



WATER-RIGHT DOCKET

Black Canyon of the Gunnison National Park

Docket No: 3

POISON SPRINGS DITCH

Preliminary Docket Information

00-00-0000: water right record

WATER RIGHT RECORD

Park: BLCA

Docket Number:

Federal #3

IDENTIFICATION NO: BLCA S, 2 2, 5 0, 0 7, A, F, 0 3,

DITCH/WATER SYSTEM: Poison Springs Ditch - (Ditch #60?)

SOURCE OF SUPPLY: The ditch derives supply of water from Poison Springs which is a tributary of the Gunnison River.

LOCATION: Headgate is located at a point on the left bank of Poison Springs Creek whence the NE corner of Sec 22 T50N R7W of NMM bears N63° E 1260 feet

WATER RIGHT:

Appropriator: P. G. Gates, E. C. Gates, and Dorothy Gates Allyn

Application/Permit Number:

Certificate Record Number:

Date of Priority: H-43, April 1, 1903 (purchased)

Quantity of Water: 17.5 c.f.s.

Purpose: Irrigation, livestock and domestic

Irrigated Land Description:

SUMMARY OF STATUS:

Hydrologic Unit: 14020002

County: Montrose



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Quality of Water Branch
3428 Federal Building
Salt Lake City, Utah 84111

IN REPLY REFER TO
Reg. Director
Admin. Asst.
Asst. to R. D.
Asst. Dir.
Cons. In-Use
Res. Planning
Reg. Comm.
Info. & Publs.
Field Socy.
Feb 15 1965
FILE

Mr. F. G. Bussey, Superintendent
Colorado National Monument
National Park Service
P. O. Box 438
Fruita, Colorado 81521

Dear Mr. Bussey:

Enclosed are results of analyses of three samples from the Poison Spring area on the north side of Black Canyon. The samples, obtained last fall by Mr. Brennan of our Denver office, represent the main spring (28565), a spring about 0.3 mile north of the main spring (28567), and a spring southeast of the main spring (28564).

The arsenic content of water from the main spring and from the southeast spring are considerably higher than the concentration recommended for a drinking water supply. The concentration of 0.3 ppm in water from the main spring agrees well with the concentration of 0.27 ppm (preliminary test) determined for sample 25323 obtained in August 1962. Apparently, the arsenic content increases as discharge from the springs decreases in late summer. This supports the conclusion in Mr. Coffin's April 17, 1964 letter to Mr. W. Lowell White. The cause of the wide differences in arsenic concentrations of water from the three spring sources is not known.

I trust the enclosed data will confirm the quality-of-water situation sufficiently so that you can plan development accordingly.

Sincerely yours,

R. H. Langford
District Chemist

Enclosures: 28564, 5, 7

cc: Wm. A. Mott, NPS, Omaha, Nebr.
Robert Brennan, USGS, Denver, Colo.
District Geologist, USGS-CN, Denver, Colo.

ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR
(parts per million)

Salt Lake City Laboratory No.	25324				
Date of collection	9-9 1962				
Silica (SiO ₂)	28				
Iron (Fe), dissolved*	.01				
Iron (Fe), total					
Manganese (Mn), dissolved*					
Manganese (Mn), total					
Calcium (Ca)	17				
Magnesium (Mg)	2.4				
Sodium (Na)	2.0				
Potassium (K)	1.6				
Bicarbonate (HCO ₃)	59				
Carbonate (CO ₃)	0				
Sulfate (SO ₄)	7.3				
Chloride (Cl)	2.5				
Fluoride (F)	.2				
Nitrate (NO ₃)	.3				
Boron (B)	.03				
Dissolved solids					
Sum					
Residue on evaporation					
at 180° C	108				
Hardness as CaCO ₃	52				
Non-carbonate	4				
Alkalinity as CaCO ₃	48				
Specific conductance					
(micromhos at 25° C)	116				
pH	7.1				
Color	5				
CO ₂ (calculated).....					

*In solution at time of analysis.

25324 - Spring, (B-50-7) 27dd), Black Canyon of the Gunnison National Monument (North Rim), Montrose County, Colorado. WBF: sandstone. Flow: 1 1/4 gpm @ 220 F. Use: livestock tank below springs. Clear. Poc: main flow from pipe - Poison Springs. Owner: Bates - Allyn. Collected by: Ron Meyer. Color 5

ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR

(Results in parts per million except as indicated)

Salt Lake City Laboratory No.	28565	28567	28564
Date of collection	9/8/64	9/8/64	9/8/64
Estimated flow (gpm)	0.5	0.2	0.3
Silica (SiO ₂)	38	16	28
Iron (Fe) *	.00	.00	.01
Manganese (Mn) *	.00	.00	.00
Lead (Pb)	.00	.00	.00
Calcium (Ca)	12	15	12
Magnesium (Mg)	3.7	3.7	2.5
Sodium (Na)	1.6	2.6	1.2
Potassium (K)	.8	.8	1.2
Zinc (Zn)	.0*	.05	.02
Bicarbonate (HCO ₃)	45	57	40
Carbonate (CO ₃)	0	0	0
Sulfate (SO ₄)	8.2	12	8.2
Chloride (Cl)	2.5	4.3	3.4
Fluoride (F)	.4	.4	.8
Nitrate (NO ₃)	1.5	.2	2.3
Boron (B)			
Dissolved solids			
Calculated	91	83	80
Residue on evaporation at 180° C.	108	110	92
Hardness as CaCO ₃	46	53	59
Non carbonate hardness as CaCO ₃	9	6	6
Alkalinity as CaCO ₃	37	47	33
Percent Sodium	7	9	6
Sodium-Adsorption Ratio	.1	.2	.1
Arsenic (As)	.30	.01	.16
Specific Conductance μ mhos/cm @ 25° C.	90	121	82
pH	6.9	7.0	6.9
Color (units)			
Selenium (Se)	.00	.00	.00
Carbon Dioxide (CO ₂), Calculated			
Temperature, °F	44	47	44

*In solution at time of analysis

Springs north of Black Canyon of the Gunnison in the vicinity of Poison Spring
in T. 50 N., R. 7. W., Montrose Co., Colo. (Grizzly Ridge Quad.)

Sample No.

28565 Poison Spring - Main spring near line shack (50-7-27ddad).
28567 Spring (50-7-26cbbb) about 0.3 mile north of Poison Spring.
28564 Spring (50-7-26cccb) about 100 yards southeast of Poison Spring.

ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR
(parts per million)

Water City Laboratory No.	25323				
Date of collection	8-19-62				
Silica (SiO ₂)	37				
Iron (Fe), dissolved*	.01				
Iron (Fe), total					
Manganese (Mn), dissolved*					
Manganese (Mn), total					
Calcium (Ca)	14				
Magnesium (Mg)	1.0				
Sodium (Na)	1.0				
Potassium (K)	1.4				
Bicarbonate (HCO ₃)	43				
Carbonate (CO ₃)	0				
Sulfate (SO ₄)	5.4				
Chloride (Cl)	1.5				
Fluoride (F)	.1				
Nitrate (NO ₃)	1.2				
Boron (B)	.03				
Dissolved solids					
Sum					
Residue on evaporation					
at 180° C	100				
Hardness as CaCO ₃	42				
Non-carbonate	3				
Alkalinity as CaCO ₃	39				
Specific conductance					
(micromhos at 25° C)	93.4				
pH	7.0				
Color	5				
CO ₂ (calculated)					

*In solution at time of analysis.

25323 - Poison Springs, (B-50-7) 27 id, southeast of Crawford, Garfield County, Colorado. Loc: Springs. WBF: sandstone. Yield: 2 gpm flow. Flow around pipe almost equal to water from pipe. 34° F. Use: livestock. Clear. Collected by: Wilton Hoy, August 19, 1962, 5 pm. Received August 30, 1962.

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ANALYSES BY GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR
(parts per million)

Salt Lake City Lab. number	25187				
Date of collection	5-23 1962				
Silica (SiO ₂)	23				
Iron (Fe), dissolved*	.08				
Iron (Fe), total					
Manganese (Mn), dissolved*	.00				
Manganese (Mn), total					
Calcium (Ca)	13				
Magnesium (Mg)	2.4				
Sodium (Na)	1.5				
Potassium (K)	1.1				
Bicarbonate (HCO ₃)	44				
Carbonate (CO ₃)	0				
Sulfate (SO ₄)	9.9				
Chloride (Cl)	1.0				
Fluoride (F)	.7				
Nitrate (NO ₃)	.5				
Boron (B)	.03				
Dissolved solids					
Sum					
Residue on evaporation					
at 180° C	90				
Hardness as CaCO ₃	42				
Non-carbonate	6				
Alkalinity as CaCO ₃	36				
Specific conductance					
(micromhos at 25° C)	86.3				
pH	7.2				
Color	40				
CO ₂ (calculated)					

*In solution at time of analysis.

25187 - Spring, B-50-7-27dd, Poison Springs North of Black Canyon
of Gunnison National Monument, North Rim, Montrose County, Colo.
Spring through pipe in rock. Yield: 18-22 GPM flow. Use: stock.
Clear. POC: at source. Owner: probably Ned Allen.

Collected by: Wilton Hoy.

Other Supporting Information

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YPOISON SPRINGS DITCH

No. 60

Poison Springs Ditch is claimed by P. G. Gates, Crossett, Arkansas; E. C. Gates, Lockhart, Alabama; and Dorothy Gates Allyn, Maher, Colorado.

Work was commenced on the construction of said ditch on or about the first day of April, 1903, and was completed with due diligence and water appropriated thereby for the irrigation of 320 acres of land belonging to the claimants and lying thereunder; the claimants are the owners of about 1200 acres of land lying under and along said ditch all of which is susceptible of irrigation by means thereof, and which they propose to irrigate.

Claimants use said ditch and irrigation system to supply water for livestock ranging on the land irrigated thereby, and in their proceeding are asking for decrees for domestic use for watering said livestock, and two feet of water per second of time is required for said purpose.

The said ditch derives its supply of water from Poison Springs, located above Red Canon, which is a tributary of the Gunnison River, in Water District No. 40 of the State of Colorado.

The headgate of said ditch is located at a point on the left bank of Poison Springs Creek, whence the Northeast Corner of Section 22, Township 50, North of Range 7, West of the New Mexico Meridian bears North 63 deg. East, 1260 feet.

The said ditch flows in a general Westerly direction for a distance of about six miles, is five feet wide at the top, three feet wide at the bottom, one and one-half feet deep, has a grade of five feet per thousand feet and a carrying capacity of 17.5 cubic feet of water per second of time.

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IT IS, THEREFORE, ORDERED, ADJUDGED AND DECREED, That there be allowed and permitted to flow, into said ditch, from the said Poison Springs Creek, for the use and benefit of the parties lawfully entitled thereto, under and by virtue of appropriation by original construction, seventeen and one-half, (17.5) cubic feet of water per second of time, the maximum capacity of said ditch, and the same is hereby designated as Priority No. H-43, to date from the first day of April, A. D. 1903,

Provided, however, that there shall not be allowed or permitted to flow into said ditch, from the said source, to exceed eight (8) cubic feet of water per second of time, until said claimants have, with due diligence, reduced to cultivated or pasture land, more than 320 acres of land and PROVIDED FURTHER, That such additional water shall be allowed in the ratio and proportion of one (1) cubic foot of water per second of time for the irrigation of each forty (40) acres of land.

Docket Information

Number of Documents in Docket 9

Documents Dated from 10/15/1962 to 2/15/1965

Docket Compiled: 1/31/2011