155	59	25	160	63	27
30	150	17	6.9	165	116	52	160	39	17
31	153	25	10	--	--	--	160	43	19
TOTAL	4832	--	569.5	4596	--	729.0	4575	--	605
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	150	35	14	135	140	51	130	106	37
2	140	30	11	140	91	34	135	40	15
3	130	32	11	140	100	38	135	82	30
4	125	40	14	140	70	26	135	146	53
5	120	41	13	140	95	36	141	60	23
6	125	46	16	125	73	25	139	48	18
7	135	46	17	120	60	19	139	35	13
8	140	48	18	140	60	23	134	46	17
9	135	45	16	150	68	28	143	100	39
10	130	36	13	160	74	32	180	137	71
11	125	42	14	200	1750	945	255	271	187
12	120	42	14	400	2010	2170	267	217	156
13	115	39	12	500	1190	1610	278	366	275
14	110	41	12	400	760	821	228	168	103
15	125	44	15	350	320	302	190	102	52
16	140	60	23	250	166	112	177	102	49
17	145	67	26	225	90	55	165	97	43
18	150	48	19	175	57	27	150	92	37
19	150	48	19	160	70	30	148	85	34
20	150	371	150	145	75	29	167	179	81
21	145	152	60	135	85	31	201	382	212
22	140	41	15	130	78	27	155	125	52
23	145	35	14	140	62	23	155	122	51
24	145	59	23	145	74	29	162	145	63
25	145	95	37	150	84	34	234	690	436
26	145	100	39	145	76	30	247	555	370
27	145	136	53	140	77	29	311	1030	865
28	145	232	91	135	90	33	244	515	339
29	140	439	166	--	--	--	207	335	187
30	140	212	80	--	--	--	215	470	273
31	135	125	46	--	--	--	242	435	284
TOTAL	4230	--	1071	5315	--	6649	5809	--	4465

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	350	71	67	141	64	24	115	57	18
2	332	78	70	143	58	22	108	63	18
3	341	79	73	148	61	24	113	69	21
4	332	72	65	153	63	26	150	195	79
5	311	57	48	150	66	27	136	102	37
6	299	66	53	145	61	24	121	61	20
7	275	63	47	139	61	23	134	55	20
8	253	68	46	136	54	20	143	151	58
9	253	52	36	143	60	23	132	114	41
10	242	60	39	141	55	21	125	66	22
11	231	68	42	141	52	20	119	65	21
12	225	54	33	139	51	19	115	49	15
13	212	51	29	130	47	16	117	47	15
14	198	45	24	125	48	16	117	66	21
15	193	48	25	123	45	15	123	42	14
16	185	37	18	121	46	15	132	42	15
17	170	52	24	119	43	14	139	45	17
18	165	66	29	119	38	12	139	44	17
19	162	46	20	117	28	8.8	136	58	21
20	155	46	19	119	39	13	143	52	20
21	150	42	17	117	46	15	150	88	36
22	143	46	18	117	45	14	141	68	26
23	143	43	17	117	41	13	136	54	20
24	148	64	26	117	34	11	134	49	18
25	162	81	35	106	30	8.6	132	51	18
26	160	66	29	104	37	10	132	41	15
27	153	56	23	100	35	9.5	134	34	12
28	157	42	18	102	40	11	132	34	12
29	162	49	21	106	45	13	130	32	11
30	155	42	18	128	58	20	132	38	14
31	148	46	18	123	62	21	--	--	--
TOTAL	6565	--	1047	3929	--	528.9	3910	--	692

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	89369
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	59429.4

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WYO.

LOCATION (revised).--Lat 44°50'58", long 107°18'14", in NE¼NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, at gaging station, 0.5 mile upstream from Crystal Draw, 0.6 mile downstream from intake of Highline ditch, and 2.5 miles southwest of Dayton.

DRAINAGE AREA.--204 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
22...	1200	64	6.9	50	40	9.7	1.1	1.3	159	0	6.7	1.1
NOV.												
19...	1400	67	7.3	30	44	6.0	1.1	1.6	165	0	4.3	1.1
DEC.												
21...	1230	60	7.7	40	40	12	1.6	.4	177	0	5.8	4.6
JAN.												
21...	1200	59	7.5	30	36	13	1.6	.0	165	0	9.0	.5
FEB.												
19...	1300	51	7.1	60	36	13	2.2	.9	165	0	4.9	2.2
MAR.												
22...	0915	43	8.6	70	38	13	1.6	.9	171	0	4.1	2.7
APR.												
21...	1215	81	6.6	90	34	10	2.2	1.6	134	6	4.9	2.2
MAY												
20...	1500	368	9.1	230	25	6.8	1.6	.7	107	0	3.3	2.8
JUNE												
21...	1330	612	5.0	120	22	5.5	1.6	.9	92	0	4.9	.3
JULY												
20...	1130	163	6.8	120	31	8.5	3.3	.9	138	2	2.5	.8
AUG.												
06...	1000	106	5.4	200	37	6.8	7.8	.9	144	0	15	.2
24...	1500	74	6.3	170	37	9.0	2.0	1.1	145	4	7.4	1.0
SEP.												
23...	1145	76	5.3	730	34	10	1.5	.7	154	0	5.8	1.0

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
22...	.2	.3	30	145	.20	25.1	140	10	.0	265	7.8	7.0
NOV.												
19...	.2	.4	160	147	.20	26.6	140	5	.0	270	7.9	3.0
DEC.												
21...	.1	.1	20	160	.22	25.9	150	5	.1	289	8.2	.5
JAN.												
21...	.1	1.1	0	150	.20	23.9	140	5	.1	271	8.2	1.0
FEB.												
19...	.3	.6	10	148	.20	20.4	140	--	.1	256	8.1	1.0
MAR.												
22...	.2	.7	20	154	.21	17.9	150	10	.1	266	8.1	.0
APR.												
21...	.3	.3	10	134	.18	29.3	120	0	.1	230	8.4	4.0
MAY												
20...	.1	.5	30	102	.14	101	90	2	.1	172	8.0	6.0
JUNE												
21...	.1	.3	0	86	.12	142	77	2	.1	149	8.0	12.0
JULY												
20...	.1	.2	120	124	.17	54.6	110	0	.1	211	8.4	15.0
AUG.												
06...	.2	.1	10	145	.20	41.5	120	2	.3	239	8.2	16.5
24...	.1	.1	20	139	.19	27.8	130	4	.1	246	8.4	14.5
SEP.												
23...	.1	.4	20	136	.19	27.9	130	4	.1	252	8.2	5.5

YELLOWSTONE RIVER BASIN

97

06305500 GOOSE CREEK BELOW SHERIDAN, WYO.

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼SW¼ sec.15, T.56 N., R.84 W., Sheridan County, at gaging station, 700 ft north of Sheridan city limits, and 0.2 mile downstream from Soldier Creek.

DRAINAGE AREA.--392 sq mi.

PERIOD OF RECORD.--Chemical analyses: August 1959 to September 1960, August 1961 to September 1964, October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 21...	1200	93	8.4	170	68	46	32	3.1	320	0	160	5.9
DEC. 10...	1440	100	11	100	68	45	30	2.9	299	6	150	4.6
JAN. 21...	1245	84	12	150	67	44	27	3.1	281	0	150	5.4
FEB. 18...	0915	118	11	0	78	49	31	4.4	293	0	190	6.5
MAR. 11...	0900	115	9.4	40	68	44	27	4.4	272	0	170	4.3
APR. 16...	1440	137	7.7	210	52	32	20	2.7	207	0	120	6.7
MAY 18...	1100	541	10	250	28	8.3	7.1	.7	90	0	45	1.3
JUNE 09...	1345	826	8.3	130	17	10	6.5	.9	92	0	22	.9
JULY 07...	1630	110	8.3	280	48	32	23	3.3	195	0	120	7.0
AUG. 04...	1320	34	4.4	200	84	57	43	4.2	319	0	260	4.7
30...	1330	205	9.7	130	67	52	38	4.7	309	0	190	5.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 21...	.4	.2	110	480	.65	121	360	97	.7	758	7.9	--
DEC. 10...	.4	1.5	160	469	.64	127	360	105	.7	729	8.3	1.0
JAN. 21...	.4	3.1	80	451	.61	102	350	119	.6	736	7.6	2.0
FEB. 18...	.5	1.9	90	517	.70	165	400	160	.7	756	7.6	1.0
MAR. 11...	.4	1.1	80	462	.63	143	350	127	.6	694	7.8	1.5
APR. 16...	.4	2.2	60	342	.47	127	260	90	.5	519	8.1	14.0
MAY 18...	.3	.9	40	146	.20	213	100	26	.3	231	7.6	6.5
JUNE 09...	.2	.5	20	111	.15	248	83	8	.3	163	7.5	14.0
JULY 07...	.4	.3	100	337	.46	100	250	90	.6	536	7.4	21.5
AUG. 04...	.5	.5	160	620	.84	56.9	440	178	.9	933	8.2	18.0
30...	.5	.7	100	523	.71	289	380	127	.8	828	8.0	19.0

LOCATION.--Lat 45°00'32", long 106°50'08", in NW¼ sec.33, T.9 S. R.40 E., Big Horn County, at bridge on county road, 1.8 miles east of Decker, and 3.2 miles downstream from gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1971.

Specific conductance: Maximum daily, 1,140 micromhos Aug. 31; minimum daily, 220 micromhos June 18.

DATE	TIME	DIS-CHARGE (CFS)	DIS-	TOTAL	DIS-	DIS-	DIS-	DIS-	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS-	DIS-
			SOLVED SILICA (SiO2) (MG/L)	IRON (FE) (UG/L)	SOLVED CAL- CIUM (CA) (MG/L)	SOLVED MAG- NE- SIUM (MG) (MG/L)	SOLVED SODIUM (NA) (MG/L)	SOLVED PO- TAS- SIUM (K) (MG/L)			SOLVED SULFATE (SO4) (MG/L)	SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
21...	1345	280	6.0	150	69	47	34	3.1	295	0	200	3.4
DEC.												
10...	0915	a230	8.4	120	78	49	34	3.8	311	0	200	4.6
FEB.												
18...	1215	a1000	8.0	160	44	26	19	7.4	159	0	120	3.2
APR.												
21...	1400	428	7.2	340	73	48	42	4.2	250	6	240	7.0
JUNE												
23...	0930	1400	4.9	50	26	12	9.2	1.8	102	0	47	1.3
JULY												
07...	1210	428	6.0	410	51	28	23	2.2	195	3	120	3.5
20...	1430	266	3.4	250	67	35	34	3.1	230	7	170	2.2
AUG.												
13...	1100	90	7.8	60	84	63	60	4.9	323	0	330	4.2
25...	0900	77	7.2	100	91	61	61	6.9	331	0	340	5.4
SEP.												
01...	1750	143	8.2	50	84	68	58	5.8	311	0	340	5.0
23...	1430	249	5.0	900	73	53	40	3.8	301	0	230	3.5

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

EXTREMES.--1970-71: Continued

Period of record:

Specific conductance: Maximum daily, 1,490 micromhos Aug. 12, 1966; minimum daily, 196 micromhos May 30, 1967.

Water temperatures: Maximum, 31.0°C July 16, 1966; minimum, freezing point on many days during winter period.

REMARKS.--During periods of backwater the site of sampling is moved upstream 0.5 mile. Maximum observed during water year: Water temperature, 26.0°C July 20.

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 21...	.3	.0	90	511	.70	386	360	118	.8	777	8.2	5.0
DEC. 10...	.3	1.1	140	535	.73	332	400	145	.7	820	8.1	.0
FEB. 18...	.4	1.4	70	313	.43	845	220	90	.6	475	8.1	.0
APR. 21...	.5	.2	80	549	.75	634	380	165	.9	770	8.4	7.0
JUNE 23...	.2	.1	50	153	.21	578	120	36	.4	252	7.5	18.0
JULY 07...	.3	.1	60	337	.46	389	240	75	.6	505	8.4	20.0
20...	.4	.6	90	439	.60	315	310	110	.8	686	8.4	26.0
AUG. 13...	.4	.7	150	712	.97	173	470	205	1.2	1060	8.3	23.0
25...	.4	.6	150	732	1.00	152	480	208	1.2	1060	8.1	16.0
SEP. 01...	.5	.3	40	726	.99	280	490	235	1.1	1070	8.1	24.0
23...	.3	.5	120	559	.76	376	400	153	.9	837	8.2	12.0

[illegible]

YELLOWSTONE RIVER BASIN

06312500 POWDER RIVER NEAR KAYCEE, WYO.

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, at gaging station at D Ranch, 600 ft downstream from headgate of Sussex Irrigation Canal, 2 miles downstream from confluence of North and Middle Forks, and 6 miles east of Kaycee.

DRAINAGE AREA.--980 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: May to October 1946, March to August 1947, March 1949 to November 1950, June 1951, May 1952 to September 1954, May 1968 to September 1971.

Water temperatures: March 1950 to September 1954.

Sediment records: March 1950 to September 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 06...	1100	70	6.1	40	110	50	100	2.5	240	0	440	58
NOV. 03...	0740	79	7.2	70	110	47	81	2.6	237	0	390	43
DEC. 08...	1515	116	9.4	120	120	39	83	3.1	238	0	380	47
JAN. 12...	0915	83	11	100	120	39	81	2.7	268	0	350	50
MAR. 23...	1320	119	8.5	10	83	60	98	2.7	229	0	400	51
APR. 28...	1435	193	9.0	0	99	53	100	3.1	171	0	460	49
MAY 28...	1115	495	8.8	50	45	13	18	1.3	122	0	92	12
JUNE 22...	1445	97	8.4	60	88	31	70	2.7	214	0	290	34
JULY 20...	1415	1.3	8.0	50	140	55	180	4.7	258	0	620	87
AUG. 31...	1610	19	7.3	20	120	53	140	4.0	220	0	550	78

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 06...	.5	.4	130	890	1.21	168	490	293	2.0	1300	8.1	10.5
NOV. 03...	.4	.9	140	802	1.09	193	470	276	1.6	1170	8.2	.5
DEC. 08...	.3	2.0	130	795	1.08	249	450	255	1.7	1160	7.9	3.0
JAN. 12...	.5	3.0	80	795	1.08	178	460	240	1.6	1150	8.1	.5
MAR. 23...	.5	1.5	110	821	1.12	264	460	272	2.0	1110	8.2	5.0
APR. 28...	.7	2.4	120	859	1.17	448	460	320	2.0	1120	7.8	10.5
MAY 28...	.2	1.3	50	252	.34	337	170	70	.6	393	7.9	15.0
JUNE 22...	.5	.7	40	626	.85	164	350	174	1.6	893	8.2	24.0
JULY 20...	.6	.1	160	1220	1.66	4.28	580	368	3.3	1600	8.2	25.5
AUG. 31...	.5	.2	130	1070	1.46	54.9	530	350	2.7	1530	8.0	23.5

101

LOCATION.--Lat 43°37'10", long 106°34'36", in NE¼SE¼ sec.9, T.42 N., R.81 W., Johnson County, at former gaging station, 200 ft upstream from bridge on old U.S. Highway 87, 0.6 mile upstream from bridge on Interstate Highway 25, 1.2 miles upstream from Murphy Creek, 6.6 miles southeast of Kaycee, and 7 miles upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: September 1949, June 1951, December 1951 to September 1953, June 1968 to September 1971.
Water temperatures: April 1951 to September 1953.
Sediment records: May 1950 to September 1953.

[illegible][illegible]

YELLOWSTONE RIVER BASIN

06313400 SALT CREEK NEAR SUSSEX, WYO.

LOCATION.--Lat 43°37'22", long 106°22'00", in NE¼NE¼SE¼ sec.8, T.42 N., R.79 W., Johnson County, at bridge in West Sussex Dugout Oil Field, 6.3 miles southwest of Sussex, and 12.6 miles upstream from mouth.

DRAINAGE AREA.--765 sq mi.

PERIOD OF RECORD.--Chemical analyses: September 1949, May to June 1952, October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
NOV. 03...	1300	25	23	40	99	45	1400	24	677	0	1100	1500
DEC. 09...	0955	22	27	100	110	41	1600	23	702	0	1100	1500
JAN. 12...	1245	14	27	190	160	70	1600	50	825	0	1100	1600
MAR. 23...	1550	36	20	40	76	120	1400	20	671	0	1300	1200
APR. 28...	1610	108	9.5	60	170	140	710	11	330	0	1600	370
MAY 28...	1415	26	19	510	110	80	1500	21	494	0	1600	1300
JUNE 22...	1200	20	21	80	77	54	1700	24	610	0	1300	1600
JULY 20...	1035	18	25	100	81	49	1700	20	653	0	1200	1600
AUG. 31...	1745	16	25	170	62	45	1700	20	647	0	1300	1600

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
NOV. 03...	4.3	.1	2000	4520	6.15	305	430	0	29	6950	7.9	1.0
DEC. 09...	3.5	.2	2600	4700	6.39	279	440	0	33	7090	7.6	.5
JAN. 12...	4.6	.1	2190	5040	6.85	191	680	3	27	7470	7.8	.5
MAR. 23...	4.7	.0	1900	4470	6.08	434	700	150	23	6360	7.8	10.0
APR. 28...	1.2	.3	70	3160	4.30	921	970	699	9.8	4000	8.0	17.0
MAY 28...	1.6	.2	1700	4900	6.66	344	600	195	27	6810	8.1	27.0
JUNE 22...	4.1	.2	1900	5010	6.81	271	420	0	36	7160	8.1	25.0
JULY 20...	3.4	.1	2400	5110	6.95	248	400	0	37	7260	8.1	20.0
AUG. 31...	2.5	.4	2400	5090	6.92	220	340	0	40	7700	8.1	24.0

YELLOWSTONE RIVER BASIN

103.

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WYO.

LOCATION.--Lat 44°29'15", long 106°10'25", in NW¼ sec.18, T.52 N., R.77 W., Johnson County, at former gaging station, 0.2 mile upstream from unnamed tributary, 4.5 miles upstream from mouth, and 11.5 miles south of Arvada.

DRAINAGE AREA.--945 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: November 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 12...	1450	3.0	3.8	160	440	260	380	12	270	0	2700	26
NOV. 30...	1000	20	8.2	50	200	100	160	4.9	293	0	990	13
JAN. 11...	1130	4.2	12	100	260	160	180	4.2	415	0	1300	16
MAY 27...	1400	57	8.8	200	94	51	71	3.1	162	0	460	8.3
JUNE 24...	1030	147	12	260	67	22	32	2.7	119	0	220	4.7
JULY 28...	1100	9.8	7.4	140	230	99	180	5.3	276	0	1100	16
SEP. 09...	1200	.10	9.0	90	320	140	250	7.9	313	0	1700	17

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 12...	.5	.8	300	4060	5.52	32.9	2200	1980	3.6	4170	7.1	7.0
NOV. 30...	.6	.3	210	1620	2.20	87.5	900	660	2.3	2010	7.9	.0
JAN. 11...	.7	.8	190	2110	2.87	23.9	1300	960	2.2	2530	7.5	.0
MAY 27...	.4	.5	120	773	1.05	119	440	307	1.5	1030	7.7	23.0
JUNE 24...	.3	.5	80	416	.57	165	260	162	.9	590	7.3	22.5
JULY 28...	.6	.4	130	1810	2.46	47.9	990	764	2.5	2220	8.1	15.0
SEP. 09...	.8	.4	160	2580	3.51	.70	1400	1140	2.9	2780	7.9	21.0

EXTREMES.--1970-71: Continued

Period of record:

Sediment discharge: Maximum daily, 2,340,000 tons May 24, 1952; minimum daily, 0 tons on many days each year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 13...	1.1	.7	610	2120	2.88	607	646	406	8.2	3010	8.0	6.0
NOV. 09...	1.2	.6	210	1700	2.31	707	600	365	6.1	2570	7.9	2.5
30...	.9	1.7	460	2240	3.05	1030	850	585	6.3	3160	7.9	.5
DEC. 08...	.8	1.0	400	1890	2.57	990	750	500	5.4	2700	8.0	1.5
JAN. 11...	.8	1.1	400	2010	2.73	391	750	400	6.2	2950	7.7	.0
APR. 06...	.9	1.0	290	1750	2.38	931	660	460	5.4	2360	8.1	8.0
MAY 27...	.7	1.4	190	1130	1.54	1420	400	245	5.1	1600	8.0	24.5
JULY 08...	.7	.3	250	1510	2.05	440	500	322	5.9	2060	8.0	22.5

[illegible]

YELLOWSTONE RIVER BASIN

06317000 POWDER RIVER AT ARVADA, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	22	2860	170	112	1930	584	180	1110	539
2	22	2600	154	106	3080	881	190	750	385
3	22	2300	137	118	2170	691	180	525	255
4	26	2030	143	154	2660	1110	170	360	165
5	30	1990	161	162	2810	1230	190	330	169
6	35	2020	191	146	2540	1000	190	235	121
7	50	1800	243	154	2270	944	190	240	123
8	40	1820	197	142	2190	840	190	440	226
9	60	1890	306	146	2400	946	180	380	185
10	70	1820	344	175	3000	1420	140	475	180
11	82	1880	416	170	3520	1620	120	210	68
12	95	2380	610	118	3960	1260	100	155	42
13	106	2690	770	118	3800	1210	90	310	75
14	106	2700	773	118	3860	1230	75	145	29
15	92	2600	646	112	3050	922	75	155	31
16	92	2680	666	124	2800	937	80	185	40
17	98	2710	717	146	2480	978	80	210	45
18	103	2980	829	138	2200	820	70	195	37
19	103	2620	729	146	2490	982	55	225	33
20	109	2420	712	140	1770	669	55	280	42
21	121	2600	849	130	1300	456	60	360	58
22	109	2400	706	90	230	56	60	360	58
23	100	2200	594	60	220	36	55	275	41
24	100	2190	591	80	270	58	50	255	34
25	109	2210	650	130	300	105	55	275	41
26	127	2270	778	120	305	99	60	265	43
27	127	1970	676	110	280	83	64	270	47
28	124	2070	693	140	355	134	66	340	61
29	150	1970	798	160	455	197	68	380	70
30	109	2020	594	170	1040	477	72	370	72
31	109	2010	592	--	--	--	76	350	72
TOTAL	2648	--	16435	3935	--	21975	3286	--	3387
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	74	350	70	80	285	62	160	220	95
2	70	360	68	70	320	60	160	200	86
3	67	365	66	65	310	54	200	210	113
4	63	335	57	66	265	47	190	240	123
5	60	335	54	66	275	49	170	225	103
6	56	385	58	66	295	53	160	240	104
7	70	465	88	60	310	50	160	235	102
8	80	500	108	70	340	64	160	340	147
9	80	480	104	90	230	56	200	365	197
10	75	455	92	110	195	58	340	390	358
11	72	445	87	130	220	77	500	530	716
12	60	425	69	150	170	69	600	350	567
13	52	425	60	200	100	54	1000	650	1760
14	52	415	58	400	335	362	1100	920	2730
15	55	400	59	350	240	227	900	750	1820
16	58	445	70	300	310	251	750	690	1400
17	62	425	71	270	305	222	500	810	1090
18	64	440	76	230	205	127	400	680	734
19	68	435	80	190	190	97	450	820	996
20	70	430	81	170	150	69	480	900	1170
21	70	370	70	170	140	64	440	880	1050
22	72	380	74	150	135	55	370	320	320
23	75	365	74	160	125	54	480	330	428
24	75	455	92	200	140	76	800	1750	3780
25	76	490	101	190	135	69	1200	2600	8420
26	80	485	105	190	215	110	1500	3100	12600
27	84	445	101	190	245	126	2000	7350	39700
28	100	480	130	180	255	124	1100	6150	18300
29	100	485	131	--	--	--	900	6150	14900
30	90	410	100	--	--	--	700	6050	11400
31	90	290	70	--	--	--	500	5400	7290
TOTAL	2220	--	2524	4563	--	2786	18570	--	132599

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	350	5300	5010	264	13400	9550	3920	62300	659000
2	300	4150	3360	195	10300	5420	2740	38900	288000
3	250	3000	2030	185	7600	3800	2180	25500	150000
4	220	2200	1310	175	5950	2810	1530	16500	68200
5	200	2850	1540	180	5000	2430	1380	12300	45800
6	200	3400	1840	2000	34500	482000	1350	10000	36500
7	220	3660	2170	2670	102000	735000	1130	11000	33600
8	220	2750	1630	1190	56000	180000	1090	8500	25000
9	210	2300	1300	800	28500	61600	993	5800	15600
10	220	2600	1540	623	15500	26100	1090	9720	28600
11	210	2250	1280	560	9100	13800	916	9940	24600
12	242	2300	1500	560	7850	11900	993	16100	43200
13	231	2600	1620	560	7250	11000	971	10600	27800
14	242	2650	1730	552	6550	9760	872	5700	13400
15	226	3300	2010	496	6600	8840	800	4500	9720
16	220	3800	2260	730	8660	17100	700	4200	7940
17	236	2650	1690	780	8070	17000	614	3700	6130
18	226	2650	1620	800	7490	16200	520	3200	4490
19	231	2850	1780	800	6950	15000	442	2800	3340
20	264	3600	2570	690	5700	10600	349	2800	2640
21	270	3700	2700	560	4350	6580	323	3050	2660
22	370	15100	15100	560	4350	6580	299	2250	1820
23	512	23700	32800	512	3700	5110	317	2800	2400
24	605	28000	45700	578	4590	7160	323	2850	2490
25	391	23500	24800	578	4680	7300	370	7640	8140
26	281	18600	14100	536	3750	5430	329	4950	4400
27	264	14000	9980	496	3800	5090	329	2800	2490
28	311	14300	12000	504	3950	5380	329	1900	1690
29	342	18900	17500	938	26500	67100	391	9780	13500
30	363	19700	19300	3000	64200	520000	287	9500	7360
31	--	--	--	4220	61400	700000	--	--	--
TOTAL	8427	--	233770	27292	--	2975640	27877	--	1540510
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	231	4600	2870	22	155	9.2	0	0	0
2	242	2150	1400	14	150	5.7	0	0	0
3	210	1510	856	11	135	4.0	0	0	0
4	180	1350	656	9.7	88	2.3	0	0	0
5	150	1350	547	9.0	86	2.1	0	0	0
6	124	1050	352	6.3	91	1.5	0	0	0
7	124	960	321	4.2	77	.87	0	0	0
8	115	940	292	3.6	49	.48	0	0	0
9	118	1110	354	1.7	56	.26	0	0	0
10	115	1250	388	.82	57	.13	0	0	0
11	95	790	203	.36	42	.04	0	0	0
12	85	640	147	0	0	0	0	0	0
13	65	520	91	0	0	0	0	0	0
14	54	500	73	0	0	0	0	0	0
15	49	450	60	0	0	0	.01	40	0
16	48	570	74	0	0	0	.64	42	.07
17	37	380	38	0	0	0	1.3	55	.19
18	30	350	28	0	0	0	2.8	29	.22
19	27	300	22	0	0	0	6.1	26	.43
20	26	270	19	0	0	0	12	28	.91
21	23	245	15	0	0	0	20	74	4.0
22	23	230	14	0	0	0	39	340	36
23	20	215	12	0	0	0	57	460	71
24	19	240	12	0	0	0	67	525	95
25	20	250	14	0	0	0	71	480	92
26	26	360	25	0	0	0	67	480	87
27	22	240	14	0	0	0	63	500	85
28	23	230	14	0	0	0	61	480	79
29	25	240	16	0	0	0	61	475	78
30	22	280	17	0	0	0	67	450	81
31	26	215	15	0	0	0	--	--	--
TOTAL	2374	--	8959	82.68	--	26.58	595.85	--	709.82
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									101870.53
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									4939321.43

YELLOWSTONE RIVER BASIN

06317000 POWDER RIVER AT ARVADA, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAR.											
27...	1125	3.0	2000	13000	70200	56	86	100	--	--	--
APR.											
07...	1110	7.0	200	4470	2410	33	48	70	94	100	--
23...	1830	15.0	578	28900	45100	32	52	83	97	100	--
24...	1835	11.0	480	24400	31600	60	75	87	96	100	--
26...	1910	8.0	275	15900	11800	48	62	76	95	100	--
MAY											
01...	1045	14.0	275	14000	10400	59	76	90	99	100	--
06...	1800	15.0	5160	80200	1120000	39	61	91	98	99	100
07...	0755	11.0	2850	122000	939000	41	59	89	99	100	--
31...	0945	11.0	4980	96900	1300000	33	47	84	98	100	--
JUNE											
01...	0845	13.0	4770	75600	974000	34	49	85	97	100	--
08...	2010	21.0	1070	9120	26300	31	43	65	88	99	100
16...	1530	26.0	680	5210	9570	26	36	69	89	100	--

a Daily mean discharge.

YELLOWSTONE RIVER BASIN

109

06324000 CLEAR CREEK NEAR ARVADA, WYO.

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57-N., R.77 W., Sheridan County, at gaging station, 600 ft downstream from Cabin Creek, 1.8 miles upstream from mouth, and 16 miles north of Arvada.

DRAINAGE AREA.--1,110 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: September 1949 to June 1954, October 1966 to September 1971.
Water temperatures: March 1950 to September 1953.
Sediment records: March 1950 to September 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 23...	1130	60	6.5	90	150	85	120	5.8	305	0	730	5.1
NOV. 30...	1230	123	11	100	110	48	59	4.4	256	0	390	4.6
JAN. 12...	1300	61	12	100	110	54	65	3.3	281	0	400	4.6
MAR. 24...	1500	207	9.0	270	100	49	68	4.4	220	0	410	5.4
MAY 27...	1045	151	4.3	240	67	34	49	2.4	165	0	270	4.4
JULY 08...	1100	35	8.9	250	110	64	81	5.3	252	0	480	4.3
AUG. 12...	1700	3.5	4.9	190	180	94	190	8.2	278	0	990	5.7
SEP. 01...	1130	.43	6.5	130	160	88	150	8.2	307	0	830	5.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 23...	.3	1.1	150	1250	1.70	203	730	480	1.9	1590	8.0	6.0
NOV. 30...	.3	.9	130	755	1.03	251	480	270	1.2	1070	8.0	.5
JAN. 12...	.4	2.7	110	789	1.07	130	500	269	1.3	1110	7.6	.0
MAR. 24...	.4	2.0	70	759	1.03	424	460	280	1.4	994	7.9	1.5
MAY 27...	.3	.2	70	515	.70	210	310	175	1.2	733	8.3	19.0
JULY 08...	.4	.2	110	885	1.20	83.6	550	343	1.5	1150	8.1	20.0
AUG. 12...	.4	.3	170	1600	2.18	15.1	830	602	2.9	2020	8.0	29.0
SEP. 01...	.5	11	40	1410	1.92	1.64	770	518	2.4	1870	7.9	22.0

06324500 POWDER RIVER AT MOORHEAD, MONT.

LOCATION.--Lat 45°03'21", long 105°52'27", in NW¼NW¼ sec.17, T.9 S., R.48 E., Powder River County, at footbridge at former gaging station site, 0.9 mile upstream from discontinued post office at Moorhead, 1 mile upstream from present gage, and at mile 185.8.

DRAINAGE AREA.--8,088 sq mi (at gaging station).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)
OCT. 15...	1000	157	150	73	--	790	230	--	--
NOV. 17...	1300	254	130	56	--	--	170	--	.30
DEC. 17...	1100	87	160	70	--	710	100	--	.60
JAN. 08...	1130	136	--	--	--	--	--	--	--
FEB. 18...	1230	1520	79	25	66	280	36	.4	--
MAR. 19...	1230	868	110	38	--	440	10	--	--
APR. 01...	1000	842	130	57	190	600	98	.7	--
MAY 06...	1800	636	130	12	--	690	100	--	--
JUNE 08...	1030	2000	65	24	--	360	33	--	--
JULY 01...	0900	586	86	37	--	430	85	--	--
AUG. 03...	1030	46	150	85	200	840	90	.4	--
SEP. 02...	1530	7.7	150	100	--	1100	35	--	--

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BERYL- LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED CAD- MIUM (CD) (UG/L)	DIS-SOLVED CHRO- MIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	CYANIDE (CN) (MG/L)
OCT. 15...	1000	157	--	0	--	1	0	0	--
DEC. 17...	1100	87	--	--	--	--	--	--	.00
FEB. 18...	1230	1520	0	0	100	0	0	12	.01
APR. 01...	1000	842	0	0	190	0	0	8	.00
AUG. 03...	1030	46	0	0	260	1	0	30	.00

[illegible]

YELLOWSTONE RIVER BASIN

111

06324500 POWDER RIVER AT MOORHEAD, MONT.--Continued

PERIOD OF RECORD.--Chemical analyses: February 1951 to September 1953, October 1955 to September 1957, July 1969 to September 1971.

Water temperatures: February 1951 to September 1953, October 1955 to September 1957.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	DIS-SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.								
15...	--	1830	2.49	776	660	--	--	2.5
NOV.								
17...	--	1490	2.03	1020	560	.08	.82	2.0
DEC.								
17...	--	1490	2.03	350	690	.10	.040	3.5
JAN.								
08...	--	--	--	--	--	--	--	1.6
FEB.								
18...	.40	584	.79	2400	--	.15	.49	8.1
MAR.								
19...	.20	1050	1.43	2460	430	.61	.42	3.6
APR.								
01...	.40	1240	1.69	2820	560	.23	.40	3.8
MAY								
06...	.40	1350	--	2320	370	.20	1.7	2.1
JUNE								
08...	.63	718	.00	--	260	.04	1.3	2.2
JULY								
01...	.25	954	1.30	1510	370	.26	.030	2.4
AUG.								
03...	.02	1610	2.19	200	720	.14	.050	1.3
SEP.								
02...	.01	1900	2.58	39.5	790	.13	.060	.7

DATE	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	DIS-SOLVED MOLY- BDENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE- NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.								
15...	0	15	--	0	4	0	0	10
DEC.								
17...	--	--	--	--	--	--	--	--
FEB.								
18...	8	240	.5	2	6	2	1	8
APR.								
01...	2	50	.2	0	6	10	.0	20
AUG.								
03...	4	10	.0	--	0	--	0	20

DATE	HEPTA- CHLOR (UG/L)	HEPTA- CHLOR EPOXIDE (UG/L)	MALA- THION (UG/L)	PARA- THION (UG/L)	DI- AZINON (UG/L)	METHYL PARA- THION (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)
OCT.									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN., 1971									
08...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
06...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG.									
03...	.00	.00	--	--	--	--	.00	.00	.00

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MONT.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	TEMP- ERATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 15...	1000	2.0	.5	2200	11.6	7.7	--
NOV. 17...	1300	4.5	11.0	2130	10.8	8.3	--
DEC. 17...	1100	.0	--	2250	11.8	7.8	--
JAN. 08...	1130	.0	2.0	2580	7.2	--	24
FEB. 18...	1230	.0	3.5	775	6.6	7.7	140
MAR. 19...	1230	1.0	4.0	1700	12.0	--	20
APR. 01...	1000	4.5	6.0	1650	11.0	7.8	180
MAY 06...	1800	19.0	24.0	1900	7.8	8.3	350
JUNE 08...	1030	16.5	22.0	950	8.0	7.5	2400
JULY 01...	0900	17.0	26.0	1120	7.8	8.2	25
AUG. 03...	1030	21.5	38.5	2250	8.6	8.2	55
SEP. 02...	1530	28.5	33.0	2050	7.6	8.5	24

CHEYENNE RIVER BASIN

113

06394000 BEAVER CREEK NEAR NEWCASTLE, WYO.

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, at gaging station at highway bridge, 2.2 miles downstream from Sheep Creek, and 23 miles south of Newcastle.

DRAINAGE AREA.--1,320 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: December 1949 to September 1952, December 1952 to August 1953, October 1967 to September 1971.

Sediment records: September 1949, March 1950 to September 1957.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
10...	1300	18	10	40	470	110	410	4.6	171	0	1500	590
NOV.												
05...	1130	23	10	40	460	120	310	4.0	183	0	1600	460
DEC.												
02...	0900	17	9.2	40	460	110	410	3.8	159	0	1500	570
JAN.												
05...	1420	11	13	100	510	120	290	4.2	268	0	1500	430
FEB.												
02...	1430	16	15	280	550	81	340	4.2	256	0	1500	500
APR.												
07...	1350	88	6.9	20	200	59	200	4.7	137	0	760	200
30...	0845	164	7.0	260	140	76	200	5.6	140	0	720	170
MAY												
12...	1440	25	5.3	50	340	180	740	8.3	238	0	1900	810
26...	0915	146	7.1	370	100	43	240	4.7	146	0	730	83
JUNE												
09...	1415	69	7.6	40	150	73	290	7.2	137	0	1000	110
JULY												
08...	0930	9.8	5.1	20	440	110	530	4.7	90	0	1600	690
AUG.												
04...	1515	4.8	1.2	30	540	79	770	8.8	73	0	1800	1000
SEP.												
01...	1525	1.4	2.6	100	510	160	720	7.4	82	0	2100	950

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
10...	1.0	.2	170	3200	4.35	156	1600	1460	4.4	4160	8.0	6.0
NOV.												
05...	.9	.2	180	3010	4.09	187	1600	1450	3.3	3730	7.7	.5
DEC.												
02...	1.0	1.1	160	3190	4.34	146	1600	1470	4.5	4110	7.8	.0
JAN.												
05...	.9	1.7	350	2960	4.03	87.9	1800	1580	3.0	3880	7.7	.5
FEB.												
02...	.8	2.1	320	3140	4.27	136	1700	1490	3.6	3930	7.8	.0
APR.												
07...	.8	.7	140	1490	2.03	354	750	638	3.2	1960	7.8	8.5
30...	.8	.7	210	1390	1.89	616	660	545	3.4	1870	7.9	9.0
MAY												
12...	1.1	.1	430	4120	5.60	278	1600	1410	8.1	5070	8.0	18.0
26...	.8	1.5	250	1280	1.74	505	440	320	5.1	1720	7.6	12.5
JUNE												
09...	.9	.8	300	1750	2.38	326	680	568	4.9	2220	7.8	20.5
JULY												
08...	.9	.2	230	3450	4.69	91.3	1500	1430	5.9	4370	7.5	18.0
AUG.												
04...	.9	.1	310	4290	5.83	55.6	1700	1640	8.2	5930	7.8	25.0
SEP.												
01...	1.0	.2	650	4470	6.08	16.9	1900	1830	7.1	5970	7.9	26.5

06395000 CHEYENNE RIVER AT EDMONT, S. DAK.

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, at gaging station, at downstream side of bridge on U.S. Highway 18 at Edgemont, 300 ft downstream from Chicago, Burlington and Quincy Railroad bridge, and 600 ft upstream from Cottonwood Creek.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	DIS- SOLVED	BICAR- BONATE (HCO3)	CAR- BONATE (CO3)	DIS- SOLVED SULFATE (SO4)	DIS- SOLVED	DIS- SOLVED
			CAL- CIUM (CA)	MAG- NE- SIUM (MG)	SODIUM (NA)	PO- TAS- SIUM (K)				CHLO- RIDE (CL)	FLUO- RIDE (F)
OCT. 13...	1140	18	440	140	730	--	--	--	1800	850	0.6
NOV. 17	1100	10	440	120	--	--	--	--	1800	750	--
DEC. 16...	1130	7.8	550	160	--	--	--	--	2100	710	--
JAN. 12...	1130	.41	820	250	880	17	482	0	3100	900	.7
FEB. 11...	1300	2.3	510	140	--	--	--	--	1900	630	--
MAR. 10...	1130	7.2	440	110	--	--	--	--	1400	560	--
APR. 13...	1330	57	210	56	290	7.0	155	0	920	240	.6
MAY 12...	1100	231	130	50	--	--	--	--	590	160	--
JUNE 16...	1200	609	120	41	--	--	--	--	660	55	--
JULY 21...	1130	11	340	120	620	10	221	0	1900	420	.5
AUG. 11...	1100	3.2	430	170	--	--	--	--	2400	650	--
SEPT. 15...	1145	.60	440	200	--	--	--	--	2900	740	--

DATE	TIME	DIS- CHARGE (CPS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
OCT. 13...	1140	18	0.00	0.00	0.00	0.00	30	0.00
JAN. 12...	1130	.41	.00	.00	9.0	.00	29	.00
APR. 13...	1330	57	.00	.00	.00	.00	75	.00
July 21...	1130	11	.00	.00	1.0	.00	15	5.0

[illegible]

CHEYENNE RIVER BASIN

115

06395000 CHEYENNE RIVER AT EDMONT, S. DAK.--Continued

DRAINAGE AREA.--7,143 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 13...	0.1	270	4340	5.90	211	1700	--	7.8	5310	8.0	11.0
NOV. 17...	.2	--	3970	5.40	107	1600	--	--	4840	8.0	4.5
DEC. 16...	.5	--	4690	6.38	98.8	2000	--	--	--	--	.5
JAN. 12...	4.1	440	6700	9.11	7.42	3100	2700	6.9	7130	7.8	.0
FEB. 11...	3.5	10	4180	5.68	26.0	1900	--	--	4820	--	1.0
MAR. 10...	2.6	--	3510	4.77	68.2	1500	--	--	4180	7.6	.5
APR. 13...	.8	210	1960	2.67	302	750	620	4.7	2390	8.0	16.5
MAY 12...	a2.0	--	1280	1.74	798	--	--	--	1790	7.9	13.5
JUNE 16...	a.2	--	1160	1.58	1910	--	--	--	1640	7.5	24.0
JULY 21...	a.0	770	3140	4.27	93.3	1300	1200	7.4	4400	7.5	21.5
AUG. 11...	a.11	--	4920	6.69	42.5	--	--	--	6010	8.0	25.0
SEPT. 15...	a.16	--	5880	8.00	9.53	--	--	--	6810	7.8	15.0

DATE	DIS-SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB- DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED SELE- NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED VANA- DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT. 13...	140	0.00	4.0	8.0	0.00	0.00	3.4	20
JAN. 12...	670	.00	3.0	7.0	20	2.0	5.3	30
APR. 13...	52	.01	9.0	8.0	.00	.00	2.0	20
JULY 21...	220	--	.0	6.0	.00	.00	1.0	490

DATE	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PARA- THION (UG/L)	METHYL PARA- THION (UG/L)	MALA- THION (UG/L)	DI- AZINON (UG/L)
OCT. 13...	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JAN. 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR. 13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY 21...	.00	.00	.00	.00	.00	.00	.00	.00	.00

a Nitrite plus nitrate as N.

CHEYENNE RIVER BASIN

06395000 CHEYENNE RIVER AT EDMONT, S. DAK.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL AMMONIA (N) (MG/L)
OCT.						
13...	1140	18	1.3	0.00	0.35	0.01
NOV.						
17...	1100	10	.48	--	.05	.05
DEC.						
16...	1130	7.8	.70	--	.01	.04
JAN.						
12...	1130	.41	--	.00	.10	.07
FEB.						
11...	1300	2.3	.70	--	.05	.03
MAR.						
10...	1130	7.2	1.2	--	.01	.00
APR.						
13...	1330	57	3.2	.00	.66	.04
MAY						
12...	1100	231	3.6	.00	.70	.21
JUNE						
16...	1200	609	--	--	.90	.28
JULY						
21...	1130	11	1.3	.05	.02	.19
AUG.						
11...	1100	3.2	--	--	.04	1.1
SEPT.						
15...	1145	.60	--	--	.11	2.4

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	FECAL COLI- FORM (COL. PER 100 ML)	TEMP- ERATURE (DEG C)
OCT.							
13...	1140	18	3900	8.8	7.6	29	11.0
NOV.							
17...	1100	10	4720	11.5	8.2	1	4.5
DEC.							
16...	1130	7.8	5070	9.6	7.8	0	.5
JAN.							
12...	1130	.41	6370	8.9	7.6	0	.0
FEB.							
11. .	1300	2.3	4220	9.0	7.2	16	1.0
MAR.							
10...	1130	7.2	4000	8.6	7.5	0	.5
APR.							
13...	1330	57	2860	8.7	7.6	0	16.5
MAY							
12...	1100	231	1800	9.4	8.3	820	13.5
JUNE							
16...	1200	609	1660	6.3	7.8	5100	24.0
JULY							
21...	1130	11	4800	9.6	8.0	50	21.5
AUG.							
11...	1100	3.2	6000	8.8	7.6	85	25.0
SEPT.							
15...	1145	.60	5800	9.3	8.0	77	15.0

CHEYENNE RIVER BASIN

117

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WYO.

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, at bridge 0.2 mile west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 07...	1030	7.6	6.5	100	250	81	98	6.5	203	0	940	8.9
NOV. 04...	1210	15	8.2	40	270	69	89	6.3	223	0	960	8.9
DEC. 01...	0910	18	8.4	50	280	84	84	7.4	214	0	1100	7.8
JAN. 07...	1130	6.7	11	150	310	79	100	6.7	342	0	1000	6.7
FEB. 03...	1550	11	11	60	270	80	87	6.3	262	0	930	6.5
APR. 06...	1600	322	6.0	60	78	20	29	5.1	92	0	260	3.2
MAY 11...	0920	93	11	40	210	53	49	6.3	244	0	660	6.7
JUNE 08...	1145	63	7.3	70	210	74	76	6.5	220	0	800	5.5
JULY 07...	1010	29	8.1	40	220	62	81	7.8	217	0	810	7.2
AUG. 03...	1125	108	1.9	50	78	29	81	8.1	171	0	350	5.9
31...	1125	68	.9	150	67	26	80	6.3	167	0	300	6.5

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO ₃) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 07...	.7	.3	190	1500	2.04	30.8	950	783	1.4	184	7.7	6.0
NOV. 04...	.7	.1	200	1520	2.07	61.6	950	767	1.3	1830	7.9	2.0
DEC. 01...	.7	.2	190	1640	2.23	79.7	1000	824	1.1	1950	8.0	.0
JAN. 07...	.6	.6	170	1700	2.31	30.8	1100	819	1.3	2050	7.6	.5
FEB. 03...	.8	.8	140	1520	2.07	45.1	1000	785	1.5	1810	7.8	.0
APR. 06...	.4	.9	80	449	.61	390	280	205	.8	627	7.5	6.0
MAY 11...	.6	.2	140	1110	1.51	279	750	550	.8	1350	7.8	10.5
JUNE 08...	.7	.3	180	1290	1.75	219	830	650	1.1	1550	8.0	18.0
JULY 07...	.6	.3	180	1310	1.78	103	820	642	1.2	1560	7.5	20.0
AUG. 03...	.5	.1	110	639	.87	186	310	170	2.0	942	8.1	21.5
31...	.6	.2	140	570	.78	105	280	143	2.1	881	8.2	21.5

EXTREMES.--1970-71: Continued

Period of record:

Specific conductance: Maximum daily, 2,840 micromhos Jan. 17, 1970; minimum daily, 461 micromhos Apr. 12, 1971.

Water temperatures: Maximum, 29.0°C July 20, 1966, July 7, Aug. 5, 6, 1968, July 25, 26, 29, Aug. 6, 1970, June 24, 1971; minimum, freezing point on many days during winter period.

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 13...	.8	.0	140	1630	2.22	115	970	830	1.5	2010	8.0	8.0
NOV. 04...	.8	.0	170	1650	2.24	120	1000	850	1.3	1930	8.0	3.5
DEC. 01...	.8	.2	310	1690	2.30	182	1000	855	1.1	2010	7.9	.5
JAN. 06...	.8	.0	200	2290	3.11	43.3	1400	1120	1.6	2560	7.6	.5
12...	--	--	190	--	--	--	--	--	--	--	--	.0
FEB. 03...	.7	.1	130	1050	1.43	62.4	700	570	.9	1340	6.6	.0
APR. 14...	.4	1.5	60	428	.58	941	300	211	.4	585	7.6	8.0
MAY 11...	.6	.4	120	1000	1.36	729	660	495	.9	1230	7.9	12.0
JUNE 08...	.7	.7	140	877	1.19	552	540	425	1.1	1130	7.8	18.5
JULY 20...	.7	.2	290	1490	2.03	410	950	806	1.1	1730	8.1	22.5
AUG. 03...	.6	.1	130	863	1.17	237	460	312	1.8	1190	8.1	24.5
31...	.6	.2	170	913	1.24	173	500	370	1.8	1260	8.2	23.5

[illegible]

CHEYENNE RIVER BASIN

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DAILY MEAN DIS- CHARGE (CFS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BISMUTH (BI) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)
OCT. 13...	1515	25	57	<10	57	<3	<30	<1	<30	<17
JAN. 12...	1100	7.0	90	--	--	<4	<25	--	<40	<25
APR. 14...	0730	814	--	0	23	<2	<7	0	<7	<3
JULY 20...	1200	102	--	2	--	0	--	0	0	--

DATE	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED GALLIUM (GA) (UG/L)	DIS- SOLVED GER- MANIUM (GE) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
OCT. 13...	0	--	<30	<30	72	78	<.5	<6	<30
JAN. 12...	4	--	<40	<40	110	380	--	<8	<25
APR. 14...	3	<7	<7	<7	16	9	.2	3	<14
JULY 20...	2	--	--	1	--	0	.2	4	5

DATE	DIS- SOLVED RUBI- DIUM (RB) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED TI- TANIUM (TI) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L)
OCT. 13...	<10	7	<3	3900	<30	<17	<30	20	--
JAN. 12...	<11	0	<2	6700	<25	<25	<40	--	--
APR. 14...	3	70	<0	730	<7	<7	<7.0	20	<7
JULY 20...	--	0	0	--	--	--	--	140	--

CHEYENNE RIVER BASIN

121

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DAILY MEAN DIS- CHARGE (CFS)	ALDRIN (UG/L)	CHLOR- DANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)
OCT. 13...	1515	25	.00	.0	.00	.00	.00	.00	.00	.00
JAN. 12...	1100	7.0	.00	.0	.00	.00	.00	.00	.00	.00
APR. 14...	0730	814	.00	.0	.00	.00	.00	.01	.00	.00
JULY 20...	1200	102	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PARA- THION (UG/L)	METHYL PARA- THION (UG/L)	MALA- THION (UG/L)	DI- AZINON (UG/L)
OCT. 13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN. 12...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR. 14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY 20...	.00	.00	.00	.00	.00	--	--	--	--

DATE	TIME	DAILY MEAN DIS- CHARGE (CFS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	CYANIDE (CN) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL AMMONIA (N) (MG/L)
OCT. 13...	1515	25	.9	<.01	.020	<.01
JAN. 12...	1100	7.0	1.0	--	.020	.02
APR. 14...	0730	814	.9	.00	.70	.75
JULY 20...	1200	102	1.4	--	.32	.01

FIELD DETERMINATIONS

DATE	TIME	DAILY MEAN DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	FECAL COLI- FORM (COL. PER 100 ML)	TEMP- ERATURE (DEG C)
OCT. 13...	1515	25	2100	10.4	8.1	11	8.0
JAN. 12...	1100	7.0	2900	10.2	7.8	23	.0
APR. 14...	0730	814	580	9.6	7.8	76	8.0
JULY 20...	1200	102	1900	8.0	7.7	300	22.5

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, at gaging station, 350 ft downstream from bridge on State Highway 125, 0.8 mile upstream from Camp Creek, 4.2 miles northwest of Northgate, and 4.4 miles south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.

Water temperatures: October 1965 to September 1966, May to September 1971.

EXTREMES.--May to September 1971:

Water temperatures: Maximum, 22.0°C Aug. 15, 25; minimum, freezing point Sept. 15-18.

REMARKS.--Temperature recorder at gaging station May 6 to Sept. 30; record furnished by Wyoming Game and Fish Commission.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 04...	1710	153	7.1	--	29	5.2	14	2.0	122	0	26	2.1
NOV. 04...	1535	180	12	--	37	5.6	17	1.1	140	0	29	4.6
DEC. 01...	0830	146	12	--	32	8.1	14	2.0	134	0	30	4.6
JAN. 07...	1130	93	14	--	29	7.1	14	1.6	128	0	21	3.2
MAR. 03...	1120	102	15	--	32	6.2	14	1.6	128	0	21	3.2
APR. 14...	1400	1760	9.4	--	24	4.1	12	4.7	98	0	18	5.2
MAY 04...	1415	1290	10	--	24	5.1	10	2.2	92	0	22	3.9
26...	1015	678	11	--	29	6.8	16	1.8	122	0	30	5.0
JUNE 09...	--	1270	13	--	30	8.8	17	2.2	140	0	24	3.1
JULY 07...	--	937	9.9	--	33	7.9	15	.9	149	0	18	1.1
AUG. 04...	1045	390	8.4	10	25	4.0	12	.9	103	0	17	.8

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 04...	.7	.0	40	146	.20	60.3	95	0	.6	249	8.3	13.0
NOV. 04...	.7	.0	80	176	.24	85.5	120	5	.7	295	8.0	--
DEC. 01...	.6	.2	40	169	.23	66.6	110	0	.6	274	8.2	--
JAN. 07...	.7	.2	20	154	.21	38.7	100	0	.6	273	7.4	.0
MAR. 03...	.6	.4	10	157	.21	43.2	100	0	.6	249	7.5	--
APR. 14...	.4	.4	30	126	.17	599	78	0	.6	204	7.6	7.0
MAY 04...	.4	.6	20	123	.17	428	80	5	.5	192	7.8	12.0
26...	.4	.4	50	160	.22	293	100	0	.7	257	7.8	8.0
JUNE 09...	.5	.6	50	168	.23	576	110	0	.7	273	7.8	12.0
JULY 07...	.4	.3	40	160	.22	405	120	0	.6	274	7.8	14.0
AUG. 04...	.4	.2	20	120	.16	126	80	0	.6	203	7.8	--

PLATTE RIVER BASIN

123

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.--Continued

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1971

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	18.5	14.0	21.0	12.0	21.0	13.5
2	---	---	---	---	---	---	18.5	15.0	18.5	13.0	19.5	13.0
3	---	---	---	---	---	---	19.0	15.0	18.5	11.0	15.0	10.0
4	---	---	---	---	---	---	18.5	15.0	19.0	14.5	12.0	8.5
5	---	---	---	---	14.5	9.5	19.5	15.0	20.5	14.0	15.0	7.0
6	---	---	10.5	6.5	15.5	10.5	18.0	15.5	21.0	14.0	17.0	8.5
7	---	---	10.0	6.0	17.0	10.5	19.0	14.5	21.0	14.0	14.0	11.0
8	---	---	9.0	6.5	17.0	13.0	19.0	15.5	20.0	13.5	16.0	10.0
9	---	---	9.0	6.5	16.0	13.0	18.5	15.0	19.0	14.0	18.0	10.0
10	---	---	10.0	5.0	15.0	11.0	19.0	15.0	20.0	13.5	18.5	10.5
11	---	---	12.0	5.5	15.0	11.0	20.0	15.0	18.5	14.0	19.0	11.0
12	---	---	---	---	14.5	11.0	20.0	14.5	20.0	14.5	19.5	11.5
13	---	---	---	---	16.5	11.0	21.0	15.5	21.0	13.5	18.0	8.5
14	---	---	---	---	18.0	13.5	20.5	16.5	21.5	14.0	16.5	5.0
15	---	---	---	---	18.5	14.5	21.0	15.5	22.0	14.0	19.0	0.0
16	---	---	---	---	18.5	14.5	21.5	16.0	20.5	14.5	11.5	0.0
17	---	---	---	---	18.0	15.0	20.5	16.5	20.5	14.0	1.0	0.0
18	---	---	---	---	16.5	14.5	20.5	17.0	20.5	15.0	10.0	0.0
19	---	---	---	---	18.5	14.0	18.5	15.5	20.5	13.5	10.0	1.0
20	---	---	---	---	19.0	15.5	20.0	14.5	20.5	14.5	8.0	4.0
21	---	---	---	---	20.0	15.5	19.0	16.0	19.5	13.5	6.5	4.0
22	---	---	---	---	20.5	16.5	19.0	15.0	21.0	13.5	10.0	3.5
23	---	---	---	---	20.0	16.5	19.5	14.5	20.0	14.5	11.5	4.5
24	---	---	---	---	20.5	17.0	18.0	14.5	20.5	13.5	13.0	5.5
25	---	---	---	---	20.0	16.0	18.0	14.0	22.0	14.0	13.0	6.0
26	---	---	---	---	19.5	16.0	18.5	14.0	19.5	15.5	13.0	7.0
27	---	---	---	---	19.0	16.0	18.5	14.0	20.0	15.0	12.0	6.0
28	---	---	---	---	19.0	15.5	18.5	13.0	20.0	15.0	11.5	5.5
29	---	---	---	---	18.0	15.0	18.5	13.5	19.5	15.0	10.0	4.5
30	---	---	---	---	17.0	14.0	19.0	11.5	20.0	14.0	13.5	7.0
31	---	---	---	---	---	---	19.5	13.5	20.5	13.5	---	---
MONTH	---	---	---	---	20.5	9.5	21.5	11.5	22.0	11.0	21.0	0.0

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WYO.
(Hydrologic bench-mark station)/

LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼SW¼ sec.10, T.12 N., R.84 W., Carbon County, Medicine Bow National Forest, at gaging station, 0.6 mile upstream from Hog Park Creek, and 13 miles south of Encampment.

DRAINAGE AREA.--72.7 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1968 to September 1971.
Sediment records: October 1970 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
06...	45	10	80	7.7	1.5	2.0	1.0	33	0	3.0	.4	.1
NOV.												
25...	32	12	220	7.6	1.4	2.0	.8	34	0	1.7	.4	.1
DEC.												
16...	30	12	50	8.0	1.7	2.0	.6	36	0	3.2	.4	.0
JAN.												
19...	27	17	80	8.2	1.6	2.0	1.0	34	0	3.6	.4	.1
MAR.												
31...	24	12	80	11	1.2	2.2	.2	40	0	2.5	1.3	.2
JUNE												
28...	1150	6.0	240	3.1	.6	2.2	.9	12	0	4.1	1.1	.2
JULY												
28...	112	9.6	120	5.7	1.0	1.7	.6	26	0	3.5	.3	.1
AUG.												
10...	80	9.6	50	7.1	1.3	1.8	.9	37	0	2.2	1.0	.1
SEP.												
09...	48	11	50	6.8	1.3	7.9	.9	38	0	2.8	1.1	.1

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.											
06...	.00	0	42	.06	5.10	25	0	.2	65	7.0	2.5
NOV.											
25...	.02	10	43	.06	3.72	25	0	.2	57	7.2	.0
DEC.											
16...	.05	0	46	.06	3.73	27	0	.2	57	6.4	.0
JAN.											
19...	.09	20	51	.07	3.72	27	0	.2	62	7.8	.0
MAR.											
31...	.07	20	50	.07	3.24	31	0	.2	67	7.5	.0
JUNE											
28...	.07	30	25	.03	77.6	10	0	.3	27	6.7	11.0
JULY											
28...	.01	10	35	.05	10.6	18	0	.2	44	7.9	15.5
AUG.											
10...	.01	10	42	.06	9.07	23	0	.2	50	8.4	9.0
SEP.											
09...	.03	30	51	.07	6.61	22	0	.7	58	7.1	14.0

DATE	TIME	DIS- CHARGE (CFS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
OCT.						
06...	1130	45	1.1	--	.000	--
NOV.						
25...	1300	32	.8	--	.000	--
DEC.						
16...	1200	30	1.7	--	--	--
JAN.						
19...	1000	27	.9	.010	--	--
MAR.						
31...	0915	24	1.7	--	.030	--
JUNE						
28...	2030	1150	1.1	--	.030	--
JULY						
28...	1800	112	.5	.010	--	.01
AUG.						
10...	1000	80	.3	.040	--	.01
SEP.						
09...	1630	48	1.4	--	--	.03

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
OCT. 06...	1130	45	0	0	--	0	0	--	0	5	.0
JUNE 28...	2030	1150	--	0	--	--	--	1	5	8	.0
SEP. 09...	1630	48	0	0	0	--	--	0	0	10	1.3

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	CHLOR- DANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)
SEP. 09...	1630	48	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PARA- THION (UG/L)	METHYL PARA- THION (UG/L)	MALA- THION (UG/L)	DI- AZINON (UG/L)
SEP. 09...	.00	.00	.00	.00	.00	.00	.00	.00	.00

ANALYSIS OF PESTICIDES IN BOTTOM DEPOSIT

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN IN BOTTOM DE- POSITS (UG/KG)	DDE IN BOTTOM DE- POSITS (UG/KG)	DDT IN BOTTOM DE- POSITS (UG/KG)	DI- ELDRIN IN BOTTOM DE- POSITS (UG/KG)	ENDRIN IN BOTTOM DE- POSITS (UG/KG)
SEP. 09...	1630	48	<.2	<.2	<.2	<.2	<.2
DATE	HEPTA- CHLOR IN BOTTOM DE- POSITS (UG/KG)	HEPTA- CHLOR EPOXIDE IN BOT- TOM DE- POSITS (UG/KG)	LINDANE IN BOTTOM DE- POSITS (UG/KG)	CHLOR- DANE IN BOTTOM DE- POSITS (UG/KG)	MALA- THION IN BOTTOM DE- POSITS (UG/KG)	METHYL PARA- THION IN BOT- TOM DE- POSITS (UG/KG)	PARA- THION IN BOTTOM DE- POSITS (UG/KG)
SEP. 09...	<.2	<.2	<.2	<1.0	<.2	<.2	<.2

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)
OCT. 06...	1130	45	42	8.5	6.3	23
NOV. 25...	1300	32	76	9.8	7.8	3
DEC. 16...	1200	30	66	9.7	7.6	1
JAN. 19...	1000	27	71	9.7	7.3	3
MAR. 31...	0930	24	78	10.2	7.4	0
JUNE 28...	2030	1150	38	9.0	8.1	7
JULY 28...	1800	112	52	7.4	7.5	3
AUG. 10...	1000	80	58	8.5	7.1	11
SEP. 09...	1630	48	73	7.5	7.5	6

06623600 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 06...	1130	2.5	45	4	.49
NOV. 25...	1300	.0	32	3	.26
DEC. 16...	1200	.0	30	4	.32
JAN. 19...	1000	.0	27	7	.51
MAR. 31...	0915	.0	24	4	.26
JULY 28...	1800	15.5	112	1	.30
AUG. 10...	1000	9.0	80	8	1.7
SEP. 09...	1630	14.0	48	1	.13

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WYO.

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, at gaging station, 0.5 mile upstream from mouth, and 8 miles northeast of Encampment.

DRAINAGE AREA.--265 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 07...	1130	190	19	130	30	3.0	14	2.8	101	0	18	11
NOV. 18...	1500	83	23	10	36	5.0	16	2.7	107	0	30	21
DEC. 15...	1510	109	23	80	37	2.8	15	2.0	105	0	36	9.9
JAN. 19...	1600	84	22	40	36	3.8	14	1.1	101	0	37	8.6
MAR. 24...	0830	62	19	90	36	4.5	14	1.8	104	0	37	8.6
MAY 18...	1605	912	11	0	7.6	1.5	3.3	.7	27	0	8.2	1.2
JUNE 23...	0800	2960	7.4	420	8.3	1.1	3.3	.9	31	0	1.6	2.8
JULY 15...	1100	526	13	90	16	4.3	8.2	1.6	68	0	13	4.4
AUG. 10...	1600	111	22	260	40	4.1	16	2.9	129	0	37	6.7
SEP. 09...	1045	76	25	150	41	4.6	18	3.3	137	0	42	7.8

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 07...	.3	.4	30	140	.19	71.8	88	5	.7	250	7.8	3.5
NOV. 18...	.5	.2	0	187	.25	41.9	110	22	.7	295	8.2	2.0
DEC. 15...	.3	.3	0	178	.24	52.4	100	14	.6	273	8.3	.0
JAN. 19...	.3	.7	20	173	.24	39.2	100	17	.6	282	7.7	.0
MAR. 24...	.3	.4	30	173	.24	29.0	110	25	.6	267	8.1	1.0
MAY 18...	.2	.4	10	48	.07	118	25	3	.3	62	7.2	4.5
JUNE 23...	.2	.4	0	41	.06	328	25	0	.3	58	7.4	9.5
JULY 15...	.3	.3	40	94	.13	134	58	2	.5	132	7.6	14.0
AUG. 10...	.3	.3	40	193	.26	57.8	120	14	.6	306	7.9	18.0
SEP. 09...	.4	.3	50	211	.29	43.3	120	8	.7	329	8.1	9.5

PLATTE RIVER BASIN

127

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WYO.

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, at railroad bridge 2.3 miles downstream from Interstate Highway 80, 8.9 miles east of Sinclair, and about 12 miles upstream from gaging station.

DRAINAGE AREA.--8,134 sq mi (at gaging station), of which 4,073 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1960 to March 1967, January 1968 to September 1971.
Water temperatures: December 1960 to March 1967, January 1968 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 23...	1100	584	15	50	51	10	25	2.3	152	0	89	10
NOV. 19...	1100	508	17	100	60	17	33	2.9	165	0	130	12
DEC. 15...	1025	340	19	70	63	15	33	2.9	183	0	130	14
JAN. 18...	1630	404	17	120	51	17	30	.7	146	0	120	12
MAR. 23...	0945	511	16	0	52	14	29	2.7	151	0	110	12
MAY 20...	1505	4440	12	180	23	5.1	10	1.6	76	0	30	5.5
JUNE 15...	1800	7850	12	230	23	5.7	6.0	1.1	77	0	29	2.4
JULY 14...	1710	1880	12	30	34	6.1	14	1.6	125	0	28	5.0
AUG. 18...	1050	486	9.1	140	38	8.4	17	2.2	126	0	57	5.2
SEP. 14...	1630	429	9.9	140	43	9.0	20	2.2	116	.6	74	7.3

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 23...	.4	.2	60	280	.38	442	170	45	.8	454	8.3	3.0
NOV. 19...	.6	.2	140	352	.48	483	220	85	1.0	560	8.1	.5
DEC. 15...	.6	.3	20	368	.50	338	220	70	1.0	556	8.3	.0
JAN. 18...	.5	.2	40	320	.44	349	200	80	.9	510	8.0	.0
MAR. 23...	.6	.1	70	308	.42	425	180	56	.9	456	8.1	.5
MAY 20...	.2	.4	70	125	.17	1500	78	16	.5	192	8.2	8.0
JUNE 15...	.3	.4	30	118	.16	2500	80	17	.3	196	7.8	15.0
JULY 14...	.4	.1	40	163	.22	827	110	7	.6	264	7.8	19.5
AUG. 18...	.5	.1	50	200	.27	262	130	27	.7	338	8.1	20.5
SEP. 14...	.6	.5	30	230	.31	266	140	35	.7	370	8.4	16.5

PLATTE RIVER BASIN

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WYO.

LOCATION.--Lat 41°56'55", long 106°10'13", in NE¼ sec.21, T.23 N., R.78 W., Carbon County, at bridge on State Highway 487 and 3.8 miles north of Medicine Bow.

DRAINAGE AREA.--966 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
21...	1635	18	14	0	69	19	74	3.5	156	15	240	8.9
NOV.												
16...	1425	4.0	14	10	74	17	65	3.6	183	0	240	9.6
DEC.												
14...	1335	10	16	40	91	20	89	3.6	223	0	300	14
JAN.												
20...	1605	6.3	10	90	78	22	79	2.2	165	0	300	12
MAR.												
22...	1300	25	14	0	62	16	50	3.6	149	0	190	7.6
MAY												
21...	0815	392	14	310	31	1.6	11	1.3	79	0	42	3.3
JUNE												
23...	1735	25	14	60	64	13	35	3.3	168	0	150	6.7
JULY												
13...	1600	12	15	30	93	29	74	4.9	220	0	310	13
AUG.												
17...	1410	7.5	14	20	81	21	83	4.7	168	4	300	9.1
SEP.												
15...	1105	7.8	15	40	81	20	78	4.0	183	0	300	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
21...	.4	.1	60	520	.71	25.3	250	97	2.0	762	8.4	9.0
NOV.												
16...	.6	.4	40	514	.70	5.55	260	110	1.8	789	8.1	.0
DEC.												
14...	.5	.7	20	644	.88	17.4	310	127	2.2	912	8.0	.0
JAN.												
20...	.4	.7	80	580	.79	9.87	280	145	2.0	860	7.9	.0
MAR.												
22...	.4	.2	40	415	.56	28.0	220	98	1.5	574	8.2	2.0
MAY												
21...	.5	.3	20	144	.20	152	83	18	.5	202	7.9	6.5
JUNE												
23...	.4	.3	10	366	.50	24.7	220	82	1.0	534	8.2	24.5
JULY												
13...	.5	.2	60	649	.88	21.0	350	170	1.7	849	8.3	23.5
AUG.												
17...	.4	.1	70	603	.82	12.2	290	146	2.1	860	8.4	28.0
SEP.												
15...	.5	.4	60	598	.81	12.6	280	130	2.0	867	8.2	9.5

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
AUG.				
31...	1350	8.0	234	5.1

PLATTE RIVER BASIN

129

06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WYO.

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼NW¼ sec.34, T.24 N., R.81 W., Carbon County, at gaging station, 15 ft downstream from bridge on county road, 2 miles upstream from Troublesome Creek, 9 miles upstream from high-water line of Seminole Reservoir at elevation 6,357 ft, and 10 miles north of Hanna.

DRAINAGE AREA.--2,338 sq mi, of which 396 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 23...	1400	82	5.2	20	99	55	90	3.0	174	6	470	23
NOV. 16...	1800	69	7.3	10	110	55	89	2.2	204	0	480	27
DEC. 14...	1545	71	9.3	60	120	55	110	3.1	230	0	530	30
JAN. 18...	1145	51	7.8	10	110	49	73	1.3	183	0	430	25
MAR. 22...	1545	123	5.4	100	90	52	95	3.1	159	0	460	24
MAY 21...	1030	790	10	20	44	15	28	1.6	99	0	150	5.8
JULY 13...	1945	458	6.8	60	66	33	59	2.4	183	0	250	13
AUG. 17...	1705	55	2.2	10	100	55	130	3.1	148	4	580	34
SEP. 28...	2000	48	5.0	300	120	62	140	3.6	177	0	630	35

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 23...	.4	2.6	120	840	1.14	186	480	327	1.8	1210	8.4	4.5
NOV. 16...	.9	4.0	40	871	1.18	162	500	333	1.7	1230	8.2	.5
DEC. 14...	.5	2.9	70	978	1.33	187	540	351	2.1	1340	8.3	.0
JAN. 18...	.5	1.1	70	792	1.08	109	480	330	1.5	1120	8.0	.0
MAR. 22...	.5	7.1	90	813	1.11	270	440	310	2.0	1070	8.2	1.0
MAY 21...	.4	.5	50	301	.41	642	170	89	.9	443	7.7	9.0
JULY 13...	.4	1.0	90	526	.72	650	300	--	1.5	763	8.1	18.0
AUG. 17...	.5	.3	130	988	1.34	147	490	362	2.6	1340	8.4	25.5
SEP. 28...	.5	3.8	130	1090	1.48	141	560	415	2.6	1400	8.1	9.0

PLATTE RIVER BASIN

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WYO.

LOCATION.--Lat 42°10'42", long 106°52'33", in NW¼NE¼SW¼ sec.34, T.26 N., R.84 W., Carbon County, at Bureau of Reclamation gaging station, 1,800 ft downstream from Kortess Dam, 1.2 miles upstream from Lost Creek, 6 miles southwest of Leo, and 5 miles upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft.

DRAINAGE AREA.--11,200 sq mi, of which 4,548 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.							
27...	1500	1950	20	378	8.3	8.1	10.0
NOV.							
27...	1330	1860	15	374	9.9	8.0	3.0
DEC.							
28...	1200	1930	10	420	10.8	8.2	1.0
JAN.							
29...	1130	2600	8	458	10.6	8.1	1.0
MAR.							
02...	1100	2600	7	520	11.0	8.1	3.0
APR.							
02...	1045	1200	6	514	11.0	8.2	1.0
MAY							
05...	1140	2680	8	558	11.6	8.2	1.6
JUNE							
02...	0945	2310	10	458	9.5	7.9	8.0
JULY							
06...	1540	2430	15	390	8.1	7.6	11.0
AUG.							
03...	1115	2180	15	340	6.4	7.6	13.0
SEP.							
07...	1115	880	10	326	6.6	7.6	13.5

06637910 ROCK CREEK AT ATLANTIC CITY, WYO.

LOCATION.--Lat 42°30'47", long 108°44'46", in NW¼SE¼ sec2, T.29 N., R.100 W., Fremont County, at gaging station, 500 ft downstream from Slate Creek, and 1.4 miles northwest of Atlantic City.

DRAINAGE AREA.--21.3 sq mi.

PERIOD OF RECORD.--Chemical analyses: April to June 1957, November 1957 to September 1958.

Water temperatures: June to September 1957, May to September 1958, May to September 1959, April 1960 to September 1971.

Sediment records: June 1957 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 17.5°C June 30, July 7, 14, Aug. 17; minimum, freezing point on several days during December to March.

Sediment concentrations: Maximum daily, 6,900 mg/l Apr. 1; minimum daily, 5 mg/l Feb. 4, Aug. 23, 24.

Sediment discharge: Maximum daily, 224 tons Apr. 1; minimum daily, 0.03 ton Oct. 5.

Period of record:

Water temperatures: Maximum, 23.0°C July 29, 1961; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 7,400 mg/l June 10, 1965; minimum daily, not determined.

Sediment discharge: Maximum daily, 2,900 tons June 16, 1963; minimum daily, 0.01 ton Jan. 13, 1969.

REMARKS.--Flow affected by ice Oct. 28, Nov. 22, 23, 31, Dec. 1, 10, 13, 19-22, Jan. 1-5, 9-15, 27, 30, Feb. 5-7, 20, 21, Feb. 22 to Mar. 6, 16-18.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	3.0	---	---	---	0.5	2.5	6.5	6.5	14.5	14.5	11.5
2	10.5	3.5	---	---	---	1.0	2.0	7.0	6.0	17.0	14.0	12.0
3	11.5	3.0	---	0.5	---	0.5	2.5	7.5	6.5	13.0	13.5	12.0
4	10.5	3.0	---	---	1.0	---	3.0	7.0	6.5	16.0	13.0	11.0
5	9.0	4.0	---	---	1.5	0.5	4.0	5.0	9.0	15.0	13.5	14.5
6	2.5	4.5	---	---	---	---	4.5	6.0	8.0	15.5	12.5	15.5
7	2.5	3.5	---	0.0	1.0	0.0	---	6.0	8.0	17.5	14.0	10.5
8	3.0	4.0	---	---	1.5	---	---	6.5	6.5	15.5	14.0	11.0
9	3.5	3.0	---	---	---	---	4.5	6.0	10.5	14.0	15.5	11.5
10	4.5	2.5	---	0.5	1.5	---	5.0	7.0	8.0	16.5	14.5	11.0
11	6.0	3.0	---	0.0	2.5	---	5.5	8.0	9.0	15.5	14.0	14.5
12	7.0	1.0	---	0.0	1.0	2.5	5.0	9.0	11.0	15.0	12.5	12.5
13	6.5	---	---	0.0	---	---	5.5	7.5	8.5	15.5	13.5	14.0
14	3.0	---	---	0.5	---	---	---	7.0	9.5	17.5	15.0	13.5
15	5.5	---	1.0	---	---	---	5.0	8.0	12.5	16.0	17.0	12.5
16	6.0	---	---	1.0	---	---	5.5	6.0	12.5	15.5	17.0	4.5
17	7.0	1.5	---	1.0	---	---	5.0	4.5	12.0	15.0	17.5	5.0
18	4.5	2.0	---	1.0	---	---	5.5	4.5	12.5	15.0	17.0	8.0
19	6.5	3.0	0.0	---	---	1.0	4.5	6.5	13.5	16.5	15.0	9.0
20	6.0	2.0	---	0.5	0.0	---	4.0	6.0	15.0	16.5	15.5	7.0
21	5.0	1.0	---	0.0	0.5	2.5	---	6.5	15.5	13.5	15.5	7.5
22	3.5	1.0	0.5	0.0	---	---	5.5	8.0	16.5	15.5	15.5	10.0
23	4.0	1.0	1.0	1.5	1.0	2.0	6.0	6.5	16.5	14.0	14.0	8.5
24	4.5	2.5	0.0	2.0	---	1.0	7.0	8.0	10.0	16.5	14.0	9.0
25	3.0	1.0	---	1.0	0.0	1.5	4.0	9.0	---	15.0	15.5	10.5
26	3.0	---	0.5	---	0.0	---	4.0	10.0	---	14.5	13.5	7.5
27	2.5	0.5	0.5	---	0.0	3.0	1.5	10.0	---	14.5	14.5	9.0
28	3.0	0.5	1.0	---	0.5	3.5	5.5	10.5	---	13.0	15.5	8.0
29	3.5	0.5	1.0	1.0	---	3.0	5.5	8.5	13.5	14.0	15.0	7.0
30	3.5	---	0.5	2.5	---	4.0	6.5	8.5	17.5	12.5	14.5	7.5
31	4.0	---	0.5	---	---	---	---	9.0	---	16.5	16.5	---
MONTH	5.5	2.5	---	---	---	---	4.5	7.5	11.0	15.0	14.5	10.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.												
28...	1405	3.5	11	2250	67	36	91	100	--	--	--	--
APR.												
01...	0940	1.0	12	19000	616	21	48	74	86	96	99	100
03...	1720	2.5	12	2960	96	14	55	98	100	--	--	--
MAY												
29...	0720	5.0	85	2170	498	--	--	28	29	30	36	96
JUNE												
01...	1630	7.0	115	1820	565	--	--	41	50	61	73	100

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.4	28	.56	11	34	1.0	5.3	33	.47
2	3.8	21	.22	4.8	62	.85	8.8	37	.88
3	3.6	23	.22	4.1	13	.14	9.9	39	1.0
4	3.2	21	.18	4.6	30	.37	9.1	37	.91
5	2.1	6	.03	9.0	28	.68	8.8	34	.81
6	2.4	21	.14	12	32	1.0	8.5	35	.80
7	2.4	11	.07	8.1	28	.61	5.8	42	.66
8	4.1	61	.75	6.0	66	1.1	3.9	44	.46
9	7.7	56	1.2	4.8	67	.87	4.2	41	.46
10	10	47	1.3	5.4	25	.36	5.5	37	.55
11	5.7	27	.42	8.1	36	.69	8.1	38	.83
12	3.0	18	.15	14	39	1.5	6.3	44	.75
13	3.0	12	.10	9.0	32	.78	3.5	48	.45
14	2.9	6	.05	5.4	31	.45	3.5	45	.43
15	2.7	16	.12	4.3	32	.37	5.3	40	.57
16	5.4	34	.71	4.1	33	.37	7.9	33	.70
17	7.4	15	.30	3.8	33	.34	8.3	31	.69
18	3.0	6	.05	7.4	32	.64	6.4	33	.57
19	4.1	23	.25	10	32	.86	5.2	64	.90
20	4.6	37	.46	11	22	.65	4.3	50	.58
21	4.8	54	.70	4.7	21	.27	4.1	32	.35
22	3.4	38	.35	4.5	86	1.0	4.7	83	1.1
23	6.0	21	.34	5.3	106	1.5	7.1	38	.73
24	9.9	35	.94	9.2	41	1.0	6.0	16	.26
25	9.4	42	1.1	12	48	1.6	3.7	6	.06
26	5.7	19	.29	10	36	.97	2.2	12	.07
27	4.8	40	.52	7.9	32	.68	3.0	9	.07
28	5.3	128	1.8	3.7	33	.33	2.6	40	.28
29	5.4	88	1.3	3.3	34	.30	3.7	108	1.8
30	7.4	46	.73	3.3	32	.29	6.2	120	2.0
31	11	23	.68	--	--	--	5.7	79	1.2
TOTAL	161.6	--	16.03	210.8	--	21.57	177.6	--	21.39
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.5	65	.79	9.4	15	.38	5.1	16	.22
2	4.0	36	.39	9.4	10	.25	5.2	42	.59
3	3.6	122	1.2	8.1	8	.17	5.4	24	.35
4	3.0	126	1.0	4.6	5	.06	4.9	47	.62
5	2.6	50	.35	2.9	8	.06	4.3	51	.59
6	3.0	36	.29	2.9	88	.69	6.0	56	.91
7	5.0	37	.50	2.9	265	2.1	7.2	52	1.0
8	6.4	37	.64	4.1	96	1.6	8.3	49	1.1
9	7.5	38	.77	7.4	43	.86	8.4	47	1.1
10	7.5	128	2.6	6.3	93	1.9	8.0	45	.97
11	6.7	88	1.6	7.7	185	3.8	8.4	43	.98
12	5.5	32	.48	6.7	124	2.2	9.5	42	1.1
13	6.5	30	.53	6.3	62	1.1	8.1	41	.90
14	9.0	38	.92	5.4	62	.90	7.9	40	.85
15	9.3	45	1.1	6.3	61	1.0	7.4	40	.80
16	10	73	2.2	8.1	60	1.3	7.4	39	.78
17	7.4	154	3.1	8.1	59	1.3	7.0	34	.64
18	7.4	48	.96	8.5	58	1.3	7.7	34	.71
19	6.3	40	.68	7.7	58	1.2	8.2	59	1.3
20	7.7	42	.87	6.5	58	1.0	9.1	78	1.9
21	10	44	1.2	5.0	49	.66	10	60	1.6
22	7.7	68	1.4	4.8	45	.58	9.5	40	1.0
23	2.7	57	.42	4.9	48	.64	12	21	.68
24	2.3	17	.11	5.0	36	.49	12	47	1.7
25	2.1	24	.14	5.0	20	.27	13	102	3.6
26	2.0	27	.15	5.0	15	.20	12	100	3.2
27	4.0	28	.30	5.0	15	.20	10	930	28
28	6.0	29	.47	5.0	15	.20	11	2280	68
29	8.1	30	.66	--	--	--	11	2300	68
30	6.7	31	.56	--	--	--	13	2480	87
31	7.0	28	.53	--	--	--	12	2800	91
TOTAL	181.5	--	26.91	169.0	--	26.41	269.0	--	371.19

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	22	37	2.2	14	23	.87	7.6	17	.35
2	24	29	1.9	11	39	1.2	12	21	.68
3	21	23	1.3	8.1	23	.50	15	28	1.1
4	15	59	2.4	8.3	15	.34	19	22	1.1
5	16	83	3.6	9.9	55	1.5	14	89	3.4
6	14	94	3.6	12	9	.29	17	15	.69
7	13	78	2.7	14	35	1.3	16	13	.56
8	12	98	3.2	15	16	.65	12	18	.58
9	12	133	4.3	16	22	.95	7.4	14	.28
10	13	51	1.8	11	19	.56	5.0	40	.54
11	10	53	1.4	6.8	14	.26	6.6	34	.61
12	8.1	32	.70	6.7	10	.18	7.5	11	.22
13	8.1	35	.77	9.9	9	.24	7.0	36	.68
14	9.9	48	1.3	9.2	6	.15	5.1	85	1.2
15	9.9	54	1.4	5.3	8	.11	3.3	26	.23
16	9.9	42	1.1	3.2	12	.10	2.7	26	.19
17	9.4	11	.28	4.3	26	.30	2.8	38	.29
18	7.0	17	.32	6.5	20	.35	2.8	32	.24
19	11	30	.89	6.8	16	.29	2.8	25	.19
20	8.1	19	.42	7.6	17	.35	2.8	94	.71
21	10	180	6.5	5.8	15	.23	2.8	56	.42
22	24	90	5.8	2.3	6	.04	2.3	41	.25
23	19	34	1.7	2.7	5	.04	2.4	79	.51
24	17	25	1.1	2.6	5	.04	3.1	80	.67
25	12	10	.32	3.6	11	.11	3.8	72	.74
26	13	11	.39	4.8	19	.25	3.8	42	.43
27	16	20	.86	4.5	20	.24	5.5	34	.50
28	16	23	.99	4.0	16	.17	7.9	53	1.1
29	16	40	1.7	4.5	21	.26	8.4	61	1.4
30	14	15	.57	4.7	12	.15	6.1	102	1.7
31	14	31	1.2	4.6	14	.17	--	--	--
TOTAL	424.4	--	56.71	229.7	--	12.19	214.5	--	21.5

6916.9
3640.24

PLATTE RIVER BASIN

06639000 SWEETWATER RIVER NEAR ALCOVA, WYO.

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, at gaging station at Dumbell Ranch, 1.0 mile downstream from Schounmaker ditch diversion dam, 13 miles upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 25 miles southwest of Alcova.

DRAINAGE AREA.--2,327 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 12...	1100	35	34	50	57	5.6	47	6.5	195	0	74	30
NOV. 17...	1240	57	28	10	46	4.7	32	5.6	168	0	46	18
DEC. 17...	1100	39	34	60	57	8.0	35	6.3	201	0	66	22
JAN. 18...	1340	25	36	40	48	12	39	4.7	189	0	67	19
FEB. 23...	1250	52	31	60	48	8.3	32	5.1	162	6	58	17
MAR. 22...	1445	56	26	0	41	8.6	26	5.1	155	0	48	15
APR. 27...	1330	234	12	120	34	5.1	17	4.0	116	0	33	12
MAY 17...	1515	411	15	290	26	3.8	12	3.8	101	0	22	4.5
JUNE 15...	1530	732	18	100	24	4.6	14	4.0	104	0	21	4.4
JULY 14...	1330	138	19	20	29	4.0	19	4.0	127	0	20	9.7
AUG. 17...	1500	35	18	90	38	5.6	30	5.3	139	3	46	14
SEP. 16...	1140	20	29	10	45	9.5	38	6.0	171	0	67	20

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 12...	.6	.2	70	350	.48	33.1	160	0	1.6	559	8.0	6.0
NOV. 17...	.5	.0	0	264	.36	40.6	140	2	1.2	431	8.0	2.5
DEC. 17...	.4	.1	50	328	.45	34.5	180	15	1.2	517	8.1	.5
JAN. 18...	.4	.1	50	319	.43	21.5	170	15	1.3	508	8.0	.0
FEB. 23...	.3	.0	150	285	.39	40.0	160	17	1.1	416	8.4	.0
MAR. 22...	.4	.1	40	246	.33	37.2	140	13	1.0	365	8.1	5.5
APR. 27...	.3	.3	40	175	.24	111	100	5	.7	269	7.6	7.0
MAY 17...	.3	.4	30	138	.19	153	80	0	.6	213	7.6	11.0
JUNE 15...	.2	.4	40	142	.19	281	80	0	.7	207	8.0	20.0
JULY 14...	.3	.0	40	167	.23	62.2	89	0	.9	255	8.2	22.0
AUG. 17...	.4	.1	50	229	.31	21.6	120	1	1.2	378	8.4	26.0
SEP. 16...	.5	.1	60	299	.41	16.1	150	10	1.3	473	8.2	6.5

PLATTE RIVER BASIN

135

06642000 NORTH PLATTE RIVER AT ALCOVA, WYO.
(Irrigation network station)

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, at bridge on county road at Alcova, 0.2 mile downstream from Alcova Dam, and 3.6 miles upstream from gaging station.

DRAINAGE AREA.--14,771 sq mi (at gaging station), of which 4,659 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1970.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
12...	1515	1070	13	60	59	13	30	3.0	153	0	120	12
NOV.												
17...	1100	894	12	50	51	16	30	3.1	153	0	120	10
DEC.												
17...	1415	934	11	100	53	16	28	3.1	149	0	120	14
JAN.												
18...	1055	907	10	10	53	15	30	1.8	153	0	120	9.7
FEB.												
23...	1110	853	11	50	54	14	28	3.1	143	0	120	11
MAR.												
22...	1100	1180	11	10	48	16	26	3.1	151	0	110	11
APR.												
06...	1020	3200	10	100	53	12	27	2.9	128	0	110	9.7
27...	1150	2680	10	40	51	13	27	2.7	140	0	100	7.6
MAY												
17...	1215	2370	10	80	54	7.6	27	2.4	133	0	100	5.9
JUNE												
15...	1100	3560	9.0	70	47	12	27	2.9	131	3	100	7.8
21...	1150	3870	9.0	10	46	14	27	3.1	139	0	110	7.0
JULY												
14...	1210	2180	10	0	46	14	28	2.9	153	0	100	9.7
AUG.												
17...	1300	1620	9.5	80	49	14	29	2.7	137	0	110	7.0
SEP.												
16...	1700	1090	11	30	47	14	27	2.9	135	0	110	7.9

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CONO- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
12...	.6	.4	40	324	.44	936	200	74	.9	524	8.2	13.0
NOV.												
17...	.7	.2	0	317	.43	765	190	64	.9	513	8.1	7.0
DEC.												
17...	.4	.2	50	318	.43	802	200	78	.9	510	7.7	2.0
JAN.												
18...	.5	.5	60	316	.43	774	200	74	.9	516	8.1	2.5
FEB.												
23...	.4	.3	320	308	.42	709	190	73	.9	458	8.2	2.0
MAR.												
22...	.4	.4	50	296	.40	943	180	56	.8	447	8.1	2.0
APR.												
06...	.5	.5	50	290	.39	2510	180	75	.9	437	8.3	3.5
27...	.4	.3	60	286	.39	2070	180	65	.9	427	8.3	5.5
MAY												
17...	.4	.4	50	273	.37	1750	170	61	.9	419	8.3	7.0
JUNE												
15...	.4	.3	70	279	.38	2680	170	58	.9	425	8.4	11.0
21...	.4	.4	50	283	.38	2960	170	56	.9	428	8.2	13.0
JULY												
14...	.4	.3	60	287	.39	1690	180	54	.9	440	8.2	14.0
AUG.												
17...	.4	1.0	50	292	.40	1280	180	68	.9	474	7.9	15.5
SEP.												
16...	.4	.9	50	289	.39	851	180	69	.9	472	7.9	13.0

PLATTE RIVER BASIN

06643000 BATES CREEK NEAR ALCOVA, WYO.

LOCATION.--Lat 42°40'34", long 106°36'09", in SE¼SE¼ sec.1, T.31 N., R.82 W., Natrona County, at former gaging station, 2.8 miles upstream from mouth, and 10.5 miles northeast of Alcova.

DRAINAGE AREA.--393 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
28...	1140	.50	7	2360	8.0	7.8	20.5
AUG.							
31...	1330	.34	1	2820	10.8	8.0	23.5
SEP.							
28...	1330	.30	2	3000	14.6	7.8	13.5
OCT.							
27...	1310	10	2	1610	13.4	8.3	3.5
NOV.							
27...	1200	25	5	1300	12.0	8.2	3.0
DEC.							
28...	1350	21	8	1300	13.6	8.1	.0
JAN., 1971							
29...	1410	18	5	1300	12.2	8.4	2.0
MAR.							
02...	1230	39	8	1340	13.2	8.2	2.0
APR.							
02...	1310	82	80	700	11.0	7.9	2.5
MAY							
03...	1310	103	70	560	10.0	7.9	13.0
JUNE							
01...	1620	126	95	495	9.7	7.7	12.5
JULY							
06...	1410	.63	6	245	11.8	8.0	20.5
AUG.							
03...	1345	.35	2	2840	10.1	7.7	22.0
SEP.							
07...	1330	.36	2	2760	10.6	8.0	12.0

PLATTE RIVER BASIN

137

06644085 NORTH PLATTE RIVER AT MILLS, WYO.

LOCATION.--Lat 47°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, at railroad bridge, 700 ft upstream from Casper Creek, 900 ft east of Mills city limits, and 0.2 mile upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
28...	1530	1290	50	572	9.3	8.6	18.5
AUG.							
04...	1700	1260	20	595	9.3	8.7	22.0
11...	1130	1070	35	682	11.6	8.4	19.0
17...	1300	1040	20	675	10.3	8.5	19.0
24...	1430	1100	15	618	10.9	8.5	19.5
SEP.							
14...	1115	512	9	850	11.4	8.4	7.0
21...	1130	1030	15	670	11.0	8.4	11.0
28...	1445	1020	15	680	12.6	8.4	14.0
OCT.							
05...	1100	1190	15	620	9.7	8.4	12.0
12...	1050	1200	20	634	10.8	8.4	8.5
19...	1145	1120	15	638	11.2	8.4	5.0
27...	1145	1000	8	645	12.5	8.6	3.5
NOV.							
27...	1515	1110	9	695	11.9	8.6	3.0
DEC.							
29...	1435	2280	10	633	14.4	7.6	.0
JAN., 1971							
29...	1515	1000	15	608	11.4	8.3	1.5
MAR.							
02...	1430	1300	9	606	13.8	8.5	.0
APR.							
02...	1410	1410	20	592	12.0	8.6	2.5
MAY							
03...	1430	2940	15	600	12.2	8.5	10.0
10...	1545	2900	250	650	10.2	8.2	6.5
17...	1000	3180	15	540	10.5	8.5	8.0
24...	1720	1600	25	620	11.3	8.5	10.5
JUNE							
01...	1210	1510	50	648	10.0	8.0	12.0
09...	0940	3460	20	520	10.4	8.4	10.5
14...	1400	3900	20	465	10.2	8.3	13.5
21...	1345	4250	10	480	11.4	8.3	13.5
29...	1140	4120	15	580	10.2	7.8	14.0
JULY							
06...	1230	3030	10	520	10.3	8.3	14.5
12...	1335	2200	8	530	11.0	8.6	17.0
19...	1645	1800	10	580	10.6	8.3	18.0
26...	1515	1940	9	550	10.6	8.3	17.0
AUG.							
03...	1500	2060	15	570	9.6	8.1	17.5
10...	1115	2160	15	570	9.2	8.1	17.0
16...	1230	1920	15	610	9.2	8.2	18.0
23...	1530	1730	10	570	9.7	8.5	19.0
30...	1445	1210	10	620	10.4	8.2	17.5
SEP.							
07...	1445	750	8	690	10.6	8.4	13.0
14...	1400	1170	10	610	10.3	8.1	14.0
20...	1100	1230	8	630	10.5	8.3	11.0
27...	1015	1190	7	650	9.8	8.4	12.0

PLATTE RIVER BASIN

06644120 MIDDLE FORK CASPER CREEK NEAR BUCKNUM, WYO.

LOCATION.--Lat 43°01'10", long 106°36'30", in NE¼ sec.12, T.35 N., R.82 W., Natrona County, at culvert on county road, 0.6 mile east of Bucknum, and 10 miles east of Natrona.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JUL., 1970							
28...	1015	.00	--	--	--	--	--
AUG.							
31...	1230	.00	--	--	--	--	--
SEP.							
28...	1630	.02	3	8300	9.6	8.7	16.0
OCT.							
27...	1100	.02	3	6400	12.4	8.7	.0
MAY, 1971							
03...	1535	5.0	30	1500	9.8	8.0	20.0
JUNE							
01...	1320	111	220	7800	9.3	7.7	25.5
29...	1020	1.1	100	4600	9.8	8.5	17.0
AUG.							
03...	1715	.00	--	--	--	--	--
SEP.							
07...	1530	.00	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JUNE 29...	1025	1.1	.2	60	89	130	820	6.7	259	9	2200	48

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
JUNE 29...	1.1	.2	530	3460	4.76	1.13	7600	7370	13	4090	17.0

PLATTE RIVER BASIN

139

06644500 CASPER CREEK AT CASPER, WYO.

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, at Bureau of Reclamation gaging station, 700 ft upstream from bridge on U.S. Highways 20 and 26, 0.4 mile upstream from mouth, and 2 miles west of city hall in Casper.

DRAINAGE AREA.--668 sq mi, of which 98 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
28...	0855	22	35	2710	8.5	8.4	17.0
AUG.							
04...	1545	16	10	3240	8.0	8.5	31.5
11...	1030	16	10	3310	11.7	8.3	21.0
17...	1235	19	7	2800	9.5	8.4	23.5
24...	1345	15	5	2960	9.6	8.4	27.5
31...	1100	14	5	3400	9.4	8.4	20.5
SEP.							
08...	1600	9.1	4	3460	9.2	8.4	22.0
14...	1030	13	5	3420	11.5	8.4	7.0
21...	1050	8.0	3	4200	5.9	8.3	13.0
28...	1600	7.1	4	4360	11.3	8.4	20.0
OCT.							
05...	1015	6.4	2	4820	11.4	8.4	10.5
12...	1010	9.2	4	5500	11.4	8.3	8.0
19...	1100	7.8	3	5300	12.0	8.3	3.5
27...	1015	4.4	2	5400	13.0	8.4	1.5
NOV.							
27...	1550	7.6	6	5600	10.4	8.3	3.0
DEC.							
29...	1310	3.9	6	5200	11.5	8.0	.0
JAN., 1971							
29...	1625	11	10	5200	10.5	8.3	1.5
MAR.							
02...	1440	8.0	6	5700	10.6	8.0	.5
APR.							
02...	1540	8.8	8	6200	10.0	8.3	6.0
MAY							
04...	1000	26	20	5800	10.0	8.3	11.0
10...	1445	97	65	3850	9.6	8.0	10.0
17...	1030	25	10	5000	9.8	8.2	11.0
24...	1600	22	15	6700	9.2	8.2	17.0
JUNE							
01...	1130	148	70	2820	9.2	8.0	15.0
09...	1000	24	15	4320	9.6	8.2	16.0
14...	1230	15	15	4600	8.5	8.2	23.5
21...	1455	10	8	5800	9.8	8.4	30.0
29...	1215	12	15	4700	9.9	8.0	21.0
JULY							
06...	1145	11	25	4750	9.4	8.2	21.0
12...	1355	12	10	3200	10.4	8.2	26.5
19...	1615	15	9	3000	9.3	8.1	27.0
26...	1445	15	8	3100	9.9	8.1	24.0
AUG.							
03...	1620	17	8	3200	8.0	8.0	24.5
10...	1030	19	20	2890	9.4	8.0	18.0
16...	1200	22	15	2930	9.4	8.0	21.0
23...	1500	18	6	3600	10.0	8.4	25.0
30...	1400	13	9	3300	10.8	8.4	21.5
SEP.							
07...	1630	11	4	3550	11.5	8.3	13.0
14...	1230	9.4	4	3950	11.5	8.1	14.5
20...	1115	11	5	4210	12.7	8.3	10.0
27...	1045	9.9	8	5620	12.8	8.4	11.0

PLATTE RIVER BASIN

06644500 CASPER CREEK AT CASPER, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
AUG. 04...	1545	16	9.8	50	165	106	457	8.4	305	0	1460

DATE	TIME	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)
AUG. 04...	63	.8	13	580	2430	3.30	105	848	598	6.8	3160	

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JUNE 09...	1000	24	5.6	190	230	170	660	7.6	305	0	2300	97

DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
JUNE 09...	1.1	32	440	3740	5.09	242	1200	950	8.0	4280	16.0	

06645000 NORTH PLATTE RIVER BELOW CASPER, WYO.

LOCATION.--Lat 42°51'45", long 106°13'00", in NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, at Mystery Bridge, 0.3 mile upstream from Claude Creek, 0.5 mile north of U.S. Highways 20 and 87, 5.5 miles east of city hall in Casper, and 9.5 miles downstream from Casper Creek.

DRAINAGE AREA.--16,533 sq mi, of which 4,790 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1950 to August 1952, August 1957 to September 1959, October 1967 to September 1971.

Water temperatures: June 1949 to September 1952, August 1957 to September 1959.

Sediment records: April 1947 to September 1952.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 14...	1500	1220	10	50	60	21	49	3.0	168	0	190	15
NOV. 09...	1530	1150	11	--	64	26	--	--	--	--	244	14
10...	0915	1150	11	100	67	22	57	2.8	165	0	230	15
DEC. 03...	1350	1110	11	120	65	19	44	3.6	158	0	190	14
08...	1300	1050	--	--	61	20	52	--	--	--	200	13
JAN. 08...	1430	1000	11	20	65	22	44	3.6	171	0	180	17
13...	1345	1000	8.9	90	58	19	45	--	--	--	180	13
FEB. 08...	1545	1170	9.8	30	64	21	48	3.3	168	0	200	14
MAR. 10...	0845	1000	--	--	56	20	--	--	--	--	180	11
10...	1000	1000	8.1	10	69	17	46	3.6	159	0	190	14
APR. 15...	0830	2900	9.5	0	47	15	35	3.8	146	0	130	9.7
MAY 10...	1545	2700	--	--	52	25	--	--	--	--	230	14
10...	1700	2700	10	40	62	26	63	2.9	146	0	260	14
JUNE 15...	0745	4000	--	--	48	16	--	--	--	--	140	7.2
15...	0930	4000	9.3	20	50	15	28	2.4	134	0	130	8.9
JULY 21...	0830	1950	--	--	--	--	--	--	--	--	--	--
21...	1100	1950	9.0	60	53	18	38	3.3	156	0	150	10
AUG. 17...	0830	1700	8.2	80	60	14	40	3.6	148	0	160	9.7
SEP. 14...	1545	1200	9.9	60	59	22	47	3.1	159	0	190	14

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO ₃) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 14...	.4	1.9	60	430	.58	1420	240	102	1.4	675	8.2	8.0
NOV. 09...	--	3.2	80	542	.74	1680	--	--	--	770	--	5.0
10...	.6	2.4	200	486	.66	1510	260	125	1.5	743	8.1	5.0
DEC. 03...	.5	1.8	80	424	.58	1270	240	119	1.2	668	8.3	1.5
08...	--	1.6	--	504	.69	1430	--	--	1.5	--	--	3.5
JAN. 08...	.5	1.7	40	430	.58	1160	250	110	1.2	661	8.1	.0
13...	.4	1.4	100	412	.56	1110	--	--	1.3	629	--	.0
FEB. 08...	1.1	3.4	90	442	.60	1400	250	112	1.3	640	7.9	.0
MAR. 10...	.5	--	--	446	.61	1200	220	--	--	667	--	1.5
10...	.5	1.9	60	425	.58	1150	240	110	1.3	620	8.2	1.5
APR. 15...	.5	1.6	80	329	.45	2580	180	--	1.1	514	7.7	7.0
MAY 10...	.3	--	--	510	.69	3720	230	--	--	762	8.1	8.0
10...	.5	3.9	70	513	.70	3740	260	140	1.7	712	8.0	8.0
JUNE 15...	.4	--	--	--	.47	3760	190	--	--	--	--	13.5
15...	.5	.6	60	309	.42	3340	190	80	.9	486	8.2	13.5
JULY 21...	--	--	80	--	--	--	--	--	--	--	--	17.0
21...	.4	.8	150	358	.49	1880	200	72	1.2	538	8.2	17.0
AUG. 17...	.5	1.8	90	371	.50	1700	210	89	1.2	590	7.7	18.0
SEP. 14...	.5	2.6	70	427	.58	1380	240	110	1.3	648	8.2	15.0

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	CYANIDE (CN) (MG/L)					
OCT. 14...	1500	1220	2.6	.080	<.01					
NOV. 09...	1530	1150	1.7	.13	--					
DEC. 08...	1300	1050	1.8	.11	--					
JAN. 13...	1345	1000	2.6	.10	.00					
FEB. 08...	1545	1170	3.0	.16	--					
MAR. 10...	0845	1000	1.7	.070	--					
APR. 15...	0830	2900	1.7	--	.00					
MAY 10...	1545	2700	1.3	.50	--					
JUNE 15...	0745	4000	.5	.050	--					
JULY 21...	0830	1950	1.2	.050	--					
AUG. 17...	0830	1700	1.1	.030	--					
SEP. 14...	1545	1200	1.2	.15	--					

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED ALUM- INUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED BERYL- LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED CAD- MIUM (CD) (UG/L)	DIS-SOLVED CHRO- MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)
OCT. 14...	1500	1220	120	<10	60	<.9	<9	<1	<9	<5
JAN. 13...	1345	1000	20	--	63	<.8	<5	--	<8	<5
APR. 15...	0830	2900	<5	0	60	<2	<7	0	<7	<3
JULY 21...	0830	1950	--	0	--	0	--	0	0	--

DATE	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)	DIS-SOLVED GER- MANIUM (GE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MOLYB- DENUM (MO) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)
OCT. 14...	4	--	<9	<9	25	8	<.5	3	<9
JAN. 13...	4	--	<8	<8	28	7	--	4	<5
APR. 15...	1	<7	<7	<7	18	5	--	4	<13
JULY 21...	1	--	--	5	--	0	.1	22	5

DATE	DIS-SOLVED RUBI- DIUM (RB) (UG/L)	DIS-SOLVED SELE- NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON- TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI- TANIUM (TI) (UG/L)	DIS-SOLVED VANA- DIUM (V) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR- CONIUM (ZR) (UG/L)
OCT. 14...	<3	2	<.7	520	<9	<5	<9.0	10	--
JAN. 13...	<2	3	<.4	530	<5	<5	<8.0	--	--
APR. 15...	<2	0	<.7	370	<7	<7	<7.0	20	<7
JULY 21...	--	0	0	--	--	--	--	10	--

06645000 NORTH PLATTE RIVER BELOW CASPER, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	ALDRIN (UG/L)	CHLOR- DANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI- ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA- CHLOR (UG/L)
OCT. 14...	1500	1220	.00	.0	.00	.00	.00	.00	.00	.00
JAN. 13...	1345	1000	.00	.0	.00	.00	.00	.00	.00	.00
APR. 15...	0830	2900	.00	.0	.00	.00	.00	.00	.00	.00
JULY 21...	0830	1950	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA- CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	PARA- THION (UG/L)	METHYL PARA- THION (UG/L)	MALA- THION (UG/L)	DI- AZINON (UG/L)
OCT. 14...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN. 13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
APR. 15...	.00	.00	.00	.00	.00	.00	.00	.00	.00
JULY 21...	.00	.00	.00	.00	.00	--	--	--	--

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	FECAL COLI- FORM (COL. PER 100 ML)
OCT. 14...	1500	1220	690	11.4	8.3	3400
NOV. 09...	1530	1150	820	14.1	8.5	13000
DEC. 08...	1300	1050	710	12.3	8.4	7900
JAN. 13...	1345	1000	690	10.6	8.3	7800
FEB. 08...	1545	1170	730	11.2	8.3	12000
MAR. 10...	0845	1000	680	10.9	8.4	3500
APR. 15...	0830	2900	490	9.9	8.4	2800
MAY 10...	1545	2700	790	9.4	8.2	500
JUNE 15...	0745	4000	530	8.6	8.3	0
JULY 21...	0830	1950	570	8.0	8.2	25
AUG. 17...	0830	1700	600	7.3	8.2	120
SEP. 14...	1545	1200	660	10.3	8.4	110

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
MAY 05...	1410	8.0	3800	1520	15600	28	36
18...	1430	12.0	3300	198	1760	--	--
DATE		SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
MAY 05...		47	51	56	62	95	100
18...		40	54	88	100	--	--

EXTREMES.--1970-71:

Period of record:

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

PLATTE RIVER BASIN

06646610 NORTH PLATTE RIVER BELOW DEER CREEK, NEAR GLENROCK, WYO.

LOCATION.--Lat 42°52'20", long 105°50'42", in NE¼NW¼SW¼ sec.34, T.34 N., R.75 W., Converse County, temperature recorder 1.2 miles downstream from Deer Creek and 1.4 miles northeast of Glenrock.

PERIOD OF RECORD.--Water temperatures: January 1969 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 23.5°C Aug. 17; minimum, freezing point on many days December to March.

Period of record:

Water temperatures: Maximum, 27.0°C July 4, 1970; minimum, freezing point on many days during winter period.

REMARKS.--Records furnished by the Wyoming Game and Fish Commission.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	12.0	7.0	4.5	---	---	0.5	0.0	0.5	0.0	1.0	0.0
2	14.0	10.5	4.5	3.5	---	---	0.5	0.0	0.5	0.0	0.0	0.0
3	14.0	11.0	5.0	3.5	---	---	1.0	0.5	0.5	0.0	0.0	0.0
4	14.0	12.0	6.0	4.0	---	---	1.5	1.0	1.0	0.0	0.0	0.0
5	14.0	12.0	6.0	4.0	---	---	1.5	1.0	1.0	0.5	0.0	0.0
6	13.0	10.0	7.0	5.5	---	---	1.5	1.0	1.0	0.5	0.0	0.0
7	10.0	9.0	6.5	6.0	---	---	1.5	1.0	1.5	0.5	0.0	0.0
8	9.5	8.5	6.5	5.5	---	---	1.5	1.0	1.5	1.0	0.0	0.0
9	10.0	8.5	6.5	4.5	---	---	1.5	1.0	1.0	0.5	0.5	0.0
10	10.0	9.0	6.0	5.0	---	---	1.5	1.0	0.5	0.0	0.5	0.5
11	10.0	9.0	5.0	3.5	---	---	1.0	1.0	0.0	0.0	1.0	0.5
12	10.5	9.5	5.0	4.0	---	---	1.0	0.5	0.0	0.0	4.0	0.5
13	11.0	9.5	5.5	4.5	---	---	0.5	0.0	0.5	0.0	4.5	4.0
14	10.0	8.5	6.0	4.5	---	---	0.5	0.0	1.0	0.5	4.5	3.5
15	9.5	7.0	5.0	4.0	0.0	0.0	1.0	0.5	3.0	1.0	3.5	1.5
16	10.0	8.0	5.5	4.0	0.0	0.0	1.0	0.5	3.5	3.0	3.0	1.5
17	10.0	8.0	5.5	4.5	0.0	0.0	0.5	0.5	3.5	3.0	3.0	1.0
18	10.0	8.5	5.0	4.0	0.0	0.0	0.5	0.5	3.5	3.0	1.0	0.5
19	10.0	9.0	4.5	3.5	---	---	0.5	0.5	3.5	2.0	1.5	0.5
20	10.0	8.5	4.0	3.0	---	---	0.5	0.5	3.0	2.0	3.0	0.5
21	10.0	8.0	3.5	1.0	---	---	0.5	0.0	2.0	1.5	3.0	1.5
22	9.5	8.5	1.5	1.0	---	---	0.5	0.0	2.0	1.5	2.0	1.5
23	9.5	8.5	---	---	---	---	0.0	0.0	2.0	1.5	3.0	1.0
24	9.5	8.5	---	---	---	---	0.0	0.0	2.0	1.5	3.5	2.0
25	9.0	7.0	---	---	---	---	0.0	0.0	2.0	1.5	4.5	3.5
26	8.0	6.5	---	---	---	---	0.0	0.0	1.5	1.5	5.5	4.0
27	7.0	5.0	---	---	---	---	0.0	0.0	1.5	1.5	5.5	5.0
28	6.5	4.5	---	---	---	---	0.0	0.0	1.5	1.0	5.0	4.0
29	7.0	6.0	---	---	---	---	0.0	0.0	---	---	7.0	3.0
30	7.0	6.5	---	---	0.5	0.0	0.0	0.0	---	---	8.5	4.5
31	8.0	6.0	---	---	0.5	0.0	0.5	0.0	---	---	7.0	3.5
MONTH	14.0	4.5	---	---	---	---	1.5	0.0	3.5	0.0	8.5	0.0

147

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

[illegible]

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 864 micromhos May 5; minimum daily, 455 micromhos Apr. 12.
Water temperatures: Maximum, 24.5°C Aug. 18, 22; minimum, 1.0°C Feb. 26.

Period of record:

Specific conductance: Maximum daily, 1,670 micromhos June 17, 1967; minimum daily, 313 micromhos May 22, 1970.
Water temperatures: Maximum, 34.0°C July 2, 1970; minimum, freezing point on several days during winter periods in 1960-64.

REMARKS.--No appreciable inflow between sampling point and gaging station.

DATE	DIS-SOLVED FLUORIDE (F)	DIS-SOLVED NITRATE (NO3)	DIS-SOLVED BORON (B)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	SPECIFIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
	(MG/L)	(MG/L)	(UG/L)	(MG/L)								
NOV. 06...	.5	1.2	110	467	.64	1450	260	115	1.4	719	8.2	8.0
DEC. 02...	.5	1.9	70	542	.74	1710	320	182	1.2	720	8.2	5.0
30...	.5	1.6	60	440	.60	1520	250	110	1.3	689	7.8	3.0
FEB. 02...	.4	2.7	60	475	.65	1620	270	130	1.4	710	8.0	3.0
MAR. 11...	.5	1.7	70	443	.60	1350	250	110	1.3	644	8.2	2.0
APR. 07...	.4	2.9	50	355	.48	2980	220	108	1.0	519	7.7	7.0
MAY 06...	.5	5.6	100	689	.94	9770	310	175	2.5	924	7.5	8.0
JUNE 02...	.4	.2	80	459	.62	3160	240	80	1.8	706	7.3	17.5
25...	.5	.6	30	340	.46	3220	200	74	1.1	501	8.2	17.5
JULY 22...	.5	.7	70	376	.51	2070	210	80	1.3	556	8.1	21.5
AUG. 18...	.5	1.1	70	395	.54	1860	220	94	1.3	618	8.1	21.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

PLATTE RIVER BASIN

06647020 NORTH PLATTE RIVER NEAR CAREYHURST, WYO.

LOCATION.--Lat 42°51'21", long 105°40'00", in NW¼SE¼SW¼ sec.6, T.33 N., R.73 W., Converse County, temperature recorder 0.5 mile upstream from Box Elder Creek and 0.6 mile northeast of Careyhurst.

PERIOD OF RECORD.--Water temperatures: January 1969 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 26.0°C Aug. 17; minimum, 0.5°C on many days during November to March.

Period of record:

Water temperatures: Maximum, 32.0°C July 4, 1970; minimum, freezing point on several days in winter months of 1969.

REMARKS.--Records furnished by the Wyoming Game and Fish Commission.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	15.0	9.5	8.5	5.5	4.5	4.0	2.0	5.0	1.5	4.5	1.0
2	18.5	15.0	8.5	6.5	6.0	4.5	3.0	1.0	5.0	3.0	6.0	0.5
3	19.0	15.0	8.5	6.5	4.5	3.5	3.0	1.0	4.5	2.0	5.5	1.0
4	18.5	15.5	8.5	6.0	5.5	3.0	3.0	0.5	4.0	1.5	5.0	1.5
5	18.0	16.0	8.5	6.5	5.0	3.0	3.0	1.5	4.5	2.0	5.0	1.5
6	16.5	11.5	10.5	8.0	6.0	4.0	3.5	1.0	4.0	1.5	5.0	1.5
7	11.5	10.5	11.0	10.0	7.0	5.0	4.0	1.5	3.5	1.0	6.5	1.0
8	11.5	9.0	10.5	9.0	8.0	5.5	4.0	2.0	4.5	3.0	5.0	2.0
9	12.0	9.0	9.5	8.0	7.0	6.5	5.0	3.5	5.5	1.0	5.5	2.0
10	12.0	11.0	9.5	8.5	7.0	3.5	4.5	3.5	5.0	1.0	7.0	2.0
11	13.0	10.0	9.0	6.5	4.0	2.0	4.5	3.0	4.5	3.0	5.5	1.5
12	14.0	11.0	8.5	6.5	3.5	1.5	5.0	3.0	4.5	2.0	8.5	2.0
13	15.0	13.0	8.5	8.0	3.0	0.5	6.0	3.0	5.5	2.0	9.0	6.0
14	13.5	11.5	9.0	7.0	3.0	0.5	4.0	3.0	5.0	3.0	7.0	4.5
15	13.0	10.5	8.5	6.5	5.0	3.0	4.5	3.0	6.0	2.0	5.5	3.0
16	13.5	10.0	8.5	6.5	5.0	3.0	5.5	3.5	5.5	2.0	6.5	4.0
17	14.0	10.5	9.0	8.0	4.5	3.0	5.0	4.5	6.0	4.0	6.0	2.0
18	14.0	10.5	8.5	7.0	3.0	1.0	6.0	4.0	6.0	4.5	4.5	1.0
19	13.0	11.0	8.0	6.0	3.0	0.5	6.5	3.5	6.5	4.0	4.5	0.5
20	13.5	10.5	6.0	5.0	7.0	2.0	6.0	4.0	6.0	4.5	6.5	1.5
21	13.0	11.0	5.5	4.0	5.5	3.5	5.0	2.0	5.0	2.0	6.0	4.0
22	12.0	10.5	4.0	0.5	3.5	3.0	4.0	1.5	3.0	0.5	5.5	3.0
23	11.5	9.0	0.5	0.5	4.5	2.0	4.0	1.0	5.5	1.0	6.0	3.5
24	10.5	9.5	7.0	0.5	6.5	2.0	4.5	2.0	5.5	1.0	8.0	4.5
25	10.0	6.0	9.0	6.5	8.0	4.0	4.5	1.5	4.5	1.5	9.5	6.0
26	9.5	6.5	9.0	6.5	5.5	4.0	5.5	3.0	1.5	0.5	10.5	6.5
27	8.5	7.0	8.0	6.0	4.5	3.5	6.0	3.5	3.5	0.5	10.0	8.5
28	7.0	6.0	7.0	6.0	4.5	2.0	6.0	3.0	5.5	1.0	8.5	6.5
29	8.0	5.5	8.5	5.5	4.0	2.0	5.0	2.0	---	---	10.0	5.5
30	9.0	8.0	8.0	5.0	4.5	3.0	5.0	3.0	---	---	11.0	8.0
31	10.0	8.0	---	---	4.5	3.0	4.5	2.0	---	---	10.5	6.5
MONTH	19.0	5.5	11.0	0.5	8.0	0.5	6.5	0.5	6.5	0.5	11.0	0.5

151

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

[illegible]

PLATTE RIVER BASIN

06649520 NORTH PLATTE RIVER AT ORPHA, WYO.

LOCATION.--Lat 42°51'08", long 105°29'27", in NE¼NW¼NW¼ sec.10, T.33 N., R.72 W., Converse County, Fort Fetterman Reservation, temperature recorder at bridge on Ross Road 0.2 mile downstream from Fetterman Creek, 0.4 mile downstream from La Prele Creek, and 0.7 mile east of Orpha.

PERIOD OF RECORD.--Water temperatures: November 1969 to September 1971.

EXTREMES.--November 1969 to September 1970:

Water temperatures: Maximum, 29.5°C July 4; minimum, freezing point on many days during December to March.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970
(THERMOGRAPH RECORD).

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	4.0	1.5	1.0	0.0	1.5	0.5	5.5	1.5
2	---	---	---	---	---	---	1.0	0.0	2.0	0.0	5.0	3.0
3	---	---	---	---	---	---	1.0	0.0	3.0	1.0	5.5	1.5
4	---	---	---	---	---	---	1.0	0.0	4.0	0.5	6.0	1.5
5	---	---	---	---	---	---	0.5	0.0	3.0	0.0	6.0	1.5
6	---	---	---	---	---	---	0.5	0.0	4.5	0.0	6.0	3.0
7	---	---	---	---	---	---	0.5	0.0	3.5	1.5	8.0	4.0
8	---	---	8.0	6.0	---	---	0.5	0.0	4.0	0.5	8.5	5.0
9	---	---	6.5	5.5	---	---	1.5	0.0	4.5	0.5	6.0	4.0
10	---	---	---	---	---	---	3.5	0.5	5.0	1.0	5.0	2.0
11	---	---	---	---	---	---	3.0	0.5	4.5	1.0	5.0	1.5
12	---	---	---	---	---	---	3.0	0.0	4.5	1.0	5.5	1.5
13	---	---	5.5	2.0	4.0	1.5	3.5	1.0	4.5	1.0	5.0	3.0
14	---	---	4.0	1.0	5.0	3.0	3.5	1.0	4.5	1.5	8.0	4.0
15	---	---	6.0	3.5	5.0	3.5	3.0	1.5	4.0	0.5	5.5	4.0
16	---	---	6.5	4.5	4.0	3.0	1.5	1.0	3.5	0.5	6.5	3.5
17	---	---	4.5	3.5	4.5	3.0	1.0	0.0	5.0	1.5	5.5	1.5
18	---	---	5.0	1.0	4.5	2.0	2.0	0.0	4.5	2.0	1.5	0.5
19	---	---	8.0	0.5	3.5	2.0	3.0	1.5	4.5	1.5	4.0	0.0
20	---	---	3.5	1.0	3.5	1.5	3.0	2.0	5.5	1.5	4.5	2.0
21	---	---	4.0	3.5	4.0	3.0	3.5	0.5	6.0	2.0	4.0	1.0
22	---	---	5.0	3.0	4.0	2.0	4.0	3.0	7.0	3.5	5.0	2.0
23	---	---	4.5	2.0	3.0	2.0	4.5	1.5	7.0	4.0	8.0	3.5
24	---	---	4.5	3.0	3.0	1.0	4.0	2.0	8.5	5.5	6.0	4.0
25	---	---	4.0	1.5	1.5	0.0	2.0	1.0	7.0	4.5	4.5	3.0
26	---	---	3.5	2.0	1.5	0.0	3.0	0.5	6.5	4.5	---	---
27	---	---	2.0	0.5	1.0	0.0	3.5	2.0	5.5	3.0	5.5	4.0
28	---	---	---	---	1.0	0.0	1.5	1.0	5.5	3.5	6.0	3.5
29	---	---	3.0	0.5	1.5	0.0	1.5	0.0	---	---	7.0	4.5
30	---	---	4.0	1.5	1.5	0.0	4.5	0.0	---	---	4.5	3.5
31	---	---	---	---	1.0	0.0	4.0	0.5	---	---	5.0	3.0
MONTH	---	---	---	---	---	---	4.5	0.0	8.5	0.0	8.5	0.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.0	1.5	8.5	6.5	14.0	9.5	23.5	16.0	---	---	25.5	22.0
2	6.0	3.5	13.0	9.0	16.5	11.5	25.5	18.5	---	---	24.5	21.0
3	8.0	5.5	13.5	10.0	18.5	14.5	27.0	19.5	---	---	24.5	20.5
4	8.5	4.5	15.5	13.0	20.5	15.0	29.5	21.0	---	---	22.0	20.0
5	10.0	5.5	14.0	11.0	20.5	18.5	28.0	24.0	---	---	23.5	18.5
6	12.0	7.0	14.5	13.5	21.5	16.0	27.0	23.0	---	---	20.5	16.5
7	12.0	9.0	15.5	12.0	21.0	18.0	25.0	22.0	27.0	23.0	19.0	14.5
8	10.5	8.0	12.0	6.5	21.0	16.5	25.5	21.5	27.0	23.0	20.5	16.5
9	10.0	6.5	9.0	6.0	20.5	18.0	26.5	21.0	28.0	23.5	19.0	16.5
10	10.0	7.0	9.0	8.0	19.0	14.5	24.0	21.0	25.0	20.5	19.0	15.5
11	9.0	6.0	9.5	7.0	16.0	12.0	24.0	18.5	27.0	21.0	20.0	15.5
12	6.0	4.5	11.5	8.5	---	---	21.0	18.5	27.0	23.0	15.5	11.5
13	7.0	4.0	10.0	8.0	---	---	23.5	18.0	26.0	23.0	11.5	9.0
14	5.0	3.0	8.5	6.5	---	---	22.0	18.0	26.5	23.0	12.0	10.5
15	6.5	4.5	11.0	9.5	---	---	23.0	16.5	25.5	21.5	18.0	11.5
16	8.5	5.0	15.0	9.5	---	---	23.5	18.0	26.0	21.0	18.0	15.0
17	7.0	5.5	15.5	11.5	---	---	26.0	22.0	26.0	22.0	18.5	14.0
18	6.5	4.5	14.0	11.5	---	---	25.5	21.5	25.5	21.0	20.5	15.0
19	9.0	4.5	14.0	10.0	---	---	23.5	18.5	25.0	21.0	20.5	16.5
20	8.5	7.0	14.0	12.0	---	---	25.5	19.5	25.0	20.5	19.5	16.5
21	10.5	7.0	16.0	12.0	---	---	25.5	21.5	25.0	22.0	18.5	15.0
22	11.5	8.0	12.0	11.5	---	---	25.5	22.0	25.5	20.5	18.5	14.5
23	10.5	8.0	14.5	10.0	---	---	24.0	20.5	26.0	20.5	18.5	14.5
24	10.5	7.0	15.0	13.0	---	---	---	---	26.0	21.0	15.5	13.0
25	12.0	8.0	15.5	13.0	---	---	---	---	27.0	21.5	---	---
26	15.0	9.5	17.0	13.0	26.5	24.0	---	---	24.0	21.5	---	---
27	14.5	11.0	18.0	15.0	26.5	21.0	---	---	24.0	20.5	---	---
28	11.0	8.5	15.5	14.0	25.0	20.0	---	---	25.0	23.5	---	---
29	8.5	6.5	15.0	12.0	24.0	19.0	---	---	25.5	21.0	---	---
30	8.5	6.0	16.5	13.0	21.5	18.5	---	---	23.5	20.5	---	---
31	---	---	14.5	11.0	---	---	---	---	26.0	20.0	---	---
MONTH	15.0	1.5	18.0	6.0	---	---	---	---	28.0	20.0	25.5	9.0

EXTREMES.--1970-71: Continued

Period of record:

REMARKS.--Records furnished by Wyoming Game and Fish Commission and Pacific Power and Light Company.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.0	7.0	---	---	3.0	1.0	4.0	1.5	4.5	1.0
2	---	---	7.0	4.5	5.0	3.5	1.0	0.0	3.5	1.5	5.5	1.0
3	---	---	7.0	4.5	3.5	1.5	0.5	0.0	1.5	0.5	5.5	1.0
4	---	---	8.0	4.5	4.5	1.5	0.0	0.0	1.5	0.0	3.5	1.0
5	---	---	8.0	5.0	4.0	2.0	0.0	0.0	2.0	0.5	3.0	0.5
6	---	---	10.0	6.5	5.5	3.0	0.0	0.0	2.0	0.0	3.0	0.0
7	---	---	9.5	9.0	6.0	4.0	1.5	0.0	1.5	0.0	4.5	0.0
8	---	---	9.0	7.0	6.5	5.0	3.0	0.5	1.5	0.5	4.0	1.0
9	---	---	9.0	6.5	5.5	5.0	4.0	1.5	4.5	0.0	4.5	0.5
10	---	---	8.5	6.5	5.5	1.5	4.0	1.0	4.5	1.5	5.5	1.5
11	---	---	8.0	5.5	3.0	0.5	2.0	0.5	3.5	3.0	5.5	1.5
12	---	---	7.0	5.5	2.0	0.0	3.0	0.0	4.0	1.5	8.0	1.5
13	12.0	10.0	6.5	6.0	1.0	0.0	3.0	1.0	5.0	1.0	9.0	6.5
14	12.0	9.0	8.0	6.0	1.5	0.0	2.0	0.5	4.5	3.0	7.0	5.5
15	11.0	5.5	7.0	5.5	3.0	1.0	3.5	1.0	5.0	1.5	5.5	3.5
16	13.0	8.5	7.0	5.5	3.5	1.0	4.5	2.0	4.0	1.5	6.5	4.0
17	13.0	9.5	8.0	6.0	3.0	1.0	4.5	3.5	4.0	2.0	5.5	1.5
18	13.0	9.0	6.5	5.5	1.5	0.0	4.5	3.0	4.5	3.5	---	---
19	11.5	9.5	6.5	5.0	0.5	0.0	4.5	2.0	5.0	2.0	---	---
20	12.0	8.5	5.0	4.5	2.0	0.0	5.0	3.5	4.5	1.5	---	---
21	11.5	10.0	5.5	2.0	4.0	1.0	3.5	1.0	1.5	0.0	---	---
22	11.0	9.5	2.0	0.0	1.5	0.0	3.0	0.5	3.5	1.0	---	---
23	10.5	8.5	0.0	0.0	1.0	0.0	2.0	0.0	3.5	0.0	---	---
24	10.5	9.0	5.5	0.0	1.0	0.0	3.5	0.5	4.0	0.0	---	---
25	9.0	6.5	7.0	5.5	3.5	0.0	3.0	0.5	2.0	0.5	---	---
26	8.5	6.0	7.0	5.0	3.5	0.5	4.0	1.5	3.0	0.5	---	---
27	8.0	6.0	6.5	5.0	4.0	1.5	5.0	2.0	3.5	1.0	---	---
28	6.0	5.0	---	---	3.5	0.5	5.0	2.0	5.5	1.0	---	---
29	6.5	4.5	---	---	3.0	0.5	4.0	2.0	---	---	---	---
30	7.0	6.0	---	---	3.0	0.5	4.5	3.0	---	---	---	---
31	9.5	6.5	---	---	4.0	1.5	4.0	1.5	---	---	9.0	5.0
MONTH	---	---	10.0	0.0	6.5	0.0	5.0	0.0	5.5	0.0	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.0	4.0	12.0	9.5	15.0	11.5	19.5	16.0	23.0	19.5	24.0	20.5
2	5.5	3.5	13.5	10.5	18.0	14.0	20.0	17.0	24.0	19.5	23.0	20.5
3	6.0	5.0	13.5	11.5	15.5	14.5	20.5	17.0	23.5	20.0	20.5	17.0
4	8.0	5.5	12.0	10.5	15.0	13.5	20.0	17.0	24.0	19.5	17.0	14.0
5	9.5	5.5	10.5	6.0	16.0	12.0	20.0	16.5	24.0	20.5	16.5	12.0
6	11.0	6.5	9.0	5.5	14.5	13.0	20.5	18.0	24.0	20.0	20.0	14.0
7	8.0	7.0	11.0	8.0	15.5	12.0	19.5	17.0	23.5	19.5	18.0	17.0
8	9.0	7.0	12.0	9.5	16.5	12.0	20.0	16.5	22.0	19.5	18.5	16.0
9	9.0	6.0	10.5	8.5	16.5	13.5	22.0	18.5	21.0	19.5	20.5	15.5
10	10.0	7.0	8.5	6.0	16.5	15.0	22.0	18.5	23.5	19.0	21.5	16.5
11	9.5	7.0	10.0	6.5	16.5	14.5	24.0	19.5	24.5	20.5	23.0	18.0
12	8.0	6.5	13.0	9.0	16.0	14.0	24.5	20.5	24.0	21.0	21.5	18.0
13	9.0	5.5	14.0	10.5	18.0	14.5	24.0	20.0	24.0	20.5	20.5	17.0
14	10.0	6.5	14.5	12.0	18.5	16.0	24.5	20.5	24.0	20.5	18.5	15.5
15	10.0	9.0	14.0	11.5	19.0	16.0	24.5	21.0	23.5	20.0	17.0	14.0
16	9.5	8.0	13.5	11.5	19.5	16.5	25.0	21.0	25.0	20.5	14.5	11.0
17	9.5	8.0	12.0	10.0	18.0	16.0	24.0	21.5	25.5	21.5	11.5	10.0
18	9.0	6.5	10.0	8.5	18.0	15.5	24.0	20.5	25.0	21.0	11.5	9.0
19	6.5	4.0	9.5	7.0	19.0	16.0	24.0	20.0	24.0	21.0	12.0	9.5
20	6.0	3.0	10.5	8.5	20.0	16.5	25.0	20.5	24.5	20.0	12.0	10.0
21	6.5	5.5	13.0	9.0	20.0	16.5	24.5	21.5	24.0	20.0	10.0	9.0
22	7.0	6.0	12.0	10.5	20.0	17.0	24.5	21.0	24.5	20.5	12.0	9.0
23	10.0	7.0	10.5	8.0	21.5	18.5	25.0	21.0	23.5	21.0	14.0	10.0
24	10.0	9.0	11.0	7.0	21.0	18.5	24.0	21.0	22.0	19.0	16.0	12.0
25	9.5	5.0	13.5	10.0	21.5	18.5	21.5	18.0	23.5	19.5	16.0	13.0
26	5.0	4.5	15.5	11.5	20.5	18.5	21.0	16.0	23.0	20.0	16.0	14.0
27	6.0	4.0	17.0	13.5	19.5	17.0	22.0	18.5	24.0	20.0	16.0	14.0
28	9.5	5.0	18.0	14.5	19.0	16.0	21.5	19.0	24.5	20.5	14.5	12.0
29	11.0	8.5	16.0	12.0	19.0	16.5	21.5	18.0	23.5	20.5	14.5	11.0
30	11.5	9.0	13.0	11.0	19.0	15.5	22.0	18.0	23.5	19.5	16.0	13.5
31	---	---	14.0	11.0	---	---	21.5	19.0	24.5	20.0	---	---
MONTH	11.5	3.0	18.0	5.5	21.5	11.5	25.0	16.0	25.5	19.0	24.0	9.0
YEAR	25.5	0.0										

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTAS-SIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 30...	0940	1160	8.9	50	69	20	56	3.8	165	9	210	18
DEC. 01...	1255	1150	9.9	100	63	27	52	4.2	183	0	220	15
JAN. 04...	1600	593	10	80	74	23	53	3.6	192	0	210	17
FEB. 01...	1300	1080	13	60	67	24	53	3.6	173	0	220	14
MAR. 09...	1230	1250	8.1	0	69	25	53	3.6	183	0	200	17
APR. 09...	1430	3990	11	20	57	17	32	3.8	153	0	130	9.7
MAY 06...	1100	10600	12	120	46	11	29	3.3	116	0	110	8.7
19...	1500	6310	13	100	43	10	25	2.4	128	0	90	8.9
JUNE 04...	1200	5690	12	110	42	13	35	2.7	125	0	120	8.1
24...	1145	3620	8.8	40	58	14	38	3.3	162	0	140	11
JULY 22...	1110	1850	8.4	40	64	13	44	3.3	165	0	160	12
AUG. 19...	1625	1600	8.5	30	57	20	48	3.6	159	5	180	11
SEP. 28...	1615	1220	3.2	30	62	23	57	3.8	158	6	220	16

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 30...	.5	.5	110	477	.65	1490	260	110	1.5	740	8.4	4.5
DEC. 01...	.6	1.6	90	479	.65	1490	270	120	1.4	744	8.2	3.0
JAN. 04...	.5	2.1	50	485	.66	777	280	122	1.4	740	8.2	.0
FEB. 01...	.5	2.3	40	478	.65	1390	260	118	1.4	706	8.2	1.5
MAR. 09...	.5	1.0	60	469	.64	1580	280	130	1.4	668	8.1	3.5
APR. 09...	.5	1.8	50	339	.46	3650	210	84	1.0	493	7.7	10.0
MAY 06...	.3	1.9	40	275	.37	7870	160	65	1.0	398	8.0	6.0
19...	.2	.4	60	256	.35	4360	150	45	.9	387	7.5	9.5
JUNE 04...	.4	1.2	60	300	.41	4610	160	57	1.2	468	7.7	15.0
24...	.5	.8	20	351	.48	3430	200	67	1.2	522	8.2	20.5
JULY 22...	.4	.5	160	388	.53	1940	220	85	1.3	576	8.2	22.0
AUG. 19...	.5	.9	80	410	.56	1770	230	91	1.4	652	8.5	25.0
SEP. 28...	.4	.2	90	468	.64	1540	250	110	1.6	715	8.5	14.5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT	SUS- PENDE SEDI- MENT	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.
				(MG/L)	(T/DAY)	% FINER THAN .004 MM	% FINER THAN .016 MM
MAY 06...	1100	6.0	10600	62500	1790000	25	32
19...	1500	9.5	6310	346	5900	26	38
		SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.	SUS. SED. FALL DIAM.
		% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN	% FINER THAN
DATE		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM
MAY 06...		41	43	44	52	90	100
19...		68	77	88	99	100	--

PLATTE RIVER BASIN

155

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WYO.

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, at gaging station opposite Sand Draw, 1.3 miles upstream from Horseshoe Creek, 3.1 miles downstream from Glendo Dam, and 5.2 miles southeast of Glendo.

DRAINAGE AREA.--19,507 sq mi, of which 5,174 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 29...	1445	2.6	9.6	130	69	25	67	4.9	183	9	240	18
DEC. 02...	1155	7.6	7.7	50	72	26	58	4.9	183	6	240	18
JAN. 05...	1330	3.4	10	0	83	38	73	5.3	250	0	290	21
FEB. 01...	1410	2.4	12	40	57	40	67	5.1	220	0	250	18
APR. 09...	1215	3200	8.0	90	74	20	56	4.4	171	0	220	16
MAY 06...	1620	14	5.8	80	46	27	56	4.2	143	0	210	17
JULY 22...	0800	5690	8.6	50	48	14	38	3.6	145	0	130	13
AUG. 19...	1240	4680	8.4	10	52	16	39	3.3	154	0	140	9.2
SEP. 29...	1310	244	8.4	0	60	19	51	4.0	162	4	180	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 29...	.4	.2	130	535	.73	3.76	280	115	1.8	807	8.4	6.0
DEC. 02...	.5	.8	90	519	.71	10.7	280	120	1.5	800	8.3	3.0
JAN. 05...	.6	.6	50	641	.87	5.88	360	155	1.7	933	8.0	.0
FEB. 01...	.5	.2	70	555	.75	3.60	300	120	1.7	827	8.1	1.5
APR. 09...	.5	1.5	90	484	.66	4180	270	130	1.5	717	8.3	5.5
MAY 06...	.3	.3	80	439	.60	16.6	220	103	1.6	647	8.3	16.0
JULY 22...	.4	.9	50	328	.45	5040	180	61	1.2	485	7.8	19.0
AUG. 19...	.4	.8	80	347	.47	4380	200	74	1.2	568	8.0	21.0
SEP. 29...	.4	.8	80	423	.58	279	230	90	1.5	646	8.4	15.0

PLATTE RIVER BASIN

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WYO.

LOCATION.--Lat 42°16'50", long 104°45'15", in SE¼SE¼ sec.27, T.27 N., R.66 W., Platte County, at bridge on U.S. Highway 26 at Guernsey, 0.8 mile downstream from gaging station, and 1.9 miles downstream from Guernsey Dam.

DRAINAGE AREA.--20,196 sq mi (at gaging station), of which 5,175 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: December 1950 to September 1958, October 1965 to September 1971.

Water temperatures: October 1951, April to September 1952, March to September 1953, May 1954 to September 1958, October 1965 to September 1966, April 1967 to September 1968.

Sediment records: April 1947 to June 1953.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of locally intense precipitation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
29...	1030	55	18	100	84	20	52	5.2	232	0	200	14
DEC.												
01...	1620	1.3	15	50	74	27	47	5.1	250	0	170	13
JAN.												
05...	1000	2.2	17	70	84	26	52	4.7	281	0	180	17
FEB.												
02...	0845	1.7	17	20	59	43	52	4.9	273	0	180	13
APR.												
09...	0900	2010	11	0	67	22	52	4.7	161	0	210	15
MAY												
07...	0810	1340	8.4	40	61	19	45	3.3	165	0	170	12
JUNE												
04...	0920	7620	8.6	100	48	15	36	3.3	135	0	140	8.9
JULY												
21...	1445	5540	9.4	60	67	3.0	36	3.6	145	0	130	9.9
AUG.												
19...	0915	4720	8.4	20	52	17	39	3.3	162	0	140	8.9
SEP.												
29...	1035	1240	8.1	50	59	20	50	4.0	171	0	180	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC CONDUC- TANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
29...	.4	4.1	80	512	.70	76.0	290	100	1.3	777	7.9	2.5
DEC.												
01...	.5	.7	90	479	.65	1.68	300	95	1.2	749	8.1	3.5
JAN.												
05...	.5	.6	40	520	.71	3.09	320	89	1.3	798	8.0	.0
FEB.												
02...	.5	.3	60	508	.69	2.33	320	96	1.3	770	8.1	1.0
APR.												
09...	.5	1.6	80	464	.63	2520	260	128	1.4	683	8.3	8.5
MAY												
07...	.4	.9	70	405	.55	1470	230	95	1.3	586	8.3	10.0
JUNE												
04...	.4	1.9	60	327	.44	6730	180	69	1.2	501	8.2	13.5
JULY												
21...	.4	.4	60	329	.45	4920	180	61	1.2	488	7.5	20.0
AUG.												
19...	.4	.6	60	351	.48	4470	200	67	1.2	565	8.2	22.0
SEP.												
29...	.4	.9	90	423	.58	1420	230	90	1.4	654	8.1	14.0

06657000 NORTH PLATTE RIVER AT RECORDER STATION, BELOW WHALEN, WYO.

LOCATION.--Lat 42°14'20", long 104°36'29", in NE¼SW¼ sec.12, T.26 N., R.65 W., Goshen County, at gaging station, 0.2 mile downstream from Cottonwood Draw, 2.5 miles downstream from Whalen Dam, and 4.8 miles northwest of Fort Laramie.

DRAINAGE AREA.--20,384 sq mi, of which 5,178 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
17...	1245	1580	10	525	8.5	7.6	20.0
24...	1300	1210	20	525	8.2	8.6	22.0
31...	1200	1250	45	540	7.3	8.2	19.5
AUG.							
07...	1130	1140	21	578	7.6	--	21.5
14...	1145	1350	10	612	7.0	8.2	23.5
21...	1270	1290	15	608	8.7	8.1	22.5
28...	1200	1120	15	658	8.0	7.7	23.0
SEP.							
04...	1130	741	8	650	8.2	7.4	22.5
11...	1230	366	11	672	8.6	7.2	19.5
18...	1205	174	15	680	10.4	8.5	17.0
25...	1215	180	10	720	10.6	8.5	14.5
OCT.							
02...	1220	132	1	728	10.2	7.6	16.0
16...	1200	115	20	734	10.8	7.3	9.0
22...	1000	77	10	735	10.9	7.3	8.5
30...	1200	62	10	785	12.2	--	6.0
NOV.							
06...	1220	56	10	785	13.0	7.4	8.5
13...	1230	17	15	760	11.8	7.4	6.5
21...	1125	6.0	6	720	12.3	7.6	3.5
27...	1210	3.0	7	710	10.7	7.2	5.5
DEC.							
04...	1235	3.0	6	714	11.9	7.9	5.5
08...	1200	3.0	7	710	11.0	7.8	7.0
15...	1240	4.1	15	722	15.2	7.7	2.5
22...	1215	2.0	70	710	14.5	7.6	3.5
29...	1215	2.6	10	745	16.0	7.5	4.0
JAN., 1971							
18...	1200	.80	5	682	13.4	7.3	3.0
FEB.							
23...	1220	.08	3	600	14.7	7.4	8.5
MAR.							
23...	1200	15	60	680	12.8	7.6	3.5
APR.							
15...	1230	2100	10	730	10.6	8.8	14.0
MAY							
28...	1215	6560	20	620	12.6	8.5	16.0
JUNE							
18...	1230	5630	10	--	13.2	8.3	19.0
JULY							
02...	1200	3550	20	650	11.8	8.6	19.0
09...	1230	3450	20	500	12.3	8.2	26.0
16...	1230	1450	20	660	10.8	8.5	34.0
23...	1230	2000	10	580	10.3	8.4	23.0
30...	1130	2160	20	590	10.1	8.3	21.0
AUG.							
06...	1200	1130	25	670	9.5	7.9	22.0
13...	1230	1270	20	730	9.4	8.4	24.0
20...	1200	1190	10	700	12.3	8.4	23.0
27...	1200	1150	10	660	9.6	8.5	24.0
SEP.							
03...	1230	840	10	750	12.4	8.4	22.0
10...	1045	330	10	750	10.4	8.3	19.0
17...	1100	187	10	570	9.6	8.1	13.0
24...	1100	162	10	665	10.1	8.2	14.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...											
	1000	77	14	68	24	55	5.7	239	0	180	14
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	NON- CAR- BONATE HARD- NESS (CA,MG) (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
OCT. 22...											
	.5	3.5	70	485	.66	101	270	74	1.5	725	8.5

PLATTE RIVER BASIN

06660500 LARAMIE RIVER AT TWO RIVERS, WYO.

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, at gaging station at old Two Rivers Post Office, 0.6 mile upstream from Little Laramie River, and 14 miles northwest of Laramie.

DRAINAGE AREA.--1,224 sq mi, of which 188 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: June 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
13...	1110	86	11	20	72	42	49	3.0	146	0	300	22
NOV.												
06...	1145	100	12	120	62	29	35	2.6	146	0	210	18
DEC.												
02...	1540	68	13	60	63	26	35	1.8	119	0	220	12
JAN.												
06...	1500	21	13	50	83	36	40	2.9	201	0	240	24
FEB.												
10...	1045	38	12	20	65	22	28	2.7	153	0	160	12
MAR.												
10...	1030	30	8.1	40	61	18	27	1.8	128	0	160	11
MAY												
12...	1300	104	14	280	93	46	76	4.0	165	0	410	22
JUNE												
11...	1640	663	13	160	46	15	23	2.2	109	0	120	5.4
JULY												
09...	1325	138	12	140	87	37	59	2.4	211	0	300	17
AUG.												
03...	1420	68	8.9	170	120	58	110	3.3	206	0	560	29
SEP.												
08...	1800	13	6.1	70	140	75	120	4.9	214	0	680	41

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
13...	.6	1.7	80	570	.78	132	350	230	1.1	832	7.8	--
NOV.												
06...	.5	2.0	90	442	.60	119	270	150	.9	672	7.5	2.5
DEC.												
02...	.5	.7	110	429	.58	78.8	260	162	.9	679	7.8	.5
JAN.												
06...	.5	.3	60	543	.74	30.8	360	195	.9	813	7.8	.0
FEB.												
10...	.5	2.3	80	380	.52	39.0	260	134	.8	559	8.1	3.0
MAR.												
10...	.4	.2	20	350	.48	28.4	220	115	.8	520	8.2	.5
MAY												
12...	.7	1.8	120	751	1.02	211	420	285	1.6	1000	7.8	12.0
JUNE												
11...	.5	.6	180	280	.38	501	180	91	.8	425	7.8	15.0
JULY												
09...	.6	.3	110	625	.85	233	370	197	1.3	860	7.8	19.0
AUG.												
03...	.7	.2	190	993	1.35	182	550	381	2.1	1380	8.0	22.5
SEP.												
08...	.8	.2	220	1170	1.59	41.1	650	474	2.0	1540	8.3	15.5

PLATTE RIVER BASIN

159

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WYO.

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼SE¼SE¼ sec.6, T.17 N., R.74 W., Albany County, at gaging station at old Two Rivers Post Office, 0.5 mile upstream from mouth, and 14 miles northwest of Laramie.

DRAINAGE AREA.--376 sq mi, of which 58 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 13...	1140	76	10	130	55	15	21	2.3	171	0	96	8.2
NOV. 06...	1300	49	9.0	60	48	17	19	1.5	171	0	79	6.7
DEC. 02...	1430	46	11	100	56	20	26	1.8	183	0	110	6.7
JAN. 06...	1600	4.9	9.7	60	57	18	18	1.6	189	0	86	8.2
FEB. 10...	1315	18	11	140	59	20	23	2.9	195	0	100	6.5
MAR. 10...	1140	20	7.6	50	48	12	18	1.6	145	0	73	4.6
MAY 12...	1600	98	14	430	70	32	56	2.7	226	0	230	14
JUNE 11...	1045	384	14	150	44	22	32	2.2	193	0	95	6.3
JULY 03...	1500	463	3.6	110	35	11	23	1.1	134	7	61	3.7
09...	1510	297	6.0	180	41	15	22	1.2	177	0	52	5.2
SEP. 08...	1720	13	1.8	70	34	13	19	2.2	118	5	60	6.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 13...	.4	.2	30	290	.39	59.5	200	60	.6	468	8.1	--
NOV. 06...	.5	.1	40	265	.36	35.1	190	50	.6	421	8.1	1.0
DEC. 02...	.5	.2	50	322	.44	40.0	220	70	.8	539	8.0	1.5
JAN. 06...	.4	.1	10	292	.40	3.86	220	65	.5	471	7.9	.0
FEB. 10...	.5	.7	30	325	.44	15.8	230	70	.7	492	7.8	4.5
MAR. 10...	.4	.2	0	236	.32	12.7	170	51	.6	386	7.8	.5
MAY 12...	.6	.2	60	528	.72	140	300	115	1.4	735	8.2	12.5
JUNE 11...	.6	.6	210	312	.42	323	200	42	1.0	485	8.1	14.0
JULY 03...	.3	.1	60	212	.29	265	140	18	.9	371	8.6	21.0
09...	.4	.3	60	230	.31	184	160	15	.7	367	8.0	18.5
SEP. 08...	.8	.2	40	200	.27	7.02	140	35	.7	359	8.5	15.5

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WYO.

LOCATION (revised).--Lat 42°12'05", long 104°32'06", in NW¼SW¼NW¼ sec.27, T.26 N., R.64 W., Goshen County, at gaging station, at bridge on county road, 0.7 mile upstream from mouth, 0.8 mile southwest of Fort Laramie, 1.0 mile east of Old Fort Laramie, 1.4 miles downstream from Deer Creek, and 5.5 miles downstream from point of diversion to Gering-Fort Laramie Canal.

DRAINAGE AREA.--4,564 sq mi, of which 631 sq mi is probably noncontributing. Drainage area at mouth, 4,565 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.

Water temperatures: October 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

		DIS-SOLVED SILICA (SiO2) (MG/L)		TOTAL IRON (FE) (UG/L)	DIS-SOLVED CAL- CIUM (CA) (MG/L)	DIS-SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
DATE	TIME	DIS- CHARGE (CFS)										
NOV.												
02...	1600	132	29	30	93	22	58	4.9	287	0	190	21
30...	1420	147	28	50	88	22	54	4.9	250	0	180	18
JAN.												
06...	1050	90	34	40	110	23	62	5.3	336	0	210	22
FEB.												
02...	0905	147	31	60	43	54	52	4.9	293	0	180	17
MAR.												
09...	1645	162	26	30	92	22	48	4.2	262	0	170	17
APR.												
08...	1105	277	23	50	78	18	36	4.4	235	0	140	14
MAY												
04...	1515	1330	15	100	57	17	30	3.6	183	0	110	11
JUNE												
03...	1255	2320	15	500	61	13	30	4.0	198	0	100	9.2
JULY												
08...	1725	446	23	80	83	23	49	4.4	262	0	160	15
AUG.												
04...	1100	129	25	100	99	20	52	4.7	253	0	190	18
31...	1320	63	28	0	88	22	58	5.3	276	0	180	18

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WYO.--Continued

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 989 micromhos Oct. 12; minimum daily, 384 micromhos Mar. 29.

Water temperatures: Maximum, 26.0°C June 26, 27, July 16, 21; minimum, freezing point on several days during November to February.

Period of record:

Specific conductance: Maximum daily, 1,020 micromhos July 11, 1969; minimum daily, 309 micromhos May 21, 1970.

Water temperatures: Maximum, 27.0°C July 12, 1969; minimum, freezing point on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
NOV.												
02...	1.0	1.9	50	563	.77	201	320	85	1.4	873	8.0	4.5
30...	.7	2.2	100	521	.71	207	310	105	1.3	826	8.0	5.0
JAN.												
06...	.8	4.0	50	637	.87	155	380	104	1.4	931	8.2	.0
FEB.												
02...	.6	2.6	70	532	.72	211	330	90	1.2	800	8.3	2.5
MAR.												
09...	.7	3.0	70	515	.70	225	320	105	1.2	742	8.2	4.5
APR.												
08...	.6	2.0	50	428	.58	320	270	77	1.0	609	8.1	9.5
MAY												
04...	.5	.3	60	333	.45	1200	210	60	.9	486	8.2	16.0
JUNE												
03...	.5	.4	60	334	.45	2090	210	48	.9	516	8.0	17.5
JULY												
08...	.6	1.5	90	494	.67	595	300	85	1.2	705	8.0	20.0
AUG.												
04...	.7	1.4	90	537	.73	187	330	122	1.2	847	8.1	20.0
31...	.6	1.1	100	541	.74	92.0	310	84	1.4	814	8.1	20.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	7.0	5.0	1.0	4.0	0.5	7.0	16.0	18.0	24.0	22.0	22.0
2	16.0	5.0	5.0	0.0	3.5	2.0	7.0	18.5	18.0	24.0	22.5	22.0
3	15.5	5.0	3.5	0.0	2.5	2.0	7.5	15.0	18.0	25.0	23.0	18.0
4	17.0	15.0	4.5	0.0	1.0	4.0	7.0	19.0	18.0	22.5	23.0	15.0
5	17.0	15.0	3.0	0.5	0.0	3.0	9.0	11.0	18.0	23.0	24.0	18.5
6	14.5	16.0	5.0	0.5	1.0	4.0	10.5	10.5	18.0	22.0	23.0	20.0
7	8.0	17.0	5.0	0.5	1.0	4.0	11.0	14.0	17.0	20.5	23.5	18.0
8	9.5	16.0	6.0	0.5	1.0	3.0	11.0	14.0	20.0	21.0	23.0	16.0
9	8.5	16.0	4.5	0.5	2.0	5.0	12.0	11.5	19.0	21.0	20.5	19.5
10	8.5	7.0	3.5	0.0	3.0	5.5	14.0	10.0	18.5	22.0	23.0	20.5
11	10.5	6.0	2.0	0.0	2.5	6.0	13.0	10.0	20.0	23.0	25.0	21.5
12	11.0	7.0	2.0	0.0	3.0	7.0	12.5	15.0	21.0	24.0	22.0	20.0
13	12.0	7.0	1.5	0.0	1.0	9.0	13.0	18.0	21.0	23.0	23.0	20.5
14	10.0	6.0	2.0	0.0	3.0	8.0	14.0	17.0	23.0	24.0	23.0	18.0
15	10.0	6.0	1.5	1.0	1.0	7.5	14.0	18.0	24.0	24.5	23.0	16.0
16	10.0	6.0	2.0	4.0	1.0	7.5	14.5	17.0	23.5	26.0	23.0	11.5
17	10.5	6.5	2.0	2.0	5.5	4.0	14.0	15.0	24.0	22.5	24.0	10.5
18	11.0	5.5	2.5	2.0	4.5	3.5	14.5	18.0	21.0	24.0	23.0	11.5
19	8.0	5.5	3.5	3.0	5.0	5.0	11.5	13.0	23.0	24.0	21.0	13.0
20	11.0	5.0	0.5	3.5	4.5	7.5	10.0	13.0	24.0	24.0	23.5	13.0
21	11.0	4.5	1.0	3.5	5.0	7.0	10.0	16.0	25.0	26.0	24.0	9.5
22	10.0	1.0	0.0	2.5	2.5	4.0	9.0	14.0	24.0	23.0	24.5	13.0
23	11.0	0.0	2.0	2.5	2.5	4.5	10.0	10.0	25.0	24.5	24.0	13.0
24	11.0	4.5	0.0	3.0	4.0	4.0	10.5	13.0	25.0	23.5	21.0	11.5
25	9.5	5.5	1.0	3.0	5.0	5.0	9.0	14.0	25.5	19.5	22.5	15.5
26	8.0	5.0	0.0	3.0	2.0	10.5	6.5	17.0	26.0	21.0	22.0	16.0
27	6.0	4.5	0.0	4.0	2.0	12.0	7.0	17.0	26.0	22.0	23.0	17.0
28	6.0	4.0	0.0	5.0	4.0	5.0	10.0	17.0	24.0	21.0	21.5	16.0
29	7.0	5.0	1.0	5.0	---	7.5	12.0	18.0	23.0	21.0	20.0	15.0
30	6.5	5.0	1.0	4.5	---	10.0	14.0	16.5	22.0	22.0	22.0	17.0
31	7.0	---	5.0	4.0	---	9.0	---	19.0	---	23.0	22.0	---
MONTH	10.5	7.5	2.5	2.0	3.0	5.5	11.0	15.0	22.0	23.0	22.5	16.5
YEAR	12.0											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDIM- ENT (MG/L)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAY												
07...	1845	12.5	3750	308	3120	44	52	68	80	88	96	100

PLATTE RIVER BASIN

06670900 NORTH PLATTE RIVER NEAR LINGLE, WYO.
(Main channel)

LOCATION.--Lat 42°06'13", long 104°21'02", in SW¼SE¼ sec.30, T.25 N., R.62 W., Goshen County, at gaging station, at bridge over main channel on State Highway 0805, 1.8 miles upstream from mouth of Rawhide Creek, and 2.1 miles south of Lingle.

DRAINAGE AREA.--25,095 sq mi, of which 5,809 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.
Sediment records: July 1969 to September 1971.

REMARKS.--Chemical and sediment records, and indicated discharges, are for main channel.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
09...	285	22	60	83	22	61	5.4	259	0	180	15	.4
NOV.												
03...	267	21	20	86	23	62	5.0	272	0	200	16	.5
DEC.												
01...	218	25	10	87	23	62	5.2	271	0	200	16	.4
JAN.												
06...	130	28	10	110	19	63	5.1	290	0	200	19	.6
FEB.												
02...	188	26	30	88	21	53	4.7	265	0	190	16	.7
MAR.												
09...	192	27	60	89	23	56	5.6	276	0	170	18	.5
APR.												
08...	2000	15	10	71	22	47	5.1	202	0	210	12	.5
MAY												
11...	5200	15	70	52	17	34	7.3	185	0	110	12	.5
JUNE												
02...	8040	12	50	52	15	36	4.1	160	0	130	11	.4
14...	5840	11	40	54	17	41	3.5	172	0	140	9.0	.4
JULY												
01...	4200	12	20	54	18	40	3.7	173	0	140	11	.5
19...	1590	13	20	58	17	41	4.0	178	0	140	8.8	.3
AUG.												
04...	1390	12	20	60	18	43	4.3	189	0	150	9.8	.1
16...	1320	11	20	59	18	45	4.1	190	0	150	10	.2
31...	1090	13	20	58	18	48	4.3	187	0	150	12	.8
SEP.												
14...	570	18	90	73	21	53	5.1	227	0	190	15	.4

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.											
09...	.59	80	520	.70	397	300	88	1.5	796	8.1	9.5
NOV.											
03...	.77	10	550	.75	397	310	87	1.5	822	8.1	4.5
DEC.											
01...	.72	120	559	.76	329	310	88	1.5	818	8.2	6.0
JAN.											
06...	1.0	100	592	.81	208	340	102	1.5	875	8.2	1.5
FEB.											
02...	.77	80	529	.72	269	310	93	1.3	737	8.1	4.5
MAR.											
09...	.20	100	530	.72	275	320	94	1.4	782	8.2	7.5
APR.											
08...	.40	110	484	.66	2610	270	100	1.3	727	8.0	9.0
MAY											
11...	.20	0	340	.46	4770	200	48	1.0	514	7.4	11.0
JUNE											
02...	.35	100	341	.46	7400	190	60	1.1	525	7.9	20.5
14...	.25	50	362	.49	5710	200	64	1.2	565	7.8	19.0
JULY											
01...	.55	110	367	.50	4160	210	67	1.2	560	7.9	19.0
19...	.29	120	371	.50	1590	210	69	1.2	569	7.7	22.5
AUG.											
04...	.53	90	393	.53	1480	220	69	1.3	593	7.8	22.0
16...	.28	80	392	.53	1400	220	66	1.3	594	7.9	23.0
31...	.34	60	398	.54	1170	220	66	1.4	621	7.9	23.5
SEP.											
14...	.61	130	490	.67	754	270	82	1.4	741	7.9	15.5

PLATTE RIVER BASIN

163

06670900 NORTH PLATTE RIVER NEAR LINGLE, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
OCT. 09...	1220	9.5	285	47	36	--	--
NOV. 03...	1000	4.5	267	20	14	--	--
JAN. 06...	1250	1.5	130	68	24	--	--
FEB. 02...	1215	4.5	188	50	25	--	--
MAR. 09...	1600	7.5	192	86	45	--	--
MAY 07...	1345	11.0	4880	1220	16100	20	23
SEP. 20...	1130	13.0	515	41	57	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
OCT. 09...	--	--	--	--	--	--
NOV. 03...	--	--	--	--	--	--
JAN. 06...	--	--	--	--	--	--
FEB. 02...	--	--	--	--	--	--
MAR. 09...	--	--	--	--	--	--
MAY 07...	26	27	28	31	96	100
SEP. 20...	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
FEB. 02...	1215	4.5	188	0	0	2	23
MAY 07...	1345	11.0	4880	1	4	6	12
SEP. 20...	1130	13.0	515	0	0	2	25

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
FEB. 02...	53	70	86	96	100	--
MAY 07...	41	65	80	85	88	96
SEP. 20...	68	84	95	100	--	--

06670990 RAWHIDE CREEK ABOVE INTERSTATE CANAL, NEAR LINGLE, WYO.

LOCATION.--Lat 42°12'17", long 104°15'42", in SW¼SW¼ sec.24, T.26 N., R.62 W., Goshen County, near Interstate Canal crossing and 6.5 miles northeast of Lingle.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
17...	1100	.87	3	852	4.8	7.2	19.0
24...	1130	.91	15	835	4.7	8.1	20.5
31...	1100	.81	2	845	4.6	7.9	19.0
AUG.							
07...	1030	1.5	25	685	4.9	--	20.0
14...	1035	1.1	1	885	5.3	7.7	18.0
21...	1105	1.1	2	772	5.8	7.5	18.0
28...	1050	.98	3	855	5.5	7.1	18.5
SEP.							
04...	1030	.75	7	860	5.2	7.1	16.0
11...	1130	.75	1	765	6.3	7.1	15.5
18...	1100	.73	3	918	7.2	7.6	13.0
25...	1030	.72	3	1060	8.1	7.8	10.5
OCT.							
02...	1115	.49	2	965	8.2	7.4	11.0
16...	1100	.27	6	1050	7.7	7.3	4.5
22...	1215	.15	4	1090	7.5	7.4	8.0
30...	1110	.07	10	1080	7.9	--	6.0
NOV.							
06...	1120	.04	10	1260	9.9	7.3	6.0
13...	1130	.05	60	1300	8.7	7.5	4.0
20...	1035	.05	30	842	9.2	7.6	1.0
27...	1110	.21	10	722	10.1	7.4	1.5
DEC.							
04...	1100	.30	7	822	8.8	7.9	1.0
08...	1100	.38	5	705	10.2	7.9	4.5
15...	1100	.22	5	1050	7.6	7.6	1.0
22...	1110	.24	5	935	6.6	7.6	.0
29...	1120	.06	5	1250	2.4	7.4	.0
FEB., 1971							
23...	1100	1.9	6	655	11.9	7.6	2.0
MAR.							
23...	1100	2.4	4	550	12.0	7.5	.0
APR.							
15...	1100	.91	10	750	6.8	8.5	14.0
MAY							
28...	1115	15	10	940	10.8	8.4	16.0
JUNE							
18...	1130	6.7	10	--	7.2	7.8	21.0
JULY							
02...	1100	2.5	10	800	6.5	8.4	20.0
09...	1130	3.3	15	600	7.6	7.9	20.0
16...	1130	2.2	15	980	4.8	7.9	23.0
23...	1130	1.6	10	820	5.3	7.9	22.0
30...	1030	1.5	10	670	6.5	7.8	17.0
AUG.							
06...	1030	1.3	10	1120	5.4	7.4	19.0
13...	1100	1.3	5	1070	5.8	7.6	18.0
20...	1100	.79	5	910	5.8	7.5	19.0
27...	1100	.80	5	655	5.3	7.7	20.0
SEP.							
03...	1130	.78	5	1000	6.2	7.8	18.0
10...	1130	.85	5	1170	6.4	7.8	17.0
17...	1200	.82	20	840	8.4	7.8	10.0
24...	1200	2.2	15	810	9.7	8.1	13.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...											
SEP. 03...											
OCT. 22...											
SEP. 03...											
DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...	1215	.15	43	67	19	140	14	381	0	210	28
SEP. 03...	1130	.78	44	59	16	100	12	306	0	180	14
DATE	TIME	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	NON- CAR- BONATE HARD- NESS (CA, MG) (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
OCT. 22...	.7	.2	110	713	.97	.29	240	0	3.9	1020	8.0
SEP. 03...	1.2	--	130	577	.78	1.22	210	0	3.0	857	18.0

PLATTE RIVER BASIN

165

06671000 RAWHIDE CREEK NEAR LINGLE, WYO.

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼NE¼ sec.20, T.25 N., R.62 W., Goshen County, at gaging station, 200 ft upstream from bridge on U.S. Highway 26, 1 mile east of Lingle, and 1 mile upstream from mouth.

DRAINAGE AREA.--522 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1970 to September 1971.

WATER QUALITY DATA, JULY 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	TUR- BID- ITY (JTU)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JULY, 1970							
17...	0945	7.6	70	762	7.9	7.3	19.0
24...	1015	10	40	665	7.4	8.4	20.0
31...	0945	11	60	675	7.6	8.3	19.5
AUG.							
07...	0945	9.0	50	780	7.2	--	20.0
14...	0940	9.8	35	772	7.0	8.1	17.0
21...	1020	9.5	21	752	8.4	8.0	19.0
28...	1005	9.5	20	795	8.5	7.5	18.0
SEP.							
04...	0950	13	20	825	8.6	7.3	15.0
11...	1040	30	25	750	8.4	7.4	16.0
18...	1000	15	20	845	9.6	8.1	12.5
25...	0945	9.5	20	838	10.4	8.2	10.0
OCT.							
02...	1030	23	11	858	10.1	7.8	11.5
16...	1000	26	15	888	10.5	7.4	7.0
22...	1350	24	30	928	10.6	7.6	7.5
30...	1030	20	20	888	11.0	--	8.0
NOV.							
06...	1045	18	20	898	12.2	7.6	9.5
13...	1035	18	30	895	11.0	7.6	8.5
20...	1000	18	20	920	11.3	7.7	6.0
27...	1030	17	15	957	10.8	7.6	7.5
DEC.							
04...	1020	15	10	928	11.9	7.6	5.5
08...	1020	16	20	978	10.4	7.6	8.5
15...	1020	16	10	882	12.8	7.7	6.0
22...	1035	14	15	1330	12.7	7.5	5.5
29...	1035	13	15	1080	16.6	7.6	4.0
JAN., 1971							
18...	1045	10	10	900	12.8	7.6	6.5
FEB.							
23...	1315	9.6	20	845	14.1	7.8	7.0
MAR.							
23...	1020	11	20	820	12.8	7.2	4.0
APR.							
15...	1300	11	15	970	10.2	8.9	17.0
MAY							
28...	1015	46	20	840	11.8	8.2	16.0
JUNE							
18...	1030	28	10	--	11.3	8.0	21.0
JULY							
02...	1000	13	20	610	11.5	8.6	19.0
08...	0930	22	--	780	--	8.2	17.0
09...	1030	16	25	610	12.5	8.4	18.0
10...	1030	12	30	860	11.3	8.4	22.0
23...	1030	15	40	870	9.5	8.3	20.0
30...	1000	16	40	680	10.5	8.2	16.0
AUG.							
06...	0945	15	20	825	9.7	8.0	18.0
13...	1000	11	20	820	10.3	8.2	18.0
20...	1000	11	15	870	11.5	8.1	18.0
27...	1000	14	15	565	9.4	8.1	19.0
SEP.							
03...	1000	15	25	880	10.7	8.3	17.0
10...	1000	33	10	920	10.2	8.2	16.0
17...	1000	32	10	675	11.3	8.1	9.0
24...	1000	35	10	840	10.2	8.2	12.0

PLATTE RIVER BASIN

06671000 RAWHIDE CREEK NEAR LINGLE, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 22...	1350	24	45	--	59	14	119	12	270	0	210	18
JULY 08...	0930	22	38	20	56	15	91	10	251	0	170	14
SEP. 03...	1000	15	35	--	56	15	88	9.3	251	0	180	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
OCT. 22...	.6	5.4	110	617	.84	40.0	210	0	3.6	861	7.5
JULY 08...	.7	--	130	524	.71	--	200	0	2.8	768	17.0
SEP. 03...	1.3	--	120	526	.72	21.3	200	0	2.7	755	17.0

PLATTE RIVER BASIN

167

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WYO.

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼NW¼ sec.23, T.24 N., R.61 W., Goshen County, at bridge on county road, 50 ft upstream from gaging station, 0.6 mile upstream from mouth, and 2 miles southeast of Torrington.

DRAINAGE AREA.--356 sq mi.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.											
09...	1300	19	--	48	14	420	14	513	13	--	--
NOV.											
03...	1245	15	--	48	14	420	11	512	14	--	--
DEC.											
01...	1330	10	--	44	13	430	12	523	17	--	--
JAN.											
06...	1400	7.2	43	53	29	440	11	539	24	620	60
FEB.											
02...	1500	9.0	40	48	12	450	10	580	0	610	59
MAR.											
09...	1445	9.0	--	35	13	490	12	570	0	--	--
APR.											
06...	1600	6.7	--	40	14	--	11	531	22	--	--
MAY											
13...	0830	22	--	73	16	--	15	550	--	--	--
JUNE											
04...	0930	31	--	44	11	--	1500	350	0	--	--
14...	1600	23	--	48	14	--	13	540	13	--	--
JULY											
01...	1500	48	--	54	17	140	--	270	0	--	--
19...	1645	42	--	53	15	150	--	286	0	--	--
AUG.											
04...	1720	61	--	60	18	150	--	311	0	--	--
16...	1415	56	--	59	16	150	--	312	0	--	--
SEP.											
01...	1520	72	--	57	16	150	--	308	0	--	--
14...	0815	48	--	57	17	140	--	348	0	--	--

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
OCT.											
09...	--	--	--	--	--	--	180	0	14	2100	10.0
NOV.											
03...	--	--	--	--	--	--	180	0	14	2050	5.0
DEC.											
01...	--	--	--	--	--	--	160	0	15	2130	6.0
JAN.											
06...	1.1	24	370	1570	2.14	30.5	250	0	12	2210	.0
FEB.											
02...	1.2	23	370	1540	2.09	37.4	170	0	15	2250	6.0
MAR.											
09...	--	--	--	--	--	--	140	0	18	2340	9.0
APR.											
06...	--	--	--	--	--	--	160	0	--	3070	16.0
MAY											
13...	--	--	--	--	--	--	250	0	--	2493	13.5
JUNE											
04...	--	--	--	--	--	--	160	0	--	1640	17.0
14...	--	--	--	--	--	--	180	0	--	2195	24.5
JULY											
01...	--	--	--	--	--	--	200	0	4.3	970	22.0
19...	--	--	--	--	--	--	190	0	4.7	--	22.5
AUG.											
04...	--	--	--	--	--	--	220	0	4.4	979	23.5
16...	--	--	--	--	--	--	210	0	4.5	1010	21.5
SEP.											
01...	--	--	--	--	--	--	210	0	4.5	1030	21.0
14...	--	--	--	--	--	--	210	0	4.2	--	8.0

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'14", long 104°03'25", in SW¼SE¼ sec.3, T.23 N., R.60 W., Goshen County, at bridge on State Highway 86, 0.3 mile downstream from Wyoming-Nebraska State line, 0.6 mile downstream from gaging station, and 0.6 mile south of Henry, Nebr.

DRAINAGE AREA.--26,177 sq mi (at gaging station), of which 5,888 sq mi (including 3,959 sq mi in Great Divide Basin in southern Wyoming) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 1,010 micromhos Oct. 16, Jan. 7; minimum daily, 413 micromhos May 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
12...	1415	705	21	40	80	21	88	7.0	264	0	220	19
NOV.												
03...	1400	482	26	60	85	20	81	6.8	287	0	210	21
10...	1315	464	8.7	--	87	--	86	--	--	--	220	18
DEC.												
09...	1120	374	--	--	87	--	95	--	--	--	220	19
JAN.												
05...	1620	310	28	40	93	22	89	7.6	317	0	220	24
11...	1145	310	28	10	94	21	82	6.7	306	0	200	22
FEB.												
08...	0945	265	29	40	88	22	84	6.9	299	0	220	19
MAR.												
09...	1230	281	27	10	95	19	84	6.5	293	0	220	21
APR.												
13...	1030	2220	13	0	69	20	55	4.2	189	0	210	15
MAY												
10...	1015	5020	17	690	57	13	38	5.3	174	0	110	12
JUNE												
14...	1345	7540	11	180	56	16	37	3.3	159	0	140	11
JULY												
19...	1430	1390	15	90	57	18	47	4.7	193	0	150	11
AUG.												
16...	1230	1190	14	20	63	17	53	4.0	194	0	160	11
SEP.												
13...	1230	698	20	90	73	19	64	5.3	232	0	190	18

PLATTE RIVER BASIN

169

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE.--Continued

EXTREMES.--1970-71: Continued

Water temperatures: Maximum, 21.0°C Aug. 17; minimum, freezing point on several days during December to March.

Period of record:

Specific conductance: Maximum daily, 1,010 micromhos Jan. 28, 1966, Jan. 8, Oct. 16, 1970, Jan. 7, 1971; minimum daily, 243 micromhos Dec. 2, 1967.

Water temperatures: Maximum, 27.0°C July 4, 25, 1967; minimum, freezing point on many days during winter period.

REMARKS.--Maximum observed during water year: Water temperatures, 22.0°C July 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 12...	.6	3.2	120	600	.82	1150	290	73	2.3	888	7.9	11.0
NOV. 03...	.5	5.2	130	599	.81	780	300	65	2.1	893	8.1	4.5
10...	.5	4.4	110	626	.85	784	--	--	2.5	904	--	7.5
DEC. 09...	.4	4.8	--	642	.87	648	--	--	2.8	932	--	5.0
JAN. 05...	.6	5.8	90	646	.88	541	320	60	2.2	954	7.7	.0
11...	.7	5.0	100	608	.83	437	320	69	2.0	934	8.0	.5
FEB. 08...	.7	7.2	130	624	.85	446	310	65	2.1	871	8.1	.5
MAR. 09...	.6	5.6	110	618	.84	469	320	80	2.1	853	8.2	7.0
APR. 13...	.5	2.0	90	478	.65	2870	260	105	1.5	686	8.3	9.5
MAY 10...	.5	1.1	70	344	.47	4660	200	57	1.2	490	8.0	11.0
JUNE 14...	.5	1.2	70	356	.48	7250	210	80	1.1	556	8.0	19.0
JULY 19...	.4	1.8	160	401	.55	1510	220	62	1.4	590	8.0	22.0
AUG. 16...	.4	1.4	90	424	.58	1360	230	71	1.5	666	8.1	21.5
SEP. 13...	.5	3.8	80	509	.69	959	260	70	1.7	774	8.1	18.5

PLATTE RIVER BASIN

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

PLATTE RIVER BASIN

171

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.5	5.0	3.0	3.0	1.0	2.0	5.0	10.0	15.0	18.0	20.0	20.0
2	10.0	5.0	3.5	2.0	2.0	0.0	5.0	10.0	15.0	19.0	19.0	20.0
3	11.0	4.0	2.0	0.0	1.0	0.0	5.0	10.0	15.0	19.0	20.0	18.0
4	10.0	4.0	3.0	0.0	1.0	4.0	5.0	10.0	15.0	20.0	20.0	17.0
5	11.0	4.0	5.0	0.0	1.0	2.0	5.0	10.0	15.0	20.0	20.0	18.0
6	11.0	7.0	5.0	0.0	1.0	3.0	5.0	8.0	15.0	19.0	20.0	15.0
7	5.0	10.0	5.0	0.0	1.0	0.0	6.0	10.0	15.0	18.0	20.0	19.0
8	5.0	10.0	5.0	0.0	0.5	1.0	5.0	11.0	15.0	18.0	20.0	15.0
9	5.0	5.0	5.0	2.0	0.0	4.0	7.0	12.0	15.0	17.0	20.0	15.0
10	9.0	7.0	3.0	2.0	3.0	6.0	10.0	10.0	15.0	18.0	20.0	16.0
11	5.0	5.0	1.0	0.0	3.0	5.0	9.0	9.0	15.0	19.0	19.0	16.0
12	10.0	7.0	3.0	1.0	3.0	5.0	9.0	10.0	15.0	19.0	20.0	15.0
13	10.0	7.0	3.0	2.0	3.0	5.0	9.0	12.0	15.0	18.0	19.0	15.0
14	9.0	5.0	1.0	2.0	4.0	5.0	10.0	12.0	15.0	19.0	19.0	15.0
15	6.0	5.0	5.0	1.0	2.0	5.0	10.0	14.0	15.0	19.0	20.0	14.0
16	7.0	5.0	2.0	3.0	4.0	5.0	10.0	10.0	16.0	20.0	20.0	15.0
17	7.0	5.0	3.0	4.0	3.0	5.0	11.0	10.0	18.0	20.0	21.0	10.0
18	7.0	5.0	3.0	3.0	5.0	5.0	10.0	8.0	18.0	20.0	20.0	10.0
19	7.0	5.0	0.0	3.0	3.0	1.0	10.0	10.0	18.0	20.0	20.0	10.0
20	7.0	5.0	3.0	5.0	5.0	5.0	10.0	11.0	18.0	20.0	20.0	11.0
21	10.0	5.0	1.0	3.0	5.0	4.0	10.0	11.0	19.0	20.0	20.0	12.0
22	10.0	5.0	3.0	1.0	0.0	4.0	10.0	15.0	20.0	20.0	20.0	10.0
23	9.0	0.0	1.0	1.0	0.0	2.0	8.0	10.0	20.0	20.0	20.0	10.0
24	10.0	1.0	3.0	3.0	2.0	2.0	10.0	10.0	20.0	20.0	20.0	10.0
25	10.0	7.0	3.0	3.0	2.0	2.0	10.0	10.0	20.0	20.0	19.0	10.0
26	7.0	6.0	4.0	1.5	1.0	4.0	6.0	13.0	20.0	19.0	20.0	10.0
27	7.0	5.0	4.0	3.0	3.0	5.0	5.0	13.0	20.0	20.0	20.0	10.0
28	5.0	5.0	1.0	3.0	1.0	5.0	5.0	14.0	20.0	19.0	20.0	13.0
29	5.0	5.0	1.5	4.0	---	5.0	5.0	15.0	20.0	19.0	20.0	10.0
30	5.0	5.0	2.0	2.0	---	8.0	10.0	10.0	19.0	19.0	20.0	10.0
31	7.0	---	3.0	3.0	---	8.0	---	11.0	---	20.0	20.0	---
MONTH	8.0	5.5	3.0	2.0	2.0	4.0	8.0	11.0	17.0	19.0	20.0	13.5
YEAR	9.5											

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM	SUS. SED. FALL DIAM. % FINER THAN 2.00 MM
JUNE 09...	1245	13.0	8430	609	13900	18	19	23	90	99	100

PLATTE RIVER BASIN

06676550 HORSE CREEK AT WYXCROSS RANCH, NEAR LA GRANGE, WYO.

LOCATION.--Lat 41°40'35", long 104°12'11", in SW¼NW¼ sec.28, T.20 N., R.61 W., Goshen County, at bridge on private road, 300 ft downstream from gaging station, 0.2 mile upstream from Hawk Springs ditch, 1.5 miles downstream from WyCross ditch, 2.6 miles upstream from Bear Creek, and 3.3 miles northwest of La Grange.

DRAINAGE AREA.--680 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

Sediment records: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.												
16...	11	44	120	52	13	42	5.9	306	0	20	6.0	.8
NOV.												
04...	36	37	60	56	13	34	6.0	286	0	28	5.7	.8
DEC.												
01...	27	43	40	63	14	32	6.6	291	0	39	7.0	.7
JAN.												
05...	23	48	30	77	8.3	35	6.5	299	0	36	10	.8
19...	47	39	--	71	17	39	6.7	331	0	60	12	.7
FEB.												
03...	33	41	0	65	14	28	5.6	281	0	34	7.6	.9
MAR.												
09...	25	44	--	56	14	32	6.0	278	0	35	8.0	.8
APR.												
08...	40	35	--	61	14	28	6.7	272	0	51	6.5	.9
JUNE												
02...	122	42	--	74	17	38	6.8	333	0	49	9.6	.9
14...	87	43	--	62	16	38	5.9	289	0	45	6.9	.9
JULY												
07...	8.1	49	20	56	14	47	6.7	341	0	23	9.8	.7
19...	2.3	48	20	58	16	50	7.4	365	0	23	8.9	1.0
AUG.												
05...	1.8	40	10	52	15	52	8.2	326	0	32	8.0	.6
16...	1.5	42	20	55	16	55	7.8	355	0	31	8.6	1.3
30...	1.5	43	20	56	16	54	8.8	365	0	34	10	.8
SEP.												
13...	1.9	46	70	60	16	55	8.4	376	0	33	9.4	1.1

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.											
16...	.18	80	335	.46	9.95	180	0	1.3	508	8.2	9.0
NOV.											
04...	.25	70	323	.44	31.4	190	0	1.1	504	8.2	3.0
DEC.											
01...	.29	70	350	.48	25.5	210	0	.9	521	8.2	4.5
JAN.											
05...	.61	60	371	.50	23.0	220	0	1.0	562	8.2	.5
19...	.10	100	409	.56	51.9	250	0	1.1	619	8.1	11.0
FEB.											
03...	.20	40	336	.46	29.9	220	0	.8	511	8.2	3.0
MAR.											
09...	.10	70	330	.45	22.3	200	0	1.0	515	8.3	1.5
APR.											
08...	.30	90	338	.46	36.5	210	0	.8	525	8.4	12.0
JUNE											
02...	.20	150	402	.55	132	250	0	1.0	635	8.3	16.0
14...	.18	60	361	.49	84.8	220	0	1.1	572	8.1	19.0
JULY											
07...	.35	60	376	.51	8.22	200	0	1.5	566	8.0	18.0
19...	.36	100	393	.53	2.44	210	0	1.5	604	8.0	19.0
AUG.											
05...	.24	110	369	.50	1.79	190	0	1.6	543	7.9	24.5
16...	.30	120	393	.53	1.59	200	0	1.7	608	7.7	18.0
30...	.32	150	404	.55	1.64	210	0	1.6	610	7.7	21.0
SEP.											
13...	.26	140	415	.56	2.13	220	0	1.6	617	7.7	14.0

PLATTE RIVER BASIN

173

06676550 HORSE CREEK AT WYXCROSS RANCH, NEAR LA GRANGE, WYO.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SED- IMENT CHARGE (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
OCT. 16...	1345	9.0	11	78	2.3	--	--	--	--	--
NOV. 04...	1225	3.0	36	80	7.8	--	--	--	--	--
16...	1000	3.0	33	97	8.6	--	--	--	--	--
DEC. 01...	1635	4.5	27	94	6.9	--	--	--	--	--
JAN. 05...	1220	.5	23	124	7.7	--	--	--	--	--
FEB. 03...	1515	3.0	33	73	6.5	--	--	--	--	--
MAR. 09...	0920	1.5	25	143	9.7	--	--	--	--	--
APR. 08...	1635	12.0	40	101	11	--	--	--	--	--
30...	1210	12.5	87	166	39	--	--	--	--	--
MAY 06...	1450	12.5	126	475	162	34	62	82	96	100
AUG. 05...	1245	21.0	1.8	56	.27	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. FALL DIAM. % FINER THAN 2.00 MM	BED MAT. FALL DIAM. % FINER THAN 4.00 MM	BED MAT. FALL DIAM. % FINER THAN 8.00 MM	BED MAT. FALL DIAM. % FINER THAN 16.0 MM
FEB. 03...	1515	3.0	33	4	15	28	49	65	70	77	89	100

PLATTE RIVER BASIN

06677010 HORSE CREEK AT LOWER STATION, NEAR YODER, WYO.

LOCATION.--Lat 41°53'10", long 104°14'53", in SE¼SE¼ sec.12, T.22 N., R.62 W., Goshen County, at gaging station, 1.5 miles upstream from Fort Laramie Canal siphon, 3.2 miles southeast of Yoder, and 3.8 miles downstream from Lone Tree Creek.

DRAINAGE AREA.--1,320 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT.											
16...	.72	--	38	23	460	16	614	24	--	--	--
NOV.											
04...	.50	--	31	26	540	18	747	14	--	--	--
DEC.											
01...	.32	--	22	24	460	17	631	18	--	--	--
JAN.											
05...	.35	35	66	16	460	15	769	0	510	89	1.4
FEB.											
03...	1.5	29	48	23	360	12	580	12	440	79	1.4
MAR.											
09...	.81	--	40	24	490	14	725	0	--	--	--
APR.											
07...	.41	--	48	34	--	15	769	14	--	--	--
MAY											
19...	15	--	43	20	--	13	480	0	--	--	--
JUNE											
04...	109	--	54	18	--	9.8	362	0	--	--	--
14...	67	--	54	17	--	7.8	295	0	--	--	--
JULY											
01...	8.0	--	43	19	170	--	430	0	--	--	--
19...	1.6	--	34	19	840	--	652	0	--	--	--
AUG.											
05...	1.0	--	29	23	380	--	642	0	--	--	--
30...	.15	--	19	19	1000	--	576	39	--	--	--
SEP.											
13...	.51	--	29	21	270	--	540	0	--	--	--

DATE	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.										
16...	--	--	--	--	190	0	15	2250	8.6	4.0
NOV.										
04...	--	--	--	--	180	0	17	2520	8.5	2.0
DEC.										
01...	--	--	--	--	150	0	16	2200	8.6	4.5
JAN.										
05...	460	1580	2.15	1.49	230	0	13	2260	8.3	.0
FEB.										
03...	370	1290	1.75	5.22	220	0	11	1890	8.4	1.5
MAR.										
09...	--	--	--	--	200	0	15	2360	8.3	2.5
APR.										
07...	--	--	--	--	260	0	--	3800	8.4	13.5
MAY										
19...	--	--	--	--	190	0	--	1054	8.1	12.5
JUNE										
04...	--	--	--	--	210	0	--	696	8.1	19.0
14...	--	--	--	--	200	0	--	671	7.9	23.0
JULY										
01...	--	--	--	--	190	0	5.4	990	8.0	26.5
19...	--	--	--	--	160	0	29	--	8.2	26.5
AUG.										
05...	--	--	--	--	170	0	13	1820	8.1	22.0
30...	--	--	--	--	130	0	39	1940	8.3	27.0
SEP.										
13...	--	--	--	--	160	0	9.3	--	8.1	17.5

PART 9. COLORADO RIVER BASIN

175

GREEN RIVER BASIN

09188500 GREEN RIVER AT WARREN BRIDGE, NEAR DANIEL, WYO.

LOCATION (revised).--Lat 43°01'08", long 110°07'03", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.35 N., R.111 W., Sublette County, at bridge on U.S. Highways 187 and 189, 100 ft downstream from gaging station, 3.4 miles upstream from Beaver Creek, and 12 miles north of Daniel.

DRAINAGE AREA.--468 sq mi.

PERIOD OF RECORD.--Chemical analyses: May 1962 to September 1964, October 1967 to September 1971.
Water temperatures: May 1962 to September 1964.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 01...	1350	181	4.4	100	67	12	3.4	.9	122	0	120	2.8
NOV. 05...	1430	132	6.1	80	84	18	4.4	.4	137	0	160	1.8
DEC. 06...	1600	a180	5.5	100	81	14	3.3	1.3	128	0	160	4.6
JAN. 07...	1400	a122	7.2	50	93	18	4.9	.9	153	0	180	2.2
31...	1140	a119	9.4	140	82	22	3.8	.7	140	0	170	4.3
APR. 08...	1330	a129	7.3	90	93	18	4.4	1.6	140	0	180	3.2
MAY 13...	1500	1470	10	70	46	11	3.3	1.8	134	0	53	2.8
JUNE 08...	1245	1960	5.0	130	38	8.4	2.2	1.1	116	0	35	1.1
JULY 12...	1630	1710	4.2	90	24	3.4	1.6	.9	71	0	25	.6
AUG. 03...	1500	1030	3.4	50	27	3.8	3.8	.4	58	0	41	.3
SEP. 11...	0730	420	3.3	30	44	9.6	1.5	.7	82	0	76	2.1

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 01...	.4	.2	10	269	.35	130	220	120	.1	430	8.3	10.0
NOV. 05...	.5	.0	60	343	.47	122	280	168	.1	531	8.2	.5
DEC. 06...	.5	.1	0	330	.45	160	260	155	.1	495	8.1	.0
JAN. 07...	.3	.2	20	382	.52	125	300	174	.1	583	7.8	.0
31...	.4	.2	0	366	.50	116	300	185	.1	550	7.9	.0
APR. 08...	.5	.3	30	380	.52	113	300	185	.1	540	8.2	--
MAY 13...	.3	.4	30	195	.27	748	160	50	.1	303	8.1	8.0
JUNE 08...	.2	.8	0	149	.20	807	130	35	.1	252	8.0	10.0
JULY 12...	.1	.2	120	95	.13	459	75	17	.1	152	7.8	15.0
AUG. 03...	.1	.0	10	109	.15	309	83	35	.2	186	7.9	17.5
SEP. 11...	.3	.3	0	178	.24	202	150	83	.1	288	7.9	11.5

GREEN RIVER BASIN

09192600 GREEN RIVER NEAR BIG PINEY, WYO.

LOCATION.--Lat 42°34'14", long 109°56'58", in NE¼NE¼NE¼ sec.21, T.30 N., R.110 W., Sublette County, at bridge on State Secondary Highway 1801, 1.9 miles upstream from New Fork River, 8.4 miles northeast of Big Piney, and 16.2 miles southwest of Boulder.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
05...	1830	180	4.1	60	70	8.0	9.0	1.5	156	1	96	3.2
DEC.												
06...	1000	147	7.2	110	84	17	8.2	1.6	207	0	120	5.7
JAN.												
08...	1100	141	7.6	10	88	18	6.5	1.1	201	0	140	2.2
30...	1400	194	12	140	84	18	6.0	.9	201	0	130	3.2
APR.												
01...	1330	810	7.8	40	63	17	45	3.3	186	0	160	9.7
MAY												
14...	1700	3520	13	90	52	11	6.0	2.4	177	0	35	4.4
JUNE												
06...	1345	2600	7.2	100	52	12	6.5	1.3	180	0	36	1.4
JULY												
07...	0720	2200	6.3	120	46	9.7	6.0	1.1	158	0	35	2.2
AUG.												
06...	1015	1220	3.5	20	36	8.5	3.8	1.3	111	0	38	1.1
31...	1030	730	3.3	30	43	9.8	3.8	1.3	119	0	56	1.0

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
05...	.5	.0	0	270	.37	131	210	80	.3	438	8.4	11.5
DEC.												
06...	.4	.1	20	347	.47	138	280	110	.2	543	8.3	.0
JAN.												
08...	.3	.2	40	359	.49	137	300	135	.2	568	7.8	.0
30...	.3	.2	10	350	.48	183	290	125	.2	532	7.8	.0
APR.												
01...	.4	.3	50	401	.55	877	230	77	1.3	584	7.8	.0
MAY												
14...	.3	.3	40	212	.29	2010	170	25	.2	332	8.0	13.0
JUNE												
06...	.3	.1	10	206	.28	1450	180	32	.2	341	8.3	11.5
JULY												
07...	.2	.2	30	185	.25	1100	150	20	.2	295	7.9	14.5
AUG.												
06...	.3	.0	30	148	.20	488	120	29	.1	262	8.0	18.0
31...	.2	.4	10	178	.24	351	150	52	.1	323	8.0	16.5

GREEN RIVER BASIN

177

09201000 NEW PORK RIVER NEAR BOULDER, WYO.

LOCATION.--Lat 42°45'01", long 109°43'41", in NW¼NE¼NW¼ sec.16, T.32 N., R.108 W., Sublette County, at bridge on old U.S. Highway 187, 70 ft upstream from former gaging station, 770 ft upstream from Boulder Creek, and 0.5 mile northwest of Boulder.

DRAINAGE AREA.--552 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1971 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 08...	1230	120	10	70	40	5.7	9.3	1.9	160	0	.0	8.2
NOV. 07...	1330	155	8.6	60	40	3.6	9.8	1.2	153	0	4.3	3.2
DEC. 08...	1100	151	9.1	130	36	3.8	8.7	2.2	140	0	7.2	2.1
JAN. 07...	1000	91	9.1	120	34	3.3	8.2	1.6	128	0	4.9	2.2
31...	1500	138	10	60	29	2.8	6.5	1.6	110	0	6.6	3.2
APR. 03...	1440	134	7.4	80	32	2.3	8.2	2.7	113	0	4.9	6.5
MAY 12...	0815	--	10	120	21	4.3	5.3	2.2	92	0	4.9	3.3
JUNE 09...	1300	1420	5.7	80	12	2.4	3.8	1.3	54	0	.8	1.1
JULY 10...	0945	1950	7.9	110	22	3.5	4.4	1.1	95	0	4.9	.8

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 08...	.2	.2	10	155	.21	50.2	120	0	.4	271	8.1	5.5
NOV. 07...	.2	.0	70	146	.20	61.1	120	0	.4	270	8.1	3.0
DEC. 08...	.0	.2	30	138	.19	56.3	100	0	.4	245	7.6	1.0
JAN. 07...	.1	.7	30	127	.17	31.2	98	0	.4	233	7.5	.0
31...	.2	.5	0	114	.16	42.5	85	0	.3	192	7.6	.0
APR. 03...	.3	.4	20	120	.16	43.4	90	0	.4	200	8.2	3.0
MAY 12...	.2	.3	20	97	.13	--	69	0	.3	154	8.0	7.0
JUNE 09...	.2	.6	0	55	.07	211	40	0	.3	94	7.8	12.5
JULY 10...	.1	.4	260	92	.13	484	70	0	.2	153	7.8	13.5

GREEN RIVER BASIN

09205000 NEW FORK RIVER NEAR BIG PINEY, WYO.

LOCATION.--Lat 42°34'02", long 109°55'46", in SE¼NE¼NE¼ sec.22, T.30 N., R.110 W., Sublette County, at gaging station, 35 ft upstream from old highway bridge, 3.4 miles (revised) upstream from mouth, and 9.5 miles northeast of Big Piney.

DRAINAGE AREA.--1,230 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
05...	1755	245	7.9	80	34	3.9	13	2.1	116	6	21	4.6
DEC.												
06...	1200	228	11	90	36	5.0	12	2.2	140	0	14	3.2
JAN.												
08...	1310	a159	11	170	32	3.9	10	1.6	122	0	10	3.3
30...	1130	a225	13	140	29	3.4	8.7	1.6	109	0	13	5.4
APR.												
01...	1250	a370	7.7	40	27	4.5	12	2.7	107	0	21	5.9
MAY												
14...	1530	790	8.6	100	15	2.8	5.3	2.0	64	0	5.8	4.4
JUNE												
06...	1250	2170	6.0	100	11	1.8	3.3	1.1	42	0	5.8	.8
JULY												
07...	0740	2420	7.5	80	15	4.3	7.1	1.1	72	0	9.9	2.2
AUG.												
06...	1030	850	6.9	90	20	2.8	5.8	1.3	75	0	9.1	1.1
31...	1000	424	7.7	80	27	5.1	11	2.4	115	0	16	3.1

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
05...	.4	.0	20	151	.21	99.9	100	0	.6	270	8.4	11.5
DEC.												
06...	.2	.3	100	153	.21	94.2	110	0	.5	270	7.7	.0
JAN.												
08...	.1	.7	40	133	.18	57.1	95	0	.4	240	7.4	.0
30...	.2	.4	0	128	.17	77.8	88	0	.4	208	7.8	.0
APR.												
01...	.3	.3	30	133	.18	133	87	0	.6	210	7.7	.0
MAY												
14...	.2	.3	20	76	.10	162	50	0	.3	123	7.7	14.0
JUNE												
06...	.2	.2	30	51	.07	299	35	1	.2	86	7.7	10.0
JULY												
07...	.2	.2	30	83	.11	542	55	0	.4	121	7.5	15.5
AUG.												
06...	.2	.0	40	84	.11	193	61	0	.3	155	7.6	18.0
31...	.2	.3	40	130	.18	149	88	0	.5	226	8.2	16.0

09207700 DRY PINEY CREEK NEAR BIG PINEY, WYO.

LOCATION.--Lat 42°23'25", long 110°15'09", in NW¼NE¼ sec.27, T.28 N., R.113 W., Sublette County, at gaging station, 8.3 miles upstream from mouth, and 16.3 miles southwest of Big Piney.

DRAINAGE AREA.--67 sq mi, approximately.

PERIOD OF RECORD.--Water temperatures: April 1966 to September 1971.
Sediment records: April 1966 to September 1971.

EXTREMES.--1970-71:

Water temperatures: Maximum, 28.0°C June 12; minimum, freezing point on several days during November to April.
Sediment concentrations: Maximum daily, 10,100 mg/l Mar. 30; minimum daily, no flow for many days during December to March.
Sediment discharge: Maximum daily, 409 tons Mar. 30; minimum daily, 0 tons on many days during October to March.

Period of record:

Water temperatures: Maximum, 28.0°C June 12, 1971; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 10,100 mg/l Mar. 30, 1971; minimum daily, no flow for many days most years.
Sediment discharge: Maximum daily, 409 tons Mar. 30, 1971; minimum daily, 0 tons on many days most years.

REMARKS.--Flow affected by ice Oct. 22 to Nov. 10, 12, 14, Nov. 16 to Dec. 5, Jan. 19-21, Jan. 31 to Feb. 3; 13-15, Mar. 12, 13, 15, 16, 24-26, Mar. 30 to Apr. 6. No flow Dec. 8 to Jan. 18, 23-30, Feb. 4-12, Feb. 16 to Mar. 11, 17-20.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	1.5	2.0	---	2.0	---	4.0	17.5	17.0	17.0	20.0	12.0
2	6.0	2.5	1.5	---	1.0	---	0.0	19.0	18.0	24.0	25.0	---
3	14.0	4.5	1.5	---	1.0	---	1.0	19.0	17.0	---	17.0	15.0
4	13.0	1.5	---	---	---	---	0.5	14.0	16.0	19.0	18.0	12.0
5	15.0	2.0	---	---	---	---	2.5	8.0	17.0	18.0	24.0	11.0
6	---	1.5	---	---	---	---	4.5	7.0	14.0	24.0	16.0	19.5
7	4.0	1.0	---	---	---	---	4.0	4.0	17.0	---	---	---
8	6.0	0.0	---	---	---	---	4.5	13.0	14.0	21.0	21.0	11.0
9	10.0	---	---	---	---	---	6.0	14.5	13.0	19.5	---	16.0
10	---	1.5	---	---	---	---	4.5	8.0	15.0	14.0	---	18.0
11	2.0	0.0	---	---	---	---	4.5	19.0	19.0	20.0	---	20.0
12	---	3.0	---	---	---	7.0	3.0	18.0	28.0	---	20.0	19.0
13	3.0	---	---	---	---	0.0	8.0	---	10.0	18.0	25.0	11.0
14	1.0	0.5	---	---	1.5	---	12.5	18.5	21.0	20.0	---	---
15	4.5	---	---	---	1.5	0.0	12.0	8.5	23.0	---	21.0	15.0
16	2.0	0.5	---	---	---	0.0	0.0	---	16.0	15.0	21.0	---
17	3.0	0.5	---	---	---	---	13.0	14.0	23.0	22.0	22.0	5.0
18	6.0	1.0	---	---	---	---	7.5	3.5	16.0	---	---	12.0
19	6.5	2.5	---	---	---	---	8.5	13.0	13.0	24.5	22.0	14.0
20	6.0	0.5	---	---	---	---	---	5.0	21.5	---	18.0	9.0
21	5.5	0.5	---	---	---	---	---	16.0	22.0	24.0	20.0	9.0
22	---	---	---	---	---	---	---	9.0	16.0	23.0	---	13.0
23	2.0	1.0	---	---	---	---	---	10.5	20.0	19.0	---	14.0
24	3.0	0.0	---	---	---	4.0	---	10.0	14.0	15.0	14.0	---
25	2.5	0.0	---	---	---	1.5	---	18.5	20.0	18.5	19.5	13.0
26	1.5	1.0	---	---	---	0.5	---	10.0	15.5	20.0	19.0	12.0
27	2.0	0.5	---	---	---	---	---	20.0	17.0	24.0	19.0	9.0
28	1.5	1.0	---	---	---	---	10.5	14.0	20.0	21.0	20.0	10.5
29	2.0	0.5	---	---	---	0.0	---	14.0	19.0	---	17.0	9.0
30	---	0.5	---	---	---	5.0	15.0	---	---	21.0	---	---
31	1.5	---	---	3.0	---	2.0	---	10.0	---	22.0	17.0	---
MONTH	5.0	1.0	---	---	---	---	---	12.5	17.5	---	---	13.0

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAR.											
12...	1910	7.0	.55	1990	3.0	78	99	100	---	---	---
24...	1600	4.0	1.5	5560	23	42	69	95	99	100	---
26...	1335	5.0	6.3	10600	180	46	71	98	100	---	---
30...	1645	5.0	15	18200	737	40	68	95	99	100	---
APR.											
05...	1930	2.5	15	9000	364	46	71	93	98	100	---
06...	1845	4.5	23	11500	714	47	71	92	97	100	---
28...	1715	10.5	11	375	11	40	58	82	89	98	100

GREEN RIVER BASIN

09207700 DRY PINEY CREEK NEAR BIG PINEY, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.01	6	0	.21	19	.01	.03	58	0
2	.01	5	0	.18	22	.01	.03	20	0
3	.01	15	0	.17	20	.01	.03	28	0
4	.01	14	0	.15	385	.16	.03	22	0
5	.01	6	0	.17	61	.03	.03	20	0
6	.02	8	0	.20	17	.01	.02	20	0
7	.04	21	0	.16	32	.01	.01	20	0
8	.04	33	0	.12	23	.01	0	0	0
9	.05	20	0	.08	12	0	0	0	0
10	.10	18	0	.07	20	0	0	0	0
11	.12	19	.01	.06	15	0	0	0	0
12	.12	11	0	.07	21	0	0	0	0
13	.12	7	0	.08	19	0	0	0	0
14	.12	9	0	.06	7	0	0	0	0
15	.08	15	0	.04	29	0	0	0	0
16	.10	9	0	.05	103	.01	0	0	0
17	.12	2	0	.04	23	0	0	0	0
18	.10	8	0	.04	13	0	0	0	0
19	.10	6	0	.03	40	0	0	0	0
20	.08	12	0	.03	20	0	0	0	0
21	.08	7	0	.03	143	.01	0	0	0
22	.10	4	0	.03	141	.01	0	0	0
23	.13	5	0	.03	28	0	0	0	0
24	.15	14	.01	.03	57	0	0	0	0
25	.14	18	.01	.04	57	.01	0	0	0
26	.11	265	.08	.03	39	0	0	0	0
27	.12	978	.32	.02	35	0	0	0	0
28	.14	238	.09	.02	13	0	0	0	0
29	.22	35	.02	.02	41	0	0	0	0
30	.30	27	.02	.03	23	0	0	0	0
31	.44	38	.05	--	--	--	0	0	0
TOTAL	3.29	--	.61	2.29	--	.29	.18	--	0
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	.50	230	.31	0	0	0
2	0	0	0	.25	91	.06	0	0	0
3	0	0	0	.05	30	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	.55	1380	2.0
13	0	0	0	.40	220	.24	1.1	820	2.4
14	0	0	0	.63	271	.46	.50	320	.43
15	0	0	0	.20	173	.09	.09	101	.02
16	0	0	0	0	0	0	.03	120	.01
17	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0
19	.02	20	0	0	0	0	0	0	0
20	.03	20	0	0	0	0	0	0	0
21	.01	20	0	0	0	0	.01	500	.01
22	.01	20	0	0	0	0	.05	1370	.18
23	0	0	0	0	0	0	.10	1820	.49
24	0	0	0	0	0	0	1.5	2190	8.9
25	0	0	0	0	0	0	2.5	1910	13
26	0	0	0	0	0	0	6.3	3800	65
27	0	0	0	0	0	0	8.5	4300	99
28	0	0	0	0	0	0	11	5150	153
29	0	0	0	--	--	--	13	6000	211
30	0	0	0	--	--	--	15	10100	409
31	.30	142	.12	--	--	--	14	4100	155
TOTAL	.37	--	.12	2.03	--	1.16	74.23	--	1119.44

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	23	99	6.1	4.5	36	.44	2.4	29	.19
2	21	91	5.2	4.2	33	.37	2.1	23	.13
3	20	100	5.4	4.2	60	.68	2.3	16	.10
4	20	99	5.3	4.2	40	.45	2.8	25	.19
5	18	90	4.4	4.4	30	.36	2.4	20	.13
6	16	82	3.5	4.1	38	.42	2.1	11	.06
7	15	80	3.2	3.9	22	.23	2.1	8	.05
8	14	60	2.3	3.9	18	.19	2.7	30	.22
9	14	62	2.3	4.0	18	.19	2.3	18	.11
10	13	52	1.8	3.5	17	.16	1.7	9	.04
11	11	51	1.5	3.2	14	.12	1.8	12	.06
12	11	58	1.7	3.1	12	.10	1.2	18	.06
13	10	49	1.3	3.0	11	.09	1.2	17	.06
14	10	54	1.5	2.7	8	.06	.91	5	.01
15	9.6	121	3.1	2.7	9	.07	.99	11	.03
16	9.1	147	3.6	2.7	14	.10	1.5	28	.11
17	10	115	3.1	2.6	10	.07	2.8	40	.30
18	9.0	116	2.8	2.6	6	.04	3.2	39	.34
19	11	168	5.0	2.3	9	.06	2.8	54	.41
20	7.7	99	2.1	2.0	15	.08	2.3	33	.20
21	8.5	132	3.0	1.9	8	.04	3.7	96	1.1
22	7.0	67	1.3	1.8	5	.02	3.7	93	.93
23	7.4	91	1.8	1.7	6	.03	3.0	30	.24
24	7.4	90	1.8	1.5	10	.04	2.6	21	.15
25	6.2	86	1.4	1.5	18	.07	2.3	18	.11
26	5.6	79	1.2	1.6	16	.07	2.1	11	.06
27	5.6	60	.91	1.5	11	.04	2.2	16	.10
28	5.2	58	.81	1.4	10	.04	2.8	25	.19
29	5.2	53	.74	4.3	83	1.3	2.7	20	.15
30	5.0	42	.57	4.3	138	1.6	2.6	19	.13
31	4.8	35	.45	3.0	46	.37	--	--	--
TOTAL	340.3	--	79.18	92.3	--	7.90	69.30	--	5.92

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	2929.09
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	5023.56

GREEN RIVER BASIN

09209400 GREEN RIVER NEAR LA BARGE, WYO.

LOCATION.--Lat 42°11'34", long 110°09'45", in SE¼SE¼NW¼ sec.33, T.26 N., R.112 W., Lincoln County, at bridge 0.7 mile north of La Barge, 6.5 miles upstream from gaging station, and 9.5 miles upstream from Muddy Creek.

DRAINAGE AREA.--3,910 sq mi, approximately (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1971.
Water temperatures: October 1963 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
07...	1400	640	7.3	40	54	12	17	1.6	177	0	63	7.8
15...	1740	680	7.7	40	50	15	19	1.7	185	0	70	4.2
NOV.												
10...	1530	720	8.3	30	53	16	21	1.8	200	0	78	4.6
DEC.												
05...	1430	560	9.4	420	58	17	20	1.7	214	0	79	4.3
JAN.												
09...	1545	430	8.0	--	60	15	14	1.4	196	0	79	3.4
FEB.												
01...	1415	650	9.6	30	50	14	14	1.8	171	0	69	3.2
MAR.												
04...	0855	460	10	10	42	24	14	1.6	186	0	67	4.3
APR.												
01...	1800	1600	6.8	0	48	14	37	3.3	168	0	100	9.1
MAY												
12...	1515	4650	13	120	46	16	9.2	2.9	183	0	37	4.4
JUNE												
10...	1235	6630	7.5	290	33	11	5.3	1.3	136	0	21	2.0
JULY												
15...	1345	4000	7.0	10	33	11	9.2	1.3	149	0	20	3.1
AUG.												
09...	1050	2480	4.6	60	31	8.0	7.8	.9	118	0	26	1.4
SEP.												
03...	1535	1400	4.1	10	32	7.7	8.3	1.8	114	0	36	2.1

GREEN RIVER BASIN

183

09209400 GREEN RIVER NEAR LA BARGE, WYO.--Continued

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 670 micromhos Apr. 25; minimum daily, 227 micromhos June 27.

Water temperatures: Maximum, 22.0°C Aug. 6, 16; minimum, freezing point on many days during November to April.

Period of record:

Specific conductance: Maximum daily, 734 micromhos Jan. 22, 1968; minimum daily, 145 micromhos May 30, 1969.

Water temperatures: Maximum, 24.0°C Aug. 7, 1970; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C) ↑
OCT.												
07...	.3	.2	20	250	.34	432	180	35	.5	413	8.2	8.0
15...	.2	.0	0	259	.35	476	190	38	.6	436	7.8	6.5
NOV.												
10...	.2	.0	0	281	.38	546	200	36	.6	455	7.9	3.5
DEC.												
05...	.2	.0	0	295	.40	446	210	34	.6	479	8.1	.0
JAN.												
09...	.2	.2	30	277	.38	322	210	49	.4	454	7.7	.0
FEB.												
01...	.2	.4	20	246	.33	432	180	40	.5	398	8.0	1.0
MAR.												
04...	.2	.0	40	254	.35	315	200	47	.4	414	7.8	.0
APR.												
01...	.3	.4	60	305	.41	1320	180	42	1.2	458	7.8	.0
MAY												
12...	.3	.4	40	219	.30	2750	180	30	.3	343	7.9	12.5
JUNE												
10...	.2	.4	20	149	.20	2670	130	18	.2	261	8.1	13.5
JULY												
15...	.3	.0	30	159	.22	1720	130	8	.4	261	8.0	18.0
AUG.												
09...	.1	.1	40	138	.19	924	110	13	.3	247	8.0	18.0
SEP.												
03...	.2	.0	30	148	.20	559	110	16	.3	261	8.2	15.0

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

GREEN RIVER BASIN

185

09209400 GREEN RIVER NEAR LA BARGE, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	3.0	0.0	0.0	0.0	0.0	0.0	11.0	11.0	17.0	20.0	18.0
2	12.0	2.0	0.0	0.0	0.0	0.0	1.0	12.0	11.0	18.0	21.0	18.0
3	14.0	2.0	0.0	1.0	0.0	0.0	0.0	12.0	11.0	17.0	21.0	14.0
4	12.0	1.0	0.0	0.0	0.0	0.0	1.0	10.0	10.0	16.0	20.0	14.0
5	10.0	2.0	0.0	0.0	0.0	0.0	0.0	9.0	12.0	14.0	20.0	15.0
6	7.0	4.0	0.0	0.0	0.0	0.0	2.0	7.0	12.0	15.0	22.0	17.0
7	6.0	2.0	0.0	0.0	0.0	0.0	4.0	7.0	14.0	16.0	19.0	15.0
8	8.0	2.0	0.0	0.0	0.0	0.0	5.0	7.0	15.0	17.0	20.0	17.0
9	6.0	3.0	0.0	0.0	0.0	0.0	6.0	11.0	15.0	16.0	17.0	12.0
10	5.0	3.0	0.0	0.0	1.0	0.0	7.0	12.0	13.5	17.0	20.0	13.0
11	8.0	1.0	0.0	0.0	0.0	0.0	6.0	12.0	14.0	18.0	21.0	15.0
12	10.0	3.0	---	0.0	1.0	1.0	5.0	14.0	14.0	18.0	21.0	14.0
13	9.0	3.0	---	0.0	0.0	1.0	7.0	13.0	14.0	19.0	20.0	14.0
14	7.0	1.0	---	0.0	0.0	0.0	7.0	12.0	16.0	19.0	16.0	14.0
15	7.0	1.0	---	0.0	0.0	0.0	9.0	11.0	15.5	19.0	16.0	12.0
16	6.0	0.5	---	0.0	0.0	0.0	8.0	10.0	16.0	19.5	22.0	10.0
17	5.0	1.0	---	0.0	0.0	0.0	8.0	9.0	17.0	19.0	21.0	7.0
18	7.0	0.0	---	0.0	0.0	0.0	8.0	8.0	17.0	18.0	21.0	7.0
19	8.0	0.0	---	0.0	0.0	0.0	5.0	9.0	18.0	19.0	21.0	7.0
20	6.0	0.0	---	0.0	0.0	0.0	3.0	8.0	18.0	19.0	20.0	10.0
21	6.0	0.0	---	0.0	0.0	0.0	6.0	10.0	19.0	18.0	16.0	9.0
22	5.0	0.0	---	0.0	0.0	0.0	6.0	10.0	19.0	19.0	16.0	8.0
23	4.0	0.0	---	0.0	0.0	1.0	6.0	11.0	20.0	20.0	17.0	8.0
24	5.0	0.0	---	0.0	0.0	0.0	8.0	12.0	19.0	20.0	15.0	13.0
25	2.0	0.0	---	0.0	0.0	1.0	8.0	14.0	18.0	20.0	15.0	12.0
26	4.0	1.0	---	0.0	0.0	1.0	7.0	15.0	19.0	20.0	16.0	11.0
27	2.0	0.0	---	0.0	0.0	1.0	8.0	15.0	16.0	20.0	16.0	10.0
28	2.0	0.0	0.0	0.0	0.0	0.0	9.0	15.0	15.0	20.0	20.0	10.0
29	2.0	0.0	0.0	0.0	---	1.0	10.0	11.0	15.0	20.0	16.0	9.0
30	3.0	0.0	0.0	1.0	---	1.0	---	10.0	16.0	20.0	16.0	9.0
31	0.5	---	0.0	0.0	---	0.0	---	9.0	---	20.0	18.0	---
MONTH	6.5	1.0	---	0.0	0.0	0.5	5.5	11.0	15.5	18.5	18.5	12.0
YEAR	8.0											

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.						
15...	1740	680	--	10.4	8.8	6.5
NOV.						
10...	1530	720	--	10.4	8.5	3.5
DEC.						
05...	1430	560	468	11.9	8.6	.0
JAN.						
09...	1545	430	463	10.3	8.8	.0
FEB.						
01...	1415	650	382	10.1	8.5	1.0
MAR.						
04...	0850	460	--	9.7	8.4	.0
APR.						
01...	1800	1600	--	10.3	8.4	.0
MAY						
12...	1515	4650	--	8.4	8.3	12.5
JUNE						
10...	1235	6630	--	8.1	8.1	13.5
JULY						
15...	1345	4000	--	7.7	8.3	18.0
AUG.						
09...	1050	2480	--	7.6	8.3	18.0
SEP.						
03...	1535	1400	--	8.2	8.6	15.0

EXTREMES.--1970-71: Continued

Period of record:

Specific conductance: Maximum daily, 701 micromhos Dec. 23, 1967; minimum daily, 253 micromhos June 13, 1969.

Water temperatures: Maximum, 19.5°C Aug. 16, 1970, Aug. 17-21, Sept. 1, 2, 1971; minimum, freezing point

Nov. 27, Dec. 21, 1967; Feb. 1, 1968.

REMARKS.--Temperature recorder at gaging station 3.6 miles upstream from sampling point Apr. 15 to Sept. 30; record furnished by Wyoming Game and Fish Commission. Maximum water temperature recorded during period April to September 1971, 20.0°C Aug. 8-14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 08...	.3	.3	30	218	.30	830	160	25	.6	368	8.5	6.0
NOV. 05...	.4	.0	80	261	.36	410	170	35	.8	434	8.5	8.0
DEC. 04...	.4	.4	30	273	.37	554	180	44	.7	435	8.6	3.5
JAN. 10...	.1	.4	40	322	.44	511	220	60	.8	530	8.1	1.0
FEB. 05...	.4	.3	10	315	.43	633	220	60	.7	504	8.0	2.0
MAR. 04...	.3	.4	10	311	.42	652	220	70	.7	475	8.1	--
APR. 02...	.4	.3	30	285	.39	1140	200	45	.6	431	8.2	5.5
28... JUNE	.4	.3	30	276	.38	1320	200	55	.7	423	8.4	10.5
05... JULY	.2	.2	40	214	.29	4290	170	27	.4	349	8.1	14.0
06... AUG.	.2	.2	30	158	.21	3120	120	8	.4	259	7.8	13.5
05... SEP.	.3	.2	40	189	.26	1120	140	14	.5	324	8.3	20.0
01...	.2	.3	40	209	.28	688	150	22	.5	357	8.2	17.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

GREEN RIVER BASIN

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WYO.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(THERMOGRAPH RECORD)

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.5	6.5	13.0	12.0	18.5	18.0	---	---	19.5	18.0
2	---	---	8.5	7.0	13.5	12.0	18.0	17.0	19.0	18.0	19.5	18.0
3	---	---	8.5	7.0	13.0	12.0	18.0	17.0	19.0	18.0	19.0	18.0
4	---	---	8.5	7.0	13.5	12.0	18.0	17.0	19.0	18.0	19.0	17.0
5	---	---	9.0	8.0	13.5	13.0	18.0	17.0	19.0	18.0	19.5	17.0
6	---	---	8.5	8.0	13.5	13.0	18.0	17.0	19.5	18.0	19.5	18.0
7	---	---	8.5	8.0	13.5	13.0	18.5	17.0	19.5	18.0	19.0	18.0
8	---	---	9.0	8.0	14.0	13.0	18.0	17.0	20.0	18.5	19.5	17.0
9	---	---	9.5	8.0	14.0	13.5	---	---	20.0	18.5	19.0	16.5
10	---	---	9.0	9.0	14.0	13.5	---	---	20.0	19.0	19.0	16.5
11	---	---	9.5	8.5	14.0	13.5	---	---	20.0	19.0	19.0	16.0
12	---	---	9.5	8.5	14.0	13.5	---	---	20.0	18.5	18.5	16.0
13	---	---	10.5	9.0	14.5	13.5	---	---	20.0	19.0	18.0	16.0
14	---	---	10.5	10.0	15.0	14.5	---	---	20.0	19.0	18.0	16.0
15	6.5	5.5	11.0	10.0	15.0	14.5	---	---	19.5	18.5	18.0	15.5
16	6.5	5.5	11.5	10.5	15.5	15.0	---	---	19.0	18.5	17.0	15.5
17	6.5	5.5	11.5	10.5	16.0	15.0	---	---	19.0	18.5	16.0	15.0
18	6.5	5.5	11.0	10.5	16.0	15.5	---	---	19.0	18.5	17.0	15.0
19	6.0	5.5	11.0	10.5	16.5	15.5	---	---	19.0	18.0	16.5	15.0
20	6.0	5.5	10.5	10.5	16.5	16.0	---	---	19.0	18.0	16.5	15.0
21	6.5	5.5	10.5	10.0	16.5	16.0	---	---	19.5	18.0	16.0	14.5
22	6.0	5.5	11.0	10.0	17.0	16.0	---	---	19.5	18.0	15.5	14.0
23	6.5	5.5	11.0	10.5	17.0	16.5	---	---	19.5	18.5	15.5	14.0
24	7.0	6.0	11.0	10.5	18.0	16.5	---	---	19.5	18.0	15.0	13.5
25	6.5	5.5	11.0	10.5	18.5	17.0	---	---	19.5	18.5	15.0	13.5
26	6.5	5.5	11.5	10.5	18.5	18.0	---	---	19.5	18.5	14.5	13.5
27	7.0	6.0	11.0	10.0	19.0	18.0	---	---	19.5	18.0	14.5	13.5
28	7.0	6.0	11.5	10.0	19.0	18.5	---	---	19.5	18.5	14.0	13.0
29	8.0	6.0	11.5	10.5	19.0	18.5	---	---	19.0	18.5	14.0	13.0
30	8.0	6.5	13.0	11.5	19.0	18.5	---	---	19.5	18.0	14.0	13.0
31	---	---	13.0	12.0	---	---	---	---	19.0	18.0	---	---
MONTH	---	---	13.0	6.5	19.0	12.0	---	---	20.0	18.0	19.5	13.0

09216000 BIG SANDY RIVER BELOW EDEN, WYO.

LOCATION (revised).--Lat 42°00'37", long 109°34'57", in NE¼SE¼SW¼ sec. 31, T.24, N., R.107 W., Sweetwater County, at gaging station, 0.1 mile downstream from Simpson Gulch, 8.0 miles southwest of Eden, and 12.5 miles downstream from Little Sandy Creek.

DRAINAGE AREA.--1,610 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1961 to September 1964, October 1967 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 16...	0945	28	13	70	260	96	430	3.5	254	0	1600	70
NOV. 11...	1015	29	1.1	680	280	96	410	3.4	286	0	1600	64
DEC. 07...	1230	35	13	90	280	96	410	3.2	281	0	1600	62
JAN. 12...	1505	11	12	90	300	110	390	3.2	278	0	1700	60
28...	1400	18	14	80	310	100	410	3.9	286	0	1700	64
MAR. 01...	1330	29	15	30	160	160	340	3.1	267	0	1500	58
31...	1630	225	8.1	0	74	18	120	1.8	137	0	390	17
MAY 13...	0945	25	15	200	240	100	530	4.4	256	0	1800	97
JUNE 10...	1450	40	11	0	130	74	340	3.6	220	0	1100	58
JULY 15...	1625	50	11	70	140	45	220	3.3	215	0	760	46
AUG. 06...	1420	75	12	50	140	46	200	3.8	206	0	750	35
SEP. 03...	1735	52	12	70	210	70	270	3.6	220	0	1100	57

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BODEN (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 16...	.6	2.6	410	2630	3.58	199	1000	792	5.8	3240	7.9	1.0
NOV. 11...	.6	2.4	350	2640	3.59	207	1100	865	5.4	3210	7.9	.5
DEC. 07...	.6	2.6	370	2630	3.58	249	1100	869	5.4	3160	8.1	1.0
JAN. 12...	.4	3.8	300	2700	3.67	80.2	1200	972	4.9	3270	8.0	.0
28...	.5	3.0	390	2750	3.74	134	1200	965	5.2	3300	8.2	4.0
MAR. 01...	1.0	2.1	320	2340	3.18	183	1000	781	4.5	2760	8.1	.0
31...	.6	.6	150	703	.96	427	260	148	3.2	994	7.8	.0
MAY 13...	1.1	.2	430	2880	3.92	194	1000	790	7.3	3480	8.1	10.5
JUNE 10...	1.0	.3	300	1830	2.49	198	630	450	5.9	2290	8.3	17.5
JULY 15...	.8	.3	240	1320	1.80	178	520	344	4.1	1670	8.3	26.5
AUG. 06...	.8	.9	240	1300	1.77	263	540	371	3.7	1760	8.1	23.0
SEP. 03...	.8	2.0	270	1850	2.52	260	800	620	4.1	2410	8.2	14.0

FIELD DETERMINATIONS

DATE	TIME	DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 16...	0945	28	3190	10.8	8.4	1.0
NOV. 11...	1015	29	3270	10.7	8.3	.5
DEC. 07...	1220	35	3510	11.3	8.2	1.0
JAN. 12...	1505	11	3250	10.4	8.4	.0
28...	1400	18	3230	10.4	8.4	4.0
MAR. 01...	1330	29	2880	9.8	8.4	.0
31...	1630	225	--	10.5	8.6	.0
MAY 13...	0945	25	--	9.4	8.3	10.5
JUNE 10...	1450	40	--	7.4	8.4	17.5
JULY 15...	1625	50	--	8.8	8.6	26.5
AUG. 06...	1420	75	--	8.0	8.3	23.0
SEP. 03...	1735	52	--	9.4	8.5	14.0

GREEN RIVER BASIN

09216300 GREEN RIVER AT BIG ISLAND, NEAR GREEN RIVER, WYO.

LOCATION.--Lat 41°45'52", long 109°44'05", in SW¼SE¼ sec.26, T.21 N., R.109 W., Sweetwater County, at Big Island bridge, 6.3 miles downstream from Dry Creek, 9.5 miles downstream from Big Sandy River, and 21 miles northwest of town of Green River.

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1971.

REMARKS.--Water discharge computed by adding the discharge of Big Sandy River below Eden to that of Green River below Fontenelle Reservoir.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
15...	1535	1430	6.0	150	53	14	36	1.6	134	15	130	5.7
NOV.												
10...	1350	707	5.8	60	63	22	57	.8	154	8	220	9.6
DEC.												
04...	1300	735	6.8	100	60	22	46	1.8	176	0	180	12
JAN.												
10...	1040	598	8.4	50	76	26	56	1.6	214	0	220	8.9
FEB.												
05...	0945	784	8.6	140	67	25	46	2.0	204	0	190	9.7
APR.												
06...	1550	1480	6.7	10	63	21	41	2.0	180	0	160	8.9
MAY												
12...	1215	3590	7.0	40	55	18	32	2.9	189	0	100	7.8
JUNE												
10...	1020	7100	8.2	230	43	12	14	1.8	162	0	49	3.3
JULY												
15...	1120	1150	6.2	30	41	15	27	1.8	146	8	86	6.3
AUG.												
09...	0915	2200	7.6	210	43	14	26	1.1	160	0	82	3.3
SEP.												
03...	1240	1290	4.0	50	47	17	34	2.0	128	12	130	5.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
15...	.2	.2	100	330	.45	1270	190	55	1.1	521	8.5	8.5
NOV.												
10...	.5	.0	110	464	.63	886	250	110	1.6	721	8.4	5.5
DEC.												
04...	.4	.3	50	326	.44	647	240	95	1.3	646	8.3	.5
JAN.												
10...	.3	.2	70	506	.69	817	300	124	1.4	770	8.1	.0
FEB.												
05...	.4	.5	30	453	.62	959	270	103	1.2	688	8.1	.0
APR.												
06...	.4	.1	50	396	.54	1580	240	92	1.1	576	8.2	6.5
MAY												
12...	.3	.2	30	321	.44	3110	210	55	1.0	486	8.1	9.0
JUNE												
10...	.3	.4	30	212	.29	4060	160	27	.5	341	8.3	13.5
JULY												
15...	.3	.1	40	264	.36	820	160	27	.9	411	8.5	18.5
AUG.												
09...	.2	.1	50	257	.35	1530	170	39	.9	417	8.3	17.5
SEP.												
03...	.3	.2	40	313	.43	1090	190	65	1.1	502	8.7	16.0

GREEN RIVER BASIN

191

09216950 BITTER CREEK NEAR GREEN RIVER, WYO.

LOCATION.--Lat 41°31'25", long 109°25'41", in NE¼SE¼ sec.24, T.18 N., R.107 W., Sweetwater County, 0.3 mile south of Interstate Highway 80, 1.7 miles east of town of Green River, and 1.9 miles upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: August 1966 to September 1971.

Sediment records: August 1966 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 10...	1445	4.1	8.8	80	79	77	570	13	248	0	720	540
APR. 08...	0915	15	8.6	40	170	120	400	10	275	0	1200	300
JULY 09...	1725	16	9.9	70	75	39	360	15	217	0	450	340

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 10...	.8	16	640	2140	2.91	23.7	510	307	11	3320	7.9	3.0
APR. 08...	1.0	2.9	490	2320	3.16	94.0	910	684	5.7	3010	7.9	2.0
JULY 09...	1.0	11	710	1410	1.92	60.9	350	172	8.4	2110	7.2	24.5

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 10...	1445	4.1	3230	11.1	8.2	3.0
APR. 08...	0915	15	--	10.8	8.4	2.0
JULY 09...	1725	16	--	6.6	8.2	24.5

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS- SED. FALL DIAM. % FINER THAN .004 MM	SUS- SED. FALL DIAM. % FINER THAN .016 MM	SUS- SED. FALL DIAM. % FINER THAN .062 MM
OCT. 10...	1445	3.0	4.1	261	2.9	--	--	--
APR. 08...	0915	2.0	15	1200	49	--	--	--
JULY 09...	1725	24.5	16	1660	72	73	99	100

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.

LOCATION.--Lat 41°30'59", long 109°26'54", in NW¼NE¼NE¼ sec.26, T.18 N., R.107 W., Sweetwater County, at bridge on State Highway 530 in town of Green River, 0.8 mile upstream from Bitter Creek, 1 mile upstream from gaging station, and 5 miles upstream from high-water line of Flaming Gorge Reservoir.

DRAINAGE AREA.--10,000 sq mi, approximately (at gaging station), of which 300 sq mi is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: May 1951 to September 1971.

Water temperatures: May 1951 to September 1971.

Sediment records: May 1951 to September 1971.

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 1,230 micromhos Oct. 10; minimum daily, 253 micromhos Oct. 3.

Water temperatures: Maximum, 24.5°C July 15, 16; minimum, freezing point on many days during December to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 11...	1480	6.6	70	48	17	40	1.6	153	4	130	6.9	.2
NOV. 04...	633	5.2	10	64	25	68	1.9	181	0	250	8.9	.3
07...	652	6.4	50	75	14	11	.4	189	0	110	3.9	.4
DEC. 01...	a780	5.2	70	56	22	57	1.6	173	5	200	8.0	.3
JAN. 12...	a650	7.4	30	68	24	52	1.6	205	0	200	7.8	.3
FEB. 04...	a850	7.6	560	57	19	61	2.6	180	0	190	9.2	.2
MAR. 06...	a850	9.5	580	53	38	49	2.0	195	0	200	12	.3
APR. 07...	1590	7.3	20	61	19	40	2.2	182	0	160	9.0	.4
MAY 08...	3080	8.0	40	56	17	33	2.7	180	0	120	9.8	.3
JUNE 07...	7550	7.2	90	44	14	13	2.0	167	0	58	3.7	.3
JULY 10...	5040	7.3	20	35	12	14	1.3	150	0	42	2.9	.4
AUG. 07...	2290	6.6	30	43	15	26	1.6	171	0	85	4.5	.0
SEP. 03...	1290	1.6	20	42	18	37	1.7	148	0	130	6.0	.2

a Daily mean discharge.

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 11...	1400	1480	0	0	0	0	0	.0	19

GREEN RIVER BASIN

193

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

EXTREMES.--1970-71: Continued

Sediment concentrations: Maximum daily, 990 mg/l Apr. 2; minimum daily, 3 mg/l Aug. 26, Sept. 5.

Sediment discharge: Maximum daily, 5,050 tons Apr. 2; minimum daily, 4.1 tons Oct. 1.

Period of record:

Specific conductance: Maximum daily, 1,270 micromhos Nov. 26, 1968; minimum daily, 219 micromhos May 22, 1954.

Water temperatures: Maximum, 26.0°C July 8, 22, 1961, July 24, 1962; minimum, freezing point on many days during winter period.

Sediment concentrations: Maximum daily, 15,000 mg/l Aug. 11, 1963; minimum daily, 0 mg/l Sept. 18, 1962.

Sediment discharge: Maximum daily, 110,000 tons Mar. 28, 1962; minimum daily, 0 tons Sept. 18, 1962.

REMARKS.--Flow affected by ice Nov. 20 to Mar. 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SODIUM AD-SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
11...	--	.00	40	328	.45	1310	190	58	1.3	530	8.4	7.5
NOV.												
04...	--	.02	0	508	.69	868	260	112	1.8	775	8.0	3.0
07...	--	.00	80	314	.43	553	240	85	.3	504	8.2	.5
DEC.												
01...	--	.00	50	440	.60	927	230	80	1.6	689	8.4	.5
JAN.												
12...	--	.09	60	467	.64	820	270	102	1.4	718	8.1	.0
FEB.												
04...	--	.14	70	439	.60	1010	220	72	1.8	664	8.1	.0
MAR.												
06...	--	.07	90	463	.63	1060	290	130	1.3	671	8.0	.0
APR.												
07...	--	.02	90	387	.53	1660	230	81	1.1	572	8.3	8.0
MAY												
08...	--	.05	50	331	.45	2750	210	62	1.0	491	8.3	9.0
JUNE												
07...	--	.14	50	225	.31	4590	170	33	.4	376	8.1	15.5
JULY												
10...	.02	--	50	189	.26	2570	140	14	.5	320	8.1	18.5
AUG.												
07...	.03	--	60	266	.36	1640	170	29	.9	427	8.0	23.0
SEP.												
03...	.14	--	80	310	.42	1080	180	58	1.2	501	8.2	15.0

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.						
11...	1445	1480	--	10.7	8.5	7.5
NOV.						
04...	1415	633	--	12.2	8.2	3.0
DEC.						
01...	1515	a780	--	11.9	8.5	.5
01...	1700	a780	660	11.8	8.8	.0
JAN.						
12...	1100	a650	760	9.3	8.6	.0
FEB.						
04...	0845	a850	--	10.2	8.4	.0
MAR.						
06...	1600	a850	--	11.7	8.6	.0
APR.						
07...	1620	1590	--	10.4	8.6	8.0
MAY						
08...	1345	3080	--	9.2	8.6	9.0
JUNE						
07...	1845	7550	--	9.0	9.0	15.5
JULY						
10...	1300	5040	--	8.2	8.4	18.5
AUG.						
07...	1920	2290	--	7.5	8.7	23.0
SEP.						
03...	1030	1290	--	8.1	8.9	15.0

a Daily mean discharge.

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	375	4	4.1	626	14	24	780	43	91
2	348	5	4.7	626	8	14	780	22	46
3	348	7	6.6	625	9	15	760	22	45
4	556	9	14	631	10	17	745	15	30
5	566	12	18	632	15	26	735	12	24
6	729	18	35	638	16	28	725	14	27
7	1250	36	122	661	16	29	730	12	24
8	1440	48	187	656	28	50	725	7	14
9	1450	53	207	651	26	46	740	17	34
10	1510	40	163	675	25	46	740	8	16
11	1490	90	362	747	20	40	740	15	30
12	1510	201	819	764	20	41	740	15	30
13	1550	430	1800	809	26	57	745	10	20
14	1450	115	450	991	27	72	750	15	30
15	1450	158	619	1390	45	169	760	10	21
16	1450	312	1220	1580	55	235	745	8	16
17	1450	100	392	1440	31	121	710	6	12
18	1450	218	853	1180	19	61	705	11	21
19	1450	108	423	850	22	50	715	19	37
20	1360	140	514	780	19	40	745	24	48
21	1150	200	621	750	16	32	725	15	29
22	951	11	28	760	17	35	680	23	42
23	774	13	27	760	17	35	650	45	79
24	675	38	69	760	18	37	630	13	22
25	689	23	43	760	30	62	635	6	10
26	689	8	15	755	14	29	645	6	10
27	675	24	44	750	11	22	645	6	10
28	654	27	48	740	15	30	640	6	10
29	682	18	33	755	12	24	630	5	8.5
30	626	13	22	760	24	49	615	4	6.6
31	626	23	39	--	--	--	620	4	6.7
TOTAL	31373	--	9202.4	24502	--	1536	21930	--	849.8
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	625	5	8.4	860	231	536	860	31	72
2	630	5	8.5	870	440	1030	860	16	37
3	630	4	6.8	860	249	578	860	23	53
4	620	5	8.4	850	119	273	860	38	88
5	595	8	13	830	88	197	880	37	88
6	625	13	22	830	79	177	850	33	76
7	650	10	18	830	60	134	820	48	106
8	660	10	18	830	111	249	870	35	82
9	680	8	15	830	110	247	880	34	81
10	690	9	17	830	84	188	880	28	67
11	660	5	8.9	880	70	166	880	30	71
12	650	5	8.8	910	70	172	880	30	71
13	650	4	7.0	920	64	159	880	52	124
14	660	5	8.9	910	61	150	880	240	570
15	655	6	11	850	198	454	880	164	390
16	650	5	8.8	825	122	272	890	108	260
17	645	8	14	820	92	204	890	89	214
18	665	5	9.0	815	130	286	940	72	183
19	700	43	81	805	100	217	1010	88	240
20	740	176	352	760	65	133	1080	68	198
21	740	109	218	780	85	179	1100	54	160
22	705	70	133	810	83	182	1070	50	144
23	680	45	83	850	80	184	1160	91	285
24	675	39	71	860	79	183	1820	396	1950
25	680	35	64	860	70	163	2130	620	3570
26	740	43	86	860	29	67	2400	632	4100
27	800	66	143	860	18	42	2080	462	2590
28	820	63	139	860	51	118	2430	541	3760
29	820	73	162	--	--	--	2310	648	4040
30	840	87	197	--	--	--	1950	320	1680
31	850	84	193	--	--	--	1840	368	1830
TOTAL	21430	--	2133.5	23655	--	6940	38120	--	27180

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1850	418	2090	2160	50	292	6250	51	861
2	1890	990	5050	2160	56	327	6570	62	1100
3	1700	402	1850	2160	67	391	7140	122	2350
4	1650	89	396	2160	59	344	7610	109	2240
5	1610	88	383	2310	62	387	7630	105	2160
6	1590	76	326	2620	102	722	7610	104	2140
7	1570	54	229	2930	161	1270	7550	73	1490
8	1570	54	229	3130	150	1270	7550	87	1770
9	1610	74	322	3150	115	978	7530	72	1460
10	1620	139	608	3190	103	887	7550	54	1100
11	1620	163	713	3440	114	1060	7530	37	752
12	1650	163	726	3790	271	2770	7530	82	1670
13	1620	154	674	3880	132	1380	7580	45	921
14	1620	137	599	4230	157	1790	7630	41	845
15	1620	111	486	4850	198	2590	7680	32	664
16	1590	82	352	5020	210	2850	7760	51	1070
17	1610	63	274	5020	154	2090	7790	61	1280
18	1610	66	287	5190	137	1920	7870	38	807
19	1640	70	310	5840	164	2590	7940	50	1070
20	1800	115	559	6100	191	3150	8020	45	974
21	1990	218	1170	6120	113	1870	8100	52	1140
22	2080	308	1730	6180	92	1540	8070	41	893
23	2070	211	1180	6200	71	1190	8160	40	881
24	2100	270	1530	6120	108	1780	8130	58	1270
25	2070	162	905	6100	168	2770	8460	43	982
26	2070	91	509	6100	90	1480	9470	49	1250
27	2160	82	478	6050	51	833	9740	64	1680
28	2190	78	461	6050	51	833	9770	58	1530
29	2160	79	461	6050	57	931	10500	88	2490
30	2160	62	362	6360	87	1490	11100	58	1740
31	--	--	--	6410	119	2060	--	--	--
TOTAL	54090	--	25249	161070	--	45835	241820	--	40580

GREEN RIVER BASIN

197

09217000 GREEN RIVER NEAR GREEN RIVER, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	11200	84	2540	2840	12	92	1420	20	77
2	10600	82	2350	2860	13	100	1340	10	36
3	9360	28	708	2860	29	224	1290	13	45
4	9000	42	1020	2730	32	236	1300	6	21
5	8940	38	917	2560	39	270	1300	3	11
6	8860	51	1220	2430	32	210	1320	4	14
7	7840	32	677	2290	23	142	1370	23	85
8	6960	45	846	2310	18	112	1340	64	232
9	6150	37	614	2370	44	282	1320	12	43
10	5120	34	470	2430	64	420	1300	8	28
11	4060	33	362	2730	19	140	1290	20	70
12	3170	29	248	2160	12	70	1270	10	34
13	2320	24	150	1890	18	92	1260	6	20
14	1750	16	76	1990	14	75	1250	14	47
15	1620	12	52	2010	15	81	1250	9	30
16	1590	11	47	1990	12	64	1260	8	27
17	1560	23	97	1940	10	52	1280	9	31
18	1590	14	60	1890	7	36	1290	8	28
19	1820	826	4060	1850	6	30	1290	12	42
20	1990	250	1340	1810	6	29	1290	12	42
21	2430	117	768	1780	5	24	1280	9	31
22	3170	127	1090	1780	5	24	1280	8	28
23	3840	127	1320	1780	10	48	1260	34	116
24	4080	78	911	1770	10	48	1250	22	74
25	4590	86	1070	1750	5	24	1250	79	267
26	4590	40	496	1530	3	12	1260	90	306
27	4520	40	488	1390	5	19	1280	27	93
28	4020	73	792	1420	11	42	1280	10	35
29	3790	42	430	1440	59	229	1250	10	34
30	3260	17	150	1440	47	183	1240	18	60
31	2930	14	111	1430	9	35	--	--	--
TOTAL	146720	--	25480	63450	--	3445	38660	--	2007
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									846820
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									190437.7

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
MAR.											
26...	0735	6.5	2380	672	4320	60	74	90	96	99	100
28...	1745	5.0	3000	821	6650	44	61	85	94	100	--
APR.											
02...	1810	7.5	1840	1260	6260	64	83	100	--	--	--

GREEN RIVER BASIN

09222000 BLACKS FORK NEAR LYMAN, WYO.

LOCATION.--Lat 41°27'08", long 110°10'20", in SW¼NW¼SW¼ sec.15, T.17 N., R.113 W., Uinta County, at gaging station, 200 ft downstream from bridge on old U.S. Highway 30S, 8.5 miles downstream from Smiths Fork, and 11 miles northeast of Lyman.

DRAINAGE AREA.--821 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1962 to September 1971.
Water temperatures: May 1962 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 14...	98	10	90	150	49	170	2.8	232	0	680	49	.9
NOV. 09...	92	9.9	90	110	42	150	2.2	233	0	520	49	.5
DEC. 03...	a35	12	50	120	38	160	2.4	261	0	500	54	.5
JAN. 10...	a55	11	0	110	33	110	1.8	231	0	420	37	.6
FEB. 02...	190	13	30	79	24	110	2.9	214	0	300	42	.3
MAR. 05...	a69	10	120	96	32	110	2.2	244	0	300	46	.4
APR. 04...	162	12	40	83	24	72	3.3	248	0	220	34	.5
MAY 09...	285	14	80	72	22	87	3.1	211	0	210	42	.3
JUNE 06...	446	16	80	80	24	87	3.2	225	0	260	40	.5
JULY 11...	387	12	30	130	38	120	2.2	235	0	460	34	.8
AUG. 05...	46	12	20	220	82	370	3.8	267	0	1200	98	.7
SEP. 01...	30	8.4	10	220	89	370	4.3	225	0	1300	83	1.4

a Daily mean discharge.

GREEN RIVER BASIN

199

09222000 BLACKS FORK NEAR LYMAN, WYO.--Continued

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 3,260 micromhos Sept. 8; minimum daily, 427 micromhos May 16.

Water temperatures: Maximum, 22.0°C July 26; minimum, freezing point on many days during October to April.

Period of record:

Specific conductance: Maximum daily, 5,140 micromhos Jan. 26, 1963; minimum daily, 392 micromhos May 11, 1969.

Water temperatures: Maximum, 28.0°C July 20, 1970; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.											
14...	.07	170	1230	1.67	325	580	390	3.1	1640	8.2	4.0
NOV.											
09...	.02	210	1010	1.37	251	450	259	3.1	1470	8.1	1.5
DEC.											
03...	.05	170	1010	1.37	95.4	450	236	3.3	1420	8.1	.0
JAN.											
10...	.14	120	843	1.15	125	420	231	2.4	1190	8.1	.0
FEB.											
02...	.07	150	679	.92	348	300	124	2.8	1010	8.1	.0
MAR.											
25...	.10	150	720	.98	134	370	170	2.5	1160	8.3	.0
APR.											
04...	.00	70	571	.78	250	310	100	1.8	825	8.2	8.0
MAY											
09...	.00	170	554	.75	426	270	97	2.3	855	8.0	12.5
JUNE											
06...	.01	230	622	.85	749	300	110	2.2	954	8.0	11.5
JULY											
11...	.01	290	913	1.24	954	480	290	2.4	1290	7.8	20.0
AUG.											
05...	.04	620	2120	2.88	263	890	670	5.4	2700	7.9	27.5
SEP.											
01...	.03	560	2190	2.98	177	920	730	5.3	2900	8.1	17.5

09222000 BLACKS FORK NEAR LYMAN, WYO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

GREEN RIVER BASIN

201

09224450 HAMS FORK NEAR GRANGER, WYO.

LOCATION.--Lat 41°35'56", long 109°59'28", in center of sec.30, T.19 N., R.111 W., Sweetwater County, at railroad bridge, 1.2 miles northwest of Granger, and 1.8 miles upstream from mouth.

DRAINAGE AREA.--670 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
11...	1715	31	2.2	130	69	16	35	1.4	183	0	130	15
NOV.												
10...	1040	17	2.5	100	80	21	37	.8	211	0	170	18
DEC.												
04...	0915	30	3.4	650	91	23	39	2.2	229	0	190	18
JAN.												
08...	1020	6.2	3.9	10	120	30	49	2.7	305	0	220	27
29...	1530	64	11	220	49	27	24	2.9	177	0	120	12
APR.												
06...	1000	262	6.4	20	67	12	16	2.4	192	0	77	9.7
MAY												
09...	1205	1460	7.4	30	58	16	17	3.3	204	0	61	8.9
JUNE												
06...	1715	1160	6.8	0	58	12	14	2.0	206	0	44	5.5
JULY												
10...	1720	247	6.4	50	68	22	27	2.0	256	0	87	16
AUG.												
08...	1550	65	3.4	70	62	22	39	1.6	215	0	120	12
SEP.												
01...	1915	28	2.5	120	56	23	38	1.8	196	0	130	14

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
11...	.0	.0	40	359	.49	30.0	240	90	1.0	609	8.2	8.0
NOV.												
10...	.5	.0	100	438	.60	20.1	280	107	1.0	699	8.2	2.5
DEC.												
04...	.4	.2	40	485	.66	39.3	320	132	.9	754	8.0	.5
JAN.												
08...	.5	.2	70	599	.81	10.0	420	170	1.0	945	8.0	.0
29...	.3	.7	30	331	.45	57.2	230	85	.7	531	7.7	.5
APR.												
06...	.3	.8	30	286	.39	202	220	62	.5	449	8.0	4.0
MAY												
09...	.3	.3	40	272	.37	1070	210	43	.5	419	8.1	8.0
JUNE												
06...	.3	.4	20	244	.33	764	200	31	.4	400	8.1	13.5
JULY												
10...	.4	.0	70	355	.48	237	260	50	.7	534	8.1	20.5
AUG.												
08...	.3	.1	80	369	.50	64.8	240	64	1.1	599	8.2	24.5
SEP.												
01...	.4	.2	50	360	.49	27.2	230	69	1.1	592	8.3	19.5

EXTREMES, 1970-71: Continued

Period of record:

Water temperatures (1951-62, 1966-71): Maximum, 29.0°C July 15, 16, 1955; minimum, freezing point on many days during winter period.

Sediment discharge (1967-71): Maximum daily, 58,200 tons June 13, 1970; minimum daily, 0.13 ton Aug. 29, 1970.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 15...	.07	300	1390	1.89	323	510	303	5.0	1960	8.1	3.0
NOV. 05...	.02	130	935	1.27	172	410	211	3.2	1370	8.0	4.0
DEC. 01...	.07	200	947	1.29	169	370	143	3.8	1420	8.5	.0
JAN. 10...	.02	230	1080	1.47	120	470	194	3.6	1570	8.2	.0
FEB. 02...	.18	80	378	.51	816	170	50	2.2	613	7.7	.0
MAR. 05...	.07	200	943	1.28	298	440	130	3.1	1300	8.4	.0
APR. 06...	.02	20	445	.61	649	260	80	1.3	673	8.1	8.0
MAY 08...	.11	80	346	.47	1450	220	58	1.0	531	8.0	9.5
JUNE 07...	.05	80	354	.48	1530	220	51	1.1	552	8.2	15.0
JULY 14...	.01	210	750	1.02	1130	410	210	1.8	1110	8.2	19.5
AUG. 08...	.08	270	1030	1.40	334	460	280	3.2	1430	7.6	26.0
SEP. 02...	.04	350	1310	1.78	170	490	330	4.7	1870	8.0	23.0

[illegible]

GREEN RIVER BASIN

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 15...	1215	86	1930	11.1	8.7	3.0
NOV. 05...	1615	68	1330	11.1	8.8	4.0
DEC. 01...	1200	a66	1530	11.1	8.2	.0
JAN. 10...	1400	a41	1680	12.4	8.5	.0
FEB. 02...	1300	a800	--	11.0	8.7	.0
MAR. 05...	1615	a117	--	10.7	8.8	.0
APR. 06...	1445	540	--	10.1	8.5	8.0
MAY 08...	1515	1550	--	8.9	8.4	9.5
JUNE 07...	1345	1600	--	8.2	8.2	15.0
JULY 14...	0915	560	--	7.6	8.6	19.5
AUG. 08...	1345	120	--	7.9	8.5	26.0
SEP. 02...	1730	48	--	9.1	8.6	23.0

a Daily mean discharge.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 24...	1435	4.0	1420	7540	28900	56	84	100	--	--	--	--
25...	1020	3.5	1420	8460	32400	69	93	100	--	--	--	--
28...	1410	5.0	1570	11500	48700	62	88	99	100	--	--	--
28...	1900	4.0	1450	9900	38800	58	84	100	--	--	--	--
APR. 23...	1435	8.5	3020	7390	60300	49	68	97	100	--	--	--
MAY 09...	1035	10.5	1630	1560	6870	26	36	63	87	99	99	100
12...	0930	11.5	2050	2200	12200	20	32	64	85	100	--	--

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	31	16	1.3	86	459	107	66	450	80
2	31	18	1.5	120	378	122	70	921	174
3	31	23	1.9	109	330	97	76	458	94
4	29	21	1.6	94	290	74	74	224	45
5	29	20	1.6	89	390	94	78	160	34
6	36	20	1.9	108	270	79	87	160	38
7	43	22	2.6	127	220	75	80	244	53
8	41	50	5.5	130	190	67	85	250	57
9	58	75	12	137	281	104	90	230	56
10	80	130	28	144	311	121	90	210	51
11	104	1370	385	137	222	82	80	145	31
12	114	2170	668	127	180	62	75	160	32
13	108	1230	359	130	176	62	70	107	20
14	95	520	133	120	178	58	65	102	18
15	86	260	60	95	221	57	62	120	20
16	92	210	52	88	210	50	62	130	22
17	89	200	48	80	170	37	60	150	24
18	83	130	29	86	231	54	55	150	22
19	89	200	48	86	107	25	50	160	22
20	80	100	22	76	199	41	50	123	17
21	74	60	12	83	255	57	55	61	9.1
22	74	78	16	78	190	40	57	60	9.2
23	74	62	12	86	345	80	60	100	16
24	77	80	17	94	218	55	60	107	17
25	80	100	22	105	1030	292	56	90	14
26	74	310	62	110	1210	359	53	110	16
27	68	280	51	100	605	163	56	120	18
28	65	239	42	90	388	94	53	90	13
29	59	221	35	80	480	104	55	90	13
30	52	283	40	73	358	71	58	140	22
31	66	280	50	--	--	--	60	160	26
TOTAL	2112	--	2220.9	3068	--	2783	2048	--	1083.3

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	57	137	21	750	810	1640	125	130	44
2	53	127	18	800	1040	2250	130	210	74
3	48	118	15	700	600	1130	140	240	91
4	43	105	12	510	310	427	130	240	84
5	40	100	11	400	135	146	117	160	51
6	38	70	7.2	350	81	77	120	175	57
7	38	90	9.2	350	290	274	130	170	60
8	39	70	7.4	380	280	287	140	107	40
9	41	43	4.8	400	371	401	150	170	69
10	41	52	5.8	370	410	410	155	190	80
11	45	50	6.1	300	210	170	160	170	73
12	50	30	4.1	250	178	120	170	172	79
13	60	30	4.9	250	238	161	170	180	83
14	70	18	3.4	240	300	194	180	650	316
15	80	19	4.1	230	380	236	250	402	271
16	100	20	5.4	220	422	251	400	838	905
17	130	20	7.0	210	478	271	495	570	762
18	250	142	96	190	400	205	425	420	482
19	500	420	567	180	280	136	410	330	365
20	1200	600	1940	170	120	55	379	378	387
21	1100	240	713	150	152	62	460	530	658
22	1000	125	338	140	438	166	402	540	586
23	900	200	486	140	310	117	592	1200	1920
24	800	118	255	150	230	93	1160	6270	21200
25	700	260	491	160	258	111	1330	8300	29800
26	660	290	517	140	138	52	1120	5200	15700
27	700	340	643	130	146	51	1060	4100	11700
28	670	360	651	120	140	45	1550	9710	40600
29	670	320	579	--	--	--	1160	4790	15000
30	680	404	742	--	--	--	908	2300	5640
31	690	350	652	--	--	--	852	2000	4600
TOTAL	11493	--	8816.4	8380	--	9538	14970	--	151777

09224700 BLACKS FORK NEAR LITTLE AMERICA, WYO.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1080	2580	7520	1240	500	1670	2350	660	4190
2	880	2160	5130	1150	550	1710	2140	600	3470
3	668	1200	2160	1150	550	1710	2040	520	2860
4	576	700	1090	1230	650	2160	2030	420	2300
5	550	500	743	1380	1040	3880	1690	450	2050
6	530	420	601	1560	1150	4840	1590	350	1500
7	530	590	844	1600	870	3760	1570	310	1310
8	609	700	1150	1550	680	2850	1340	340	1230
9	740	900	1800	1630	940	4140	1140	350	1080
10	796	1380	2970	1660	600	2690	1110	350	1050
11	852	1200	2760	1720	600	2790	1140	530	1630
12	957	900	2330	2070	1250	6990	1500	820	3320
13	971	1220	3200	2300	1280	7950	1730	570	2660
14	859	1000	2320	2440	950	6260	1730	420	1960
15	824	700	1560	2560	900	6220	1860	490	2460
16	873	850	2000	2820	1250	9520	2030	450	2470
17	992	1000	2680	3220	1280	11100	2220	570	3420
18	1150	1400	4350	3320	1300	11700	2390	630	4070
19	1230	1610	5350	3200	1200	10400	2230	450	2710
20	1350	1570	5720	3010	700	5690	2050	380	2100
21	1650	3000	13400	2860	450	3470	2070	410	2290
22	2360	4500	28700	2510	500	3390	2120	420	2400
23	2820	6400	48700	2300	350	2170	2080	400	2250
24	2240	3650	22100	2460	400	2660	2020	350	1910
25	1960	2320	12300	2470	400	2670	1990	258	1390
26	1680	2700	12200	2350	380	2410	1690	257	1170
27	1550	1300	5440	2360	430	2740	1330	260	934
28	1480	920	3680	2480	850	5690	1350	225	820
29	1530	1010	4170	2530	1350	9220	1460	232	915
30	1380	680	2530	2620	850	6010	1360	237	870
31	--	--	--	2670	800	5770	--	--	--
TOTAL	35667	--	209498	68420	--	154230	53350	--	62789

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1080	193	563	124	80	27	34	12	1.1
2	950	173	444	124	72	24	38	10	1.0
3	964	187	487	124	82	27	41	13	1.4
4	971	189	496	124	110	37	43	44	5.1
5	831	160	359	117	100	32	41	42	4.6
6	626	151	255	117	85	27	56	33	5.0
7	565	132	201	114	62	19	63	30	5.1
8	500	139	188	108	55	16	77	39	8.1
9	440	120	143	104	55	15	83	38	8.5
10	565	174	265	101	60	16	98	20	5.3
11	620	250	419	92	59	15	98	15	4.0
12	570	182	280	89	67	14	92	14	3.5
13	545	161	237	92	49	12	74	14	2.8
14	540	145	211	83	42	9.4	63	11	1.9
15	510	115	158	80	50	11	58	13	2.0
16	470	149	189	77	40	8.3	58	18	2.8
17	455	132	162	68	30	5.5	53	22	3.1
18	392	120	127	58	35	5.5	50	15	2.0
19	348	120	113	56	32	4.8	56	17	2.6
20	312	366	308	53	26	3.7	58	23	3.6
21	348	442	415	53	37	5.3	68	26	4.8
22	361	275	268	50	27	3.6	83	22	4.9
23	410	249	276	43	21	2.4	83	23	5.2
24	410	380	421	41	18	2.0	101	23	6.3
25	356	233	224	41	20	2.2	98	19	5.0
26	272	172	126	41	186	21	98	25	6.6
27	224	163	99	41	230	25	95	25	6.4
28	179	190	92	40	41	4.4	89	23	5.5
29	158	140	60	40	12	1.3	83	54	12
30	144	103	40	40	11	1.2	83	66	15
31	134	109	39	34	12	1.1	--	--	--
TOTAL	15250	--	7665	2369	--	400.7	2115	--	145.2

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	219242
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	610946.5

GREEN RIVER BASIN

207

09226000 HENRYS FORK NEAR LONETREE, WYO.

LOCATION.--Lat 41°00'23", long 110°16'13", in NE¼SE¼NW¼ sec.21, T.12 N., R.114 W., Uinta County, at gaging station, 0.6 mile downstream from Wasatch National Forest boundary, 1 mile downstream from West Fork, 1.5 miles downstream from Utah-Wyoming State line, and 7 miles southwest of Lonetree.

DRAINAGE AREA.--56 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: August 1969 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
JAN. 11...	1215	7.2	7.0	20	22	5.3	3.2	.6	94	0	4.4	2.1
JULY 13...	1920	82	3.6	200	5.2	1.9	1.6	.7	26	0	1.6	2.2

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TOYS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	TEMP- ERATURE (DEG C)
JAN. 11...	.1	.4	30	91	.12	1.77	77	0	.2	163	.5
JULY 13...	.1	.1	20	30	.04	6.64	21	0	.2	41	14.5

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
JAN. 11...	1215	a7.2	176	10.7	8.7	.5
JULY 13...	1920	82	--	8.1	8.3	14.5

a Daily mean discharge.

GREEN RIVER BASIN

09229500 HENRYS FORK AT LINWOOD, UTAH

LOCATION.--Lat 41°00'45", long 109°40'20", in NW¼NW¼ sec.23, T.12 N., R.109 W., Sweetwater County, Wyoming, at gaging station, 0.8 mile north of Wyoming-Utah State line, 1.3 miles upstream from normal high-water line of Flaming Gorge Reservoir, 1.5 miles northwest of Linwood, and 3 miles northeast of Manila, Utah.

DRAINAGE AREA.--520 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1951 to September 1971.
Water temperatures: March 1951 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	RICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 08...	61	24	70	160	82	60	11	286	0	610	21	.5
NOV. 05...	82	20	80	160	80	52	8.1	285	0	580	22	.5
DEC. 02...	a74	19	10	140	70	50	7.4	276	0	500	19	.4
JAN. 11...	a34	16	20	130	57	40	6.1	264	0	410	16	.4
FEB. 03...	a58	16	140	120	49	41	7.0	253	0	360	15	.4
MAR. 06...	a33	18	10	69	100	44	6.7	259	0	440	29	.6
APR. 07...	73	17	30	110	52	44	6.9	247	0	320	18	.6
MAY 07...	142	16	0	95	40	35	6.3	226	0	270	16	.5
JUNE 03...	254	17	90	75	29	22	5.6	189	0	180	7.8	.4
JULY 09...	118	22	30	110	43	31	7.0	270	0	290	10	.0
AUG. 07...	93	23	20	120	61	48	8.9	260	0	420	16	.3
SEP. 02...	5.1	27	80	190	89	74	11	332	0	690	26	1.0

a Daily mean discharge.

GREEN RIVER BASIN

209

09229500 HENRYS FORK AT LINWOOD, UTAH.--Continued

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 1,810 micromhos Sept. 6; minimum daily, 387 micromhos June 23.

Water temperatures: Maximum, 25.5°C July 14, 16, Aug. 21; minimum, freezing point on several days during December, February, and March.

Period of record:

Specific conductance: Maximum daily, 3,750 micromhos Oct. 15, 1961; minimum daily, 385 micromhos June 16, 1968.

Water temperatures: Maximum, 29.0°C July 29, 1968; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 08...	.02	260	1110	1.51	183	740	505	1.0	1500	8.2	7.5
NOV. 05...	.02	140	1060	1.44	235	730	496	.8	1420	7.9	2.0
DEC. 02...	.02	160	948	1.29	189	640	414	.9	1290	8.1	.5
JAN. 11...	.09	160	808	1.10	74.2	560	343	.7	1130	8.0	.0
FEB. 03...	.09	150	729	.99	114	490	282	.8	1010	8.2	.0
MAR. 06...	.05	140	836	1.14	74.5	590	378	.8	1100	8.0	.5
APR. 07...	.05	130	691	.94	136	480	277	.9	946	8.0	6.5
MAY 07...	.05	130	592	.81	227	400	215	.8	790	8.3	10.5
JUNE 03...	.09	90	434	.59	298	300	145	.5	627	8.2	13.0
JULY 09...	.02	150	646	.88	206	450	230	.6	941	8.0	19.5
AUG. 07...	.06	230	826	1.12	73.6	550	340	.9	1110	7.5	25.0
SEP. 02...	.19	340	1270	1.73	17.5	840	570	1.1	1670	7.9	19.0

GREEN RIVER BASIN

09229500 HENRYS FORK AT LINWOOD, UTAH--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1560	1200	766	1160	909	1280	814	931	638	698	1150	1610
2	1540	1180	1150	1180	913	1260	919	875	---	730	1200	1610
3	1550	1340	1100	1140	1040	1180	947	875	674	742	1210	1690
4	1590	1340	1130	1120	1150	1150	906	806	675	752	1210	1700
5	1530	1310	1180	1150	1270	1090	994	822	704	756	1180	1720
6	1540	1200	965	1150	1180	1080	1070	817	690	758	1170	1810
7	1580	1190	960	1150	1350	1120	968	890	670	873	1210	1330
8	1510	1230	878	1160	1240	1120	980	903	606	818	1220	1340
9	1500	1170	1110	1130	1240	1100	877	905	531	918	1180	1450
10	1460	1180	1080	1130	1080	1100	955	985	497	978	1180	1430
11	1520	1160	1200	1130	1170	1100	832	898	510	978	---	1400
12	1380	1360	1270	1120	937	1110	890	841	504	1050	1140	1400
13	1300	1220	1300	1110	1000	979	869	842	524	1050	1280	1440
14	1300	1300	1300	1100	907	924	892	843	505	1090	1250	1440
15	1460	1290	1370	1110	929	919	868	768	506	1100	1290	1470
16	1650	1340	1370	1120	931	906	852	729	518	1130	1320	1510
17	1350	1340	1300	1380	1080	1060	855	715	471	1120	1340	1510
18	1430	1200	1300	1060	1090	965	815	764	449	1060	1340	1490
19	1350	1200	1310	759	1130	1020	715	809	414	821	1540	1490
20	1360	1250	1370	832	1100	979	941	868	410	840	1540	1380
21	1320	1310	1380	844	1140	---	1060	898	471	712	1580	1380
22	1360	1310	1370	1150	1210	1020	1130	922	402	900	1570	1380
23	1370	1210	1270	1160	1210	1040	1010	872	387	897	1570	1380
24	1350	1200	1220	1170	1210	826	1020	905	390	905	1580	1480
25	1350	1030	1230	1370	1120	618	889	905	521	904	1570	1470
26	1360	1030	---	1030	1110	713	956	800	467	968	1600	1470
27	1220	1260	---	1000	1280	792	954	665	514	1020	1610	1530
28	1210	1270	1240	1000	1280	631	986	516	600	1060	1620	1530
29	1210	1310	1230	898	---	759	994	642	600	1340	1590	1530
30	1210	1310	1190	898	---	827	975	645	661	1140	1610	1530
31	1230	---	1230	899	---	806	---	580	---	1140	1620	---
MONTH	1410	1240	1200	1080	1110	982	931	814	535	943	1380	1500
YEAR	1100											

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.						
08...	1745	61	1460	9.7	8.3	7.5
NOV.						
05...	1030	82	1410	11.4	8.1	2.0
DEC.						
02...	1215	a74	1290	11.6	8.4	.5
JAN.						
11...	1645	a34	1260	10.7	8.5	.0
FEB.						
03...	1130	a58	1010	11.2	8.5	.0
MAR.						
06...	1030	a33	--	11.1	8.5	.5
APR.						
07...	1120	73	--	10.3	8.5	6.5
MAY						
07...	1400	142	--	9.6	8.6	10.5
JUNE						
03...	1115	254	--	10.2	8.4	13.0
JULY						
09...	1330	118	--	7.6	8.6	19.5
AUG.						
07...	1600	33	--	7.7	8.3	25.0
SEP.						
02...	1215	5.1	--	9.7	8.1	19.0

a Daily mean discharge.

211

09229500 HENRYS FORK AT LINWOOD, UTAH--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

[illegible]

EXTREMES.--1970-71: Continued

Specific conductance (1956-58, 1959-62): Maximum daily, 1,340 micromhos Aug. 30, 1961; minimum daily, 325 micromhos June 2, 1961.

Specific conductance (1964-71): Maximum daily, 962 micromhos Aug. 30, 1965; minimum daily, 606 micromhos Nov. 14, 22, 1963, Feb. 10-19, 1964.

Water temperatures (1956-59): Maximum, 24.0°C Jan. 24, 25, 1959; minimum, freezing point on many days during winter period each year.

Water temperatures (1964-71): Maximum, 14.0°C Nov. 11, 1963; minimum, 2.0°C on several days in 1964.

REMARKS.--Storage in Flaming Gorge Reservoir began on Nov. 1, 1962. Extremes are given above for two separate periods--1956-62, and 1964-71. Extremes for the 1963 water year (October 1962 to September 1963) are not included.

DATE	DIS-SOLVED NORON (R) (UG/L)	DIS-SOLVED ORTHOPHOS- PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	DIS-SOLVED PO- TAS- SIUM (K) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 06...	--	.02	521	.71	1100	268	120	1.7	760	8.0	2.8	20
NOV. 03...	--	.00	486	.66	1070	253	105	1.9	785	8.1	3.1	20
DEC. 11...	--	.00	450	.61	3040	240	98	1.7	702	8.2	2.5	18
JAN. 11...	--	.00	430	.58	1290	240	102	1.6	692	8.0	2.7	18
FEB. 17...	--	.00	450	.61	1030	250	109	1.7	706	8.0	2.6	20
MAR. 19...	--	.15	476	.65	5100	250	99	1.7	711	7.7	3.0	18
APR. 27...	--	.00	488	.66	1160	260	120	1.8	767	8.1	4.5	21
MAY 21...	70	.00	510	.69	1670	270	120	1.7	735	8.0	2.8	19
JUNE 14...	--	.00	487	.66	1540	260	110	1.7	777	8.0	2.5	17
JULY 12...	--	.00	475	.65	2710	260	100	1.7	730	7.8	2.7	19
AUG. 09...	109	.03	485	.66	2880	270	110	1.7	709	7.7	2.8	21
SEP. 07...	140	.06	504	.69	2720	260	43	1.8	779	7.8	3.1	20

[illegible]

GREEN RIVER BASIN

09259700 LITTLE SNAKE RIVER NEAR BAGGS, WYO.

LOCATION.--Lat 41°00'17", long 107°54'59", in SW¼ sec.18, T.12 N., R.94 W., Carbon County, at former gaging station, 600 ft upstream from Wyoming-Colorado State line, 0.5 mile upstream from Scandinavian Wash, and 15 miles west of Baggs.

DRAINAGE AREA.--3,020 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.

REMARKS.--Water discharge obtained from rating table for outside gage at sampling site defined by discharge measurements made at station 09257000, Little Snake River near Dixon, 9.2 miles upstream.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)
OCT. 09...	0830	80	13	60	38	10	42	2.3	189	0	53	16
NOV. 17...	0920	140	17	0	55	14	43	2.4	214	0	99	15
DEC. 15...	1200	128	19	70	66	15	45	2.2	222	9	110	16
JAN. 14...	1430	90	22	20	48	12	26	1.9	196	0	51	7.7
MAR. 23...	0610	300	10	0	36	7.5	43	2.7	140	0	83	9.2
MAY 20...	0825	2700	15	140	23	4.9	9.2	.9	85	0	26	2.2
JUNE 16...	1000	4500	10	100	17	1.9	6.5	1.3	59	0	14	2.2
JULY 28...	1130	40	13	60	50	10	45	3.6	198	0	76	19

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 09...	.4	.6	40	268	.36	57.9	140	0	1.6	446	8.0	3.0
NOV. 17...	.5	.2	30	351	.48	133	200	24	1.3	645	8.2	.5
DEC. 15...	.4	.2	20	392	.53	135	220	23	1.3	591	8.2	.0
JAN. 14...	.2	.3	40	265	.36	64.4	170	9	.9	409	8.2	.0
MAR. 23...	.3	.6	50	261	.36	211	120	5	1.7	396	7.8	2.5
MAY 20...	.2	.3	10	124	.17	904	77	7	.5	184	7.8	6.0
JUNE 16...	.1	.4	20	83	.11	1010	49	1	.4	122	7.9	12.5
JULY 28...	.3	.2	50	314	.43	33.9	170	8	1.5	487	8.3	20.0

FIELD DETERMINATIONS

DATE	TIME	DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DIS-SOLVED OXYGEN (MG/L)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 09...	0830	80	410	9.7	7.9	3.0
JAN. 14...	1430	90	440	9.7	7.8	.0
MAR. 23...	0600	300	420	10.4	7.6	2.5
JULY 28...	1130	40	630	8.8	8.4	20.0

PART 10. THE GREAT BASIN

215

GREAT SALT LAKE BASIN

BEAR RIVER BASIN

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UTAH

LOCATION.--Lat 41°26'05", long 111°01'00", in NW¼NW¼ sec.29, T.17 N., R.120 W., Uinta County, Wyoming, at gaging station, 9.3 miles upstream from Woodruff Narrows Dam, and 10 miles southeast of Woodruff.

DRAINAGE AREA.--780 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 21...	1040	96	5.2	51	17	11	1.9	243	0	2.4	8.9	.1
DEC. 02...	1330	a130	8.4	57	14	11	2.2	211	6	22	9.9	.3
JAN. 13...	1300	a90	9.7	55	18	11	1.6	256	0	16	9.9	.2
FEB. 24...	1600	a135	11	65	24	16	2.0	287	0	35	17	.2
MAR. 29...	1930	569	9.1	45	17	11	3.6	201	0	21	12	.2
JULY 29...	1700	a638	6.9	50	24	17	2.9	268	0	19	16	.3
SEP. 01...	1100	12	8.3	53	30	25	5.6	299	0	35	23	.4

a Daily mean discharge.

DATE	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 21...	.2	10	220	.30	57.0	200	0	.5	408	8.3	5.0
DEC. 02...	.3	70	235	.32	82.5	200	17	.3	448	8.4	.0
JAN. 13...	1.2	50	249	.34	60.5	210	0	.3	444	7.8	.0
FEB. 24...	.0	90	311	.42	113	260	0	.4	516	8.2	.0
MAR. 29...	.7	60	219	.30	336	180	15	.4	366	7.8	4.0
JULY 29...	.3	80	268	.36	462	220	0	.5	475	8.3	13.5
SEP. 01...	.2	140	328	.45	10.6	260	15	.7	574	8.1	15.0

EXTREMES.--1970-71:

Specific conductance: Maximum daily, 734 micromhos Dec. 15; minimum daily, 357 micromhos Mar. 28.
Water temperatures: Maximum, 21.5°C Aug. 2, 6; minimum, freezing point Dec. 26, Feb. 21, 25.

Period of record:

Specific conductance: Maximum daily, 883 micromhos July 21, 1966; minimum daily, 312 micromhos Apr. 3, 1969.
Water temperatures: Maximum, 23.0°C Aug. 7, 1970; minimum, freezing point on many days during winter period.

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 10...	.3	.3	30	340	.46	218	260	46	.6	540	8.1	5.5
NOV. 04...	.2	.2	70	348	.47	183	260	50	.7	581	8.1	3.0
04...	--	--	--	324	.44	175	236	24	.7	594	8.1	.5
DEC. 01...	.3	.2	50	362	.49	235	270	49	.7	615	8.3	1.0
JAN. 07...	.2	.6	50	396	.54	235	300	49	.7	662	7.9	.0
29...	.2	1.2	60	348	.47	291	260	60	.7	591	7.7	.0
MAR. 12...	--	--	--	324	.44	262	250	32	.5	563	8.2	.0
APR. 03...	.3	.4	70	307	.42	1440	220	32	.8	480	7.9	4.0
MAY 17...	.3	.7	50	274	.37	192	220	25	.4	434	8.0	9.0
20...	--	--	60	249	--	1680	220	18	.5	511	7.8	8.5
JUNE 02...	.2	.4	50	257	.35	1500	210	22	.4	428	8.2	13.5
JULY 10...	.2	.5	70	306	.42	859	240	28	.7	502	8.0	15.5
AUG. 04...	.3	.1	60	299	.41	350	240	37	.6	526	8.1	19.5
13...	--	--	--	307	--	236	250	20	.6	570	7.9	17.0
SEP. 03...	.2	.1	80	305	.41	215	240	50	.5	526	8.2	13.5

[illegible]

PART 13. SNAKE RIVER BASIN

FLAT CREEK BASIN

13018300 CACHE CREEK NEAR JACKSON, WYO.
(Hydrologic bench-mark station)

LOCATION.--Lat 43°27'08", long 110°42'12", in SW¼SW¼SE¼ sec.1, T.40 N., R.116 W., Teton County, Teton National Forest, at gaging station, 0.7 mile upstream from Salt Lick Draw, 2.4 miles southeast of Jackson, and 4 miles upstream from mouth.

DRAINAGE AREA.--10 sq mi, approximately.

PERIOD OF RECORD.--Chemical analyses: July 1965 to September 1971.
Sediment records: June 1968 to September 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	*DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT. 11...	6.5	4.7	40	46	14	1.7	.4	210	0	5.2	.7	.1
NOV. 04...	5.8	4.2	60	45	15	2.0	.4	213	0	4.9	.6	.1
30...	5.4	4.9	300	45	14	1.9	.6	202	0	6.5	.5	.1
JAN. 05...	2.7	4.7	20	46	14	2.1	.5	212	0	5.3	.6	.1
FEB. 01...	4.2	5.0	10	48	15	2.2	.6	214	0	7.4	.6	.1
APR. 09...	5.4	5.2	30	55	11	2.7	.9	195	0	15	3.8	.2
MAY 18...	32	7.0	40	54	12	3.8	1.1	226	0	5.8	2.2	.2
JUNE 07...	69	5.0	30	50	13	2.7	.7	214	0	1.6	3.3	.1
JULY 12...	46	4.4	20	45	14	1.6	.3	194	0	3.3	.7	.3
AUG. 03...	24	4.3	20	42	13	1.5	.5	206	0	4.5	1.2	.0
SEP. 03...	15	5.1	20	44	14	1.9	.8	207	0	5.3	.5	.0

a Daily mean discharge.

DATE	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 11...	0	176	.24	3.09	170	0	.1	316	8.0	2.0
NOV. 04...	10	178	.24	2.79	170	0	.1	321	8.1	.0
30...	0	173	.24	2.52	170	4	.1	313	8.1	.0
JAN. 05...	10	178	.24	1.30	170	0	.1	324	8.1	.0
FEB. 01...	10	184	.25	2.09	180	4	.1	327	8.3	.0
APR. 09...	20	190	.26	2.77	180	20	.1	330	8.3	2.5
MAY 18...	10	197	.27	17.0	180	0	.1	330	8.3	2.5
JUNE 07...	20	182	.25	33.9	180	4	.1	311	8.3	5.0
JULY 12...	20	168	.23	20.9	170	11	.1	296	8.1	5.0
AUG. 03...	10	170	.23	11.0	160	0	.1	294	8.0	10.0
SEP. 03...	10	174	.24	7.05	170	0	.1	312	8.0	6.0

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
OCT. 11...	0900	6.5	0	1	0	--	0	18	.0
JUNE 07...	1100	69	0	0	--	1	2	20	.1

13018300 CACHE CREEK NEAR JACKSON, WYO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
OCT. 11...	0900	6.5	.6	--	.000	.00
NOV. 04...	0900	a5.8	1.6	--	.000	.09
30...	1515	5.4	--	.000	--	.07
JAN. 05...	1540	a2.7	1.4	--	.000	.07
FEB. 01...	1410	4.2	.7	--	.010	.07
APR. 09...	1610	5.4	.6	--	.090	.05
MAY 18...	1025	32	1.4	--	.040	.07
JUNE 07...	1100	69	.9	--	.050	.05
JULY 12...	0830	46	.8	.020	--	.73
AUG. 03...	1415	24	.6	.020	--	.29
SEP. 03...	1420	15	.7	.070	--	.06

FIELD DETERMINATIONS

DATE	TIME	DIS- CHARGE (CFS)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	DIS- SOLVED OXYGEN (MG/L)	PH (UNITS)	IMME- DIATE COLI- FORM (COL. PER 100 ML)
OCT. 11...	0900	6.5	300	11.3	7.8	22
NOV. 04...	0900	a5.8	--	9.9	8.1	14
30...	1515	5.4	300	10.8	8.4	16
JAN. 05...	1540	a2.7	--	11.5	8.2	50
FEB. 01...	1410	4.2	--	12.1	8.3	320
APR. 09...	1550	5.4	330	13.6	8.4	58
MAY 18...	1025	32	339	10.4	8.0	--
JUNE 07...	1020	69	320	12.9	8.4	27
JULY 12...	0800	46	290	--	8.3	14
AUG. 03...	1410	24	300	9.1	8.4	30
SEP. 03...	1330	15	--	10.7	8.4	360

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 04...	0900	.0	a5.8	8	.13
30...	1515	.0	5.4	4	.06
JAN. 05...	1540	.0	a2.7	6	.04
FEB. 01...	1410	.0	4.2	3	.03
APR. 09...	1550	2.5	5.4	8	.12
MAY 18...	1025	2.5	32	28	2.4
JUNE 07...	1100	5.0	69	90	17
JULY 12...	0830	5.0	46	40	5.0
AUG. 03...	1415	10.0	24	31	2.0
SEP. 03...	1420	6.0	15	13	.53

a Daily mean discharge.

SNAKE RIVER MAIN STEM

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WYO.

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, sampled at bridge at Astoria Springs, Teton County, 3 miles downstream from Hoback River, 13 miles upstream from gaging station, and 15 miles northeast of Alpine.

DRAINAGE AREA.--3,465 sq mi (at gaging station).

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT. 10...	1550	2470	11	40	49	11	7.4	1.6	146	0	53	4.6
NOV. 04...	1100	1830	12	80	55	11	7.1	1.7	146	0	66	6.1
DEC. 01...	0925	2040	9.7	50	49	11	7.1	1.6	146	0	54	3.2
JAN. 07...	0900	a1300	13	70	52	12	8.7	1.7	154	0	69	4.5
FEB. 01...	1700	2030	15	0	53	13	7.1	2.2	146	0	63	7.0
APR. 08...	1530	2540	12	10	51	8.3	8.2	2.0	137	0	52	4.3
MAY 17...	1625	17700	9.7	150	34	5.3	6.5	1.3	109	0	23	2.5
JUNE 02...	1410	17100	9.9	300	36	4.4	5.3	1.6	114	0	20	2.2
JULY 10...	1620	15700	9.9	160	33	5.7	7.1	1.1	112	0	23	3.7
AUG. 03...	1630	9080	11	150	34	6.1	5.8	1.6	102	0	31	2.2
SEP. 03...	1100	6370	11	120	34	7.2	6.6	2.4	108	0	34	3.1

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT. 10...	.5	.2	20	210	.29	1410	170	50	.2	339	8.3	9.0
NOV. 04...	.5	.1	60	232	.32	1150	180	60	.2	384	8.2	1.5
DEC. 01...	.4	.2	120	208	.28	1150	170	50	.2	346	8.1	1.5
JAN. 07...	.5	.2	60	238	.32	835	180	54	.3	378	8.0	.0
FEB. 01...	.5	.2	30	233	.32	1280	190	70	.2	363	8.1	.5
APR. 08...	.5	.3	30	206	.28	1410	160	48	.3	316	8.3	6.0
MAY 17...	.4	.4	80	136	.19	6500	110	21	.3	222	7.7	5.5
JUNE 02...	.3	.3	30	136	.19	6280	110	16	.2	227	8.0	10.0
JULY 10...	.3	.3	20	139	.19	5890	110	18	.3	216	7.9	13.0
AUG. 03...	.4	.1	30	142	.19	3480	110	26	.2	248	8.0	16.5
SEP. 03...	.5	.2	80	152	.21	2610	120	31	.3	263	8.0	12.0

SALT RIVER BASIN

221

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WYO.

LOCATION.--Lat 43°04'47", long 111°02'12", in SW¼NE¼ sec.28, T.36 N., R.119 W., Lincoln County, at gaging station, 3.4 miles northwest of Etna, and at mile 8.0.

DRAINAGE AREA.--829 sq mi.

PERIOD OF RECORD.--Chemical analyses: October 1965 to September 1971.
Water temperatures: October 1965 to September 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT.												
10...	1520	779	9.7	50	58	22	8.3	2.8	247	0	28	13
NOV.												
04...	1400	598	7.7	40	67	17	4.9	1.3	250	0	18	8.4
DEC.												
01...	1130	678	6.7	60	67	15	10	1.3	244	0	24	13
JAN.												
07...	0945	180	7.9	20	62	19	4.3	.7	254	0	25	4.3
FEB.												
01...	1730	549	11	30	51	27	18	1.1	239	0	40	24
APR.												
09...	1240	922	8.1	0	65	16	9.2	1.8	238	0	26	16
MAY												
17...	1535	3710	7.3	50	60	9.9	10	.9	209	0	18	10
JUNE												
02...	1520	3560	5.5	230	56	12	12	1.1	211	0	22	11
JULY												
10...	-- a1900		7.8	250	62	15	9.8	.7	232	0	25	12
AUG.												
03...	1705	1050	7.1	10	64	17	10	1.3	248	0	30	10
SEP.												
03...	1030	1060	6.7	20	62	18	12	1.1	242	0	30	10

a Daily mean discharge.

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
OCT.												
10...	.2	7.0	0	270	.37	568	240	37	.2	455	8.1	10.0
NOV.												
04...	.1	11	0	258	.35	417	240	35	.1	443	8.0	8.0
DEC.												
01...	.2	7.2	50	265	.36	485	230	30	.3	472	8.0	4.0
JAN.												
07...	.1	10	10	258	.35	125	230	22	.1	447	7.9	.0
FEB.												
01...	.2	3.7	0	294	.40	436	240	44	.5	507	8.1	5.5
APR.												
09...	.3	8.4	20	268	.36	667	230	35	.3	430	8.3	10.0
MAY												
17...	.2	1.1	10	220	.30	2200	190	19	.3	374	8.3	7.0
JUNE												
02...	.2	.4	20	224	.30	2150	190	17	.4	383	8.3	13.0
JULY												
10...	.2	2.5	20	249	.34	1280	220	30	.3	415	8.0	16.0
AUG.												
03...	.2	3.5	20	265	.36	751	230	27	.3	468	8.1	17.5
SEP.												
03...	.2	3.6	30	263	.36	753	230	31	.3	459	8.2	10.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MADISON RIVER BASIN												
06036800 - FIREHOLE RIVER ABOVE DIVERSION, NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 26 33 LONG 110 48 15)												
OCT. 22...	1155	52	52	80	3.6	0.4	14	3.2	22	0	3.1	12
06036813 - IRON SPRING CREEK NEAR EMERALD POOL, NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 27 41 LONG 110 51 08)												
OCT. 22...	1110	37	66	130	4.1	.5	26	4.2	46	0	4.6	16
06036900 - NEZ PERCE CREEK ABOVE BRIDGE, AT PICNIC AREA, NEAR FOUNTAIN PAINT POT, YELLOWSTONE NATIONAL PARK (LAT 44 35 05 LONG 110 46 41)												
OCT. 22...	1025	58	89	90	7.7	.8	55	8.0	78	0	33	28
06036910 - FIREHOLE RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 38 25 LONG 110 51 54)												
OCT. 21...	1340	298	105	130	6.0	.5	89	7.6	128	0	14	62
06036930 - GIBBON RIVER NEAR NORRIS PICNIC AREA, NEAR NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 43 47 LONG 110 41 20)												
OCT. 19...	1615	24	47	170	6.0	.8	14	5.1	42	0	12	3.0
GALLATIN RIVER BASIN												
06042920 - GALLATIN RIVER NEAR WYOMING-MONTANA STATE LINE, YELLOWSTONE NATIONAL PARK (LAT 44 55 39 LONG 111 02 43)												
OCT. 21...	1505	37	4.4	40	56	19	1.3	.7	164	0	88	.4
YELLOWSTONE RIVER BASIN												
06185955 - ARNICA CREEK NEAR WEST THUMB, YELLOWSTONE NATIONAL PARK (LAT 44 28 40 LONG 110 32 30)												
OCT. 22...	1450	4.2	50	180	6.7	1.5	14	2.4	44	0	1.5	1.3
06185970 - CUB CREEK AT EAST ENTRANCE ROAD, YELLOWSTONE NATIONAL PARK (LAT 44 30 15 LONG 110 11 40)												
OCT. 19...	1425	1.5	21	40	7.0	2.0	17	1.1	70	0	6.5	.2
06185985 - BRIDGE CREEK NEAR BRIDGE BAY CAMPGROUND, YELLOWSTONE NATIONAL PARK (LAT 44 31 48 LONG 110 26 02)												
OCT. 22...	1520	.40	79	140	9.2	1.7	11	4.2	50	0	2.0	1.0
06186500 - YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK (LAT 44 34 03 LONG 110 22 48)												
OCT. 19...	1600	950	10	30	5.5	2.3	9.1	1.7	35	0	7.6	4.4
06187920 - PEBBLE CREEK NEAR PEBBLE CREEK CAMPGROUND, YELLOWSTONE NATIONAL PARK (LAT 44 55 07 LONG 110 06 42)												
OCT. 20...	1105	9.0	18	70	24	8.8	2.0	1.4	119	0	3.6	.2
06187980 - SLOUGH CREEK NEAR TOWER JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 56 58 LONG 110 18 15)												
OCT. 20...	1230	47	14	30	25	7.1	2.9	1.5	115	0	4.6	.3
06188000 - LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YELLOWSTONE NATIONAL PARK (LAT 44 55 40 LONG 110 23 35)												
OCT. 20...	1455	220	17	100	19	6.7	8.5	1.4	105	0	8.4	.8
06189030 - BLACKTAIL DEER CREEK BELOW UNNAMED BLACKTAIL POND TRIBUTARY, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 57 42 LONG 110 35 26)												
OCT. 20...	1625	5.7	46	120	15	5.7	7.2	1.2	85	0	5.5	.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
MADISON RIVER BASIN--Continued												
06036800 - FIREHOLE RIVER ABOVE DIVERSION, NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 26 33 LONG 110 48 15)												
OCT. 22...	2.2	0.0	140	102	0.14	14.0	10	0	100	6.3	4.5	10
06036813 - IRON SPRING CREEK NEAR EMERALD POOL, NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 27 41 LONG 110 51 08)												
OCT. 22...	4.4	.0	180	149	.20	14.9	12	0	155	6.9	9.5	5
06036900 - NEZ PERCE CREEK ABOVE BRIDGE, AT PICNIC AREA, NEAR FOUNTAIN PAINT POT, YELLOWSTONE NATIONAL PARK (LAT 44 35 05 LONG 110 46 41)												
OCT. 22...	6.5	.0	410	270	.37	42.3	22	0	319	7	11.0	5
06036910 - FIREHOLE RIVER AT MADISON JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 38 25 LONG 110 51 54)												
OCT. 21...	8.0	.0	740	356	.48	286	17	0	462	8.1	11.5	4
06036930 - GIBBON RIVER NEAR NORRIS PICNIC AREA, NEAR NORRIS JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 43 47 LONG 110 41 20)												
OCT. 19...	2.7	.0	70	112	.15	7.26	18	0	115	7.1	7.0	12
GALLATIN RIVER BASIN--Continued												
06042920 - GALLATIN RIVER NEAR WYOMING-MONTANA STATE LINE, YELLOWSTONE NATIONAL PARK (LAT 44 55 39 LONG 111 02 43)												
OCT. 21...	.3	.1	10	251	.34	25.1	220	85	396	8.2	4.0	4
YELLOWSTONE RIVER BASIN--Continued												
06185955 - ARNICA CREEK NEAR WEST THUMB, YELLOWSTONE NATIONAL PARK (LAT 44 28 40 LONG 110 32 30)												
OCT. 22...	5.8	.0	10	105	.14	1.19	22	0	105	6.8	8.0	12
06185970 - CUB CREEK AT EAST ENTRANCE ROAD, YELLOWSTONE NATIONAL PARK (LAT 44 30 15 LONG 110 11 40)												
OCT. 19...	.3	.0	30	89	.12	.36	26	0	118	7.5	3.0	4
06185985 - BRIDGE CREEK NEAR BRIDGE BAY CAMPGROUND, YELLOWSTONE NATIONAL PARK (LAT 44 31 48 LONG 110 26 02)												
OCT. 22...	5.2	.0	20	138	.19	.15	30	0	111	7.0	7.0	8
06186500 - YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK (LAT 44 34 03 LONG 110 22 48)												
OCT. 19...	.9	.0	80	59	.08	151	23	0	96	6.5	7.5	3
06187920 - PEBBLE CREEK NEAR PEBBLE CREEK CAMPGROUND, YELLOWSTONE NATIONAL PARK (LAT 44 55 07 LONG 110 06 42)												
OCT. 20...	.0	.0	0	116	.16	2.82	96	0	185	7.8	.0	10
06187980 - SLOUGH CREEK NEAR TOWER JUNCTION, YELLOWSTONE NATIONAL PARK (LAT 44 56 58 LONG 110 18 15)												
OCT. 20...	.1	.0	0	112	.15	14.2	92	0	186	7.8	2.0	3
06188000 - LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YELLOWSTONE NATIONAL PARK (LAT 44 55 40 LONG 110 23 35)												
OCT. 20...	.2	.0	60	114	.16	67.7	75	0	170	7.6	3.0	15
06189030 - BLACKTAIL DEER CREEK BELOW UNNAMED BLACKTAIL POND TRIBUTARY, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 57 42 LONG 110 35 26)												
OCT. 20...	.3	.0	10	124	.17	1.91	61	0	145	7.4	2.5	7

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NESIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
YELLOWSTONE RIVER BASIN--Continued												
06189730 - GARDNER RIVER ABOVE DIVERSION, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 53 36 LONG 110 44 56)												
OCT. 21...	1720	21	5.6	250	54	18	3.4	0.8	162	0	79	0.5
06189910 - GLEN CREEK ABOVE MAMMOTH INTAKE, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 40 LONG 110 42 18)												
OCT. 21...	1140	16	11	140	40	10	2.9	.8	143	0	26	.3
06189980 - LAVA CREEK ABOVE LUPINE CREEK, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 22 LONG 110 37 36)												
OCT. 21...	1005	21	32	110	7.5	2.2	5.5	1.4	42	0	2.1	.2
06279850 - MIDDLE CREEK AT EAST ENTRANCE RANGER STATION, YELLOWSTONE NATIONAL PARK (LAT 44 29 19 LONG 110 00 02)												
OCT. 19...	1325	22	16	40	7.0	1.5	7.7	.7	40	0	8.6	.4
LEWIS RIVER BASIN												
13007100 - HERRON CREEK NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 26 52 LONG 110 42 22)												
OCT. 22...	1300	.22	37	80	2.6	.7	2.1	1.6	12	0	3.3	.9
13009200 - UNNAMED TRIBUTARY TO LEWIS RIVER BELOW LEWIS FALLS, YELLOWSTONE NATIONAL PARK (LAT 44 15 20 LONG 110 38 28)												
OCT. 22...	1350	1.5	26	130	3.5	.3	2.4	1.6	15	0	.8	.3
SNAKE RIVER BASIN												
13010050 - SUPPLY SPRING AT SOUTH ENTRANCE, YELLOWSTONE NATIONAL PARK (LAT 44 08 34 LONG 110 40 23)												
OCT. 17...	1415	.30	37	270	5.0	.6	30	3.2	70	0	.8	20
13010360 - LIZARD CREEK NEAR COLTER BAY VILLAGE, GRAND TETON NATIONAL PARK (LAT 44 00 26 LONG 110 40 49)												
JUNE 04...	1010	38	8.7	60	10	1.1	1.6	.7	37	0	3.3	1.1
AUG. 18...	1545	.61	17	20	12	2.6	3.1	.7	65	0	2.3	.1
13010380 - ARIZONA CREEK NEAR COLTER BAY VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 58 21 LONG 110 38 41)												
JUNE 05...	0930	319	7.1	40	21	3.3	2.2	.7	76	0	4.1	1.1
AUG. 18...	1410	7.1	8.1	20	39	9.7	5.7	1.1	193	0	5.8	.1
PILGRIM CREEK BASIN												
13010440 - PILGRIM CREEK AT ABANDONED FORD, NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 55 08 LONG 110 33 53)												
OCT. 15...	1505	26	8.4	40	31	5.7	5.0	.5	124	0	5.9	.6
JUNE 04...	1400	504	6.2	0	20	35	2.2	.7	79	0	4.1	.6
AUG. 17...	1410	25	7.8	10	27	4.6	4.0	.7	115	0	4.0	.1
13011000 - SNAKE RIVER NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 51 31 LONG 110 35 09)												
JUNE 04...	1235	3110	14	0	18	1.1	10	2.0	64	0	5.8	7.8
PACIFIC CREEK BASIN												
13011500 - PACIFIC CREEK AT MORAN, GRAND TETON NATIONAL PARK (LAT 43 51 04 LONG 110 30 59)												
JUNE 04...	1130	1820	9.9	10	20	3.9	2.7	.9	79	0	5.8	1.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUO- RIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
YELLOWSTONE RIVER BASIN--Continued												
06189730 - GARDNER RIVER ABOVE DIVERSION, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 53 36 LONG 110 44 56)												
OCT. 21...	0.2	0.0	20	242	0.33	13.7	210	77	392	8.1	3.0	10
06189910 - GLEN CREEK ABOVE MAMMOTH INTAKE, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 40 LONG 110 42 18)												
OCT. 21...	.2	.1	0	161	.22	6.96	140	23	267	8.0	1.0	12
06189980 - LAVA CREEK ABOVE LUPINE CREEK, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 22 LONG 110 37 36)												
OCT. 21...	1.8	.0	10	74	.10	4.20	28	0	80	6.8	4.0	10
06279850 - MIDDLE CREEK AT EAST ENTRANCE RANGER STATION, YELLOWSTONE NATIONAL PARK (LAT 44 29 19 LONG 110 00 02)												
OCT. 19...	.7	.0	30	63	.09	3.74	24	0	81	6.5	3.0	11
LEWIS RIVER BASIN--Continued												
13007100 - HERRON CREEK NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 26 52 LONG 110 42 22)												
OCT. 22...	.3	.0	10	54	.07	.03	10	0	31	6.2	.5	20
13009200 - UNNAMED TRIBUTARY TO LEWIS RIVER BELOW LEWIS FALLS, YELLOWSTONE NATIONAL PARK (LAT 44 15 20 LONG 110 38 28)												
OCT. 22...	2.0	.0	0	44	.06	.18	10	0	37	6.3	6.0	10
SNAKE RIVER BASIN--Continued												
13010050 - SUPPLY SPRING AT SOUTH ENTRANCE, YELLOWSTONE NATIONAL PARK (LAT 44 08 34 LONG 110 40 23)												
OCT. 17...	1.6	.0	180	133	.18	.11	15	0	167	7.0	18.0	5
13010360 - LIZARD CREEK NEAR COLTER BAY VILLAGE, GRAND TETON NATIONAL PARK (LAT 44 00 26 LONG 110 40 49)												
JUNE 04...	.1	.3	10	45	.06	4.62	31	1	62	7.6	2.5	30
AUG. 18...	.5	--	20	70	.10	.12	41	0	98	7.5	17.5	--
13010380 - ARIZONA CREEK NEAR COLTER BAY VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 58 21 LONG 110 38 41)												
JUNE 05...	.1	.3	40	77	.10	66.3	65	3	124	8.1	3.0	20
AUG. 18...	.5	--	20	165	.22	3.16	140	0	282	8.1	18.0	--
PILGRIM CREEK BASIN--Continued												
13010440 - PILGRIM CREEK AT ABANDONED FORD, NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 55 08 LONG 110 33 53)												
OCT. 15...	.1	.0	0	118	.16	8.28	100	0	202	7.5	3.5	4
JUNE 04...	.1	.2	10	77	.10	105	65	0	126	8.1	6.5	12
AUG. 17...	.0	--	10	105	.14	7.20	86	0	176	7.5	14.5	--
13011000 - SNAKE RIVER NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 51 31 LONG 110 35 09)												
JUNE 04...	.9	.1	60	92	.13	773	50	0	144	8.0	8.0	5
PACIFIC CREEK BASIN--Continued												
13011500 - PACIFIC CREEK AT MORAN, GRAND TETON NATIONAL PARK (LAT 43 51 04 LONG 110 30 59)												
JUNE 04...	.1	.2	10	84	.11	41?	65	0	132	8.1	5.0	12

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
BUFFALO FORK BASIN												
13011900 - BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 50 14 LONG 110 26 21)												
JUNE 04...	1625	1760	16	10	22	4.3	3.8	1.1	92	0	5.8	2.2
SPREAD CREEK BASIN												
13012500 - SPREAD CREEK NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 47 26 LONG 110 32 14)												
JUNE 05...	1215	469	6.7	110	24	5.8	3.3	1.3	98	0	7.4	2.2
AUG. 18...	1120	11	11	10	40	8.5	3.9	1.6	184	0	7.3	.3
COTTONWOOD CREEK BASIN												
13012800 - COTTONWOOD CREEK AT OUTLET OF JENNY LAKE, NEAR MOOSE, GRAND TETON NATIONAL PARK (LAT 43 45 03 LONG 110 43 29)												
OCT. 16...	1610	36	16	50	3.2	.7	.7	.5	13	0	.6	.6
JUNE 09...	0920	441	2.5	0	4.1	.9	.5	.7	12	0	2.5	1.1
AUG. 16...	1115	271	2.2	.0	3.0	.1	3.7	.5	20	0	1.3	.3
DITCH CREEK BASIN												
13013530 - DITCH CREEK BELOW SOUTH FORK, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 40 53 LONG 110 34 58)												
OCT. 16...	1150	3.8	11	30	49	8.2	11	1.2	184	0	32	1.0
JUNE 07...	1055	221	8.4	30	22	1.8	3.3	.9	73	0	6.6	1.7
AUG. 13...	1450	8.1	11	10	39	6.8	8.6	1.3	160	0	25	.9
13013570 - KELLY WARM SPRING NEAR KELLY, GRAND TETON NATIONAL PARK (LAT 43 38 24 LONG 110 37 04)												
OCT. 16...	1410	8.8	18	30	56	19	6.7	2.4	176	0	86	2.0
SEP. 17...	1130	10	18	10	56	19	6.5	2.5	192	0	91	2.6
GROS VENTRE RIVER BASIN												
13014400 - GROS VENTRE RIVER AT LOWER SLIDE LAKE, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 37 44 LONG 110 32 40)												
JUNE 07...	1540	2380	6.3	10	33	4.3	7.1	1.1	113	0	20	2.2
13014460 - UNNAMED SPRING AT TETON VALLEY RANCH, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 37 27 LONG 110 36 21)												
SEP. 17...	1615	4.8	13	10	53	17	5.9	1.7	182	0	73	2.3
SNAKE RIVER BASIN												
13016100 - SNAKE RIVER NEAR WILSON (LAT 43 29 58 LONG 110 50 27)												
JUNE 08...	1340	15000	12	0	21	4.0	6.5	1.6	85	0	12	3.3
FISH CREEK BASIN												
13016250 - LAKE CREEK NEAR TETON VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 35 43 LONG 110 47 19)												
JUNE 08...	1140	234	5.7	0	15	4.3	2.7	.9	67	0	4.9	1.1
SEP. 19...	1330	12	10	10	17	3.5	5.3	1.2	79	0	7.8	3.1
13016320 - GRANITE CREEK NEAR TETON VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 35 45 LONG 110 48 20)												
JUNE 08...	1240	207	3.2	0	34	7.3	.5	.4	122	6	3.3	1.1
SEP. 19...	1530	15	3.6	10	29	7.8	1.0	.6	137	0	5.0	1.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
BUFFALO FORK BASIN--Continued												
13011900 - BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 50 14 LONG 110 26 21)												
JUNE 04...	0.1	0.2	20	101	0.14	480	72	0	148	8.1	6.5	18
SPREAD CREEK BASIN--Continued												
13012500 - SPREAD CREEK NEAR MORAN, GRAND TETON NATIONAL PARK (LAT 43 47 26 LONG 110 32 14)												
JUNE 05...	.2	.3	30	99	.13	125	85	5	158	8.1	6.0	45
AUG. 18...	.5	--	10	164	.22	5.05	130	0	272	7.9	12.5	--
COTTONWOOD CREEK BASIN--Continued												
13012800 - COTTONWOOD CREEK AT OUTLET OF JENNY LAKE, NEAR MOOSE, GRAND TETON NATIONAL PARK (LAT 43 45 03 LONG 110 43 29)												
OCT. 16...	.1	.0	0	14	.02	1.36	11	0	27	6.2	10.0	3
JUNE 09...	.1	.2	10	19	.03	22.6	14	4	26	7.3	6.5	4
AUG. 16...	.4	--	0	22	.03	16.1	8	0	23	7.4	18.0	--
DITCH CREEK BASIN--Continued												
13013530 - DITCH CREEK BELOW SOUTH FORK, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 40 53 LONG 110 34 58)												
OCT. 16...	.1	.0	10	204	.28	2.09	160	9	330	8.1	.0	8
JUNE 07...	.1	.3	30	82	.11	48.9	63	3	131	8.1	4.0	43
AUG. 13...	.0	--	30	171	.23	3.74	130	0	300	8.1	19.0	--
13013570 - KELLY WARM SPRING NEAR KELLY, GRAND TETON NATIONAL PARK (LAT 43 38 24 LONG 110 37 04)												
OCT. 16...	.9	.0	10	277	.38	6.58	220	76	436	7.9	27.0	4
SEP. 17...	.5	--	30	291	.40	8.17	220	61	448	7.7	26.0	--
GROS VENTRE RIVER BASIN--Continued												
13014400 - GROS VENTRE RIVER AT LOWER SLIDE LAKE, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 37 44 LONG 110 32 40)												
JUNE 07...	.2	.4	30	130	.18	835	100	7	216	8.2	7.0	49
13014460 - UNNAMED SPRING AT TETON VALLEY RANCH, NEAR KELLY, NEAR GRAND TETON NATIONAL PARK (LAT 43 37 27 LONG 110 36 21)												
SEP. 17...	.5	.3	20	256	.35	3.28	200	53	a410	a8.0	17.5	--
SNAKE RIVER BASIN--Continued												
13016100 - SNAKE RIVER NEAR WILSON (LAT 43 29 58 LONG 110 50 27)												
JUNE 08...	.4	.2	30	103	.14	4170	69	0	156	8.0	10.0	23
FISH CREEK BASIN--Continued												
13016250 - LAKE CREEK NEAR TETON VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 35 43 LONG 110 47 19)												
JUNE 08...	.2	.2	20	68	.09	43.0	56	1	111	8.0	9.0	7
SEP. 19...	.4	--	40	87	.12	2.96	57	0	138	7.7	8.0	--
13016320 - GRANITE CREEK NEAR TETON VILLAGE, GRAND TETON NATIONAL PARK (LAT 43 35 45 LONG 110 48 20)												
JUNE 08...	.1	.4	10	116	.16	64.8	120	10	202	8.4	6.5	5
SEP. 19...	.0	--	10	116	.16	a 4.82	100	0	206	8.0	7.5	--

a Field determination.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING,
EXCLUDING GRAND TETON AND YELLOWSTONE NATIONAL PARKS

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE- (CL) (MG/L)
YELLOWSTONE RIVER BASIN												
06269000 - BIGHORN RIVER NEAR MANDERSON (LAT 44 11 39 LONG 107 54 52)												
DEC. 04...	1030	1310	9.1	110	75	21	86	4.4	201	0	260	18
MAR. 02...	1050	2020	9.8	80	76	28	87	3.6	201	0	300	17
JUNE 17...	1745	1790	7.6	60	65	22	85	3.8	178	0	270	15
06284400 - SHOSHONE RIVER NEAR GARLAND (LAT 44 44 20 LONG 108 35 38)												
JUNE 30...	1930	4370	15	0	22	4.5	14	1.1	84	0	29	2.5
06285500 - SAGE CREEK NEAR LOVELL (LAT 44 50 51 LONG 108 26 38)												
JAN. 07...	1615	18	12	0	260	190	420	4.7	409	0	1900	26
APR. 14...	1215	29	5.9	150	210	150	410	5.3	317	0	1700	31
JULY 15...	1525	145	14	70	120	35	150	3.3	206	0	600	8.2
06298500 - LITTLE TONGUE RIVER NEAR DAYTON (LAT 44 48 38 LONG 107 17 02)												
AUG. 29...	1000	1.5	12	--	15	.0	2.2	.9	49	0	2.5	1.0
06311060 - NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON (LAT 44 00 29 LONG 107 01 07)												
NOV. 06...	1250	23	12	--	13	2.6	2.7	1.0	58	0	3.8	.7
SEP. 03...	1210	30	6.9	--	8.5	1.3	2.9	.9	35	0	1.6	.9
06311100 - NORTH FORK POWDER RIVER BELOW JOHNSON CREEK, NEAR HAZELTON (LAT 43 58 40 LONG 106 59 22)												
NOV. 04...	1620	5.4	10	--	38	18	1.2	.6	198	0	4.0	.8
06...	0845	9.0	11	--	30	13	1.6	.8	163	0	1.0	.7
06311150 - NORTH FORK POWDER RIVER ABOVE GARDNER CREEK, NEAR HAZELTON (LAT 43 58 15 LONG 106 57 02)												
AUG. 31...	1100	3.9	12	--	26	13	2.2	.9	141	0	4.3	.8
06311200 - GARDNER CREEK NEAR DULLKNIFE RESERVOIR (LAT 43 58 15 LONG 106 57 02)												
AUG. 31...	0930	13	11	--	30	15	1.5	.7	162	0	1.6	.8
06311220 - NORTH FORK POWDER RIVER BELOW GARDNER CREEK, NEAR MAYOWORTH (LAT 42 56 48 LONG 106 56 00)												
AUG. 31...	1515	18	11	--	29	14	2.2	.9	142	7	4.1	1.0
06311240 - NORTH FORK POWDER RIVER ABOVE PASS CREEK, NEAR MAYOWORTH (LAT 42 55 56 LONG 106 54 27)												
SEP. 01...	0930	16	11	--	31	15	2.2	.9	157	6	1.6	1.0
06311300 - PASS CREEK NEAR MAYOWORTH (LAT 42 55 13 LONG 106 53 51)												
SEP. 01...	--	3.9	13	--	40	22	1.5	1.1	208	6	4.1	1.0
PLATTE RIVER BASIN												
06673500 - KATZER DRAIN NEAR HENRY, NEBR. (LAT 41 58 58 LONG 104 04 13)												
JUNE 30...	1545	48	16	30	42	17	110	8.9	237	0	210	18

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)	TEMP- ERATURE (DEG C)
------	--	--	--	---	--	--	-------------------------------------	---	---	---	---------------	-----------------------------

YELLOWSTONE RIVER BASIN--Continued

06269000 - BIGHORN RIVER NEAR MANDERSON (LAT 44 11 39 LONG 107 54 52)												
DEC. 04...	0.5	0.9	140	570	0.78	2020	280	115	2.3	921	7.5	2.5
MAR. 02...	.5	3.0	100	625	.85	3410	300	135	2.2	887	8.2	2.0
JUNE 17...	.5	1.9	90	558	.76	2700	250	104	2.3	794	7.9	23.0
06284400 - SHOSHONE RIVER NEAR GARLAND (LAT 44 44 20 LONG 108 35 38)												
JUNE 30...	.2	.1	50	129	.18	1520	74	5	.7	209	7.2	14.0
06285500 - SAGE CREEK NEAR LOVELL (LAT 44 50 51 LONG 108 26 38)												
JAN. 07...	1.2	11	340	3010	4.09	146	1400	1060	4.8	3590	7.9	.0
APR. 14...	1.1	5.1	350	2720	3.70	213	1200	940	5.3	3130	8.0	10.0
JULY 15...	.6	4.4	230	1040	1.41	407	450	281	3.1	1340	8.0	22.5
06298500 - LITTLE TONGUE RIVER NEAR DAYTON (LAT 44 48 38 LONG 107 17 02)												
AUG. 29...	.1	.3	0	58	.08	.23	38	0	.2	88	7.0	--
06311060 - NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON (LAT 44 00 29 LONG 107 01 07)												
NOV. 06...	.1	.9	10	65	.09	4.04	43	0	.2	100	7.0	4.0
SEP. 03...	.3	.4	10	41	.06	3.32	27	0	.2	64	7.2	14.0
06311100 - NORTH FORK POWDER RIVER BELOW JOHNSON CREEK, NEAR HAZELTON (LAT 43 58 40 LONG 106 59 22)												
NOV. 04...	.2	3.1	0	172	.23	2.51	170	7	.0	321	8.0	6.0
06...	.1	2.3	0	140	.19	3.40	130	0	.1	258	8.0	6.0
06311150 - NORTH FORK POWDER RIVER ABOVE GARDNER CREEK, NEAR HAZELTON (LAT 43 58 15 LONG 106 57 02)												
AUG. 31...	.3	1.7	0	130	.18	1.37	120	4	.1	237	8.3	8.0
06311200 - GARDNER CREEK NEAR DULLKNIFE RESERVOIR (LAT 43 58 15 LONG 106 57 02)												
AUG. 31...	.3	1.2	0	142	.19	4.98	140	7	.1	268	7.8	10.0
06311220 - NORTH FORK POWDER RIVER BELOW GARDNER CREEK, NEAR MAYOWORTH (LAT 42 56 48 LONG 106 56 00)												
AUG. 31...	.3	1.9	0	141	.19	6.85	130	2	.1	254	8.5	14.0
06311240 - NORTH FORK POWDER RIVER ABOVE PASS CREEK, NEAR MAYOWORTH (LAT 42 55 56 LONG 106 54 27)												
SEP. 01...	.3	2.3	0	148	.20	6.39	140	1	.1	271	8.4	10.0
06311300 - PASS CREEK NEAR MAYOWORTH (LAT 42 55 13 LONG 106 53 51)												
SEP. 01...	.3	2.2	0	193	.26	2.03	190	9	.0	348	8.5	10.0

PLATTE RIVER BASIN--Continued

06673500 - KATZER DRAIN NEAR HENRY, NEBR. (LAT 41 58 58 LONG 104 04 13)												
JUNE 30...	.6	--	160	545	.74	70.5	170	0	3.6	830	7.7	24.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(Data furnished by U.S. Department of Agriculture, Forest Service)

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED OXYGEN (MG/L)	TUR- BIDITY (JTU)	PH (UNITS)	HARD- NESS (CA, MG) (MG/L)	TEMP- ERATURE (DEG C)
YELLOWSTONE RIVER BASIN										
GARNET CREEK ABOVE U.S. HIGHWAY 16, NEAR TEN SLEEP (LAT 44 10 LONG 107 12)										
AUG. 27...	--	--	--	--	0.04	9	0	8.6	10	10
MEADOWLARK LAKE AT NORTH COVE, NEAR TEN SLEEP (LAT 44 10 LONG 107 13)										
SEPT. 02...	1500	--	--	--	.03	7.2	10	7.3	10	16
TENSLEEP CREEK AT LEIGH CREEK FISH HATCHERY, NEAR TEN SLEEP (LAT 44 05 LONG 107 18)										
MAY 11...	0900	--	10	1	.34	8.1	15	8.4	37	4
JUNE 22...	0745	--	7	4	.03	11	8	7.5	9	10
SEPT. 02...	1430	--	--	1.5	.03	10	1	8.4	54	13
GRANITE CREEK ABOVE U.S. HIGHWAY 14, NEAR SHELL (LAT 44 35 LONG 107 32)										
JUNE 22...	1155	--	--	--	--	9	5	8.5	120	--
06278300 - SHELL CREEK ABOVE SHELL RESERVOIR (LAT 44 30 29 LONG 107 24 11)										
APR. 07...	0930	--	--	--	.97	9	20	8.4	180	3
MAY 11...	1315	--	17	1.0	.14	8.1	40	8.8	110	9
JUNE 22...	1045	--	9	5	.04	10	8	8.1	45	12
SEPT. 02...	1235	--	--	2.0	.05	10	2	8.5	110	11
PORCUPINE CREEK NEAR KANE (LAT 44 50 LONG 107 51)										
SEPT. 16...	1120	--	--	5	--	--	0	7.6	35	1
LAKE CREEK AT BURNT MOUNTAIN ROAD, NEAR BURGESS JUNCTION (LAT 44 48 LONG 107 41)										
SEPT. 16...	1415	--	--	5	--	--	0	8.6	140	2
LICK CREEK AT BURNT MOUNTAIN ROAD, NEAR BURGESS JUNCTION (LAT 44 49 LONG 107 42)										
SEPT 16...	1320	--	--	6	--	--	3	8.4	130	0
06289000 - LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MONT. (LAT 45 00 25 LONG 107 37 05)										
MAY 12...	0915	--	8	1.0	.10	10	13	8.5	160	5
JUNE 22...	1515	--	8	8.0	.04	10	4	8.4	140	12
SEPT. 02...	0755	--	--	3.0	.03	10	1	8.1	180	8
FOOL CREEK NEAR BURGESS JUNCTION (LAT 44 48 LONG 107 35)										
SEPT. 16...	1530	--	--	7.5	--	--	5	8.6	180	2
PRUNE CREEK ABOVE SIBLEY LAKE, NEAR BURGESS JUNCTION (LAT 44 45 LONG 107 26)										
SEPT. 02...	0950	--	--	--	.03	9	5	7.5	20	7
SIBLEY LAKE AT BOAT RAMP, NEAR BURGESS JUNCTION (LAT 44 45 LONG 107 26)										
JUNE 22...	1330	--	--	--	.04	8.1	10	7.5	--	17
SEPT. 02...	1010	--	--	--	.02	9	10	8.8	20	16

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

231

(Data furnished by U.S. Department of Agriculture, Forest Service--Continued)

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED OXYGEN (MG/L)	TUR- BIDITY (JTU)	PH (UNITS)	HARD- NESS (CA, MG) (MG/L)	TEMP- ERATURE (DEG C)
YELLOWSTONE RIVER BASIN--Continued										
06297000 - SOUTH TONGUE RIVER NEAR DAYTON (LAT 44 47 02 LONG 107 28 10)										
MAY 11...	1705	--	8	2	0.06	7.2	43	8.4	31	4
JUNE 22...	1245	--	5	4	.02	8.1	10	8.0	28	11
SEPT. 02...	1050	--	--	Trace	<.01	10	3	8.3	54	10
06300500 - EAST FORK BIG GOOSE CREEK NEAR BIG HORN (LAT 44 32 18 LONG 107 13 33)										
JUNE 21...	1400	--	6	4	.03	9	1	7.2	2	9
SEPT. 01...	1110	--	--	1.5	<.01	9	0	8.1	10	11
CONEY CREEK BELOW STULL LAKES, NEAR BIG HORN (LAT 44 36 LONG 107 19)										
JUNE 30...	1745	8.1	6	--	.06	9	7	6.8	5	--
06303500 - LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN (LAT 44 35 45 LONG 107 02 22)										
MAY 10...	1015	--	--	1.0	.06	5.4	12	8.5	22	4
JUNE 21...	1000	--	7	4	.02	8.1	2	7.4	7	10
SEPT. 01...	0900	--	--	1.5	<.01	10	10	7.6	17	12
TWO CREEK AT FOREST BOUNDARY, NEAR MAYOWORTH (LAT 44 02 LONG 107 01)										
AUG. 27...	1135	--	--	--	.05	8.1	4	8.1	30	12
NORTH FORK CRAZY WOMAN CREEK NEAR CARIBOU RESORT, NEAR BUFFALO (LAT 44 10 LONG 106 55)										
MAY 10...	1800	--	18	--	--	10	60	8.3	40	1
JUNE 21...	1925	--	6	--	.08	9	1	7.5	20	10
AUG. 27...	1400	--	--	--	.06	9	0	7.7	20	14
POLE CREEK BELOW U.S. HIGHWAY 16, NEAR BUFFALO (LAT 44 12 LONG 106 56)										
JULY 02...	--	1.9	--	--	.04	7.2	20	7.2	27	15
27...	--	1.2	--	--	.05	9	10	7.8	18	9
AUG. 27...	--	.3	--	--	.06	7.3	9	7.5	45	15
DOYLE CREEK AT UPPER CAMPGROUND, NEAR MAYOWORTH (LAT 44 03 LONG 107 01)										
AUG. 27...	1210	--	--	--	.05	9	0	8.1	25	12
SEVEN BROTHERS CREEK NEAR BUFFALO (LAT 44 19 LONG 106 59)										
JULY 01...	--	9.6	8	--	.04	10	0	7.2	9	11
27...	--	6.2	--	--	.08	9	4	7.6	18	10
AUG. 26...	--	8.2	--	--	.04	9	4	7.0	18	10
NORTH FORK CLEAR CREEK AT HUNTER RANGER STATION (LAT 44 19 LONG 106 57)										
JULY 01...	--	--	6	--	.04	8.1	0	7.5	9	9
26...	--	--	--	--	.06	9	0	8.0	9	11
AUG. 26...	--	--	--	--	.05	10	0	8.3	18	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

(Data furnished by U.S. Department of Agriculture, Forest Service--Continued)

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED OXYGEN (MG/L)	TUR- BIDITY (JTU)	PH (UNITS)	HARD- NESS (CA,MG) (MG/L)	TEMP- ERATURE (DEG C)
YELLOWSTONE RIVER BASIN--Continued										
CIRCLE PARK CREEK NEAR BUFFALO (LAT 44 17 LONG 106 58)										
JULY										
02...	--	--	5	--	0.02	10	10	8.5	27	10
26...	--	--	--	--	.05	8.1	10	7.7	36	12
AUG.										
26...	--	--	--	--	.04	7.2	40	8.0	32	17
MIDDLE FORK CLEAR CREEK AT MIDDLE FORK CAMPGROUND, NEAR BUFFALO (LAT 44 18 LONG 106 57)										
JULY										
01...	--	19	7	--	.04	10	0	8.8	27	11
25...	--	14	--	--	.08	9.1	5	7.6	9	11
AUG.										
25...	--	8.4	--	--	.04	10	0	8.0	9	11
SOUTH FORK CLEAR CREEK AT TIE HACK CAMPGROUND, NEAR BUFFALO (LAT 44 17 LONG 107 57)										
JULY										
02...	--	--	--	--	.02	10	7	8.5	9	11
27...	--	19	--	--	.06	9	0	8.4	9	11
AUG.										
26...	--	14	--	--	.04	8	4	7.7	9	15
LITTLE SOURDOUGH CREEK NEAR BUFFALO (LAT 44 15 LONG 106 55)										
JULY										
02...	--	--	--	--	.04	7.2	18	7.0	27	15
27...	--	--	--	--	.04	9	10	7.6	32	8
AUG.										
25...	--	--	--	--	.03	--	15	7.7	54	16
SOURDOUGH CREEK AT TIE HACK CAMPGROUND, NEAR BUFFALO (LAT 44 17 LONG 106 56)										
JULY										
02...	--	5.8	--	--	.04	9	15	7.8	18	10
26...	--	2.7	--	--	.05	9	5	8.1	14	11
AUG.										
26...	--	1.2	--	--	.03	9	9	8.5	23	15
06321000 - SOUTH PINEY CREEK NEAR STORY (LAT 44 33 26 LONG 106 56 11)										
MAY										
10...	1345	--	--	Trace	.00	7.2	1	8.0	20	8
JUNE										
21...	1635	--	7	5	.03	10	8	7.5	7	12
SEPT.										
01...	1505	--	--	2.5	.01	10	2	7.6	12	16

ANALYSES FOR TRACE METALS AT MISCELLANEOUS SITES IN WYOMING

DATE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
YELLOWSTONE RIVER BASIN									
06274800 - WOOD RIVER NEAR KIRWIN (LAT 43 52 10 LONG 109 18 39)									
OCT.									
22...	1400	3.1	0	0	0	0	0	0.0	70
PLATTE RIVER BASIN									
06634100 - LITTLE MEDICINE BOW RIVER NEAR SHIRLEY BASIN (LAT 42 15 14 LONG 106 07 36)									
OCT.									
21...	1345	13	2	0	0	0	3	.0	12

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	TEMP- ERATURE (DEG C)	DIS- CHARGE (CFS)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
------	------	-----------------------------	-------------------------	--	--	---	---	---	---	---	---	---

MADISON RIVER BASIN

06036800 - FIREHOLE RIVER ABOVE DIVERSION, NEAR OLD FAITHFUL, YELLOWSTONE NATIONAL PARK (LAT 44 26 33 LONG 110 48 15)												
OCT. 22...	1155	4.5	52	2	0.28	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06189730 - GARDNER RIVER ABOVE DIVERSION, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 53 36 LONG 110 44 56)												
OCT. 21...	1720	3.0	21	2	.11	--	--	--	--	--	--	--

06189910 - GLEN CREEK ABOVE MAMMOTH INTAKE, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 40 LONG 110 42 18)												
OCT. 21...	1140	1.0	16	3	.13	--	--	--	--	--	--	--

06189980 - LAVA CREEK ABOVE LUPINE CREEK, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK (LAT 44 56 22 LONG 110 37 36)												
OCT. 21...	1005	4.0	21	2	.11	--	--	--	--	--	--	--

CHEYENNE RIVER BASIN

06386000 - LANCE CREEK AT SPENCER (LAT 43 22 LONG 104 16)												
MAY 13...	1130	19.0	63	6390	1090	30	32	33	34	73	97	100
25...	1650	16.0	1300	9220	32400	51	55	81	91	97	99	100

06386500 - CHEYENNE RIVER NEAR SPENCER (LAT 43 25 LONG 104 08)												
MAY 13...	0850	13.5	135	3210	1170	90	96	97	99	100	--	--
25...	1350	13.0	4390	12200	145000	39	49	62	67	78	88	100

06430500 - REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE (LAT 44 34 26 LONG 104 02 54)												
MAY 11...	1455	14.0	173	1160	542	--	--	--	--	--	--	--

SALT RIVER BASIN

13025000 - SWIFT CREEK NEAR AFTON (LAT 42 43 30 LONG 110 54 00)												
JUNE 18...	1015	10.5	582	423	665	--	--	--	--	--	--	--

13026200 - SALT RIVER NEAR AUBURN (LAT 42 50 28 LONG 110 59 00)												
JUNE 24...	2030	19.5	2290	21	130	--	--	--	--	--	--	--

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

WELL NUMBER	GEOLOGIC SOURCE 1/	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)
MISSOURI RIVER BASIN Big Horn County										
50- 92-32cab1	211 LNCE	1215	10-20-70	--	8.5	320	2.9	0.6	350	1.3
52- 92-15	317 TSLP	--	5-25-71	--	9.8	--	580	150	44	9.9
56- 97-26bb1	111 ALVL	15	10-14-70	--	20	100	110	56	190	3.0
57- 98-24cdal	111 ALVL	--	10-14-70	--	16	110	69	27	70	2.7
57- 98-25bab1	111 ALVL	--	10-14-70	--	11	120	56	15	39	2.2
Carbon County										
24- 82-18ac	124 HANN	--	6-28-71	8.5	6.1	--	84	34	270	1.8
27- 80-12cd	122 ARKR	--	6-18-71	11.0	9.5	--	40	7.3	32	2.4
Goshen County										
23- 60-10bdb	111 ALVL	66	7- 2-71	10.5	22	30	49	13	140	4.7
23- 60-15dab	111 ALVL	80	7- 1-71	12.0	51	10	86	25	160	17
24- 60-34cac	111 ALVL	82	7- 1-71	19.0	47	10	96	21	94	11
24- 61- 5cbb2	111 ALVL	93	7- 1-71	14.5	52	10	93	17	63	15
24- 61-10ccd2	111 ALVL	40	7- 1-71	14.5	47	20	120	27	67	13
24- 61-21aab	111 ALVL	62	8-17-71	13.0	27	10	110	29	99	8.9
24- 61-24adb	111 ALVL	36	8-17-71	13.5	50	10	110	20	70	10
24- 62- 1bbb	111 ALVL	60	7- 8-71	14.0	42	10	86	25	78	12
25- 61-19baa	111 ALVL	190	7- 7-71	14.0	58	10	45	10	82	9.9
25- 61-28bcc	111 ALVL	120	8-17-71	14.0	39	10	98	17	56	9.3
25- 61-33dba	111 ALVL	91	7-17-71	16.5	49	10	100	18	53	12
25- 62- 3cba	111 ALVL	90	7- 7-71	14.0	50	10	66	12	120	11
25- 62-14bab	112 TRRC	185	8-17-71	14.0	58	10	32	8.5	97	13
25- 62-24bbb	112 TRRC	165	7- 1-71	16.0	47	10	77	15	55	9.4
25- 63- 3dcb	111 ALVL	63	7- 7-71	15.0	52	10	89	15	56	13
25- 63-12cbc	111 ALVL	63	8-17-71	14.0	54	10	87	25	58	13
25- 63-16bba	111 ALVL	30	8-18-71	12.0	35	10	140	22	150	18
26- 62-14baa	111 ALVL	62	8-17-71	11.5	62	10	16	1.5	170	16
26- 63-32cba	111 ALVL	63	7- 8-71	14.0	32	10	78	20	59	4.9
26- 63-32dac	112 TRRC	80	8-17-71	16.5	29	10	77	19	53	6.5
26- 64-15cdb	111 ALVL	52	7- 8-71	15.5	30	10	58	16	48	6.2
26- 64-29bba	111 ALVL	83	7- 8-71	14.0	25	10	100	19	75	4.3
Hot Springs County										
42- 94-26cac1	317 TSLP	550	10-12-70	--	12	--	92	41	10	1.6
43- 94-31	300 PLZC	Spring	2-24-71	55.0	35	40	360	86	250	51
44- 94- 8b	111 ALVL	15	10-12-70	--	18	870	190	76	450	8.1
Laramie County										
13- 68- 3bba	121 OGLL	187	12- 9-70	8.5	21	20	45	5.5	5.0	1.5
14- 66-19bcd	121 OGLL	100	10-20-70	13.0	29	--	130	20	50	4.7
Natrona County										
35- 81-35bd	217 LKOT	3600	9-17-71	42.0	27	1500	14	0.0	460	2.7
Park County										
55- 99-15bal	111 ALVL	29	10-14-70	--	25	170	62	24	64	2.8
Platte County										
21- 65-16add	122 ARKR	400	9-23-71	--	58	--	58	8.6	21	5.1
Washakie County										
45- 92-19bad	125 FRUN	620	12- 7-70	12.0	7.9	420	12	2.3	430	2.9
45- 93-14dcal	125 FRUN	630	12- 7-70	10.0	7.2	260	12	3.1	500	3.1
46- 91-35bb1	125 FRUN	--	12- 4-70	10.0	7.1	10	33	13	770	4.5
46- 92-24ddl	124 WLWD	200	12- 4-70	10.0	8.3	250	13	3.6	500	3.5
47-924-25	124 WLWD	200	11-26-70	14.0	7.0	630	.2	.2	300	.8

See footnotes at end of table, p.

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING

235

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	SULFATE (SO ₄) (MG/L)	CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	NITRATE (NO ₃) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARDNESS (CA, MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
MISSOURI RIVER BASIN--Continued Big Horn County--Continued										
515	4	220	80	4.0	0.0	280	927	10	1520	8.4
61	0	2100	12	4.3	.0	300	2900	2000	2820	7.5
372	0	560	16	.8	8.6	230	1150	500	1610	8.1
214	0	250	4.7	.7	2.5	190	547	280	813	8.1
181	0	140	3.2	.5	.6	110	357	200	569	8.2
Carbon County--Continued										
229	0	710	16	.6	.3	20	1240	350	1640	8.2
104	0	100	7.8	.6	.2	20	256	130	405	7.4
Goshen County--Continued										
309	0	220	19	1.0	a.29	220	622	180	b990	7.6
454	0	250	28	.9	a4.4	190	861	320	b1360	b6.9
347	0	200	15	.7	a4.2	160	674	330	b1000	b6.8
272	0	180	15	.7	a2.9	110	582	300	b890	7.5
347	0	220	20	.7	a4.7	300	706	410	b1050	7.7
390	0	270	22	.7	a5.9	880	785	390	b1180	b7.0
350	0	200	15	1.0	a2.4	130	659	360	b950	b6.9
322	0	220	17	.7	a2.6	100	651	320	b980	b7.2
196	0	160	17	.7	a2.0	130	488	150	b670	b7.6
247	0	210	15	.8	a3.1	370	581	310	b840	b7.3
260	0	200	16	.8	a7.2	--	609	320	b875	b7.1
300	0	220	19	.9	a2.5	150	658	210	b990	b7.6
283	0	80	1.7	1.0	a2.7	410	443	110	b665	b7.5
197	0	200	14	.5	a.79	80	518	250	705	7.7
211	0	200	16	.5	a3.6	110	561	280	b690	b7.4
270	0	210	16	1.0	a2.6	380	609	320	b865	b7.0
385	0	430	21	.8	a4.6	450	1030	440	b1450	b7.0
402	0	63	9.7	1.6	a2.1	400	547	46	b820	b7.3
257	0	180	14	.6	a.81	90	518	280	b800	b7.5
227	0	190	14	.7	a1.2	90	506	270	b770	b7.2
222	0	130	11	.8	a2.9	140	422	210	b590	b7.2
275	0	220	15	.5	a1.2	120	599	330	b880	b7.5
Hot Springs County--Continued										
298	0	170	3.1	2.2	.4	0	479	400	730	8.2
b832	0	770	290	5.5	.0	610	2200	1200	b2950	b6.2
310	0	1400	90	.2	.3	190	2400	790	3150	8.2
Laramie County--Continued										
150	0	13	2.8	.5	4.3	10	173	130	280	7.7
328	0	87	62	.5	65	220	617	400	962	7.5
Natrona County--Continued										
439	0	560	82	3.1	1.2	990	1370	36	2030	7.6
Park County--Continued										
269	0	140	4.2	.9	17	80	475	250	718	8.3
Platte County--Continued										
190	0	50	7.7	.7	17	50	319	180	459	7.6
Washakie County--Continued										
b398	b11	600	33	2.2	.2	180	1290	40	b1830	b8.4
b295	b22	770	47	2.1	.2	140	1530	42	b2200	b8.8
b249	b66	1500	56	1.2	1.3	160	2510	140	b3350	b8.4
b401	b42	730	30	2.4	3.0	230	1520	48	b2220	b8.8
280	14	300	57	2.1	.1	190	819	2	1320	8.7

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

WELL NUMBER	GEOLOGIC SOURCE 1/	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)
GREEN RIVER BASIN Lincoln County										
26-117-13bad1	317 WLLS	Spring	9-17-71	3.5	8.3	20	37	8.2	1.8	0.7
29-117-1ad1	317 WLLS	Spring	9-14-71	4.0	5.8	60	27	5.6	.5	.7
BEAR RIVER BASIN Lincoln County										
21-117-18ac1	124 WSTC	Spring	9-22-71	6.0	26	20	200	97	90	1.4
21-119-8bc1	111 ALVL	30	9-22-71	10.0	15	20	150	71	100	3.5
21-120-10dal	317 WLLS	191	9-23-71	14.0	12	40	75	34	50	3.1
22-118-20ad1	311 PSPR	Spring	9-22-71	9.5	9.2	20	230	65	70	7.9
22-118-20baa1	237 TYNS	600	9-22-71	10.0	14	700	69	33	18	3.1
24-119-2bdbl	111 ALVL	Spring	9-17-71	7.0	14	20	91	21	7.6	1.4
25-119-25bcbl	217 BRRV	Spring	9-16-71	8.0	13	30	89	25	11	1.1
26-119-31cbl	111 ALVL	59	9-21-71	8.5	17	20	81	26	8.1	1.8
26-120-1bb1	111 ALVL	185	9-21-71	7.0	12	40	82	27	8.6	1.1
27-119-10dab1	217 GNNT	Spring	9-16-71	5.0	9.7	20	53	16	13	.7
28-119-27bac1	221 PRSS	Spring	9-15-71	9.0	12	50	88	21	150	2.3
29-119-26bbc1	221 PRSS	Spring	9-15-71	8.5	12	20	70	12	170	1.2
30-117-35c1	317 WLLS	Spring	9-14-71	3.5	5.3	40	29	6.8	.5	.2
SNAKE RIVER BASIN Lincoln County										
30-116-4c1	227 NGGT	Spring	9-14-71	4.5	8.0	70	29	4.4	1.5	.4
30-118-29bb1	217 GNNT	Spring	9-14-71	7.0	12	20	48	19	10	.8
30-119-12ac1	217 GNNT	140	9-21-71	9.5	20	10	55	12	11	1.1
31-119-15cc1	121 SLK	75	9-14-71	7.0	20	10	72	15	14	1.2
31-119-31ac1	217 GNNT	45	9-14-71	7.5	8.1	10	65	13	2.3	.8
32-118-6aal	224 TCRK	Spring	9-10-71	7.0	12	10	82	18	4.0	1.0
32-118-24c1	331 MDSN	Spring	9-14-71	4.0	4.3	60	29	5.0	.0	.7
32-119-5bb1	111 ALVL	35	9-10-71	8.5	14	20	94	20	33	4.1
33-118-13acc1	331 MDSN	Spring	9-10-71	5.0	5.6	20	46	14	.8	.5
33-118-32dal	111 ALVL	146	9-10-71	9.0	11	10	83	14	2.8	.8
33-119-12bab1	111 ALVL	32	9-10-71	7.5	11	50	73	16	12	17
33-119-12cd1	111 ALVL	30	9-10-71	9.0	8.8	10	83	19	2.5	.8
33-119-23ac1	237 TYNS	Spring	9-10-71	55.0	40	40	420	69	1400	150
34-116-19d1	217 BRRV	Spring	9-14-71	10.5	7.9	50	76	16	1.0	.4
34-118-26aad	361 BGRN	Spring	9-10-71	4.5	7.4	0	35	14	0	.4
34-119-12ac1	111 ALVL	169	9-10-71	13.0	6.5	20	45	21	1.5	.9
34-119-24ddc1	121 SLK	Spring	9-10-71	8.0	10	40	53	18	1.0	.7
35-117-35a1	217 BRRV	Spring	9-14-71	10.5	7.5	80	66	12	3.5	1.6
35-118-7cbal	361 BGRN	Spring	9-10-71	4.5	4.2	20	35	14	1.2	.7
35-119-28dc1	111 ALVL	31	9-10-71	10.0	9.8	10	77	18	11	1.4
36-116-8bc1	227 NGGT	Spring	9-14-71	5.0	10	60	39	6.8	1.5	.9
36-117-18dc1	217 ASPN	Spring	9-14-71	12.0	8.4	40	62	7.1	12	1.6
36-117-30dbb1	217 BRRV	Spring	9-14-71	5.0	7.9	60	64	13	9.0	1.6
36-117-31bc	217 BRRV	Spring	9-14-71	6.5	8.8	20	66	18	7.2	.9
36-119-15bdd1	111 ALVL	210	9- 8-71	9.0	15	40	42	6.6	42	4.3
36-119-23abc1	121 SLK	126	9-10-71	9.0	9.9	20	64	21	2.7	.8
36-119-34bac	111 ALVL	60	9-10-71	7.0	8.2	20	77	20	8.6	.9
37-117-28d1	217 ASPN	Spring	9- 8-71	6.5	12	40	45	5.0	21	1.6
37-118-12b1	317 TSLP	Spring	9- 8-71	6.0	5.4	10	41	16	1.0	.3
37-118-18aab1	361 BGRN	Spring	9- 8-71	6.5	5.4	10	51	18	.9	.5
37-118-19dcbl	111 ALVL	110	9- 8-71	8.5	12	10	62	17	2.1	.7
37-118-29cab1	111 ALVL	300	9- 8-71	18.0	11	20	86	24	5.5	1.1
37-118-33bab1	121 SLK	Spring	9- 8-71	8.0	12	20	75	21	2.9	.8
37-118-34dcd1	331 MDSN	Spring	9- 8-71	6.0	7.9	30	41	24	1.6	.6
38-116-31b1	217 ASPN	Spring	9- 8-71	5.0	9.8	10	54	4.5	14	1.6
38-116-32b1	217 GNNT	Spring	9- 8-71	7.0	7.6	20	29	7.8	8.2	1.0
38-117-36b1	217 ASPN	Spring	9- 8-71	6.0	17	10	51	4.1	9.7	1.4

See footnotes at end of table, p.

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

237

BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	SULFATE (SO ₄) (MG/L)	CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
GREEN RIVER BASIN--Continued Lincoln County--Continued										
144	0	1.3	1.4	0.2	a0.39	20	131	130	237	7.7
104	0	4.1	1.0	.4	.9	0	97	90	178	8.1
BEAR RIVER BASIN--Continued Lincoln County--Continued										
333	0	790	16	.3	a.04	60	1380	900	1740	7.5
395	0	420	87	.4	a1.2	250	1050	670	1610	7.4
274	0	160	48	.5	a.83	80	521	330	839	7.4
290	0	650	51	.8	a.13	230	1230	840	1650	7.5
293	0	97	7.7	.4	a.02	80	386	310	631	7.4
213	0	130	4.3	.2	a.81	30	378	310	587	7.5
243	0	120	3.9	.2	a.70	60	386	320	615	7.7
320	0	52	7.3	.2	a.52	50	353	310	576	7.5
266	0	110	3.9	.2	a1.7	40	383	320	605	7.5
257	0	7.0	7.5	.2	a2.1	30	243	200	438	7.6
276	0	99	200	.2	a1.6	40	715	310	1350	7.6
244	0	67	210	.1	a.35	40	664	220	1260	7.7
107	0	12	3.1	.3	1.3	0	110	110	193	8.1
SNAKE RIVER BASIN--Continued Lincoln County--Continued										
107	0	4.9	2.1	.2	.7	0	103	90	185	8.0
268	0	4.0	1.7	.1	a.19	40	228	200	407	7.6
222	0	43	2.7	.2	a.28	30	255	190	408	7.5
274	0	50	6.7	.2	a.20	40	315	240	506	7.4
227	0	43	1.6	.0	a.46	30	248	220	412	7.5
280	0	67	3.1	.2	a.13	40	326	280	526	7.6
101	0	9.9	1.0	.5	.8	0	100	93	186	8.2
336	0	24	73	.2	a1.2	60	433	320	788	7.4
198	0	28	1.1	.3	a.22	10	195	170	338	7.8
252	0	50	2.0	.2	a3.8	30	305	260	499	7.6
290	0	45	13	.2	a.70	40	333	250	567	7.5
311	0	33	1.0	.2	a.47	20	303	290	529	7.4
830	0	1300	1900	.2	a.05	4100	5690	1300	8640	6.6
293	0	3.3	3.1	.2	.4	0	252	260	446	8.2
146	0	21	.6	.2	.5	30	151	140	281	8.0
252	0	12	1.9	.1	a.70	30	216	200	381	7.5
207	0	30	2.1	.3	4.4	30	222	210	394	8.0
247	0	9.0	3.1	.3	.4	30	224	220	402	7.8
181	0	6.3	1.3	.0	a.20	10	153	150	245	7.8
295	0	38	9.7	.2	a.66	20	313	270	529	7.5
149	0	2.5	2.1	.2	1.8	0	138	130	243	7.6
238	0	14	3.1	.3	.6	0	226	180	390	7.8
256	0	16	2.1	.3	.5	10	240	220	423	8.0
296	0	4.9	5.2	.2	.8	0	257	240	457	8.0
266	0	2.8	11	.3	a3.8	150	272	130	432	7.2
316	0	4.3	2.7	.1	a.48	20	263	250	450	7.5
293	0	33	6.9	.1	a3.8	10	316	270	535	7.6
207	0	9.0	1.3	.3	a.06	30	197	130	336	7.5
204	0	3.3	.9	.1	a.51	20	171	170	309	7.9
251	0	1.3	1.5	.1	a.24	30	203	200	370	7.7
268	0	9.5	1.5	.2	a1.1	20	242	220	426	7.6
374	0	8.8	10	.2	a4.6	40	351	310	602	7.5
348	0	.3	2.4	.2	a.20	30	287	270	494	7.4
247	0	3.8	.7	.1	a.10	20	202	200	360	8.1
219	0	17	1.4	1.0	a.14	60	212	150	354	7.6
131	0	21	1.4	.2	a.04	40	141	100	241	7.4
203	0	6.8	.7	.3	a.17	20	192	140	317	7.5

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

WELL NUMBER	GEOLOGIC SOURCE 1/	WELL DEPTH (FT)	DATE OF COLLEC- TION	WATER TEMPER- ATURE (°C)	SILICA (SiO ₂) (MG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	SODIUM (NA) (MG/L)	PO- TAS- SIUM (K) (MG/L)
SNAKE RIVER BASIN--Continued Teton County										
38-115- 3bcb1	337 DRBY	Spring	8- 5-71	7.0	6.2	30	310	68	2.8	1.3
38-115- 5baal	217 GNNT	Spring	8- 5-71	11.0	10	10	70	14	5.8	1.6
38-116-20b1	224 TCRK	Spring	9- 8-71	7.0	8.6	20	80	13	4.3	.7
39-115-31aabl	111 ALVL	70	8- 5-71	12.5	6.6	60	83	15	4.2	.9
39-116- 2dcc	121 CPDV	Spring	9- 9-71	9.0	32	30	53	16	9.0	3.3
39-116- 3cab1	111 ALVL	93	8- 5-71	8.5	17	40	65	13	10	2.2
39-116-14dbcl	217 ASPN	111	9- 9-71	12.0	8.3	20	6.0	2.4	96	.9
39-116-23c1	217 BRRV	80	8- 4-71	13.5	17	10	100	25	8.1	1.8
39-116-32daal	331 MDSN	Spring	8- 4-71	39.0	27	40	180	46	120	14
39-116-32dbd	331 MDSN	115	9- 9-71	25.0	27	--	180	46	110	14
39-116-33ccal	331 MDSN	Spring	8- 4-71	6.0	6.9	10	49	26	1.7	1.3
39-116-34bdd1	217 BRRV	134	9- 9-71	13.0	13	30	56	6.0	24	1.8
40-116-19ccd1	111 ALVL	58	9- 9-71	8.0	16	740	61	17	9.4	2.5
40-116-20aabl	111 ALVL	195	9- 9-71	7.0	51	40	51	19	4.2	9.0
40-116-20cbal	111 ALVL	35	8- 6-71	8.5	14	30	69	18	3.7	1.6
40-117-13ddcl	111 ALVL	42	9- 9-71	9.5	19	10	66	17	7.2	2.7
41-116-27dab1	111 ALVL	200	9- 9-71	7.0	15	420	53	22	2.2	1.8
41-116-32acc1	327 AMSD	80	9- 9-71	8.5	22	10	50	19	6.8	2.7
41-117-20ddcl	112 GLCL	380	9- 9-71	9.0	19	30	1.7	.0	110	.2
41-117-24dbd1	120 TRTR	120	9- 9-71	7.5	28	50	87	14	9.8	1.6
41-117-25cbd	120 TRTR	209	9- 9-71	8.5	32	90	67	21	14	3.1
41-117-25ddb1	317 TSLP	217	9- 9-71	8.0	24	10	44	17	53	4.0
41-117-28acal	112 GLCL	316	9- 9-71	7.0	21	10	51	17	5.3	1.6
41-118- 5dl	217 GNNT	Spring	9- 9-71	6.0	12	10	72	14	3.3	.6

a Nitrite plus nitrate (NO₂ + NO₃).

b Field determination.

1/ GEOLOGIC SOURCE

111 ALVL	alluvial deposits	217 GNNT	Gannett Group
112 GLCL	glacial deposits	217 LKOT	Lakota Formation
112 TRRC	terrace deposits	221 PRSS	Preuss Sandstone or Redbeds
120 TRTR	Tertiary rocks	224 TCRK	Twin Creek Limestone
121 CPDV	Camp Davis Formation	227 NGGT	Nugget Sandstone
121 OGLL	Ogallala Formation	237 TYNS	Thaynes Limestone
121 SLLK	Salt Lake Formation	300 PLZC	Paleozoic
122 ARKR	Arikaree Formation	311 PSPR	Phosphoria Formation
124 HANN	Hanna Formation	317 TSLP	Tensleep Sandstone
124 WLWD	Willwood Formation	317 WLLS	Wells Formation
124 WSTC	Wasatch Formation	327 AMSD	Amsden Formation
125 FRUN	Fort Union Formation	331 MDSN	Madison Limestone
211 LNCE	Lance Formation	337 DRBY	Darby Formation
217 ASPN	Aspen Shale	361 BGRN	Bighorn Dolomite
217 BRRV	Bear River Formation		

ANALYSES OF SAMPLES OF GROUND WATER IN WYOMING
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	SULFATE (SO ₄) (MG/L)	CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	NITRATE (NO ₃) (MG/L)	DIS- SOLVED BORON (B) (UG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	HARD- NESS (CA, MG) (MG/L)	SPECI- FIC COND- UCTANCE (MICRO- MHOS)	PH (UNITS)
SNAKE RIVER BASIN--Continued Teton County--Continued										
222	0	830	1.5	0.8	a0.88	30	1330	1100	1580	7.5
263	0	16	3.4	.0	a1.2	60	256	230	417	7.7
313	0	19	1.9	.0	a.19	40	282	250	478	7.4
246	0	75	1.3	.0	a.98	10	311	270	476	7.6
241	0	4.9	3.8	.3	8.8	30	250	200	412	8.0
269	0	12	2.1	.2	a2.9	30	267	220	413	7.6
192	0	63	3.1	.2	.3	20	275	25	460	8.3
392	0	24	12	.0	a8.0	120	416	350	687	7.6
295	0	540	88	2.6	a.07	230	1160	640	1580	7.3
308	0	530	90	.4	a.04	230	1150	640	1630	7.5
272	0	17	2.1	.0	a.25	10	239	230	411	7.9
220	0	30	1.3	1.0	.7	50	242	160	414	7.9
254	0	43	2.4	.5	a.01	70	277	220	455	7.7
285	0	8.3	4.9	.4	a.07	50	288	210	437	7.5
284	0	14	1.9	.0	a1.4	20	268	250	429	7.6
279	0	24	2.0	.2	a.22	50	276	230	473	7.6
171	0	83	1.7	.4	.6	40	264	220	435	7.8
234	0	33	1.8	.2	a.41	50	252	200	415	7.5
276	0	4.1	1.0	.2	1.0	20	272	4	440	7.7
322	0	9.9	5.2	.3	9.4	50	323	280	542	7.6
325	0	4.1	7.3	.4	.1	40	309	250	519	7.6
230	0	100	16	.6	a.08	350	372	180	588	7.7
242	0	4.9	1.7	.2	.5	20	222	200	390	7.8
292	0	8.3	1.4	.1	a.15	10	256	240	446	7.6

INDEX

	Page		Page
Acre-foot (AC-FT, ac-ft), definition of.....	2	Cherry Creek drain near Torrington.....	167
Alcova, Bates Creek near.....	136	Cheyenne River, at Edgemont, S. Dak.....	114-116
North Platte River at.....	135	near Spencer.....	233
Sweetwater River near.....	134	Cheyenne River basin, surface-water quality	
Alpine, Snake River above reservoir, near.....	220	records in.....	113-121
Arapahoe, Beaver Creek near.....	29	Circle Park Creek near Buffalo.....	232
Little Wind River above.....	28	Clark, Clarks Fork Yellowstone River below	
Arizona Creek near Colter Bay Village,		Falls Creek, near.....	18
Grand Teton National Park.....	224-225	Clarks Fork Yellowstone River, below Falls	
Arnica Creek near West Thumb, Yellowstone		Creek, near Clark.....	18
National Park.....	222-223	near Belfry, Mont.....	19
Arvada, Clear Creek near.....	109	Clear Creek, near Arvada.....	109
Crazy Woman Creek at upper station, near.....	103	Middle Fork, at Middle Fork campground,	
Powder River at.....	104-108	near Buffalo.....	232
Atlantic City, Rock Creek at.....	131-133	North Fork, at Hunter ranger station.....	231
Badwater Creek, at Bonneville.....	42-25	South Fork, at Tie Hack campground,	
at Lysite.....	36-38	near Buffalo.....	232
Baggs, Little Snake River near.....	214	Coliform organisms, definition of.....	2
Basin, Greybull River near.....	60	Collection and examination of data.....	9-12
Bates Creek near Alcova.....	136	Color, definition of.....	3
Bear River, above reservoir, near		Colorado River basin, surface-water quality	
Woodruff, Utah.....	215	records in.....	175-214
at Border.....	216-217	Coney Creek below Stull Lakes, near Big Horn...	231
Bear River basin, ground-water quality		Conversion factors, tables of.....	5
records in.....	236-237	Cooperation.....	2
surface-water quality records in.....	215-217	Corwin Springs, Mont., Yellowstone River at....	16-17
Beaver Creek (tributary to Cheyenne River)		Cottonwood Creek at outlet of Jenny Lake,	
near Newcastle.....	113	near Moose, Grand Teton National Park....	226-227
Beaver Creek (tributary to Little Wind River)		Crazy Woman Creek, at upper station,	
near Arapahoe.....	29	near Arvada.....	103
Bed material, definition of.....	2	North Fork, near Caribou resort, near Buffalo.	231
Belfry, Mont., Clarks Fork Yellowstone		Cub Creek at East Entrance Road, Yellowstone	
River near.....	19	National Park.....	222-223
Silver Tip Creek near.....	20-24	Cubic foot per second (cfs, CFS),	
Belle Fourche River, at Devils Tower.....	117	definition of.....	3
at Wyoming-South Dakota State line.....	118-121	Daniel, Green River at Warren Bridge, near....	175
Big Coulee near Lovell.....	84-85	Dayton, Tongue River near.....	96
Big Goose Creek, East Fork, near Big Horn....	231	Deaver, Sage Creek at Sidon Canal, near.....	80-83
Big Horn County, ground-water quality		Decker, Mont., Tongue River at State line, near.	98-99
records in.....	234-235	Deer Creek below Millar wasteway, at Glenrock..	144-145
Big Piney, Dry Piney Creek near.....	179-181	Definition of terms.....	2-7
Green River near.....	176	Devils Tower, Belle Fourche River at.....	117
New Fork River near.....	178	Discharge, definition of.....	3
Big Sandy River below Eden.....	189	Ditch Creek below South Fork, near Kelly,	
Bighorn River, at Kane.....	62-66	near Grand Teton National Park.....	226-227
at Lucerne.....	50	Downstream order and station number.....	8
at Worland.....	54	Doyle Creek at upper campground, near Mayoworth.	231
near Manderson.....	228-229	Drainage area, definition of.....	3
near St. Xavier, Mont.....	86-89	Drainage basin, definition of.....	3
Biochemical oxygen demand (BOD),		Dry Creek near Bonneville.....	42
definition of.....	2	Dry Piney Creek near Big Piney.....	179-181
Bitter Creek (Green River basin) near		Dubois, Wind River near.....	25
Green River.....	191	Eden, Big Sandy River below.....	189
Bitter Creek (Yellowstone River basin)		Edgemont, S. Dak., Cheyenne River at.....	114-116
near Garland.....	68-71	Encampment River, above Hog Park Creek,	
Blacks Fork, near Little America.....	202-206	near Encampment.....	124-126
near Lyman.....	198-200	at mouth, near Encampment.....	126
Blacktail Deer Creek below unnamed Blacktail		Etna, Salt River above reservoir, near.....	221
Pond tributary, near Mammoth,		Fifteen Mile Creek near Worland.....	51-53
Yellowstone National Park.....	222-223	Firehole River, above diversion, near Old	222-223,
Bonneville, Badwater Creek at.....	42-45	Faithful, Yellowstone National Park.....	233
Dry Creek near.....	42	at Madison Junction, Yellowstone	
Border, Bear River at.....	216-217	National Park.....	222-223
Boulder, New Fork River near.....	177	Fivemile Creek, above Wyoming Canal,	
Boysen Reservoir, Wind River below.....	48-49	near Pavillion.....	33-34
Bridge Creek near Bridge Bay campground,		near Shoshoni.....	35
Yellowstone National Park.....	222-223	Fontenelle Reservoir, Green River below.....	186-188
Bridger Creek near Lysite.....	39-41	Pool Creek near Burgess Junction.....	230
Bucknum, Middle Fork Casper Creek near.....	138	Fort Laramie, Laramie River near.....	160-161
Buffalo Bill Reservoir, Shoshone River below...	67	Gaging station, definition of.....	3
Buffalo Fork above Lava Creek, near Moran,		Gallatin River near Wyoming-Montana State	
Grand Teton National Park.....	226-227	line, Yellowstone National Park.....	222-223
Cache Creek near Jackson.....	218-219	Gardner Creek near Dullknife Reservoir.....	228-229
Canyon Creek below Cooks Canyon, near Ten Sleep.	56-57	Gardner River above diversion, near Mammoth,	224-225,
Carbon County, ground-water quality records in.	234-235	Yellowstone National Park.....	233
Careyhurst, North Platte River near.....	150-151	Garland, Bitter Creek near.....	68-71
Casper, Casper Creek at.....	139-140	Whistle Creek near.....	72-75
North Platte River below.....	141-143	Garnet Creek above U.S. Highway 16,	
Casper Creek, at Casper.....	139-140	near Ten Sleep.....	230
Middle Fork, near Bucknum.....	138		
Cfs-day, definition of.....	2		

	Page		Page
Gibbon River near Norris picnic area, near Norris Junction, Yellowstone National Park	222-223	Lance Creek at Spencer	233
Glen Creek above Mammoth intake, near Mammoth, Yellowstone National Park	224-225, 233	Laramie County, ground-water quality records in	234-235
Glendo Reservoir, North Platte River below	155	Laramie River, at Two Rivers	158
Glenrock, Deer Creek below Millar wasteway, at	144-145	near Fort Laramie	160-161
North Platte River below Deer Creek, near	146-147	Lava Creek above Lupine Creek, near Mammoth, Yellowstone National Park	224-225, 233
North Platte River near	148-149	Lick Creek at Burnt Mountain Road, near Burgess Junction	230
Goose Creek below Sheridan	97	Lincoln County (Bear River basin), ground- water quality records in	236-237
Goshen County, ground-water quality records in	234-235	Lincoln County (Green River basin), ground- water quality records in	236-237
Granger, Hams Fork near	201	Lincoln County (Snake River basin), ground- water quality records in	236-237
Granite Creek (Fish Creek basin) near Teton Village, Grand Teton National Park	226-227	Lingle, North Platte River near	162-163
Granite Creek (Yellowstone River basin) above U.S. Highway 14, near Shell	230	Rawhide Creek above Interstate Canal, near	164
Great Salt Lake basin, surface-water quality records in	215-217	Rawhide Creek near	165-166
Green River, Bitter Creek near	191	Linwood, Utah, Henrys Fork at	208-211
Green River at Big Island, near	190	Little America, Blacks Fork near	202-206
Green River near	192-197	Little Bighorn River, at State line, near Wyola, Mont.	230
Green River, at Big Island, near Green River, at Warren Bridge, near Daniel	190 175	below Pass Creek, near Wyola, Mont.	90-95
below Fontenelle Reservoir	186-188	Little Goose Creek in canyon, near Big Horn	231
near Big Piney	176	Little Laramie River at Two Rivers	159
near Green River	192-197	Little Medicine Bow River, near Medicine Bow	128
near Greendale, Utah	212-213	near Shirley Basin	232
near La Barge	182-185	Little Snake River near Baggs	214
Green River basin, ground-water quality records in	236-237	Little Sourdough Creek near Buffalo	232
surface-water quality records in	175-214	Little Tongue River near Dayton	228-229
Greendale, Utah, Green River near	212-213	Little Wind River, above Arapahoe	28
Greybull, Shell Creek near	61	near Riverton	30-32
Greybull River near Basin	60	Lizard Creek near Colter Bay Village, Grand Teton National Park	224-225
Gros Ventre River at Lower Slide Lake, near Kelly, near Grand Teton National Park	226-227	Lonetree, Henrys Fork near	207
Ground Water, quality records by basin and county:		Lovell, Big Coulee near	84-85
Bear River basin		Shoshone River near	76-79
Lincoln County	236-237	Lucerne, Bighorn River at	50
Green River basin		Lyman, Blacks Fork near	198-200
Lincoln County	236-237	Lysite, Badwater Creek at	36-38
Missouri River basin		Bridger Creek near	39-41
Big Horn County	234-235	Manderson, Nowood River at	59
Carbon County	234-235	Map of Wyoming, ground-water quality sites	247
Goshen County	234-235	surface-water quality sites	245
Hot Springs County	234-235	Meadowlark Lake at North Cove, near Ten Sleep	230
Laramie County	234-235	Mean concentration, definition of	6
Natrona County	234-235	Mean discharge, definition of	3
Park County	234-235	Medicine Bow, Little Medicine Bow River near	128
Platte County	234-235	Medicine Bow River above Seminole Reservoir, near Hanna	129
Washakie County	234-235	Micrograms per liter (µg/l, UG/L), definition of	3
SNAKE River basin		Middle Creek at East Entrance ranger station, Yellowstone National Park	224-225
Lincoln County	236-237	Milligrams per liter (mg/l, MG/L), definition of	4
Teton County	238-239	Mills, North Platte River at	137
Guernsey Reservoir, North Platte River below	156	Miscellaneous analyses of streams in Wyoming	222-233
Hams Fork near Granger	201	Missouri River basin, ground-water quality records in	234-235
Hanna, Medicine Bow River above Seminole Reservoir, near	129	surface-water quality records in	16-174
Hardness, definition of	3	Moorhead, Mont., Powder River at	110-112
Henrys Fork, at Linwood, Utah	208-211	Muddy Creek near Pavillion	46-47
near Lonetree	207	Muskrat Creek near Shoshoni	32
Herron Creek near Old Faithful, Yellowstone National Park	224-225	Natrona County, ground-water quality records in	234-235
Horse Creek, at lower station, near Yoder	174	New Fork River, near Big Piney	178
at WyCross Ranch, near La Grange	172-173	near Boulder	177
Hot Springs County, ground-water quality records in	234-235	Newcastle, Beaver Creek near	113
Hyattville, Paint Rock Creek near mouth, below	58	Nez Perce Creek above bridge, at picnic area, near Fountain Paint Pot, Yellowstone National Park	222-223
Hydrologic bench-mark station, definition of	7	Northgate, Colo., North Platte River near	122-123
Instantaneous discharge, definition of	3	North Platte River, above Pathfinder Reservoir	130
Introduction	1	above Seminole Reservoir, near Sinclair	127
Iron Spring Creek near Emerald Pool, near Old Faithful, Yellowstone National Park	222-223	at Alcova	135
Irrigation network stations, definition of	8	at Mills	137
Jackson, Cache Creek near	218-219	at Orin	154
Kane, Bighorn River at	62-66	at Orpha	152-153
Katzer drain near Henry, Nebr.	228-229	at recorder station, below Whalen	157
Kaycee, Powder River near	100	at Wyoming-Nebraska State line	168-171
South Fork Powder River near	101	below Casper	141-143
Kelly Warm Spring near Kelly, Grand Teton National Park	226-227	below Deer Creek, near Glenrock	146-147
La Barge, Green River near	182-185	below Glendo Reservoir	155
La Grange, Horse Creek at WyCross Ranch, near	172-173	below Guernsey Reservoir	156
Lake Creek (Fish Creek basin) near Teton Village, Grand Teton National Park	226-227	near Careyhurst	150-151
Lake Creek (Yellowstone River basin) at Burnt Mountain Road, near Burgess Junction	230	near Glenrock	148-149
Lamar River near Tower Falls ranger station, Yellowstone National Park	222-223	near Lingle	162-163
		near Northgate, Colo.	122-123
		Nowood River, at Manderson	59
		near Ten Sleep	55

	Page		Page
Orin, North Platte River at.....	154	Snake River basin, ground-water quality records in.....	236-239
Orpha, North Platte River at.....	152-153	surface-water quality records in.....	218-221
Pacific Creek at Moran, Grand Teton National Park.....	224-225	Sodium adsorption ratio, definition of.....	6
Paint Rock Creek near mouth, below Hyattville..	58	Solute, definition of.....	6
Park County, ground-water quality records in...	234-235	Solutes, collection and examination of data...	11
Particle size, definition of.....	4	Sourdough Creek at Tie Hack campground, near Buffalo.....	232
Particle-size classification, definition of....	4	South Piney Creek near Story.....	232
Pass Creek near Mayoworth.....	228-229	South Tongue River near Dayton.....	231
Pathfinder Reservoir, North Platte River above.	130	Special networks and programs.....	7-8
Pavillion, Fivemile Creek above Wyoming Canal, near.....	33-34	Specific conductance, definition of.....	6
Muddy Creek near.....	46-47	Spread Creek near Moran, Grand Teton National Park.....	226-227
Pebble Creek near Pebble Creek campground, Yellowstone National Park.....	222-223	Streamflow, definition of.....	7
Pesticide program, definition of.....	8	Supply Spring at South Entrance, Yellowstone National Park.....	224-225
pH, definition of.....	4	Suspended sediment, definition of.....	6
Pilgrim Creek at abandoned ford, near Moran, Grand Teton National Park.....	224-225	Suspended-sediment concentration, definition of.	6
Platte County, ground-water quality records in.	234-235	Suspended-sediment discharge, definition of....	6
Platte River basin, surface-water quality records in.....	122-174	Sussex, Salt Creek near.....	102
Pole Creek below U.S. Highway 16, near Buffalo.	231	Sweetwater River near Alcova.....	134
Porcupine Creek near Kane.....	230	Swift Creek near Afton.....	233
Powder River, at Arvada.....	104-108	Temperature, collection and examination of data.	12
at Moorhead, Mont.....	110-112	Conversion table.....	11
near Kaycee.....	100	Ten Sleep, Canyon Creek below Cooks Canyon, near.....	56-57
North Fork, above Gardner Creek, near Hazelton.....	228-229	Nowood River near.....	55
above Pass Creek, near Mayoworth.....	228-229	Tensleep Creek at Leigh Creek Fish Hatchery, near Ten Sleep.....	230
below Bull Creek, near Hazelton.....	228-229	Teton County, ground-water quality records in.	238-239
below Gardner Creek, near Mayoworth.....	228-229	Thermograph, definition of.....	7
below Johnson Creek, near Hazelton.....	228-229	Time-weighted average, definition of.....	7
South Fork, near Kaycee.....	101	Tongue River, at State line, near Decker, Mont.	98-99
Prune Creek above Sibley Lake, near Burgess Junction.....	230	near Dayton.....	96
Radiochemical program, definition of.....	8	Tons per acre-foot, definition of.....	7
Rawhide Creek, above Interstate Canal, near Lingle.....	164	Tons per day, definition of.....	7
near Lingle.....	165-166	Torrington, Cherry Creek drain near.....	167
Redwater Creek at Wyoming-South Dakota State line.....	233	Total sediment discharge or total sediment load, definition of.....	6
Riverton, Little Wind River near.....	30-32	Two Creek at Forest Boundary, near Mayoworth...	231
Wind River at.....	26-28	Two Rivers, Laramie River at.....	158
Rock Creek at Atlantic City.....	131-133	Little Laramie River at.....	159
Sage Creek, at Sidon Canal, near Deaver.....	80-83	Unnamed Spring at Teton Valley Ranch, near Kelly, near Grand Teton National Park....	226-227
near Lovell.....	228-229	Unnamed tributary to Lewis River below Lewis Falls, Yellowstone National Park.....	224-225
St. Xavier, Mont., Bighorn River near.....	86-89	Washakie County, ground-water quality records in.....	234-235
Salt Creek near Sussex.....	102	Water-quality records.....	16-239
Salt River, above reservoir, near Etna.....	221	Water-Supply papers.....	13
near Auburn.....	233	Weighted average, definition of.....	7
Sediment, collection and examination of data...	12	Well number.....	9
definition of.....	6	Whalen, North Platte River at recorder station, below.....	157
Selected references.....	14-15	Whistle Creek near Garland.....	72-75
Seven Brothers Creek near Buffalo.....	231	Wind River, at Riverton.....	26-28
Shell Creek, above Shell Reservoir.....	230	below Boysen Reservoir.....	48-49
near Greybull.....	61	near Dubois.....	25
Sheridan, Goose Creek below.....	97	Wood River near Kirwin.....	232
Shoshone River, below Buffalo Bill Reservoir..	67	Woodruff, Utah, Bear River above reservoir, near.	215
near Garland.....	228-229	Worland, Bighorn River at.....	54
near Lovell.....	76-79	Fifteen Mile Creek near.....	51-53
Shoshoni, Fivemile Creek near.....	35	Wyola, Mont., Little Bighorn River below Pass Creek, near.....	90-95
Muskrat Creek near.....	32	Yellowstone River, at Corwin Springs, Mont.....	16-17
Sibley Lake at boat ramp, near Burgess Junction.	230	at Yellowstone Lake Outlet, Yellowstone National Park.....	222-223
Silver Tip Creek near Belfry, Mont.....	20-24	Yellowstone River basin, surface-water quality records in.....	16-112
Sinclair, North Platte River above Seminoe Reservoir, near.....	127	Yoder, Horse Creek at lower station, near.....	174
Slough Creek near Tower Junction, Yellowstone National Park.....	222-223		
Snake River, above reservoir, near Alpine.....	220		
near Moran, Grand Teton National Park.....	224-225		
near Wilson.....	226-227		

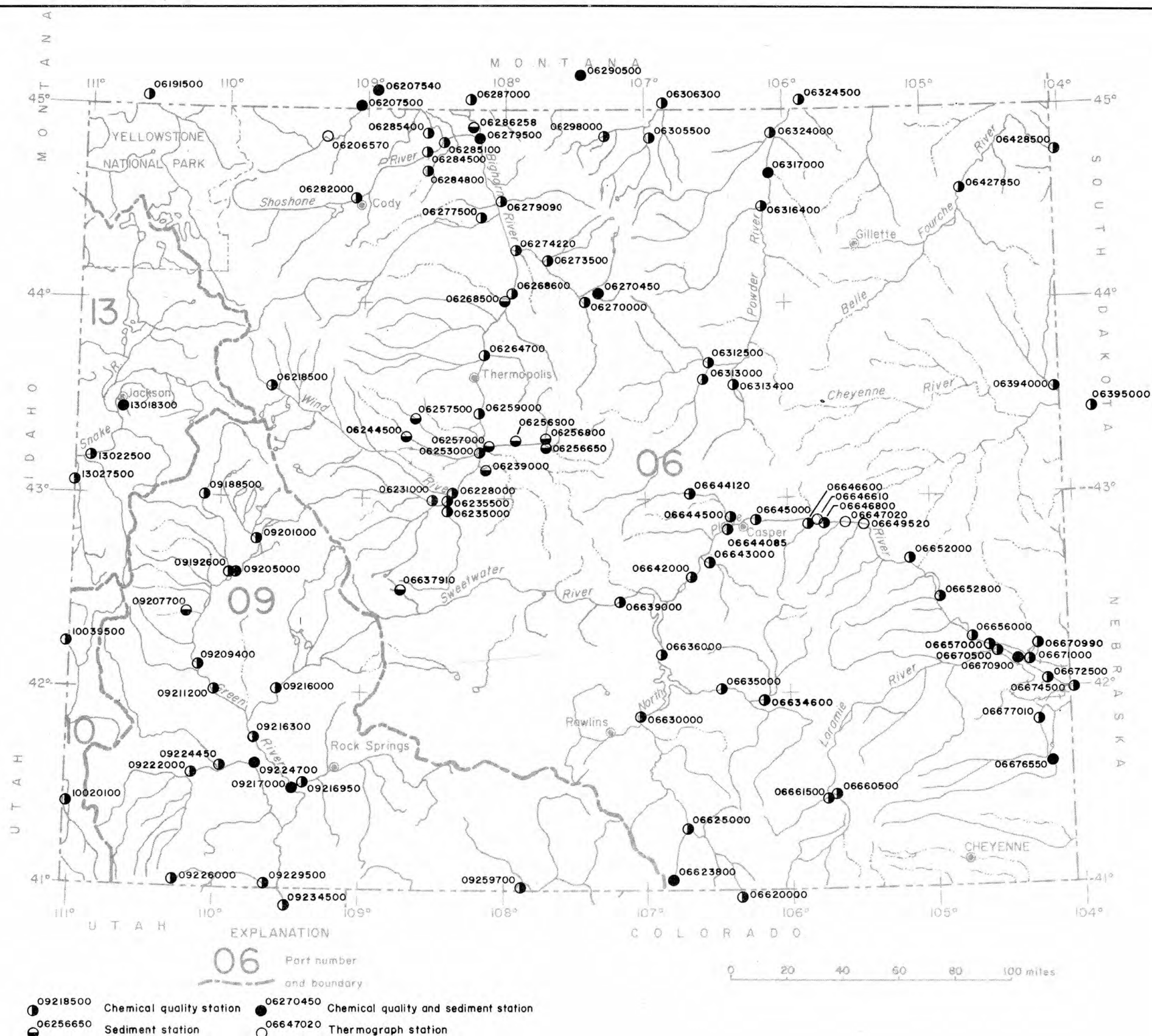


Figure 1.--Map of Wyoming showing locations of sites where data were obtained on the quality of surface water.

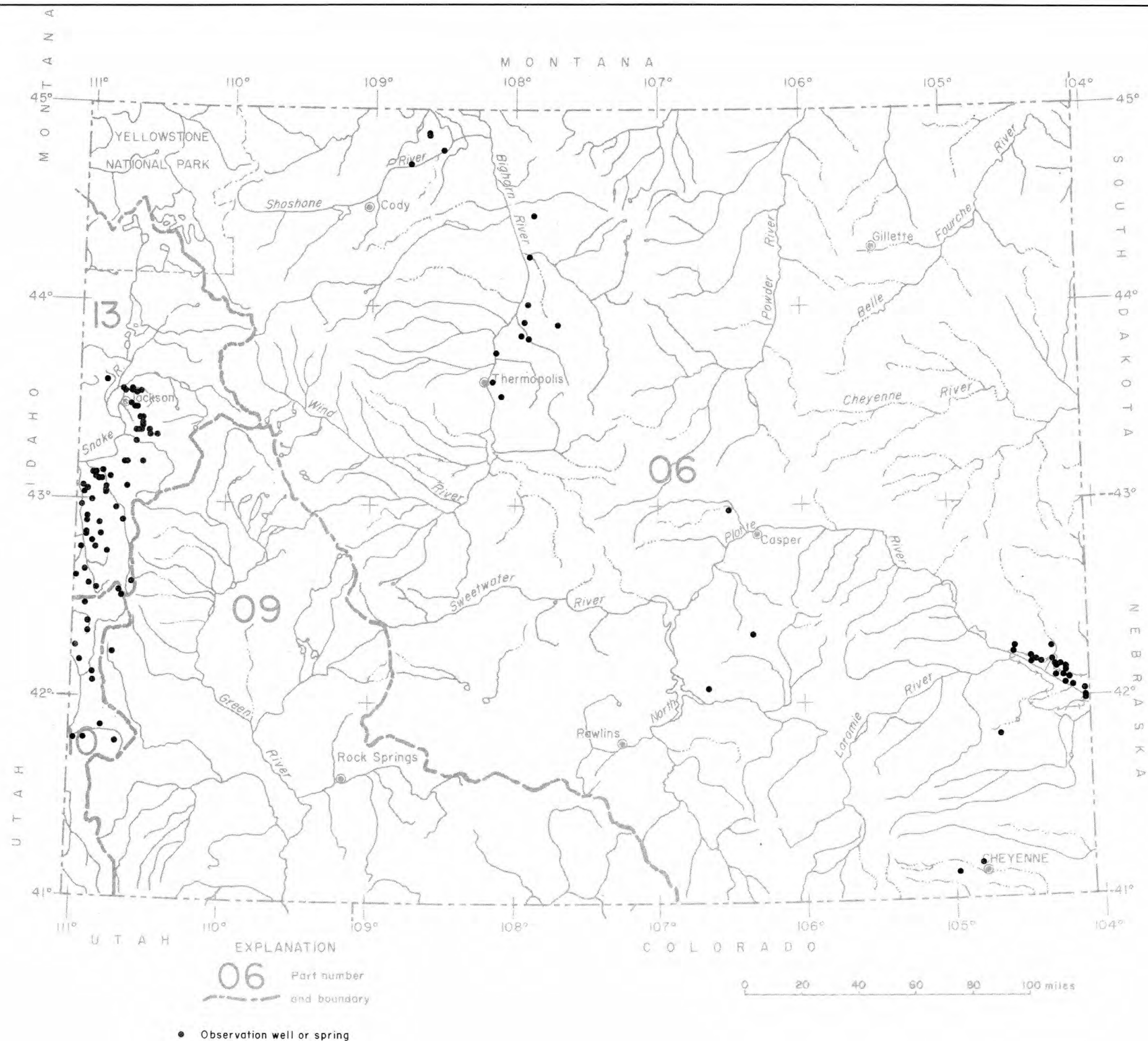


Figure 2.—Map of Wyoming showing locations of sites where data were obtained on the quality of ground water.

U. S. DEPARTMENT OF THE INTERIOR
Geological Survey
P. O. Box 2087
Cheyenne, Wyoming 82001

POSTAGE AND
U.S. DEPARTMENT

