

WATER-QUALITY DATA FOR STREAMS IN THE SOUTHERN  
YAMPA RIVER BASIN, NORTHWESTERN COLORADO

By Wendy S. Maura

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U.S. GEOLOGICAL SURVEY

Open-File Report 82-1017

Prepared in cooperation with the  
U.S. BUREAU OF LAND MANAGEMENT

Lakewood, Colorado  
1982



UNITED STATES DEPARTMENT OF THE INTERIOR

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GEOLOGICAL SURVEY

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## METRIC CONVERSIONS

The inch-pound units used in this report may be converted to SI (International System) units by using the following conversion factors:

<i>Multiply inch-pound units</i>	<i>By</i>	<i>To obtain metric units</i>
acre-foot (acre-ft)	0.001233	cubic hectometer
cubic foot per second	0.02832	cubic meter per second
square mile	2.590	square kilometer
ton (short)	907.2	kilogram
ton (short) per acre-foot (ton/acre-ft)	1.119	kilogram per cubic hectometer
ton (short) per day (ton/d)	907.2	kilogram per day

## ABBREVIATIONS

SEQ NO=sequence number

SQ MI=square mile

N=number of water-quality samples

MG/L=milligram per liter

UMHO=micromho per centimeter at 25° Celsius

CFS=cubic foot per second

DEG C=degree Celsius

TON PER AC-FT=ton per acre-foot

PCI/L=one trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactivity represented by a curie (CI) per liter. A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

# WATER-QUALITY DATA FOR STREAMS IN THE SOUTHERN YAMPA RIVER BASIN, NORTHWESTERN COLORADO

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## ABSTRACT

Increases in coal mining in Colorado have raised questions regarding the impact of mining on the quality of surface water. An area where increases have caused particular concern is in northwestern Colorado, in the southern part of the Yampa River basin. In order to identify the changes produced by mining in the area it is necessary first to identify the water chemistry resulting from the geology, climate, and land use. To answer the above questions, a program for the synoptic collection of water-quality data was developed in which a network of sampling sites was established to determine the surface-water chemistry.

This study was begun in April 1981. Water-quality samples were collected from sites on all continuously flowing streams in the southern part of the Yampa River basin from the Oak Creek drainage near Steamboat Springs on the east to the surface-water gaging station on the Yampa River near Maybell on the west. Each water-quality site was sampled repetitively as changes occurred in discharge and specific conductance. Water-quality data from surface-water gaging stations in the area for water years 1976 to 1981 are included in the report.

## INTRODUCTION

Coal mining in Colorado has increased in the past few years, particularly in the Yampa River basin of northwestern Colorado. In this basin, the area of most active mining is south of the main stem of the Yampa River.

This increase in mining has raised many questions regarding the impacts of mining on the quality of surface water. In order to identify the changes produced by mining, it is first necessary to describe the natural or background water quality. The study area is in the semiarid West, and the surface-water chemistry is a product of geology, climate, and land use. To determine the effect of these factors on the water chemistry a synoptic program for the collection of water-quality data was developed, and a network of sampling sites was established with regard to the difference in geology, climate, and land use of the region.

This study was begun in April 1981 in cooperation with the U.S. Bureau of Land Management. Water-quality samples were collected to provide data on the existing surface-water chemistry of the area. The objective of this report is to make available that water-chemistry data.

#### DESCRIPTION OF DATA

The area of data collection was the southern part of the Yampa River basin from the Oak Creek drainage near Steamboat Springs on the east to the surface-water gaging station 09251000 on the Yampa River near Maybell on the west. The downstream station was chosen to mark the western limit of the study because it is included in the National Stream Quality Accounting Network (NASQAN) and is a station for which a large number of water-quality analyses are available.

The water-quality sites in the area were established on streams flowing in April 1981. If substantial changes were noted in geology, climate (primarily the potential for increased evapotranspiration), or land use, additional sites were established on the stream. Only the streams that were sampled, the sites in this study, and the established gaging stations at which water-quality data were available are shown on plate 1.

At each site several samples were taken to represent various values of discharge and specific conductance. As the summer of 1981 progressed, several streams ceased to flow. Therefore fewer samples were obtained from sites on these streams.

For each sample, the instantaneous discharge of the stream was measured, and the field measurements of water temperature, pH, and specific conductance were recorded. Analyses of the water samples were performed at the Denver Central Laboratory of the U.S. Geological Survey, Arvada, Colo.

Analyses and calculations were performed to determine the amounts of the major dissolved constituents. The individual constituents and properties analyzed, together with the units of measurement, are listed below:

- NITROGEN, NO<sub>2</sub>+NO<sub>3</sub> DISSOLVED (MG/L AS N)
- HARDNESS (MG/L AS CaCO<sub>3</sub>)
- CALCIUM, DISSOLVED (MG/L AS Ca)
- MAGNESIUM, DISSOLVED (MG/L AS Mg)
- SODIUM, DISSOLVED (MG/L AS Na)
- SODIUM ADSORPTION RATIO
- PERCENT SODIUM
- POTASSIUM, DISSOLVED (MG/L AS K)
- CHLORIDE, DISSOLVED (MG/L AS Cl)
- SULFATE, DISSOLVED (MG/L AS SO<sub>4</sub>)
- FLUORIDE, DISSOLVED (MG/L AS F)
- SILICA, DISSOLVED (MG/L AS SiO<sub>2</sub>)
- SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
- SOLIDS, DISSOLVED (TONS PER DAY)
- SOLIDS, DISSOLVED (TONS PER ACRE-FOOT)
- POTASSIUM-40, DISSOLVED (PICOCURIES PER LITER AS K<sup>40</sup>)
- ALKALINITY, LABORATORY (MG/L AS CaCO<sub>3</sub>)
- HARDNESS, NONCARBONATE (MG/L AS CaCO<sub>3</sub>)

The location of each water-quality site is shown on plate 1, and a description of each site is given in table 1. Those stations in the area where at least seven samples of water were collected for chemical analysis are listed in table 2. There are additional surface-water gaging stations in the area that are not listed in table 2 or shown on plate 1 because they record only discharge data. Many of the stations listed in table 2 are on the main stem of the Yampa River or its principal tributary, the Williams Fork. These stations are part of the long-term gaging network of the U.S. Geological Survey. Many of the surface-water gaging stations on the smaller tributaries in the study area are operated cooperatively with the U.S. Bureau of Land Management as part of the Coal Hydrology Program.

The data collected at the sites during this study are listed in the section, "Water-quality data collected at sites in the southern Yampa River basin." These data are stored in the U.S. Geological Survey's National water storage and retrieval data system, WATSTORE.

Water-quality constituents and properties determined from samples collected at the gaging stations are listed in the section, "Selected water-quality data collected at surface-water gaging stations in the southern Yampa River basin, water years 1976-81." Data are listed only for the water years 1976 through 1981 and only for the same constituents reported in analyses of samples collected at the study sites. Water-quality data prior to water year 1976 and on additional constituents are available for some of these stations and are published annually in a series of U.S. Geological Survey Water-Data Reports entitled, "Water Resources Data for Colorado."

The section, "Statistical summary of selected water-quality data collected at surface-water gaging stations on the Yampa River and the Williams Fork," is a statistical summary of the same constituents reported in analyses of samples collected at the study sites for stations on the Yampa River main stem and its tributary, the Williams Fork. Many samples were collected at several of these stations; therefore, only a summary of the data is given, which includes the number of samples, the mean, the standard deviation, and the range of each constituent for the period of record. The actual data are available from the U.S. Geological Survey's WATSTORE system.

#### REFERENCES

- U.S. Geological Survey, 1976, Water resources data for Colorado (for water year 1976), Volume 2. Colorado River basin: U.S. Geological Survey Water-Data Report C0-76-2.
- U.S. Geological Survey, issued annually, Water resources data for Colorado (for water years 1977-1981), Volume 3. Dolores River basin, Green River basin, and San Juan River basin: U.S. Geological Survey Water-Data Reports C0-77-3, C0-78-3, C0-79-3, C0-80-3, and C0-81-3.

Table 1.--Water-quality study sites in the southern Yampa River basin

LOCATION NUMBER ON PLATE	STATION NUMBER AND NAME	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	DRAIN- AREA (SQ. MI.)
1	09238300 OAK CREEK NEAR OAK CREEK, CO	40 14 38	107 00 53	00	14.0
2	09244100 FISH CREEK NEAR MILNER, CO	40 20 03	107 08 19	00	34.5
3	09244300 GRASSY CREEK NEAR MOUNT HARRIS, CO	40 26 49	107 08 42	00	25.8
4	09248300 EAST FORK OF WILLIAMS FORK AB WILLOW CREEK, CO	40 15 40	107 17 40	00	108
5	09250300 MILK CREEK NEAR THORNBURGH, CO	40 11 37	107 43 54	00	65.0
6	401601107375300 MORAPOS CREEK NR. ILES GROVE, CO	40 16 01	107 37 54	00	16.8
7	401601107395300 STINKING GULCH NEAR THORNBURGH, CO	40 16 01	107 39 53	00	8.43
8	401747107161300 WILLOW CREEK NR. DUNKLEY, CO	40 17 47	107 16 16	00	19.6
9	401816107011300 TROUT CREEK NEAR OAK CREEK, CO	40 18 16	107 01 10	00	31.1
10	401829107375300 DEER CREEK NR. HAMILTON, CO	40 18 29	107 37 56	00	27.9
11	401857107243300 SOUTH FORK OF WILLIAMS FORK AT MO NR PAGODA, CO	40 18 57	107 24 35	00	56.6
12	401913107204100 HAYDEN GULCH NEAR PAGODA, CO	40 19 13	107 20 41	00	5.79
13	401925107523300 COLLUM GULCH NEAR AXIAL, CO	40 19 25	107 52 35	00	12.8
14	401944107322300 WADDLE CREEK NR. HAMILTON, CO	40 19 44	107 32 29	00	16.3
15	401948107445300 MILK CREEK NR. ILES GROVE, CO	40 19 48	107 44 56	00	134
16	402038107585100 MAUDLIN GULCH NEAR AXIAL, CO	40 20 38	107 58 51	00	12.8
17	402145108001300 JESSE GULCH NR. AXIAL, CO	40 21 45	108 00 10	00	2.12
18	402330107082300 GRASSY CREEK AT GRASSY GAP, CO	40 23 30	107 08 20	00	5.52
19	402409107503300 MORGAN GULCH NR. MOUTH NR. AXIAL, CO	40 24 09	107 50 36	00	52.1
20	402530106585700 FISH CREEK AT MOUTH NEAR MILNER, CO	40 25 30	106 58 57	00	77.9
21	402605107181300 DILL GULCH NEAR HAYDEN, CO	40 26 05	107 18 15	00	9.55
22	402720106591300 TROUT CREEK ABOVE MILNER, CO	40 27 20	106 59 12	00	110
23	402829107193700 SMUIN GULCH NEAR HAYDEN, CO	40 28 29	107 19 37	00	11.3
24	402836106550100 COW CR. NR. STEAMBOAT SPRINGS, CO	40 28 36	106 55 01	00	14.4
25	402845107185100 SMUIN TRIB. CREEK NEAR HAYDEN, CO	40 28 45	107 18 51	00	1.30
26	402911107323300 FLUME GULCH NR. CRAIG, CO	40 29 11	107 32 35	00	8.42



Table 2.--Surface-water gaging stations in the southern Yampa River basin  
having water-quality records

LOCATION NUMBER ON PLATE	STATION NUMBER AND NAME	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	DRAIN- AGE AREA (SQ. MI.)
1					
27	09243700 MIDDLE CREEK NEAR OAK CREEK, CO.	40 23 08	106 59 33	00	23.5
28	09243800 FOIDEL CREEK NEAR OAK CREEK, CO.	40 20 45	107 05 04	00	8.61
29	09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO.	40 23 25	106 59 39	00	17.5
30	09244410 YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.	40 29 18	107 09 33	00	1430
31	09244415 SAGE CREEK ABOVE SAGE CREEK RES, NR HAYDEN, CO.	40 23 01	107 11 34	00	--
32	09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO.	40 22 57	107 16 49	00	--
33	09244464 HUBBERSON GULCH NEAR HAYDEN, CO.	40 23 28	107 16 15	01	--
34	09244470 STOKES GULCH NEAR HAYDEN, CO.	40 28 06	107 14 47	00	13.6
35	09246550 YAMPA RIVER BELOW ELKHEAD CREEK NEAR CRAIG, CO.	40 29 50	107 30 34	00	--
36	09247600 YAMPA RIVER BELOW CRAIG, CO.	40 29 04	107 36 23	00	--
37	09249750 WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.	40 26 14	107 38 50	00	--
38	09250400 GOOD SPRING CREEK AT AXIAL, CO.	40 17 25	107 47 22	00	40.0
39	09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.	40 18 48	107 47 57	00	7.22
40	09250600 WILSON CREEK NEAR AXIAL, CO.	40 18 56	107 47 50	00	20.1
41	09250610 JUBB CREEK NEAR AXIAL, CO.	40 18 45	107 49 18	00	7.53
42	09250700 MORGAN GULCH NEAR AXIAL, CO.	40 20 09	107 53 06	00	--
43	09251000 YAMPA RIVER NEAR MAYBELL, CO.	40 30 10	108 01 45	00	3410

WATER-QUALITY DATA COLLECTED AT STUDY SITES IN THE  
SOUTHERN YAMPA RIVER BASIN

09238000 OAK CREEK NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 27...	18	204	7.8	6.0	87	3.0	22	7.9	3.8	8	.2
MAY 19...	16	172	7.7	9.5	82	15	21	7.1	4.0	10	.2
JUN 10...	18	239	7.6	14.0	110	3.0	29	9.8	3.5	6	.1
26...	8.7	273	8.2	15.0	140	.00	38	12	5.1	7	.2
JUL 07...	11	300	8.0	24.0	150	1.0	39	13	4.0	5	.1
AUG 25...	5.3	255	7.6	14.0	120	3.0	31	11	3.8	6	.2
SEP 29...	1.2	276	7.8	11.0	150	3.0	38	14	5.7	7	.2

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 27...	1 5	84	5.7	1.0	.2	12	105	.14	5.1	.07	1.1
MAY 19...	.9	67	<5.0	.6	.0	13	111	.15	4.8	5.0	.70
JUN 10...	.9	110	<5.0	1.0	.1	12	126	.17	6.1	.03	.70
26...	1 1	150	<5.0	.4	.1	13	162	.22	3.8	.02	.80
JUL 07...	1 1	150	<5.0	.4	.1	13	162	.22	4.9	.04	.80
AUG 25...	1 2	120	<5.0	.6	.6	14	139	.19	2.0	.14	--
SEP 29...	1 5	150	<5.0	5.6	.1	14	--	--	--	\$ .10	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UNHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 01...	12	486	8.0	1.0	220	47	49	23	14	12	.4
27...	15	324	8.2	13.0	120	8.0	29	11	6.4	10	.3
MAY 20...	12	476	8.0	14.0	250	64	57	27	13	10	.4
JUN 11...	6.3	593	8.2	14.5	330	58	72	36	19	11	.5
JUL 07...	3.3	657	8.4	26.5	330	69	64	41	19	11	.5
AUG 25...	1.3	721	8.1	23.0	360	92	61	51	24	12	.6
SEP 29...	1.1	749	8.3	14.5	400	110	72	54	23	11	.6

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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 01...	1.7	170	67	2.8	.2	18	278	.38	9.0	.09	1.3
27...	1.8	110	30	1.1	.2	15	161	.22	6.5	.16	1.3
MAY 20...	2.3	190	78	2.0	.1	14	322	.44	10.4	3.3	1.7
JUN 11...	1.9	270	93	1.6	.2	15	401	.55	6.8	.01	1.4
JUL 07...	2.2	260	110	2.1	.2	14	409	.56	3.6	.03	1.6
AUG 25...	3.4	270	120	8.6	.5	11	442	.60	1.6	<.10	--
SEP 29...	4.2	290	140	2.9	.3	12	483	.66	1.4	<.10	--

## 09244300 GRASSY CREEK NEAR MOUNT HARRIS, CO

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 28...	.61	2050	8.1	11.5	1000	720	200	130	130	21	1.8
MAY 20...	.70	2760	8.1	14.5	1300	820	190	200	240	29	2.9
JUN 11...	.22	1700	7.8	17.0	850	520	180	97	93	19	1.4
26...	.05	1790	7.8	20.0	910	690	200	100	84	17	1.2
JUL 08...	.04	1720	7.6	26.5	1000	720	220	110	89	16	1.2
AUG 26...	E.01	1830	8.0	21.0	900	600	178	110	93	18	1.5
SEP 29...	E.01	1970	8.1	17.0	940	600	180	120	120	22	1.9

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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 28...	6.7	310	880	25	.3	7.3	1580	2.2	2.6	4.1	5.0
MAY 20...	6.5	480	1300	28	.2	6.0	2260	3.1	4.3	--	4.8
JUN 11...	5.4	330	670	24	.2	9.6	1290	1.8	.77	2.6	4.0
26...	6.6	220	800	31	.2	2.2	1360	1.9	.18	1.5	4.9
JUL 08...	5.9	280	780	35	.2	7.4	1420	1.9	.15	1.2	4.4
AUG 26...	6.4	300	730	32	.5	5.8	1340	1.8	--	.45	--
SEP 29...	6.9	340	760	56	.3	5.8	1450	2.0	--	<.10	--

E ESTIMATED.

## 09248600 EAST FORK OF WILLIAMS FORK AB WILLOW CREEK, CO

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 16...	72	263	8.2	10.0	120	17	33	8.5	5.4	9	.2
MAY 01...	232	153	8.1	11.5	76	6.0	22	5.1	3.4	9	.2
22...	150	221	8.0	6.5	97	.00	28	6.6	4.1	8	.2
JUN 25...	58	195	8.3	21.0	100	2.0	28	7.2	4.1	8	.2
JUL 24...	45	204	8.3	21.5	100	7.0	28	7.8	3.9	8	.2
AUG 28...	29	193	8.3	17.0	100	.00	28	7.9	4.0	8	.2

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS FER (AV)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 16...	1.2	100	26	.9	.1	15	151	.21	29.4	.08	.90
MAY 01...	1.1	70	<5.0	.6	.1	12	90	.12	56.4	.09	.80
22...	.9	99	<5.0	.8	.1	13	115	.16	46.6	.05	.70
JUN 25...	.9	98	<5.0	.5	.1	16	119	.16	18.6	.06	.70
JUL 24...	.8	95	<5.0	.7	.1	15	115	.16	13.8	.11	.60
AUG 28...	1.1	110	<5.0	.4	.4	16	123	.17	9.6	<.10	--

09248600 EAST FORK OF WILLIAMS FORK AB WILLOW CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 01....	21	201	8.4	13.0	110	.00	29	8.1	4.3

DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)
OCT 01....	8	.2	1.1	110	<5.0	1.4	.1	16	<.10

09250000 MILK CREEK NEAR THORNBURGH, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAY 15....	66	7.9	--	170	62	49	12	9.8	11	.3
JUN 29....	4.0	8.1	25.0	520	270	130	47	42	15	.8
JUL 22....	2.7	8.2	18.5	560	310	140	50	37	13	.7
AUG 27....	.83	8.1	23.0	440	200	90	53	30	13	.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
MAY 15....	1.6	110	73	3.3	.1	8.4	225	.31	40.1	.46	1.2
JUN 29....	3.3	250	330	8.6	.2	13	725	.99	7.8	.04	2.5
JUL 22....	3.8	250	360	8.3	.2	14	764	1.0	5.6	.00	2.8
AUG 27....	3.2	240	270	10	.3	8.9	611	.83	1.4	.20	--



09250000 MILK CREEK NEAR THORNBURGH, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 05....	15	490	8.1	9.5	210	60	56	17	15	13	.5	
	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)		
OCT 05....	3.3	150	95	4.9	.1	9.7	292	.40	11.4	.14		

401601107375400 MORAPOS CREEK NEAR ILES GROVE, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 14...	7.2	589	8.4	10.5	300	120	61	36	23	14	.6
30...	4.6	362	8.1	10.0	150	42	33	17	8.5	11	.3
MAY 14...	3.1	485	8.1	12.5	240	56	50	27	16	13	.5
JUN 18...	1.2	648	8.3	16.0	330	110	66	39	21	12	.5
JUL 01...	.46	748	8.1	19.0	370	130	73	45	26	13	.6
23...	.54	742	8.2	22.5	360	110	67	47	28	14	.6
SEP 10...	.36	859	7.9	13.0	420	150	74	57	36	16	.9

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 14...	2.5	180	150	3.1	.2	7.6	394	.54	7.7	.49	1.9
30...	1.9	110	56	1.6	.2	8.1	194	.26	2.4	.25	1.4
MAY 14...	2.8	180	95	2.0	.1	8.4	313	.43	2.6	.88	2.1
JUN 18...	2.7	220	150	2.8	.1	7.3	422	.57	1.4	.19	2.0
JUL 01...	3.0	240	170	3.6	.2	7.5	474	.64	.59	.22	2.2
23...	3.0	250	170	3.8	.2	7.0	477	.65	.70	.12	2.2
SEP 10...	4.3	270	200	13	.3	8.1	555	.75	.54	\$.10	--

401601107395300 - STINKING GULCH NEAR THORNBURGH, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 14...	4.8	783	8.7	12.0	360	190	65	47	48	23	1.1	
29...	12	465	8.1	16.0	220	110	40	28	26	21	.8	
MAY 14...	11	597	8.1	14.0	270	120	54	33	27	18	.7	
JUN 17...	6.1	601	8.3	18.5	300	110	59	36	28	17	.7	
JUL 01...	2.4	883	8.5	19.5	410	190	75	53	45	19	1.0	
22...	1.2	932	8.5	25.5	420	200	69	61	52	21	1.1	
SEP 09...	.18	1780	8.5	18.5	790	540	100	130	140	28	2.5	

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 14...	2.6	170	250	6.6	.2	7.6	531	.72	6.9	.51	1.9
29...	2.5	110	160	3.5	.1	7.1	334	.45	10.8	.25	1.9
MAY 14...	3.5	150	180	4.0	.1	8.2	402	.55	11.9	.42	2.6
JUN 17...	2.1	190	170	3.4	.1	9.9	424	.58	7.0	.23	1.6
JUL 01...	2.6	220	270	6.6	.1	7.1	593	.81	3.8	.30	1.9
22...	3.1	220	310	6.5	.1	7.2	642	.87	2.1	.17	2.3
SEP 09...	5.2	250	790	22	.2	5.5	1340	1.8	.65	<.10	--

401747107161600 - WILLOW CREEK NR. DUNCKLEY, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 16...	9.3	467	8.0	9.0	210	51	53	19	18	16	.5
MAY 01...	4.1	479	8.4	16.5	230	25	61	20	15	12	.4
21...	7.2	425	8.1	9.0	220	26	57	18	13	11	.4
JUN 25...	1.6	508	8.4	20.0	270	27	64	26	15	11	.4
JUL 24...	.54	547	8.1	21.5	270	18	61	28	16	11	.4
AUG 27...	.26	503	8.2	17.5	270	25	60	28	20	14	.6
SEP 30...	.11	540	8.2	15.5	270	.00	62	28	17	12	.5

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 16...	2.5	160	75	5.0	.2	13	283	.38	7.1	.35	1.9
MAY 01...	2.7	210	61	4.2	.2	13	303	.41	3.4	.01	2.0
21...	1.8	190	50	2.5	.2	15	272	.37	5.3	.05	1.3
JUN 25...	1.9	240	64	3.2	.1	16	335	.46	1.5	.07	1.4
JUL 24...	2.0	250	58	3.0	.2	15	334	.45	.49	.03	1.5
AUG 27...	2.2	240	64	5.1	.5	16	341	.46	.24	.26	--
SEP 30...	2.7	280	<5.0	3.7	.2	15	--	--	--	<.10	--

401816107011000 TROUT CREEK NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 02...	12	177	8.0	7.0	85	7.0	21	7.8	3.5	8	.2
APR 27...	26	169	7.9	8.5	71	.00	18	6.4	3.6	10	.2
MAY 19...	16	207	8.0	14.0	90	13	23	7.9	3.8	8	.2
JUN 10...	90	91	7.6	15.0	52	2.0	13	4.7	2.5	9	.2
JUL 07...	12	297	8.3	22.0	150	.00	38	13	4.4	6	.2
AUG 25...	15	164	7.9	18.0	80	.00	20	7.2	3.0	7	.2
SEP 29...	6.4	183	8.2	12.5	100	1.0	25	9.2	3.6	7	.2

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 02...	.9	78	13	.7	.1	16	110	.15	3.6	.09	.70
APR 27...	1.2	71	<5.0	.6	.1	14	89	.12	6.3	.05	.90
MAY 19...	1.0	77	<5.0	1.6	.0	15	104	.14	4.5	.53	.70
JUN 10...	.6	50	<5.0	.4	.1	12	65	.09	15.8	.03	.40
JUL 07...	1.1	150	<5.0	.4	.1	15	164	.22	5.3	.01	.80
AUG 25...	1.0	83	<5.0	.3	.4	16	103	.14	4.2	.24	--
SEP 29...	1.0	99	<5.0	1.0	.1	15	--	--	--	<.10	--

401829107375600 DEER CREEK NEAR HAMILTON, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 14...	8.1	688	8.3	10.5	350	140	67	44	27	14	.6
30...	5.9	600	8.2	11.5	310	100	57	41	21	13	.5
MAY 14...	10	575	7.9	11.5	300	100	56	40	18	11	.4
JUN 18...	1.9	1040	8.6	14.0	560	240	89	82	38	13	.7
JUL 01...	2.8	1120	8.3	18.5	580	260	86	89	38	12	.7
23...	1.0	1300	8.2	20.0	680	360	90	110	48	13	.8
SEP 10...	.94	1260	8.2	13.5	660	330	83	110	48	14	1.0

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 14...	3.6	210	170	3.9	.2	8.4	454	.62	9.9	.88	2.7
30...	3.5	210	150	2.9	.3	8.5	412	.56	6.6	.25	2.6
MAY 14...	2.3	200	150	3.6	.2	8.2	400	.54	10.8	.33	1.7
JUN 18...	3.4	320	300	6.2	.2	8.6	721	.98	3.7	.34	2.5
JUL 01...	3.4	320	330	5.0	.2	7.4	753	1.0	5.7	.31	2.5
23...	4.5	320	430	6.7	.2	6.3	889	1.2	2.4	.29	3.4
SEP 10...	5.2	330	420	6.3	.3	6.3	878	1.2	2.2	.11	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 16...	56	356	8.0	7.5	160	38	37	16	13	15	.5
MAY 01...	183	172	7.9	10.5	75	9.0	19	6.7	4.6	12	.2
MAY 22...	139	293	8.1	7.0	120	18	29	11	7.2	12	.3
JUN 13	13	516	8.3	22.0	260	41	60	27	19	14	.5
JUL 24...	7.1	574	8.1	21.0	270	43	60	30	20	14	.5
AUG 28...	2.3	502	8.3	18.5	240	36	50	27	21	16	.7
SEP 30...	3.4	506	8.4	17.0	230	30	51	25	18	14	.6
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 16...	1.7	120	55	1.9	.1	11	209	.28	31.6	.22	1.3
MAY 01...	1.2	66	14	1.0	.1	9.0	96	.13	47.4	.20	.90
MAY 22...	1.2	100	32	1.2	.1	10	153	.21	57.4	.23	.90
JUN 25...	1.9	220	82	3.4	.1	15	341	.46	12.0	.09	1.4
JUL 24...	2.3	230	87	2.8	.1	10	351	.48	6.7	.10	1.7
AUG 28...	2.4	200	83	3.0	.6	9.9	317	.43	2.0	<.10	--
SEP 30...	2.4	200	50	3.0	.2	12	282	.38	2.6	<.10	--

401913107204100 HAYDEN GULCH NEAR PAGODA, CO  
 WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 17...	.07	1440	7.6	13.0	740	410	140	96	60	15	1.0
30...	.10	1420	8.0	17.5	710	380	130	94	60	15	1.0
MAY 21...	.20	1430	8.1	8.0	750	440	140	97	60	15	1.0
JUN 18...	.08	1450	8.5	17.0	700	390	120	98	63	16	1.0
JUL 02...	.15	1440	8.0	15.0	760	430	140	100	63	15	1.0
16...	.08	1430	8.1	24.5	710	410	120	100	65	16	1.1
SEP 10...	E.06	1490	7.9	12.0	750	410	120	110	64	15	1.2

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 17...	7.3	330	480	11	.3	12	1010	1.4	.19	.01	5.4
30...	7.9	330	470	13	.3	12	986	1.3	.27	.10	5.9
MAY 21...	7.6	310	510	12	.2	11	1030	1.4	.56	1.0	5.7
JUN 18...	7.4	310	490	13	.2	12	990	1.4	.21	.03	5.5
JUL 02...	7.1	330	500	16	.2	14	1040	1.4	.42	.10	5.3
16...	6.4	300	490	16	.2	14	992	1.4	.21	.09	4.8
SEP 10...	7.7	340	520	15	.3	14	1060	1.4	--	<.10	--

E ESTIMATED.



401925107523500 COLLOM GULCH NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 13...	.50	902	8.5	14.5	470	160	87	61	23	10	.5
29...	.53	930	8.4	17.0	480	150	72	74	25	10	.5
MAY 13...	.62	930	8.4	14.5	480	180	83	66	24	10	.5
JUN 17...	.36	901	8.3	17.5	490	190	83	68	25	10	.5
JUL 01...	.30	923	8.2	17.0	500	180	80	72	31	12	.6
16...	.16	981	8.2	29.5	510	170	81	74	29	11	.6
SEP 09...	.07	971	8.3	14.0	520	250	68	85	36	13	.8

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 13...	5.8	310	170	11	.4	13	559	.76	.75	.36	4.3
29...	7.7	330	200	15	.5	12	607	.83	.87	.58	5.7
MAY 13...	6.5	300	210	12	.3	11	595	.81	1.0	.33	4.8
JUN 17...	5.6	300	200	15	.4	14	594	.81	.58	.49	4.2
JUL 01...	6.0	320	190	17	.3	14	605	.82	.49	.42	4.5
16...	5.9	340	210	17	.4	13	637	.87	.28	.41	4.4
SEP 09...	6.6	270	250	20	.4	12	641	.87	.12	.14	--

401944107322900 WADDLE CREEK NEAR HAMILTON, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 16...	4.0	754	8.1	8.5	410	110	85	49	31	14	.7
30...	2.0	752	8.3	19.0	390	110	77	48	34	16	.8
MAY 22...	3.0	784	8.0	7.5	390	130	80	46	29	14	.6
JUN 18...	1.2	800	8.7	21.0	370	76	69	47	42	20	1.0
JUL 02...	1.0	779	8.2	15.0	360	66	70	44	44	21	1.0
16...	.58	737	8.5	23.0	310	56	55	41	49	26	1.2
SEP 10...	.50	770	8.4	14.0	310	22	54	43	58	28	1.6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 16...	3.6	300	170	5.0	.3	11	536	.73	5.8	.10	2.7
30...	4.5	280	160	5.1	.3	11	508	.69	2.7	.05	3.4
MAY 22...	3.5	260	160	4.8	.3	11	492	.67	4.0	.27	2.6
JUN 18...	3.8	290	150	4.4	.3	13	505	.69	1.6	.20	2.8
JUL 02...	3.1	290	140	4.1	.2	12	493	.67	1.3	.26	2.3
16...	3.5	250	140	4.5	.3	11	455	.62	.71	.11	2.6
SEP 10...	4.1	290	130	4.7	.3	8.7	477	.65	.64	<.10	--

401948107445600 MILK CREEK NEAR ILES GROVE, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 15...	26	825	7.9	15.5	380	190	76	45	38	18	.9
APR 30...	97	429	8.1	14.0	210	81	55	18	16	14	.5
MAY 22...	100	452	8.0	8.0	220	92	51	23	17	14	.5
JUN 25...	2.6	1340	8.1	28.0	680	380	130	86	75	19	1.3
JUL 09...	2.6	1370	8.1	24.5	650	380	120	86	80	21	1.4
AUG 27...	1.2	1400	8.0	29.0	690	400	114	99	92	22	1.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 15...	4.1	190	240	8.9	.3	9.6	538	.73	37.8	.31	3.1
APR 30...	2.6	130	110	3.9	.2	8.9	293	.40	76.7	.15	1.9
MAY 22...	2.1	130	120	3.6	.1	8.6	304	.41	82.1	.12	1.6
JUN 25...	5.2	300	490	11	.2	13	992	1.4	7.0	.24	3.9
JUL 09...	4.8	270	490	15	.2	15	976	1.3	6.9	.55	3.6
AUG 27...	6.0	290	530	18	.5	16	1050	1.4	3.4	.44	--

401948107445600 MILK CREEK NEAR ILES GROVE, CO---Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 01....	.70	1660	8.1	20.5	820	490	130	120	120	24	2.1	

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 01....	5.9	330	700	17	.3	13	1300	1.8	2.5	<.10

402038107585100 MAUDLIN GULCH NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 13...	.29	3550	8.2	14.5	1600	1100	140	300	270	27	3.0
29...	.28	3740	8.2	18.0	1800	1200	160	330	280	26	2.9
MAY 13...	.42	3780	8.3	9.0	1800	1500	160	350	280	25	2.8
JUN 17...	.15	3760	8.2	21.5	1800	1300	160	340	300	26	3.1
JUL 01...	.15	3800	8.0	16.5	1800	1200	170	330	270	25	2.8
16...	.09	3870	8.3	25.5	1800	1300	160	350	270	24	2.7
SEP 09...	.06	4010	8.1	17.0	1900	1500	150	370	290	25	2.9

DATE	POTAS- SIUM DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 13...	12	530	1100	440	.4	10	2590	3.5	2.0	.01	9.0
29...	13	520	1100	480	.5	12	2690	3.7	2.0	.10	9.7
MAY 13...	5.1	300	1200	480	.4	11	2670	3.6	3.0	1.6	3.8
JUN 17...	13	530	1200	460	.4	12	2800	3.8	1.1	.06	9.7
JUL 01...	12	550	1200	470	.4	14	2800	3.8	1.1	.06	9.0
16...	13	540	1200	490	.4	13	2820	3.8	.69	.09	9.7
SEP 09...	15	390	1300	560	.3	14	2930	4.0	.47	<.10	--

402145108001000 JESSE GULCH NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 13...	.07	1640	8.3	13.5	860	510	130	130	84	17	1.2
29...	.04	1810	8.2	23.0	920	530	120	150	95	18	1.4
MAY 13...	.14	1820	8.3	10.0	940	560	130	150	96	18	1.4
JUN 17...	.04	1480	8.3	25.0	930	660	110	160	97	18	1.4
JUL 01...	.10	1780	8.0	18.5	960	520	120	160	91	17	1.3
16...	.05	1710	8.3	26.0	890	430	110	150	84	17	1.2
SEP 09...	E.08	1780	8.2	21.0	910	490	100	160	96	18	1.6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PC1/L AS K40)
APR 13...	11	350	620	17	.7	12	1220	1.7	.23	.01	8.2
29...	13	390	700	22	.8	13	1350	1.8	.15	.26	9.7
MAY 13...	11	380	710	19	.5	13	1360	1.9	.51	.00	8.2
JUN 17...	12	270	730	24	.7	14	1310	1.8	.14	.01	9.0
JUL 01...	13	440	640	28	.7	20	1340	1.8	.36	.12	9.7
16...	13	460	600	27	.7	20	1280	1.7	.17	.20	9.7
SEP 09...	13	420	620	33	.7	17	1290	1.8	--	<.10	--

E ESTIMATED.

402330107082000 GRASSY CREEK AT GRASSY GAP, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 28...	.18	849	7.7	12.0	420	140	93	45	38	16	.8
MAY 20...	.38	765	8.1	12.5	370	110	82	40	29	14	.7
JUN 11...	.22	764	7.9	18.5	380	120	81	43	30	15	.7
26...	.04	735	8.2	21.0	370	130	71	46	33	16	.8
JUL 08...	.05	726	8.3	24.0	340	120	67	41	31	17	.7
AUG 25...	.00	--	--	--	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 28...	5.3	280	210	7.2	.3	9.9	577	.78	.28	.03	4.0
MAY 20...	4.5	260	180	6.5	.2	10	509	.69	.52	.03	3.4
JUN 11...	4.2	260	190	6.6	.2	13	525	.71	.31	.04	3.1
26...	4.2	240	180	6.9	.2	12	498	.68	.05	.04	3.1
JUL 08...	3.9	220	170	6.5	.2	12	464	.63	.06	.01	2.9
AUG 25...	--	--	--	--	--	--	--	--	--	--	--

402409107503600 MORGAN GULCH NEAR MOUTH NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 15...	.31	6580	8.2	15.0	3400	2700	140	750	570	26	4.2	
29...	.18	6820	8.2	18.0	3700	3000	130	820	590	26	4.2	
MAY 13...	1.0	3780	8.5	19.0	2100	1500	91	460	280	22	2.6	
JUN 17...	.00	--	--	--	--	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 15...	32	730	3600	120	.5	.5	5650	7.7	4.7	.59	24
29...	29	750	4100	140	.6	.2	6260	8.5	3.0	.02	22
MAY 13...	23	610	1900	57	.4	.7	3180	4.3	8.6	.30	17
JUN 17...	--	--	--	--	--	--	--	--	--	--	--



402530106585700 FISH CREEK AT MOUTH NEAR MILNER, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 01...	13	1060	8.4	9.0	190	400	76	52	73	28	1.6
27...	15	429	8.2	17.0	59	200	45	21	17	16	.5
MAY 20...	12	817	8.0	13.5	120	350	68	44	49	23	1.1
JUN 11...	8.8	620	8.5	25.5	86	320	67	36	24	14	.6
JUL 08...	2.8	656	8.4	24.0	65	310	60	40	25	15	.6
AUG 26...	.00	--	--	--	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 01...	2.5	210	330	8.9	.2	13	686	.93	24.1	.92	1.9
27...	1.8	140	80	2.9	.2	13	266	.36	10.8	.11	1.3
MAY 20...	2.4	230	230	5.3	.1	9.2	547	.74	17.7	.14	1.8
JUN 11...	2.4	230	140	2.7	.2	11	424	.58	10.1	.44	1.8
JUL 08...	2.7	250	120	3.0	.2	8.3	410	.56	3.1	.06	2.0
AUG 26...	--	--	--	--	--	--	--	--	--	--	--

402605107181500 DILL GULCH NEAR HAYDEN, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 02...	1.2	5080	8.2	9.5	2200	1800	200	410	600	37	5.6
28...	.02	7890	8.2	18.5	3200	2700	220	650	1100	43	8.4
MAY 21...	.14	5710	8.3	8.0	2500	1900	190	480	630	36	5.5
JUN 12...	.00	--	--	--	--	--	--	--	--	--	--

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 02...	6.8	420	2500	140	.3	2.8	4250	5.8	13.8	31	5.1
28...	7.0	550	4500	170	.5	1.7	6990	9.5	.38	3.1	5.2
MAY 21...	5.3	520	3000	110	.2	.5	4740	6.5	1.8	2.2	4.0
JUN 12...	--	--	--	--	--	--	--	--	--	--	--

402720106591200 TROUT CREEK ABOVE MILNER, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 01...	27	793	8.4	9.5	320	150	69	36	40	21	1.0
27...	44	419	8.5	16.5	190	75	45	20	13	13	.4
MAY 20...	30	677	8.4	12.0	310	130	66	35	33	19	.8
JUN 11...	97	266	8.0	19.4	120	32	29	12	7.6	12	.3
JUL 08...	10	655	8.5	26.5	340	160	76	36	19	11	.5
AUG 26...	12	349	8.6	19.5	170	47	39	17	8.3	10	.3
SEP 30...	4.6	385	8.7	15.0	190	70	43	20	11	11	.4

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 01...	2.3	170	240	5.4	.2	12	510	.69	37.2	.75	1.7
27...	2.3	120	94	2.5	.2	12	262	.36	31.1	.20	1.7
MAY 20...	2.4	180	190	3.8	.1	10	449	.61	36.4	.08	1.8
JUN 11...	1.1	90	56	.6	.1	12	173	.24	45.4	.07	.80
JUL 08...	2.2	180	180	1.7	.1	10	433	.59	11.7	.05	1.6
AUG 26...	1.7	120	71	.5	.5	8.2	218	.30	7.1	<.10	--
SEP 30...	1.6	120	97	1.2	.1	7.6	254	.35	3.2	<.10	--

402829107193700 SMUIN GULCH NEAR HAYDEN, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 02...	2.0	5070	8.2	5.5	2200	1800	240	380	620	38	5.8
28...	.14	3180	8.4	18.5	1400	1000	170	240	290	31	3.4
MAY 21...	.27	3140	8.1	7.5	1400	1000	180	230	310	32	3.6
JUN 12...	.10	2400	8.3	14.5	1100	750	130	180	220	31	2.9
JUL 09...	.00	--	--	--	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 02...	7.6	380	2800	120	.3	6.0	4400	6.0	23.8	.00	5.7
28...	6.0	390	1500	52	.3	2.3	2500	3.4	.95	.02	4.5
MAY 21...	5.4	370	1500	50	.1	3.6	2510	3.4	1.8	2.2	4.0
JUN 12...	5.5	320	1100	41	.3	.9	1900	2.6	.51	6.1	4.1
JUL 09...	--	--	--	--	--	--	--	--	--	--	--

402836106550100 COW CREEK NEAR STEAMBOAT SPRINGS, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 01...	.55	749	7.7	10.0	320	94	100	18	30	17	.7
27...	.24	564	7.6	14.0	250	43	80	13	24	17	.7
MAY 20...	.94	491	7.7	10.5	220	23	71	11	20	16	.6
JUN 11...	.18	537	7.4	22.0	260	16	81	13	24	17	.7
JUL 10...	.06	606	7.1	16.0	280	89	87	15	25	16	.7
AUG 26...	.00	--	--	--	--	--	--	--	--	--	--

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 01...	4.2	230	160	6.8	.2	12	471	.64	.70	.40	3.1
27...	4.9	210	89	5.5	.1	12	355	.48	.23	.02	3.7
MAY 20...	3.5	200	61	4.3	.1	14	307	.42	.78	.31	2.6
JUN 11...	4.2	240	72	4.7	.2	18	362	.49	.18	.05	3.1
JUL 10...	3.7	190	76	12	.1	16	349	.47	.06	.10	2.8
AUG 26...	--	--	--	--	--	--	--	--	--	--	--

402845107185100 SMUIN TRIBUTARY CREEK NEAR HAYDEN, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 02...	E.50	6590	8.2	12.0	2500	2100	170	510	1000	46	8.7
28...	.07	3210	8.0	19.0	1100	610	140	180	390	44	5.1
MAY 21...	.03	4210	8.2	7.5	1600	1100	160	280	550	43	6.1
JUN 12...	.03	2710	7.9	15.0	1000	590	160	150	340	42	4.6
JUL 09...	E.01	2640	7.9	15.0	1000	550	170	140	270	37	3.7
AUG 26...	E.01	4490	7.9	24.0	1600	980	200	260	650	47	7.1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 02...	6.7	400	3600	210	.4	2.2	6140	8.4	--	90	5.0
28...	4.8	480	1300	93	.6	6.1	2460	3.4	.46	12	3.6
MAY 21...	4.6	440	2000	94	.3	6.2	3370	4.6	.27	2.2	3.4
JUN 12...	2.3	430	1100	84	.5	11	2130	2.9	.17	5.1	1.7
JUL 09...	2.1	450	980	82	.5	12	1990	2.7	--	14	1.6
AUG 26...	12	590	2000	160	.5	16	3670	5.0	--	4.7	--

E ESTIMATED.

402911107323500 FLUME GULCH NEAR CRAIG, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 17...	.76	3870	8.0	11.5	2000	240	330	360	29	3.5
APR 28...	.36	4040	7.9	16.0	1900	240	320	360	29	3.6
MAY 14...	.96	3920	7.9	7.5	1900	250	320	340	28	3.4
JUN 18...	.24	4610	8.2	9.0	2300	320	370	490	31	4.4
JUN 30...	.08	4560	8.1	19.5	2100	320	310	460	33	4.4
JUL 15...	.05	4680	8.0	23.0	2200	320	330	450	31	4.2
SEP 09...	.10	5200	7.9	10.0	2600	350	410	520	31	4.5

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 17...	5.0	450	2000	85	.5	7.3	3320	4.5	4.8	3.7
APR 28...	6.0	430	2100	91	.6	4.3	3400	4.6	4.4	4.5
MAY 14...	5.0	160	2000	110	.5	8.0	3150	4.3	4.9	3.7
JUN 18...	3.2	450	2600	100	.5	10	4190	5.7	5.1	2.4
JUN 30...	3.2	410	2500	25	.5	11	3910	5.3	6.8	2.4
JUL 15...	3.4	440	2600	40	.5	12	4040	5.5	5.4	2.5
SEP 09...	4.2	270	2900	150	.4	11	4540	6.2	7.3	--

SUMMARY OF SELECTED WATER-QUALITY DATA COLLECTED AT SURFACE-WATER  
GAGING STATIONS IN THE SOUTHERN YAMPA RIVER BASIN, WATER YEARS 1976-81



09243700 MIDDLE CREEK NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 22...	24	850	8.4	3.0	350	84	33	38	19	.9
NOV 05...	.40	850	8.8	5.0	340	80	34	36	--	.9
DEC 02...	.38	800	8.5	1.0	330	79	31	34	18	.8
JAN 22...	.30	780	8.2	1.0	320	78	31	33	--	.8
FEB 05...	.40	700	8.4	1.0	310	71	33	30	17	.7
MAR 05...	.50	660	7.6	.0	280	69	27	27	17	.7
APR 08...	3.6	700	7.9	3.0	260	63	26	24	16	.6
MAY 07...	16	410	8.3	10.0	170	40	16	11	12	.4
JUN 04...	4.4	500	7.6	15.0	230	56	23	16	13	.5
JUL 16...	1.1	600	8.5	19.5	260	65	24	21	15	.6
AUG 10...	1.8	--	8.4	13.5	200	49	19	13	12	.4

09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 22....	5.1	282	130	5.3	.2	7.2	473	.64	30.7	<.10
NOV 05....	--	278	130	--	.2	6.8	--	.68	--	.01
DEC 02....	3.7	277	130	8.1	.2	9.2	462	.63	.47	.07
JAN 22....	--	249	140	--	.2	10	--	--	--	1.9
FEB 05....	3.0	260	120	3.8	.2	8.8	428	.58	.46	.28
MAR 05....	4.1	224	110	4.7	.2	9.2	388	.53	.52	.34
APR 08....	6.0	202	110	5.6	.2	7.8	366	.50	3.6	.34
MAY 07....	2.5	135	59	2.2	.2	8.3	222	.30	9.8	.38
JUN 04....	2.6	192	--	--	--	--	--	--	--	--
JUL 16....	3.6	221	69	4.0	.2	7.7	328	.45	.97	.07
AUG 10....	3.5	189	50	2.7	.2	9.5	261	.36	1.3	.02

09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 22...	.29	800	7.5	.5	360	84	36	38	19	.9
DEC 07...	.25	750	7.4	.0	360	84	36	37	18	.9
FEB 28...	.99	730	7.6	.0	330	79	32	36	19	.9
MAR 29...	1.3	560	7.8	.0	260	62	25	27	18	.7
APR 20...	1.2	650	8.1	7.0	300	69	30	28	17	.7
MAY 11...	.33	725	8.0	15.0	340	80	34	33	17	.8
JUN 27...	2.3	580	7.2	20.0	270	67	26	23	15	.6
JUL 13...	.16	500	7.7	16.0	260	66	23	17	12	.5

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 22...	3.5	298	150	4.6	.2	7.3	503	.68	.41	.03
DEC 07...	3.2	305	140	4.9	.2	7.7	498	.68	.34	.18
FEB 28...	4.3	262	140	5.7	.2	8.3	465	.63	1.3	.13
MAR 29...	4.0	200	110	4.6	.2	7.6	365	.50	1.2	.21
APR 20...	3.4	230	120	4.6	.2	7.0	401	.55	1.3	.01
MAY 11...	3.6	270	130	4.9	.2	7.4	456	.62	.41	.06
JUN 27...	4.9	210	100	3.3	.2	12	366	.50	2.3	.22
JUL 13...	3.4	210	73	2.7	.2	12	321	.44	.14	--

## 09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
JAN 24...	.09	840	8.1	.5	390	93	39	42	19	.9
APR 18...	16	430	8.3	6.5	200	49	20	17	15	.5
MAY 30...	9 8	420	8.5	15.5	250	59	24	17	13	.5
JUN 19...	1 5	500	8.0	22.0	270	66	26	25	17	.7
JUL 11...	1.0	592	8.5	17.5	280	68	26	27	17	.7
AUG 01...	.34	600	8.1	16.0	290	70	28	28	17	.7
SEP 13...	1.8	310	8.2	15.0	150	36	14	6.5	9	.2

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JAN 24...	3.0	260	210	5.8	.2	9.0	561	.76	.14	.26
APR 18...	2.7	130	88	3.9	.2	7.8	278	.38	12.0	2.3
MAY 30...	4.4	190	79	4.7	.2	8.5	311	.42	8.2	.08
JUN 19...	2.4	230	82	3.0	.2	11	354	.48	1.4	.02
JUL 11...	2.9	250	74	2.7	.2	10	363	.49	1.0	<.10
AUG 01...	3.2	260	76	2.8	.2	5.6	372	.51	.34	.01
SEP 13...	1.5	110	41	1.1	.1	14	184	.25	.89	.01

## 09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 21....	.18	780	8.1	1.5	360	83	36	38	19	.9
APR 27....	18	408	7.9	6.0	170	41	17	15	16	.5
MAY 23....	34	410	7.7	11.5	210	49	21	11	9	.3
JUN 27....	3.8	355	7.9	18.0	170	40	16	13	14	.4
AUG 15....	.60	700	8.2	18.0	330	76	35	37	19	.9
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS S102)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 21....	3.5	260	170	5.8	.2	8.6	504	.69	.24	.25
APR 27....	2.6	120	71	3.9	.2	9.5	238	.32	11.6	.85
MAY 23....	19	150	--	--	--	--	190	.26	17.4	.19
JUN 27....	1.8	130	63	1.8	.2	8.0	223	.30	2.3	<.10
AUG 15....	3.8	270	130	4.6	.2	8.5	458	.62	.74	<.10

## 09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE/ (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- (MG/L AS CA)	MAGNE- SIUM, DIS- (MG/L AS MG)	SODIUM, DIS- (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
DEC 10...	.47	761	8.3	2.0	350	82	35	44	21	1.0
MAR 25...	.98	655	7.9	1.5	280	66	27	35	21	.9
APR 15...	2.2	600	7.7	1.5	270	65	26	30	19	.8
22...	47	430	7.5	8.5	190	46	18	16	15	.5
MAY 28...	20	460	8.0	11.0	230	53	23	14	12	.4
JUN 24...	2.5	650	8.1	17.0	290	68	28	25	16	.6
JUL 29...	.04	735	7.9	16.0	350	79	36	38	19	.9
AUG 27...	.01	750	8.0	15.0	330	75	34	38	20	.9

DATE	FOTAS- SIUM, DIS- (MG/L AS K)	ALKA- LINEITY (MG/L AS CAC03)	SULFATE DIS- (MG/L AS S04)	CHLO- RIDE, DIS- (MG/L AS CL)	FLUO- RIDE, DIS- (MG/L AS F)	SILICA, DIS- (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, SOLVED (MG/L)	SOLIDS, DIS- (MG/L AC-FT)	SOLIDS, DIS- (MG/L PER DAY)	NITRO- GEN, NO2+NO3 DIS- (MG/L AS N)
DEC 10...	4.0	290	130	5.0	.2	10	485	.66	.62	.08
MAR 25...	2.4	240	120	4.3	.0	8.8	409	.56	1.1	.25
APR 15...	3.0	200	120	3.9	.2	.2	370	.50	2.2	.31
22...	3.7	110	92	4.3	.2	8.9	263	.36	33.4	1.7
MAY 28...	2.3	170	69	2.9	.2	7.8	276	.38	14.9	.29
JUN 24...	2.6	210	140	3.5	.3	7.4	401	.55	2.7	.03
JUL 29...	3.4	260	140	5.8	.3	4.2	464	.63	.05	.04
AUG 27...	3.6	250	150	5.9	.3	5.5	463	.63	.01	.00

09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 02....	.04	760	7.6	7.0	340	--	--	75	36	42	21	1.0
30....	.68	810	8.0	2.0	350	--	--	76	40	51	24	1.2
NOV 25....	.49	810	7.8	.5	350	--	--	78	37	50	24	1.2
DEC 22....	.50	775	7.8	.0	330	--	--	79	33	47	23	1.1
JAN 20....	.28	890	7.6	.0	370	--	--	86	37	51	23	1.2
FEB 25....	.98	660	8.0	.0	290	--	--	69	29	37	21	.9
MAR 31....	1.6	655	8.4	2.0	280	56	56	66	27	33	20	.9
APR 29....	.92	690	8.3	13.0	330	48	48	77	33	34	18	.8
MAY 27....	.78	680	8.2	16.0	300	81	81	71	30	33	19	.8
JUL 01....	1.4	666	8.3	20.0	310	47	47	72	31	32	18	.8
29....	.01	735	8.1	21.0	320	51	51	71	35	41	22	1.1

## 09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT											
02...	3.5	250	180	6.1	.2	6.0	500	.68	.05	.02	--
30...	3.3	290	150	6.5	.3	7.8	510	.69	.94	.05	--
NOV											
25...	3.2	300	140	5.6	.2	8.1	503	.68	.67	.06	--
DEC											
22...	2.8	230	170	5.5	.2	7.4	484	.66	.65	.15	--
JAN											
20...	2.1	300	180	5.8	.3	8.4	552	.66	.37	.28	1.6
FEB											
25...	5.7	210	160	6.0	.2	8.2	444	.60	1.2	.48	4.3
MAR											
31...	2.7	220	140	4.9	.2	5.6	412	.56	1.8	.10	2.0
APR											
29...	3.0	280	120	4.7	.3	5.7	446	.61	1.1	.02	2.2
MAY											
27...	2.8	220	130	4.1	.2	7.3	411	.56	.87	.04	2.1
JUL											
01...	3.1	260	120	3.8	.2	9.4	428	.58	1.6	.01	2.3
29...	3.4	270	130	4.6	.2	12	460	.63	.01	.00	--



09243800 FOIDEL CREEK NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAR 05...	.42	880	7.8	.0	430	99	45	36	15	.8
APR 08...	.16	700	7.8	4.0	280	63	29	28	18	.7
MAY 07...	.71	800	7.8	10.0	360	84	37	25	13	.6
JUN 04...	.26	800	7.5	13.0	410	93	43	28	13	.6
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAR 05...	3.8	269	210	6.0	.2	9.4	572	.78	.65	.11
APR 08...	3.5	184	140	4.2	.2	7.8	387	.53	.17	.03
MAY 07...	3.1	267	140	5.2	.3	7.4	463	.63	.89	.07
JUN 04...	2.8	326	46	4.6	.4	8.8	423	.58	.30	\$.10

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCTI- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAR 18...	.10	1050	7.2	1.0	550	130	54	33	12	.6
APR 14...	.08	850	7.2	5.0	410	98	41	30	13	.6
MAY 11...	.06	1000	7.1	5.0	510	120	51	35	13	.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
MAR 18...	4.4	320	300	6.5	.2	9.6	732	1.0	.20	.24
APR 14...	3.9	250	210	6.9	.3	8.3	552	.75	.12	.04
MAY 11...	3.8	330	240	7.8	.2	9.4	666	.91	.11	.02

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 18...	4.0	459	8.2	9.0	220	48	24	15	13	.4
MAY 30...	.84	600	8.2	18.5	310	71	38	17	10	.4
JUN 19...	.04	700	8.0	17.0	370	85	39	21	11	.5

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 18...	2.9	130	120	3.9	.2	6.7	302	.41	3.3	.46
MAY 30...	2.6	230	100	3.8	.3	9.4	377	.51	.86	.35
JUN 19...	3.1	290	100	3.4	.3	11	436	.59	.05	.01

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 09....	5.3	520	7.6	5.0	250	57	26	16	12	.4
JUN 29....	.04	769	7.2	15.0	330	70	38	26	14	.6

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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 09....	3.1	150	130	4.4	.2	7.6	336	.46	4.8	.64
JUN 29....	2.7	--	100	4.0	.3	11	--	.61	--	<.10

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAR 25....	2.5	770	7.5	--	370	82	40	26	13	.6	3.2
APR 21....	56	210	7.5	3.0	100	25	10	6.7	12	.3	3.8
MAY 28....	2.6	625	8.2	15.0	310	73	32	15	9	.4	2.2
JUN 24....	.28	820	7.6	19.0	430	100	44	19	9	.4	2.4

DATE	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
MAR 25....	200	210	8.9	.2	8.8	503	.68	3.4	.52	--
APR 21....	--	66	1.1	.2	7.5	--	--	--	--	--
MAY 28....	210	110	5.8	.2	8.7	374	.51	2.6	.05	1.6
JUN 24....	150	230	56	.4	8.5	551	.75	.42	.03	--

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT											
02...	.01	1120	7.4	9.5	550	--	130	54	32	11	.6
30...	.17	1030	7.6	5.0	520	--	110	59	34	12	.7
NOV											
25...	.14	1040	7.5	2.0	570	--	130	59	35	12	.6
DEC											
22...	.01	1140	7.1	1.0	560	--	130	56	34	12	.6
FEB											
25...	1.8	1140	7.9	.5	520	--	120	54	37	13	.7
MAR											
31...	.38	1020	8.1	6.0	490	260	110	53	37	14	.7
APR											
29...	.21	1070	8.1	17.0	530	310	110	63	45	15	.8
MAY											
27...	.18	1080	8.1	17.0	510	240	100	62	51	18	1.0
JUL											
01...	.01	1200	7.5	17.0	580	220	130	63	51	16	.9
29...	.01	1250	7.7	20.5	570	200	120	65	74	22	1.5
AUG											
27...	.05	1330	7.6	11.0	580	170	122	67	81	23	1.6
SEP											
29...	.01	1300	7.6	11.0	580	190	120	68	87	24	1.7

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT											
02...	3.3	330	270	11	.2	11	710	.97	.02	.02	--
30...	2.7	360	230	6.7	.3	11	670	.91	.31	.00	--
NOV											
25...	2.8	330	290	6.5	.2	11	733	1.0	.28	.00	--
DEC											
22...	2.1	350	270	8.2	.3	8.5	721	.98	.02	.13	--
FEB											
25...	5.7	200	270	10	.3	9.2	768	1.0	3.7	32	4.3
MAR											
31...	3.6	230	290	9.4	.2	4.8	663	.90	.68	3.8	2.7
APR											
29...	4.8	220	350	16	.3	2.8	763	1.0	.43	8.7	3.6
MAY											
27...	4.5	270	330	13	.2	3.2	736	1.0	.36	2.2	3.4
JUL											
01...	3.1	360	330	16	.2	14	825	1.1	.02	.02	2.3
29...	4.7	370	310	16	.2	12	825	1.1	.02	.00	--
AUG											
27...	5.1	410	340	16	.3	11	890	1.2	.12	.10	--
SEP											
29...	4.4	390	320	23	.3	12	870	1.2	.02	.15	--

09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 08...	5.8	1150	8.0	5.0	530	120	55	53	18	1.0
JUN 04...	.42	1200	7.6	17.0	570	120	65	48	15	.9

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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
APR 08...	4.5	217	410	7.5	.2	8.0	798	1.1	25.9	1.9
JUN 04...	3.0	255	380	7.5	.5	3.4	785	1.1	.89	.74



09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAR 18....	.40	600	8.5	.0	270	69	23	31	20	.8
APR 14....	.41	1260	7.8	10.5	560	130	57	70	21	1.3
MAY 11....	.08	1100	7.9	11.5	500	120	49	53	19	1.0

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAR 18....	7.3	150	150	7.1	.1	7.1	391	.53	.42	1.2
APR 14....	4.8	300	370	11	.2	6.4	827	1.1	.92	.02
MAY 11....	3.4	310	290	8.6	.2	8.4	721	.98	.16	.02

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 18...	10	960	8.3	7.0	480	110	49	31	12	.6
MAY 30...	2.2	720	8.4	19.5	370	87	36	33	16	.8
JUN 19...	.48	1000	8.0	21.0	500	110	55	50	18	1.0
JUL 11...	.01	900	8.2	22.0	420	91	47	53	21	1.1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 18...	4.0	160	340	5.4	.2	7.1	663	.90	18.6	5.0
MAY 30...	3.5	246	150	7.3	.3	4.4	484	.66	2.9	3.2
JUN 19...	3.4	230	320	7.4	.2	--	--	--	.89	1.2
JUL 11...	2.1	240	260	6.8	.2	3.2	607	.83	.02	.01

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAR 23...	10	1080	7.2	.0	480	110	51	68	23	1.3
APR 09...	13	675	7.4	5.5	300	69	30	37	21	.9
MAY 23...	6.0	650	7.8	13.0	310	73	32	24	14	.6
JUN 27...	1.1	1600	8.0	16.0	890	190	100	56	12	.8
AUG 15...	.02	1900	8.0	16.0	1100	250	110	60	17	.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAR 23...	5.6	200	400	13	.2	7.8	786	1.1	21.6	2.6
APR 09...	3.5	150	200	6.7	.3	7.6	450	.61	16.3	1.4
MAY 23...	2.7	220	120	8.9	.3	2.6	406	.55	6.6	2.0
JUN 27...	4.1	210	730	10	.2	2.1	1230	1.7	3.7	3.9
AUG 15...	5.8	290	930	8.9	.2	5.7	1550	2.1	.08	.33

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 05...	.03	1420	8.0	5.5	710	170	70	55	22	.9
DEC 10...	.16	1520	7.7	3.0	760	170	81	67	16	1.1
JAN 31...	.30	1450	7.4	.5	700	160	73	67	17	1.1
MAR 27...	.55	1250	7.3	.5	580	130	62	64	19	1.2
APR 15...	8.8	910	7.5	3.5	410	87	47	50	21	1.1
21...	82	430	7.3	7.0	180	45	15	16	--	.5
MAY 28...	6.1	710	8.1	15.0	310	73	32	27	16	.7
JUN 24...	4.3	2950	8.0	18.5	1600	340	180	150	17	1.6
JUL 29...	.08	1390	7.9	20.0	650	140	74	74	20	1.3
AUG 27...	1.7	3500	8.0	17.0	2000	430	220	190	17	1.9

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
NOV 05...	5.0	330	500	9.5	.2	8.0	1020	1.4	.08	.27
DEC 10...	3.9	350	490	19	.2	10	1060	1.4	.46	.84
JAN 31...	3.3	350	490	28	.3	9.6	1050	1.4	.85	.81
MAR 27...	6.8	210	440	16	.2	9.5	864	1.2	1.3	2.1
APR 15...	3.7	190	310	12	.3	.2	630	.86	15.0	1.1
21...	--	74	100	9.8	.2	8.1	264	.36	58.4	5.5
MAY 28...	2.3	220	120	9.8	.2	4.3	418	.57	6.9	3.9
JUN 24...	8.3	120	1700	8.8	.3	3.3	2540	3.5	29.5	17
JUL 29...	5.0	210	570	9.2	.4	1.7	1020	1.4	.22	3.8
AUG 27...	1.2	230	2000	8.3	.2	1.6	3060	4.2	14.0	16

## 09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 02...	.01	1930	7.7	8.0	980	--	210	110	100	18	1.4
30...	.35	1650	7.7	6.0	770	--	150	95	96	21	1.5
NOV 25...	.34	1600	7.7	3.0	760	--	160	87	88	20	1.4
DEC 22...	.22	1560	7.6	.5	770	--	180	79	80	18	1.3
JAN 20...	.02	1400	7.6	.0	700	--	170	67	65	17	1.1
FEB 25...	3.2	1040	7.8	.5	480	--	110	51	50	18	1.0
MAR 31...	1.1	1350	8.2	4.0	600	320	130	66	72	21	1.3
APR 26...	.19	1330	8.2	16.0	590	310	120	71	73	21	1.3
MAY 27...	.82	1310	8.1	18.0	610	280	130	69	72	20	1.3

09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT											
02...	5.8	270	890	7.6	.2	3.4	1500	2.0	.04	1.4	--
30...	4.1	310	640	16	.3	3.3	1200	1.6	1.1	1.3	--
NOV											
25...	3.5	330	580	15	.3	4.5	1140	1.6	1.1	1.6	--
DEC											
22...	2.8	340	570	15	.3	6.5	1150	1.6	.68	1.8	--
JAN											
20...	2.5	320	520	9.8	.3	8.5	1040	1.4	.06	.93	1.9
FEB											
25...	7.3	220	360	13	.2	7.8	749	1.0	6.5	3.8	5.4
MAR											
31...	3.5	280	470	14	.2	3.9	938	1.3	2.8	2.2	2.6
APR											
29...	3.5	280	470	16	.3	2.8	933	1.3	.48	1.7	2.6
MAY											
27...	3.8	330	430	16	.2	5.3	929	1.3	2.1	.79	2.8

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- T/NEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
JAN 28...	.04	905	8.0	.0	470	--	100	53	23	10	.5
MAR 06...	.09	860	7.9	.0	450	--	91	54	26	11	.5
31...	.08	935	8.2	2.0	470	210	96	56	23	10	.5
APR 15...	.57	660	7.9	10.5	320	140	65	38	17	10	.4
29...	.21	770	8.2	15.5	390	140	87	42	18	9	.4
MAY 27...	1.0	710	7.6	13.0	370	150	83	39	17	9	.4
JUN 24...	.06	700	8.2	19.0	330	120	81	31	13	8	.3
JUL 23...	.04	760	8.2	14.5	400	130	89	43	16	8	.3

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
JAN 28...	4.2	280	230	6.3	.2	10	597	.81	.06	.30	--
MAR 06...	4.8	240	250	6.6	.2	8.5	587	.80	.14	.25	3.6
31...	4.2	260	260	7.9	.2	8.8	614	.84	.13	.29	3.1
APR 15...	3.5	180	180	5.2	.2	7.9	428	.58	.66	.53	2.6
29...	3.9	250	180	7.6	.2	9.1	499	.68	.28	.14	2.9
MAY 27...	7.0	220	160	6.5	.2	8.2	455	.62	1.2	.40	5.2
JUN 24...	4.0	210	130	6.8	.1	11	404	.55	.07	.09	3.0
JUL 23...	5.0	270	130	7.5	.1	12	466	.63	.05	.11	3.7



09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 09.... JUL 12....	.30 .15	1100 900	8.2 8.2	4.0 14.5	580 530	120 98	67 63	50 49	16 17	.9 .9

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 09...	7.5	320	320	13	.2	11	783	1.1	.37
JUL 12...	7.8	330	260	13	.2	14	709	.96	.02

09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
JUN 29...	--	1250	7.6	20.5	550	110	68	61	19	1.1
JUL 31...	.05	1080	7.4	11.0	550	120	60	43	23	.9
AUG 15...	--	1100	7.9	10.5	560	120	64	45	15	.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
JUN 29...	6.3	450	260	11	.3	19	808	1.1	--	.12
JUL 31...	5.7	380	240	9.9	.5	12	719	.98	.10	.18
AUG 15...	5.7	390	250	11	.3	13	747	1.0	--	.15

09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 05...	.02	1070	8.0	5.5	550	120	60	40	22	.7
APR 01...	.01	1050	7.8	3.5	510	110	58	38	14	.7
15...	.08	825	7.5	2.5	400	87	45	27	13	.6
22...	2.0	744	7.6	--	350	75	39	26	14	.6
MAY 28...	.22	875	7.6	14.5	420	87	49	33	14	.7
JUN 24...	.05	980	7.7	13.5	470	98	54	35	14	.7
JUL 29...	.05	1070	7.7	12.0	520	110	59	40	14	.8
AUG 27...	.07	1070	7.7	11.0	510	110	57	40	14	.8

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 05...	5.6	350	280	10	.3	12	739	1.0	.04	.11
APR 01...	4.8	330	240	9.7	.2	11	671	.91	.02	.20
15...	5.6	260	180	7.6	.2	.1	510	.69	.11	.26
22...	5.6	210	200	8.0	.3	.2	486	.66	2.6	.94
MAY 28...	5.7	290	170	8.5	.2	11	540	.73	.32	.18
JUN 24...	4.9	290	250	9.3	.3	11	637	.87	.09	.11
JUL 29...	5.6	390	210	9.8	.4	12	683	.93	.08	.32
AUG 27...	6.3	390	210	10	.3	12	684	.93	.13	.78

09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT											
02...	.04	1040	7.5	9.5	510	--	110	56	40	15	.8
30...	.09	1040	7.6	5.5	510	--	100	63	46	16	.9
NOV											
26...	.08	1000	7.6	4.5	470	--	95	56	36	14	.7
JAN											
07...	.04	1110	7.4	4.0	520	--	110	59	39	14	.7
28...	.03	1010	8.0	5.0	510	--	110	58	43	15	.8
MAR											
06...	.02	825	7.8	1.5	410	--	87	46	30	14	.6
APR											
01...	.02	1010	8.1	5.0	510	170	110	58	35	13	.7
28...	.03	1000	7.8	7.0	510	160	110	56	36	13	.7
MAY											
28...	.03	995	7.8	7.0	510	230	110	56	36	13	.7
JUN											
24...	.02	1020	7.8	9.0	480	130	100	56	37	14	.7
JUL											
23...	.02	1030	7.9	10.0	520	160	110	59	39	14	.7
AUG											
10...	.01	1030	8.0	10.0	510	150	107	58	38	14	.8
SEP											
23...	.01	1040	7.9	10.0	530	170	109	62	42	15	.9

09244460 WATERING TROUGH GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT											
02...	5.8	370	230	11	.3	12	688	.94	.07	.01	--
30...	5.8	360	220	13	.3	13	678	.92	.16	.14	--
NOV											
26...	5.0	350	170	11	.2	11	595	.81	.13	.14	--
JAN											
07...	4.6	360	230	10	.2	11	681	.93	.07	.25	--
28...	4.8	350	230	10	.3	11	679	.92	.05	.33	--
MAR											
05...	5.3	280	190	8.9	.2	9.7	547	.74	.03	.28	4.0
APR											
01...	4.3	340	260	9.5	.2	10	692	.94	.04	.04	3.2
28...	5.0	350	230	9.6	.3	10	669	.91	.05	.28	3.7
MAY											
28...	4.8	280	240	9.0	.2	11	658	.89	.05	5.0	3.6
JUN											
24...	4.5	350	220	9.3	.2	11	649	.88	.04	.12	3.4
JUL											
23...	5.1	360	220	9.9	.2	12	673	.92	.04	.17	3.8
AUG											
10...	5.5	360	220	20	.2	12	678	.92	.02	.10	--
SEP											
23...	5.3	360	200	11	.2	13	659	.90	.02	.10	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAR 01...	.10	1200	7.7	3.0	750	160	86	81	19	1.3
APR 09...	3.2	770	8.0	5.0	370	75	44	26	13	.6
MAY 31...	.75	800	8.6	12.0	450	91	53	33	14	.7
JUN 20...	1.0	800	8.2	17.0	570	110	71	42	14	.8
JUL 12...	E.15	1600	8.2	16.5	820	170	97	91	19	1.4
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAR 01...	3.8	420	460	16	.3	8.9	1070	1.5	.29	.05
APR 09...	4.2	160	220	5.9	.2	6.8	484	.66	4.2	.77
MAY 31...	4.2	250	210	7.5	.3	6.9	559	.76	1.1	.04
JUN 20...	4.0	300	300	9.4	.2	8.7	723	.98	2.0	.05
JUL 12...	3.9	360	560	55	.2	7.7	1200	1.6	.49	<.10

09244464 HUBBERSON GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 27...	E.30	825	7.9	14.0	330	62	43	29	16	.7
JUN 29...	--	1224	7.8	24.0	580	94	83	64	19	1.2
JUL 31...	--	1260	7.4	20.0	500	96	52	62	21	1.2
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 27...	4.1	160	200	7.3	.2	8.2	456	.62	.37	.64
JUN 29...	4.4	310	400	11	.3	4.0	848	1.2	--	<.10
JUL 31...	4.3	--	320	12	.4	11	--	1.3	--	.22

E ESTIMATED.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
DEC 10...	.06	1445	7.8	2.5	750	150	91	73	29	1.2
FEB 20...	--	1290	8.0	1.5	640	130	76	54	15	.9
APR 01...	.20	1520	8.1	3.0	740	140	96	74	18	1.2
20...	.43	340	7.4	1.0	160	34	17	11	13	.4
MAY 28...	2.2	750	8.4	19.0	380	70	50	24	12	.5
JUN 24...	.58	1000	8.2	24.5	500	80	72	39	14	.8
JUL 29...	.01	1600	7.9	25.0	780	130	110	82	19	1.3
AUG 27...	.01	1300	8.0	20.5	610	110	82	54	16	1.0

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
DEC 10...	4.6	370	470	18	.2	11	1040	1.4	.17	.05
FEB 20...	4.7	340	420	11	.2	10	912	1.2	--	.13
APR 01...	4.3	340	560	12	.2	7.9	1100	1.5	.59	.31
20...	4.5	100	70	3.4	.3	8.0	212	.29	24.6	.87
MAY 28...	3.7	220	190	7.6	.2	6.7	485	.66	2.9	.06
JUN 24...	4.2	170	370	11	.3	5.8	685	.93	1.1	.03
JUL 29...	5.1	310	610	15	.4	4.1	1140	1.6	.04	.10
AUG 27...	6.8	300	410	13	.3	7.3	864	1.2	.02	.08



09244464 HUBBERSON GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT											
02...	.03	1750	7.9	15.0	840	--	140	120	94	19	1.4
30...	.14	1360	8.0	3.0	650	--	110	91	59	16	1.0
NOV											
26...	.02	1490	7.5	3.0	710	--	130	93	79	19	1.3
JAN											
07...	.08	1320	7.6	1.0	650	--	130	78	54	15	.9
28...	.02	1570	7.5	7.0	780	--	170	87	86	19	1.3
MAR											
06...	.17	922	8.0	1.0	450	--	93	52	39	16	.8
APR											
01...	.30	1090	8.3	.5	530	210	110	62	41	14	.8
28...	.14	1200	8.2	13.0	590	270	120	71	47	15	.8
MAY											
28...	.14	1140	8.2	15.0	560	240	110	70	43	14	.8
JUN											
24...	.05	1450	8.0	22.0	670	350	120	91	72	19	1.2
JUL											
23...	.01	1570	7.9	23.0	760	360	160	87	85	20	1.3
AUG											
10...	.01	1560	7.8	16.0	780	360	164	89	87	20	1.5

09244464 HUBBERSON GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT										
02...	5.9	340	710	21	.2	6.5	1300	1.8	.11	--
30...	5.4	320	460	15	.2	8.0	942	1.3	.36	--
NOV										
26...	4.1	380	450	17	.2	9.4	1010	1.4	.05	--
JAN										
07...	3.7	360	380	11	.2	9.4	884	1.2	.19	--
28...	3.1	390	500	14	.3	11	1110	1.5	.06	--
MAR										
06...	3.6	270	240	7.8	.0	7.3	606	.82	.28	2.7
APR										
01...	3.2	320	280	8.9	.2	7.2	706	.96	.57	2.4
28...	3.8	320	350	9.6	.3	7.3	803	1.1	.30	2.8
MAY										
28...	3.7	320	340	9.0	.2	7.5	776	1.1	.29	2.8
JUN										
24...	4.7	320	490	14	.2	6.3	991	1.4	.13	3.5
JUL										
23...	4.0	400	530	16	.2	9.7	1130	1.5	.03	3.0
AUG										
10...	4.0	420	530	19	.2	11	1160	1.6	.03	--

09244470 STOKES GULCH NEAR HAYDEN, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
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MAR										
30...	.56	6000	7.0	4.5	2100	65	470	930	49	8.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
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MAR										
30...	6.2	190	3600	92	.3	6.1	5320	7.2	8.0	8.8

09244470 STOKES GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 09...	E73	3250	8.0	3.5	1100	130	190	420	45	5.5
MAY 07...	1.9	5180	8.5	7.0	2000	180	370	700	44	6.9
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 09...	7.6	170	1600	57	.2	7.3	2580	3.5	383	15
MAY 07...	5.3	370	2900	96	.3	.1	4540	6.2	23.3	16

E ESTIMATED.

09244470 STOKES GULCH NEAR HAYDEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 15...	48	2600	7.8	1.0	820	97	140	300	44	4.6
20...	419	980	7.6	5.5	310	50	44	100	41	2.5
MAY 28...	.05	7480	8.7	22.0	3000	220	590	1000	42	8.0
POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)		
APR 15...	6.3	160	1100	36	.2	7.5	1820	2.5	236	7.3
20...	4.7	100	350	15	.3	9.7	657	.89	743	5.1
MAY 28...	8.6	280	3900	160	.2	.4	6130	8.3	.83	19

## 09244470 STOKES GULCH NEAR HAYDEN, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
APR 01...	.12	10000	8.6	9.0	4000	3600	280	800	1400	43	9.6
MAY 13...	1.2	7340	8.4	12.0	2800	2400	240	580	1000	44	8.3
28...	.27	9970	8.4	17.0	4000	3600	270	810	1400	43	9.6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSSI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
APR 01...	8.0	390	6200	31	.3	1.0	9280	12.6	3.0	73	6.0
MAY 13...	8.4	350	4300	180	.3	.1	6620	9.0	21.4	35	6.3
28...	8.6	440	6100	240	.2	.3	9280	12.6	6.8	41	6.4

09250400 GOOD SPRING CREEK AT AXIAL, CO  
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
DEC 02...	1.4	1500	8.8	1.0	790	120	120	64	15	1.0
JAN 08...	.59	1500	8.3	.5	820	130	120	53	12	.8
FEB 05...	1.8	1450	8.2	.0	770	110	120	59	14	.9
MAR 01...	2.3	1100	8.1	5.0	730	110	110	57	14	.9
APR 08...	3.6	1400	8.2	11.0	770	110	120	53	13	.8
MAY 06...	1.1	1500	8.1	14.0	810	110	130	61	14	.9
JUN 10...	1.4	1500	8.1	20.0	840	120	130	52	12	.8
JUL 09...	1.4	1300	8.2	24.0	730	93	120	43	11	.7
AUG 09...	.95	1400	8.1	20.5	740	97	120	55	14	.9
SEP 01...	.44	1500	8.1	20.0	770	95	130	63	15	1.0

09250400 GOOD SPRING CREEK AT AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
DEC										
02...	11	437	430	15	.5	14	1040	1.4	3.9	.51
JAN										
08...	11	455	450	13	.4	14	1070	1.5	1.7	.60
FEB										
05...	11	437	460	19	.5	13	1060	1.4	5.2	.93
MAR										
01...	11	400	430	16	.5	11	989	1.4	6.1	.56
APR										
08...	10	390	430	16	.5	10	986	1.3	9.6	.25
MAY										
06...	12	421	470	27	.5	11	1080	1.5	3.3	.32
JUN										
10...	12	409	480	15	.6	15	1070	1.5	4.0	.30
JUL										
09...	12	343	410	12	.5	14	912	1.2	3.5	.20
AUG										
09...	12	358	460	14	.5	13	987	1.3	2.5	.10
SEP										
01...	12	371	500	17	.6	15	1060	1.4	1.3	.46



09250400 GOOD SPRING CREEK AT AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 15...	.28	1600	8.1	10.0	850	110	140	69	15	1.0
NOV 05...	.53	1500	8.1	9.0	850	110	140	68	15	1.0
DEC 09...	.42	1550	8.1	.5	880	120	140	65	14	1.0
JAN 06...	.23	1550	8.2	.5	880	120	140	77	16	1.1
FEB 07...	.17	1550	8.1	.5	900	130	140	75	15	1.1
MAR 10...	.40	1200	8.1	.5	770	110	120	73	17	1.1
APR 07...	.66	1350	8.2	4.0	770	110	120	58	14	.9
MAY 05...	.47	1750	8.2	6.0	940	130	150	73	14	1.0
JUN 08...	.49	1600	8.1	14.0	920	120	150	71	14	1.0
JUL 08...	.11	1580	8.2	17.0	870	100	150	82	17	1.2
AUG 18...	.07	1770	8.2	17.0	790	100	130	100	21	1.6
SEP 19...	.04	1820	8.2	14.5	910	100	160	100	19	1.4

09250400 GOOD SPRING CREEK AT AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 15...	12	378	540	19	.5	11	1130	1.5	.85	.02
NOV 05...	12	387	520	17	.3	10	1110	1.5	1.6	.04
DEC 09...	12	444	480	16	.5	12	1110	1.5	1.3	.34
JAN 06...	11	508	510	19	.5	15	1200	1.6	.75	.25
FEB 07...	11	515	550	22	.6	14	1250	1.7	.57	.25
MAR 10...	10	447	490	18	.6	9.7	1100	1.5	1.2	.18
APR 07...	9.7	390	470	14	.6	10	1030	1.4	1.8	.08
MAY 05...	12	440	580	16	.6	11	1240	1.7	1.6	.15
JUN 08...	12	430	560	17	.7	14	1210	1.7	1.6	.17
JUL 08...	12	410	550	29	.6	14	1190	1.6	.35	.06
AUG 18...	14	430	580	16	.6	13	1220	1.7	.23	.03
SEP 19...	13	470	630	17	.6	12	1310	1.8	.14	.02

## 09250400 GOOD SPRING CREEK AT AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 27....	.11	1980	8.3	3.0	1100	120	190	110	18	1.5
NOV 28....	.18	2000	8.2	1.5	790	84	140	99	21	1.5
JAN 05....	.24	2320	8.1	.5	1200	160	190	98	15	1.2
FEB 01....	.50	1700	8.1	1.5	1000	140	160	80	15	1.1
MAR 08....	.90	1700	8.2	9.0	960	120	160	75	14	1.1
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)
OCT 27....	14	490	680	24	.7	12	1450	2.0	.43	.96
NOV 28....	6.9	430	500	34	.4	10	1140	1.6	.55	.07
JAN 05....	14	480	830	20	.5	14	1620	2.2	1.1	.08
FEB 01....	11	430	630	15	.6	12	1310	1.8	1.8	.05
MAR 08....	11	430	610	21	.6	--	--	1.9	3.3	--

## 09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
FEB 09...	6.1	560	8.4	1.0	260	47	34	24	16	.7
MAR 01...	.08	975	8.1	4.0	470	81	65	43	16	.9
JUN 10...	.06	1150	8.2	23.0	530	74	85	45	15	.8
JUL 09...	.12	1100	8.1	19.0	530	69	87	47	16	.9
AUG 09...	.05	1200	--	18.0	570	68	97	64	19	1.2
SEP 01...	.01	1300	8.2	12.0	590	71	100	77	22	1.4

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	AC-F	AS N	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
FEB 09...	12	191	120	10	.2	6.3	372	.51	6.1	.66	
MAR 01...	11	330	210	19	.4	8.7	638	.87	.14	.20	
JUN 10...	6.0	308	260	20	.4	5.8	681	.93	.11	.01	
JUL 09...	6.0	300	270	22	.6	8.7	691	.94	.22	.01	
AUG 09...	7.4	337	340	29	.4	11	819	1.1	.11	.01	
SEP 01...	8.6	371	330	34	.4	10	854	1.2	.02	.02	

09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO---Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SOP- TION RATIO
OCT 15...	.01	1300	8.2	3.0	680	92	120	74	19	1.2
NOV 05...	.01	1060	8.1	3.0	570	78	90	57	18	1.0
MAR 23...	.01	530	8.1	10.0	240	34	87	24	17	.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	
OCT 15...	9.2	410	350	39	.5	12	934	1.3	.03	.02
NOV 05...	7.8	365	300	25	.3	11	789	1.1	.02	<.10
MAR 23...	7.2	190	92	12	.4	8.0	327	.44	.01	.05

09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO---Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 25...	.28	1950	8.2	5.5	930	140	140	100	18	1.4
APR 17...	.03	490	7.9	8.5	190	32	27	24	21	.8
MAY 09...	.01	1450	8.3	9.0	630	89	100	72	20	1.2
21...	2.4	960	7.6	19.0	480	94	60	28	11	.6
SEP 06...	.01	1380	8.5	13.0	650	63	120	86	22	1.5

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 25...	29	360	660	39	.7	13	1340	1.8	1.0	.88
APR 17...	4.6	110	110	8.3	.2	6.3	282	.38	.02	.12
MAY 09...	9.7	300	420	40	.6	9.8	925	1.3	.03	1.3
21...	10	290	220	15	.5	12	623	.85	4.0	2.4
SEP 06...	9.8	340	480	40	.6	9.3	1010	1.4	.03	.01

09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 08...	.01	1340	8.5	1.0	610	95	90	65	36	1.1
FEB 19...	18	255	7.7	.5	110	25	11	8.5	14	.4
MAR 19...	.15	1220	8.3	6.0	600	97	88	64	18	1.1
APR 14...	.06	1400	8.1	16.0	620	90	96	74	20	1.3
MAY 19...	4.2	1010	8.2	14.0	500	96	64	32	12	.6
JUN 25...	1.3	1180	7.9	18.0	570	82	88	58	18	1.1
JUL 30...	.26	1250	8.2	17.5	570	72	95	70	21	1.3
AUG 26...	.20	1250	8.2	20.5	560	71	92	66	20	1.2
SEP 29...	.04	1420	8.1	18.0	640	75	110	76	20	1.3

09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
NOV 08....	9.0	370	360	29	.5	12	883	1.2	.02	.01
FEB 19....	8.4	84	45	7.6	.2	9.2	167	.23	8.3	.34
MAR 19....	8.2	330	300	32	.6	9.7	799	1.1	.32	.11
APR 14....	10	350	390	38	.6	10	919	1.3	.15	.05
MAY 19....	4.4	290	220	18	.3	14	633	.86	7.2	2.1
JUN 25....	4.9	320	310	32	.4	7.5	780	1.1	2.7	1.0
JUL 30....	5.4	300	370	33	.4	.6	827	1.1	.58	.14
AUG 26....	8.1	310	340	32	.4	3.8	800	1.1	.43	.00
SEP 29....	11	330	440	30	.4	11	952	1.3	.10	.00



09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO--Continued  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 29....	.17	1340	8.2	4.0	670	--	--	86	110	81	21	1.4
NOV 26....	.14	1400	8.0	.5	640	--	--	91	100	73	20	1.3
DEC 23....	.40	1410	8.0	.0	640	--	--	99	96	68	18	1.2
FEB 24....	.03	730	8.3	.0	330	--	--	53	49	38	20	.9
APR 01....	.08	1080	8.6	10.5	500	210	210	79	73	66	22	1.3
28....	.02	1350	8.4	22.5	560	240	240	60	100	79	23	1.5
MAY 29....	.04	1300	8.3	15.5	580	220	220	69	100	72	21	1.3
JUN 12....	.12	1680	8.0	25.5	760	480	480	140	100	110	24	1.7

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB AS CA:03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT 29....	8.4	310	460	33	.8	13	979	1.3	.45	.13	--
NOV 26....	7.5	401	340	31	.4	13	899	1.2	.34	.44	--
DEC 23....	10	390	360	31	.4	13	914	1.2	.99	.37	--
FEB 24....	5.4	201	220	17	.3	8.7	512	.70	.04	.03	4.0
APR 01....	7.4	290	260	40	.4	8.8	710	.97	.15	.24	5.5
28....	11	320	400	34	.5	9.9	887	1.2	.05	.06	8.2
MAY 29....	9.2	360	360	31	.4	8.2	867	1.2	.09	.06	6.9
JUN 12....	11	280	660	58	1.0	15	1270	1.7	.41	1.3	8.2

## 09250600 WILSON CREEK NEAR AXIAL, CO

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 09...	.45	2600	7.5	9.0	840	120	130	180	32	2.7
NOV 11...	.61	2100	8.5	5.0	700	84	120	190	37	3.1
DEC 03...	.82	1800	8.5	2.0	750	120	110	180	34	2.9
JAN 08...	1.2	1900	8.1	1.0	790	120	120	140	27	2.2
FEB 05...	1.2	1480	8.1	.0	690	110	100	150	32	2.5
MAR 01...	.88	1200	8.0	5.0	500	86	70	100	30	1.9
APR 08...	1.4	1880	8.1	7.0	700	120	98	150	31	2.5
MAY 06...	3.3	1500	8.2	10.0	550	100	72	130	34	2.4
JUN 10...	2.2	1700	8.1	16.0	630	110	86	150	34	2.6
JUL 09...	1.7	1700	8.1	21.0	630	92	96	160	35	2.8
AUG 09...	.81	2000	8.2	18.0	730	110	110	170	33	2.7
SEP 01...	.32	2200	8.2	14.0	840	120	130	190	33	2.9

09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 09....	11	434	540	180	.6	14	1440	2.0	1.8	.36
NOV 11....	10	421	600	58	.5	13	1330	1.8	2.2	.38
DEC 03....	13	410	500	150	.5	15	1340	1.8	3.0	.91
JAN 08....	9.6	417	440	130	.4	15	1230	1.7	4.0	.94
FEB 05....	9.2	409	410	140	.5	14	1180	1.6	3.8	.95
MAR 01....	9.5	303	280	96	.4	11	840	1.1	2.0	.85
APR 08....	9.4	398	390	150	.5	13	1170	1.6	4.4	.66
MAY 06....	8.0	311	290	180	.4	10	980	1.3	8.7	.61
JUN 10....	7.5	325	310	180	.5	14	1060	1.4	6.4	.65
JUL 09....	9.0	322	350	170	.6	14	1090	1.5	5.0	.39
AUG 09....	9.9	376	520	170	.5	13	1330	1.8	2.9	.30
SEP 01....	10	393	560	180	.5	15	1440	2.0	1.2	.52

## 09250600 WILSON CREEK NEAR AXIAL, CO--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 15...	.42	2100	8.2	6.5	790	120	120	180	33	2.8
NOV 05...	.36	1900	8.0	10.0	810	110	130	180	32	2.8
DEC 09...	.47	2100	8.2	3.5	880	120	140	170	29	2.5
JAN 06...	.12	2050	8.1	.5	810	110	130	180	32	2.8
FEB 07...	.63	1990	8.2	2.0	770	110	120	180	33	2.8
MAR 10...	.70	1800	8.1	3.0	740	100	120	170	33	2.7
APR 07...	.93	1750	8.2	10.0	660	100	100	150	33	2.5
MAY 05...	.34	2100	8.2	14.0	740	100	120	180	34	2.9
JUN 08...	.36	2000	8.1	16.0	770	110	120	180	33	2.8
JUL 08...	.38	1900	8.1	16.0	770	110	120	180	33	2.8
AUG 18...	.37	1910	8.2	15.0	770	110	120	150	29	2.4
SEP 19...	.36	2000	8.2	15.5	740	100	120	160	32	2.6

09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 15....	10	404	540	160	.5	15	1390	1.9	1.6	.40
NOV 05....	9.9	388	540	160	.4	15	1380	1.9	1.3	.33
DEC 09....	11	431	520	160	.6	14	1400	1.9	1.8	.52
JAN 06....	9.8	440	510	160	.6	17	1380	1.9	.45	.46
FEB 07....	9.7	414	530	160	.5	15	1380	1.9	2.4	.36
MAR 10....	9.0	399	480	150	.6	12	1280	1.7	2.4	.25
APR 07....	9.1	350	420	130	.5	11	1130	1.5	2.8	.26
MAY 05....	10	390	500	160	.7	14	1320	1.8	1.2	.19
JUN 08....	10	410	500	150	.7	15	1330	1.8	1.3	.43
JUL 08....	9.0	390	490	150	.6	14	1310	1.8	1.3	.32
AUG 18....	11	380	490	150	.6	15	1270	1.7	1.3	.18
SEP 19....	9.5	400	520	130	.6	15	1300	1.8	1.3	.25

09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 27...	.39	2000	8.3	7.0	770	110	120	180	33	2.8
NOV 28...	.37	2000	8.2	6.0	770	110	120	190	35	3.0
JAN 05...	.36	1800	8.1	4.0	810	110	130	180	32	2.8
FEB 02...	.35	1900	8.1	5.0	770	110	120	180	33	2.8
MAR 08...	.38	2000	8.1	8.0	810	110	130	170	31	2.6
APR 17...	.53	1900	8.1	9.0	770	110	120	170	32	2.7
MAY 15...	6.3	1200	8.3	18.5	410	80	50	93	33	2.0
JUL 05...	1.1	1700	8.5	21.0	620	95	93	160	36	2.8
24...	.73	1700	8.2	21.5	600	91	90	160	36	2.8
AUG 17...	.34	1850	8.3	20.5	690	96	110	160	33	2.6
SEP 30...	.26	1880	8.2	12.5	730	110	110	170	33	2.7

09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
OCT 27...	10	410	510	160	.7	16	1360	1.9	1.4	.44
NOV 28...	10	410	520	150	.6	16	1370	1.9	1.4	.41
JAN 05...	9.5	410	520	160	.3	17	1370	1.9	1.3	--
FEB 02...	9.5	390	480	150	.6	16	1300	1.8	1.2	.28
MAR 08...	9.9	410	500	170	.6	14	1350	1.8	1.4	.39
APR 17...	10	430	430	160	.6	14	1270	1.7	1.8	.33
MAY 15...	7.0	230	210	110	.4	10	703	.96	12.0	1.1
JUL 05...	9.0	290	340	170	.5	10	1050	1.4	3.1	.22
24...	8.9	--	370	160	.5	15	--	1.4	--	.13
AUG 17...	10	370	440	160	.6	15	1210	1.7	1.1	.19
SEP 30...	9.2	390	450	150	.6	16	1250	1.7	.88	.16

09250600 WILSON CREEK NEAR AXIAL, CO--Continued  
 WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 25...	.57	1900	8.4	8.5	730	110	110	160	32	2.6
NOV 09...	.31	2060	8.4	10.0	840	120	130	190	33	2.9
APR 05...	.69	2020	8.2	13.5	770	110	120	170	32	2.7
18...	3.4	1550	7.9	11.0	470	81	65	130	37	2.6
MAY 09...	18	1000	8.0	8.0	330	76	35	77	33	1.8
18...	35	840	7.4	15.0	320	61	40	58	26	1.4
JUL 23...	3.3	1400	8.3	20.5	760	72	140	58	14	.9
SEP 06...	.81	1700	8.1	11.0	690	96	110	160	58	2.6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)
OCT 25...	14	430	490	120	.6	15	1280	1.7	2.0	.22
NOV 09...	10	400	570	160	.5	16	1440	2.0	1.2	.37
APR 05...	10	390	510	150	.5	15	1320	1.8	2.5	.34
18...	7.6	300	280	160	.4	11	916	1.3	8.4	.71
MAY 09...	7.1	220	190	83	.4	9.6	618	.84	30.0	1.4
18...	29	180	160	74	.4	9.9	547	.74	51.7	1.1
JUL 23...	7.2	410	420	30	.3	15	989	1.4	8.8	<.10
SEP 06...	8.2	380	500	140	.6	13	1260	1.7	2.8	.31



09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 08....	1.1	1850	8.3	6.0	650	100	97	160	34	2.7
DEC 19....	.57	1950	8.0	.5	730	110	110	160	55	2.6
JAN 31....	1.1	1590	7.8	.5	650	110	90	130	30	2.2
FEB 19....	48	309	7.8	.5	130	29	14	14	18	.5
MAR 19....	1.2	1890	8.1	7.0	750	120	110	160	31	2.5
APR 14....	E.95	1720	8.1	12.0	650	110	90	140	32	2.4
MAY 19....	34	800	7.7	12.0	340	68	41	48	23	1.1
JUN 25....	6.3	1340	7.8	19.0	550	100	73	96	27	1.8
JUL 30....	2.2	1520	8.0	16.5	570	89	84	120	31	2.2
AUG 26....	1.4	1530	8.0	18.0	560	87	83	120	31	2.2
SEP 29....	2.6	1700	8.1	15.5	610	88	95	140	33	2.5

E ESTIMATED.

09250600 WILSON CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 08...	9.9	400	440	130	.5	13	1190	1.6	3.5	.01
DEC 19...	9.1	400	440	120	.5	16	1210	1.7	1.9	.90
JAN 31...	8.3	220	440	150	.5	15	1080	1.5	3.2	.92
FEB 19...	7.8	70	58	16	.2	10	197	.27	25.6	.88
MAR 19...	9.4	400	480	130	.6	15	1270	1.7	4.1	.80
APR 14...	9.2	370	410	130	.5	13	1130	1.5	66.4	.95
MAY 19...	6.6	190	160	49	.5	9.5	502	.68	46.1	1.1
JUN 25...	7.5	340	280	80	.6	11	857	1.2	14.6	.95
JUL 30...	8.0	330	370	97	.6	13	985	1.3	5.9	1.1
AUG 26...	9.4	330	370	110	.5	13	995	1.4	3.8	.81
SEP 29...	9.9	310	410	130	.5	12	1080	1.5	7.6	.79

09250600 WILSON CREEK NEAR AXIAL, CO--Continued  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HARD- NESS AS CAC03	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 29....	1.7	1780	8.0	6.5	690	--	96	110	170	34	2.8	9.5
NOV 26....	2.3	1880	7.8	4.0	690	--	96	110	170	34	2.8	8.8
DEC 23....	3.3	1720	7.9	3.5	660	--	110	94	150	33	2.5	8.0
JAN 21....	.86	1880	8.2	4.5	730	--	110	110	170	33	2.7	7.8
APR 28....	1.2	1750	8.1	19.5	670	310	110	95	140	31	2.4	11
MAY 29....	E1.1	1550	8.1	13.0	580	220	94	83	120	31	2.2	7.5

DATE	ALKA- LITY FIELD (MG/L AS CAC03)	ALKA- LITY LAB (MG/L F/S C/C03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT 29....	380	--	480	130	.6	14	1240	1.7	5.7	1.3	--
NOV 26....	--	300	470	120	.5	15	1230	1.7	7.6	1.6	--
DEC 23....	--	300	460	110	.5	15	1160	1.6	10.3	1.5	--
JAN 21....	--	--	510	130	.6	16	1310	1.8	3.0	1.5	5.8
APR 28....	--	300	460	120	.5	45	1200	1.6	3.9	1.3	8.2
MAY 29....	--	300	350	99	.4	13	988	1.3	--	.99	5.6

E ESTIMATED.

09250610 JUBB CREEK NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 09....	.12	2000	7.8	8.0	910	100	160	92	18	1.3
NOV 12....	.05	2100	8.4	.5	1000	130	170	120	20	1.6
FEB 09....	5.5	420	8.1	.5	170	26	25	18	18	.6
MAR 01....	.38	950	8.2	5.0	470	71	71	41	16	.8
MAY 06....	.06	1500	8.1	10.0	760	90	130	89	20	1.4
JUN 10....	.16	1450	8.2	14.0	780	98	130	58	14	.9
JUL 06....	.12	1700	8.1	17.0	720	72	130	68	17	1.1
AUG 09....	.11	1550	8.2	14.0	800	88	140	66	15	1.0
SEP 01....	.05	1620	8.1	10.0	820	82	150	87	19	1.3

09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 09....	9.7	499	520	42	.4	11	1240	1.7	.40	<.10
NOV 12....	11	556	670	--	.4	15	--	2.1	.20	.06
FEB 09....	8.7	116	94	7.4	.2	3.4	255	.35	3.8	.44
MAR 01....	7.9	325	230	19	.3	8.5	645	.88	.66	.06
MAY 06....	5.7	442	--	33	.4	8.7	1060	1.4	.17	--
JUN 10....	5.5	445	380	30	.4	12	982	1.3	.42	.05
JUL 06....	4.6	390	390	33	.4	14	946	1.3	.31	.02
AUG 09....	6.7	439	400	40	.3	13	1020	1.4	.30	.01
SEP 01....	5.8	433	500	39	.3	12	1140	1.6	.15	.01

09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 15....	.07	1600	8.2	.5	850	93	150	89	18	1.3
NOV 05....	.05	1600	8.1	2.0	940	96	170	92	17	1.3

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DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 15....	6.4	418	500	39	.3	12	1140	1.6	.22	.02
NOV 05....	7.3	459	550	38	.2	14	1240	1.7	.17	.02

09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 21...	.01	1700	8.5	6.0	840	72	160	110	22	1.7
NOV 28...	<.01	2120	8.1	.5	1200	150	190	120	18	1.5
APR 17...	.01	1625	8.1	9.0	810	78	150	98	21	1.5
MAY 15...	<.01	1800	8.5	16.0	860	65	170	120	23	1.8
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 21...	8.8	450	590	40	.4	9.6	1260	1.7	.03	.04
NOV 28...	15	500	830	--	.6	14	--	--	.04	.10
APR 17...	5.6	440	490	40	.3	6.5	1140	1.6	.03	.02
MAY 15...	6.0	450	560	39	.3	1.7	1240	1.7	.01	<.10

## 09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
MAY										
09....	.06	1400	8.1	8.0	630	86	100	69	19	1.2
18....	.02	1500	8.0	23.5	760	89	130	65	16	1.0
JUN										
25....	.16	1350	7.6	20.0	--	99	--	53	--	--
JUL										
23....	.11	1470	8.5	17.5	520	86	75	120	33	2.3
SEP										
06....	.01	1500	8.3	9.0	770	79	140	85	47	1.3

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAY									
09....	6.1	380	380	24	.3	12	905	1.2	.15
18....	6.9	400	420	29	.4	11	993	1.4	.03
JUN									
25....	4.8	370	390	26	.3	9.8	--	1.2	<.10
JUL									
23....	8.2	310	320	110	.4	14	924	1.3	.65
SEP									
06....	6.9	430	520	36	.4	16	1140	1.6	.03



09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 08....	.02	1480	8.3	1.0	660	100	100	71	19	1.2
FEB 19....	5.6	550	7.9	.5	240	36	37	31	21	.9
MAR 19....	.09	1750	8.2	.0	810	110	130	90	19	1.4
APR 14....	.06	1680	8.2	9.5	780	97	130	96	21	1.5
MAY 19....	2.0	1200	8.2	17.5	570	85	86	43	14	.8
JUN 25....	1.1	1400	7.8	18.5	700	97	110	49	13	.8
JUL 30....	.42	1600	8.2	15.5	780	96	130	66	16	1.0
AUG 26....	.27	1600	8.3	17.0	770	95	130	67	16	1.1
SEP 29....	.17	1670	8.3	11.5	790	87	140	85	19	1.3

## 09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
NOV 08...	9.1	260	470	33	.3	16	956	1.3	.05	.11
FEB 19...	7.7	160	120	11	.2	6.0	846	.47	5.2	.05
MAR 19...	5.6	450	460	31	.4	13	1110	1.5	.27	.01
APR 14...	6.1	460	500	32	.3	12	1150	1.6	.19	.07
MAY 19...	6.4	320	310	23	.3	2.9	750	1.0	4.1	.30
JUN 25...	5.5	400	380	26	.4	15	930	1.3	2.6	1.4
JUL 30...	6.0	420	460	32	.5	16	1060	1.4	1.2	.16
AUG 26...	9.6	400	450	37	.3	16	1050	1.4	.77	.00
SEP 29...	8.1	430	510	42	.3	14	1150	1.6	.53	.03

09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 29....	.19	1700	8.0	1.0	870	--	100	150	87	18	1.3
NOV 26....	.01	2200	7.8	.0	1100	--	150	180	120	19	1.6
DEC 23....	.66	1540	7.8	.0	810	--	110	130	73	16	1.1
FEB 24....	.14	1490	8.2	.0	740	--	100	120	78	18	1.2
APR 01....	.29	1440	8.3	.0	680	290	89	110	72	19	1.2
28....	.04	1700	8.3	23.0	800	360	89	140	97	21	1.5
MAY 29....	.19	1700	8.2	13.0	810	340	94	140	88	19	1.3
JUN 25....	.14	1740	8.3	17.0	830	430	87	150	97	20	1.5
JUL 15....	.05	1740	8.4	16.5	870	400	85	160	110	21	1.6
AUG 07....	.06	1710	8.6	26.0	820	380	65	160	120	24	2.2
SEP 17....	.11	1770	8.5	9.5	850	410	78	160	120	23	2.1

09250610 JUBB CREEK NEAR AXIAL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
OCT 29....	10	470	530	40	.4	14	1210	1.7	.62	.09	--
NOV 26....	12	640	600	45	.4	18	1510	2.1	.04	.04	--
DEC 23....	8.7	450	460	30	.3	15	1100	1.5	2.0	.00	--
FEB 24....	5.1	340	490	31	.3	11	1040	1.4	.39	.03	3.8
APR 01....	4.8	390	400	27	.3	9.4	947	1.3	.74	.00	3.6
28....	6.9	440	540	35	.4	9.8	1180	1.6	.13	.06	5.1
MAY 29....	4.6	470	510	34	.3	12	1170	1.6	.60	.05	3.4
JUN 25....	6.4	400	580	40	.3	14	1220	1.7	.46	.02	4.8
JUL 15....	5.7	470	580	42	.3	16	1280	1.7	.17	.03	4.3
AUG 07....	6.4	440	580	39	.3	13	1250	1.7	.20	.00	--
SEP 17....	5.1	440	630	39	.3	13	1310	1.8	.39	.01	--

09250700 MORGAN GULCH NEAR AXIAL, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
SEP 17...	.86	1430	8.1	17.8	740	80	130	53	13	.9
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, N02+N03 DIS- SOLVED (MG/L AS N)
SEP 17...	10	400	430	19	.5	14	977	1.3	2.3	.00

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
JAN 21...	.62	1690	8.2	.0	920	--	--	120	150	69	14	1.0
FEB 24...	.68	1480	8.3	.0	790	--	--	100	130	59	14	.9
APR 01...	1.6	1550	8.4	14.0	890	480		110	150	66	14	1.0
28...	1.2	1550	8.3	21.5	810	370		94	140	61	14	.9
MAY 29...	1.9	1520	8.2	13.5	790	310		100	130	53	13	.8
JUN 25...	.27	1500	8.2	16.0	750	330		85	130	56	14	.9
JUL 15...	.59	1500	8.2	15.0	800	360		88	140	66	15	1.0
AUG 07...	.38	1450	8.4	22.5	720	300		75	130	69	17	1.3
SEP 17...	.24	1480	8.3	11.0	760	330		75	140	85	19	1.6

  

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	POTAS- SIUM 40 DIS- SOLVED (PCI/L AS K40)
JAN 21...	8.8	510	510	20	.7	15	1200	1.6	2.0	.00	6.6
FEB 24...	8.5	420	460	14	.5	12	1040	1.4	1.9	.00	6.3
APR 01...	9.4	410	570	17	.5	12	1180	1.6	5.1	.09	7.0
28...	10	440	480	16	.6	13	1080	1.5	3.5	.03	7.5
MAY 29...	9.2	480	440	13	.5	13	1050	1.4	5.4	.05	6.9
JUN 25...	9.2	420	430	17	.4	12	992	1.4	.72	.03	6.9
JUL 15...	9.1	440	470	18	.4	14	1070	1.5	1.7	.02	6.8
AUG 07...	10	420	450	17	.4	9.9	1010	1.4	1.0	.00	--
SEP 17...	8.7	430	460	16	.4	11	1060	1.4	.69	.03	--

STATISTICAL SUMMARY OF SELECTED WATER-QUALITY DATA COLLECTED AT  
SURFACE-WATER GAGING STATIONS ON THE YAMPA RIVER AND THE WILLIAMS FORK RIVER

09244410 YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.

LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (CFS)	115	1237.50	1860.75	38.90	7300.00	173.52
SPECIFIC CONDUCTANCE (UMHOS)	102	281.65	110.59	60.00	600.00	10.95
PH (UNITS)	85	7.76	0.45	6.80	8.60	0.05
TEMPERATURE (DEG C)	102	7.30	6.20	0.00	21.00	0.61
HARDNESS (MG/L AS CAC03)	80	105.21	41.36	24.00	230.00	4.62
HARDNESS NONCARBONATE (MG/L AS CAC03)	10	20.10	28.83	1.00	100.00	9.12
CALCIUM DISSOLVED (MG/L AS CA)	80	26.62	9.40	6.60	51.00	1.05
MAGNESIUM, DISSOLVED (MG/L AS MG)	80	9.26	4.52	1.50	26.00	0.51
SODIUM, DISSOLVED (MG/L AS NA)	78	17.02	8.82	1.90	36.00	1.00
PERCENT SODIUM	76	24.75	5.43	14.00	42.00	0.62
SODIUM ADSORPTION RATIO	78	0.70	0.28	0.20	1.30	0.03
POTASSIUM, DISSOLVED (MG/L AS K)	76	2.11	0.68	0.60	3.30	0.08
ALKALINITY FIELD (MG/L AS CAC03)	68	85.85	33.24	20.00	135.00	4.03
ALKALINITY LAB (MG/L AS CAC03)	14	94.00	24.54	38.00	130.00	6.56
SULFATE DISSOLVED (MG/L AS S04)	81	40.39	30.41	3.00	180.00	3.38
CHLORIDE, DISSOLVED (MG/L AS CL)	81	7.60	4.45	0.60	24.00	0.49
FLUORIDE, DISSOLVED (MG/L AS F)	76	0.21	0.13	0.10	1.00	0.01
SILICA, DISSOLVED (MG/L AS SI02)	77	9.19	3.22	1.50	16.00	0.37
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED	75	165.89	73.00	37.00	391.00	8.43
SOLIDS, DISSOLVED (TONS PER AC-FT)	76	0.23	0.10	0.05	0.53	0.01
SOLIDS, DISSOLVED (TONS PER DAY)	73	261.49	332.80	20.30	1500.00	38.95
NITROGEN, N02+N03 DISSOLVED (MG/L AS N)	1	0.10	-----	0.10	0.10	-----
POTASSIUM 40 DISSOLVED (PCI/L AS K40)	5	1.44	0.60	0.90	2.40	0.27



09246550 YAMPA RIVER BELOW ELKHEAD CREEK NEAR CRAIG, CO.

LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (CFS)	38	1662.24	2671.22	70.00	9900.00	433.33
SPECIFIC CONDUCTANCE (UMHOS)	62	328.97	126.49	80.00	650.00	16.06
PH (UNITS)	60	7.81	0.44	6.90	8.70	0.06
TEMPERATURE (DEG C)	62	8.30	7.29	0.00	22.00	0.93
HARDNESS (MG/L AS CAC03)	60	120.68	43.90	30.00	220.00	5.67
HARDNESS NONCARBONATE (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
CALCIUM DISSOLVED (MG/L AS CA)	60	30.01	9.80	8.10	48.00	1.27
MAGNESIUM, DISSOLVED (MG/L AS MG)	60	11.09	4.82	2.00	25.00	0.62
SODIUM, DISSOLVED (MG/L AS NA)	60	21.01	11.32	3.30	66.00	1.46
PERCENT SODIUM	60	26.00	5.19	15.00	41.00	0.67
SODIUM ADSORPTION RATIO	60	0.79	0.32	0.20	2.00	0.04
POTASSIUM, DISSOLVED (MG/L AS K)	60	2.46	1.20	0.80	9.30	0.16
ALKALINITY FIELD (MG/L AS CAC03)	60	97.53	33.01	26.00	160.00	4.26
ALKALINITY LAB (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
SULFATE DISSOLVED (MG/L AS S04)	60	54.03	33.15	8.40	170.00	4.28
CHLORIDE, DISSOLVED (MG/L AS CL)	60	8.84	4.69	1.10	22.00	0.61
FLUORIDE, DISSOLVED (MG/L AS F)	60	0.21	0.06	0.10	0.30	0.01
SILICA, DISSOLVED (MG/L AS SI02)	59	8.26	2.98	0.60	15.00	0.39
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED	59	194.93	78.85	48.00	407.00	10.27
SOLIDS, DISSOLVED (TONS PER AC-FT)	59	0.27	0.11	0.07	0.55	0.01
SOLIDS, DISSOLVED (TONS PER DAY)	44	506.92	772.43	0.12	3950.00	116.45
NITROGEN, N02+N03 DISSOLVED (MG/L AS N)	1	0.01	-----	0.01	0.01	-----
POTASSIUM 40 DISSOLVED (PCI/L AS K40)	0	-----	-----	-----	-----	-----

09247600 YAMPA RIVER BELOW CRAIG, CO

LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (CFS)	72	1690.14	2627.01	10.70	9990.00	309.60
SPECIFIC CONDUCTANCE (UMHOS)	60	333.40	139.08	78.00	670.00	17.96
PH (UNITS)	60	8.00	0.55	7.00	9.00	0.07
TEMPERATURE (DEG C)	60	9.26	7.75	0.00	24.00	1.00
HARDNESS (MG/L AS CAC03)	58	121.24	47.74	25.00	220.00	6.27
HARDNESS NONCARBONATE (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
CALCIUM DISSOLVED (MG/L AS CA)	59	29.79	10.92	6.70	48.00	1.42
MAGNESIUM, DISSOLVED (MG/L AS MG)	58	11.23	5.15	1.90	25.00	0.68
SODIUM, DISSOLVED (MG/L AS NA)	58	23.72	13.07	2.60	62.00	1.72
PERCENT SODIUM	58	27.91	6.08	13.00	42.00	0.80
SODIUM ADSORPTION RATIO	58	0.89	0.37	0.20	2.00	0.05
POTASSIUM, DISSOLVED (MG/L AS K)	59	2.28	0.80	0.70	4.10	0.10
ALKALINITY FIELD (MG/L AS CAC03)	59	98.59	38.22	22.00	180.00	4.98
ALKALINITY LAB (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
SULFATE DISSOLVED (MG/L AS S04)	59	60.00	35.71	6.50	180.00	4.65
CHLORIDE, DISSOLVED (MG/L AS CL)	59	9.19	4.91	0.90	23.00	0.64
FLUORIDE, DISSOLVED (MG/L AS F)	59	0.21	0.07	0.10	0.40	0.01
SILICA, DISSOLVED (MG/L AS SI02)	57	7.55	2.96	0.50	13.00	0.39
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED	57	201.77	87.71	44.00	421.00	11.62
SOLIDS, DISSOLVED (TONS PER AC-FT)	57	0.27	0.12	0.06	0.57	0.02
SOLIDS, DISSOLVED (TONS PER DAY)	56	517.05	793.83	10.70	4230.00	106.08
NITROGEN, N02+N03 DISSOLVED (MG/L AS N)	1	0.01	-----	0.01	0.01	-----
POTASSIUM 40 DISSOLVED (PCI/L AS K40)	0	-----	-----	-----	-----	-----

09249750 WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO

LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (CFS)	75	190.81	339.30	5.80	1350.00	39.18
SPECIFIC CONDUCTANCE (UMHOS)	61	421.46	135.49	128.00	860.00	17.35
PH (UNITS)	62	8.08	0.35	7.10	8.70	0.04
TEMPERATURE (DEG C)	59	9.36	8.05	0.00	26.00	1.05
HARDNESS (MG/L AS CAC03)	60	198.15	61.66	74.00	340.00	7.96
HARDNESS NONCARBONATE (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
CALCIUM DISSOLVED (MG/L AS CA)	60	43.63	11.00	20.00	67.00	1.42
MAGNESIUM, DISSOLVED (MG/L AS MG)	60	21.61	9.02	5.90	53.00	1.16
SODIUM, DISSOLVED (MG/L AS NA)	58	18.14	10.87	3.40	78.00	1.43
PERCENT SODIUM	57	16.02	4.90	9.00	33.00	0.65
SODIUM ADSORPTION RATIO	58	0.53	0.24	0.20	1.80	0.03
POTASSIUM, DISSOLVED (MG/L AS K)	58	1.89	0.83	0.70	5.10	0.11
ALKALINITY FIELD (MG/L AS CAC03)	61	157.07	44.10	67.00	270.00	5.65
ALKALINITY LAB (MG/L AS CAC03)	0	-----	-----	-----	-----	-----
SULFATE DISSOLVED (MG/L AS S04)	60	71.77	38.31	14.00	220.00	4.95
CHLORIDE, DISSOLVED (MG/L AS CL)	60	3.98	2.71	0.50	16.00	0.35
FLUORIDE, DISSOLVED (MG/L AS F)	58	0.17	0.10	0.10	0.80	0.01
SILICA, DISSOLVED (MG/L AS SI02)	59	11.37	2.31	2.60	15.00	0.30
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED	55	260.78	84.37	96.00	438.00	11.38
SOLIDS, DISSOLVED (TONS PER AC-FT)	58	0.35	0.11	0.13	0.60	0.01
SOLIDS, DISSOLVED (TONS PER DAY)	58	89.80	115.35	0.73	529.00	15.15
NITROGEN, N02+N03 DISSOLVED (MG/L AS N)	1	0.01	-----	0.01	0.01	-----
POTASSIUM 40 DISSOLVED (PCT/L AS K40)	0	-----	-----	-----	-----	-----

09251000 YAMPA RIVER NEAR MAYBELL, CO

LABEL	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN
STREAMFLOW, INSTANTANEOUS (CFS)	144	1822.61	2947.35	31.80	13600.00	245.61
SPECIFIC CONDUCTANCE (UMHOS)	764	422.26	178.06	100.00	1100.00	6.44
PH (UNITS)	758	7.69	0.37	6.60	8.90	0.01
TEMPERATURE (DEG C)	364	9.79	7.98	0.00	28.00	0.42
HARDNESS (MG/L AS CaCO3)	723	146.89	54.62	29.00	380.00	2.03
HARDNESS NONCARBONATE (MG/L AS CaCO3)	11	50.91	39.47	13.00	140.00	11.90
CALCIUM DISSOLVED (MG/L AS Ca)	556	35.63	11.14	6.00	104.00	0.47
MAGNESIUM, DISSOLVED (MG/L AS MG)	556	14.90	6.67	0.40	42.00	0.28
SODIUM, DISSOLVED (MG/L AS NA)	559	33.96	19.56	3.90	160.00	0.83
PERCENT SODIUM	603	30.28	7.94	9.00	60.00	0.32
SODIUM ADSORPTION RATIO	720	1.15	0.58	0.20	4.60	0.02
POTASSIUM, DISSOLVED (MG/L AS K)	517	2.58	0.96	0.40	7.80	0.04
ALKALINITY FIELD (MG/L AS CaCO3)	709	123.03	42.70	28.00	232.00	1.60
ALKALINITY LAB (MG/L AS CaCO3)	15	131.20	39.06	68.00	190.00	10.09
SULFATE DISSOLVED (MG/L AS SO4)	723	71.06	42.77	8.10	310.00	1.59
CHLORIDE, DISSOLVED (MG/L AS CL)	724	17.50	13.38	1.00	130.00	0.50
FLUORIDE, DISSOLVED (MG/L AS F)	266	0.32	0.13	0.00	1.00	0.01
SILICA, DISSOLVED (MG/L AS SiO2)	557	9.39	3.70	0.80	19.00	0.16
SOLIDS, SUM OF CONSTITUENTS, DISSOLVED	553	263.73	107.90	51.00	697.00	4.59
SOLIDS, DISSOLVED (TONS PER AC-FT)	721	0.36	0.15	0.09	0.92	0.01
SOLIDS, DISSOLVED (TONS PER DAY)	719	753.83	949.56	41.20	8440.00	35.41
NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	71	0.23	0.29	0.00	1.40	0.03
POTASSIUM 40 DISSOLVED (PCI/L AS K40)	7	1.57	0.44	1.00	2.10	0.17