



WATER-RIGHT DOCKET

Dinosaur National Monument

Docket No: 25

ROUND TOP & RAINBOW PARK WELLS.

Preliminary Docket Information

00-00-0000: water right record round top & rainbow park

WATER RIGHT RECORD

Park: DINO

Docket Number:
Federal #25

IDENTIFICATION NO: DINO W F 2 5

DITCH/WATER SYSTEM: Round Top & Rainbow Park

SOURCE OF SUPPLY: Four wells

LOCATION:

WATER RIGHT:

Appropriator: United States of America, National Park Service

Application/Permit Number:

Certificate Record Number:

Date of Priority:

Quantity of Water:

Purpose:

Irrigated Land Description:

SUMMARY OF STATUS: This is a Federal water right consisting of four abandoned bores, drilled in 1965.

State Water Rights Documentation

Completed 8-2-65
File NRS

RELEASE OF CLAIMS

For and in consideration of the receipt of final payment in the amount of \$3,537.50 from the United States of America (hereinafter called the Government) under and pursuant to Contract No. 14-10-0232-914, Drilling of Domestic Test Water Wells, Round Top and Rainbow Park, Dinosaur National Monument, Utah and Colorado, the undersigned hereby does remise, release, and discharge the Government, its officers, agents and employees of and from any and all claims and demands whatsoever under or arising from the said contract, except specified claims in stated amounts listed as follows:

NO EXCEPTIONS

This release has been executed the sixth day of July, 1965.

Uintah Basin Drilling Company
(Contractor)

BY Darwood L. Campbell
Darwood L. Campbell
Owner Partners
(Title)

X
[Large signature]
per Graham Lyles
DINO
3/3/76
Drilled + plugged

Other Supporting Information

Form 10-194
(Rev. 9/60)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICEDinosaur National Monument
Dinosaur, Colorado

(Park)

Check One:

Monthly
Estimate☐Final
Estimate☒

UNIT PRICE CONTRACT

ESTIMATE NO. Final	FOR (Period) April 29, 1965 to June 12, 1965	DATE July 6, 1965
CONTRACT NO. 14-10-02320914	COMPLETION DATE June 12, 1965	EXTENDED DATE July 26, 1965
CONTRACTOR Utah Basin Drilling Company		ORIGINAL CONTRACT \$6,368.00
PROJECT Drilling of Domestic Test Water Wells		CHANGE ORDERS* \$
LOCATION Roundtop and Rainbow Park		TOTAL CONTRACT \$6,368.00

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
SCHEDULE NO. I					
1	60	Well No. 1 - Roundtop:	60	11.00	\$ 660.00
9	2	Lin. Ft. bore for 6" Dia. casing	4	64.00	256.00
10	60	Days standby time for crew and equipment	8	3.00	24.00
11	60	Lin. Ft. Placing and removing 6" ID casing	60	.50	30.00
12	L.S.	Lin. Ft. plugging abandoned bore	L.S.	125.00	125.00
		Lump sum move-in and move-out of drilling rig			
1	60	Well No. 2 - Roundtop:	47	11.00	517.00
10	60	Lin. Ft. bore for 6" Dia. casing	8	3.00	24.00
11	60	Lin. Ft. Placing and removing 6" I.D. casing	47	.50	23.50
		Lin. Ft. plugging abandoned bore			
TOTAL 2 WELLS - ROUNDTOP					\$1,659.50
SCHEDULE NO. II					
1	60	Well No. 1 - Rainbow:	110	11.00	1,210.00
10	60	Lin. Ft. bore for 6" dia. casing	10	3.00	30.00
11	60	Lin. Ft. Placing and Removing 6" I.D. casing	110	.50	55.00
12	L.S.	Lin. Ft. Plugging abandoned bore	L.S.	125.00	125.00
		Lump Sum move-in and move-out of drilling rig			

RECOMMENDED (Project Supervisor)

Marion Terry, Acting Maintenance Supervisor
and Project Supervisor

APPROVED (Contracting Officer)

James E. Jones, Acting Superintendent
and Contracting Officer

DATE

July 6, 1965

SUMMARY

TOTAL TO DATE	\$ 3,537.50
LESS RETAINED AMOUNT.....	0.00
NET.....	3,537.50
LESS PREVIOUS PAYMENTS.....	0.00
LESS LIQUIDATED DAMAGES.....	0.00
DUE THIS ESTIMATE.....	3,537.50
% COMPLETED TO DATE:	100%

*Show Breakdown on Reverse

(See Reverse for Distribution)

Form 10-194a
(12/61)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

UNIT PRICE CONTRACT CONTINUATION SHEET

Contract No.		Contractor			
14-10-0232-944		Utah Basin Drilling Company			
ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
		Well No. 2 Rainbow Park:			
1	60	Lin. Ft. bore for 6" dia. casing	32	11.00	\$ 352.00
10	60	Lin. Ft. Placing and removing 6" ID casing	30	3.00	90.00
11	60	Lin. Ft. plugging abandoned	32	.50	16.00
		TOTAL 2 WELLS - Rainbow Park			\$1,878.00
		The contract time expires on July 26, 1965. All work under this contract was completed on July 6, 1965. Since the work was completed within the contract time, the question of liquidated damages does not apply.			

SPECIAL PROVISIONS

SP-01 DESCRIPTION OF WORK.

The work to be done under this contract consists of furnishing all plant, labor, materials, and equipment and performing all operations in connection with drilling domestic test water wells within Dinosaur National Monument at the following locations: One or more wells shall be drilled on Round Top which is located in Colorado approximately 25 miles north of Artesia, Colorado. One or more wells shall be drilled in Rainbow Park which is located in Utah approximately 12 miles east of Vernal, Utah.

SP-02 COMMENCEMENT, PROSECUTION AND COMPLETION.

The Contractor shall commence work under this contract within 15 days after the date of receipt of Notification to Proceed. He shall prosecute the work with faithfulness and energy and in a neat and orderly manner so as to complete the entire work under this contract within 45 calendar days after the date of receipt of Notification to Proceed.

The above interval of 45 calendar days is hereby agreed upon as the time necessary for the completion of the entire work.

SP-03 LIQUIDATED DAMAGES.

The time of completion for the entire work, as stated in the foregoing paragraph, will be made a part of the contract which will provide for liquidated damages in lieu of actual damages in the amount of \$25.00 per calendar day for the entire delay in completing the work beyond the time fixed and agreed upon in SP-02 above, for its completion or beyond such time as may be established because of justifiable extensions of time granted pursuant to other provisions of the contract.

SP-04 UTILITIES

No utilities are available at the site. The Contractor will have to provide all of his requirements, and the Government shall not be held liable because of his failure to do so.

SP-05 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

a. Measurement and Payments will be based on complete work performed in strict compliance with the drawings and specifications and in accordance with the Contract Bid Schedule.

b. Measurements will be as defined for the respective items of work and shall include the furnishing all necessary materials.

c. Payments shall be at the applicable lump sum price or at unit price rates as quoted in the Contract Bid Schedule and shall be full compensation for all labor, materials, and equipment necessary for the respective items of work complete and in place. These payments shall also constitute complete compensation for disposal of all surplus material and for cleanup.

SP-06 STORAGE OF MATERIALS AND EQUIPMENT.

No space in existing buildings shall be used for storage of materials, equipment or incidentals except with the approval of the Contracting Officer. The Contractor shall maintain all spaces used for storage in a safe and orderly condition. Inflammables shall be kept in enclosed containers and fire extinguishers of the proper size and type shall be provided in quickly accessible locations.

An area will be designated where the Contractor may store any material and equipment or may erect any shop buildings which he may require. No storage will be allowed elsewhere without written approval of the Contracting Officer.

SP-07 CONSTRUCTION CAMP.

The Contractor will be permitted to establish a construction camp, if he so elects, in the vicinity of the area as designated by the Contracting Officer. He shall supply all utilities and keep the area in a clean and neat condition during occupancy. He shall not remove any trees without the permission of the Contracting Officer. Upon the completion of the work he shall restore the area to the satisfaction of the Contracting Officer.

SP-08 CLEANUP.

The Contractor shall remove all debris caused by his operations from the site upon completion of the work. Permissibility of burning shall be as determined by the Contracting Officer.

SP-09 WATER WELL DRILLER'S LICENSE.

The Contractor shall be a licensed water well driller, as required by the States of Colorado and Utah, and shall comply with all applicable laws and regulations governing water well drilling.

SP-10 LOCAL CONDITIONS.

a. General The following information regarding subsurface conditions is intended to assist the bidder. However, the Government does not guarantee its accuracy nor that it is necessarily indicative of conditions to be encountered in drilling the well(s) under this contract.

b. Round Top Site The location of the first test well to be drilled is approximately 100 feet northwest of the Southeast Corner, Section 26, T. 6 N., R. 103 W., 6th P.M., Colorado at approximate elevation 8360. A second test well, if required by the Contracting Officer, will be drilled in the general vicinity. The formation is believed to be Morgan sandstone. Access roads exist to the drilling site.

c. Rainbow Park Site The Rainbow Park drilling site is approximately 1000 feet northwest of the southeast corner of Section 2, T. 4 S., R. 24 E., S1B & M, Utah at approximate elevation 4950. This site is adjacent to the Green River and river water infiltrating through alluvial sands may be the source of water. Access roads exist to the drilling site.

CONSTRUCTION SPECIFICATIONS

1-.01 GENERAL:

The Contractor shall be required to perform all work pertaining to the drilling of test water wells to a depth penetrating a water-bearing stratum satisfactory to the Contracting Officer provided such a stratum is reached within the maximum depth specified herein. Depth of the wells shall not exceed a maximum of 75 feet unless mutually agreeable with the Contracting Officer and the Contractor. Should it be desirable to drill beyond the maximum depth, such drilling shall be accomplished only upon written authorization of the Contracting Officer and a mutual agreement between the Contractor and the Contracting Officer with respect to the unit costs involved for the additional work. In the event an adequate and satisfactory supply of water seems to have been reached before the maximum depth of drilling has been reached, the Contractor shall stop drilling operations and perform such preliminary yield tests and development work, which may include bailing tests and test pumping, as the Contracting Officer shall direct.

If a satisfactory yield is obtained, the wells shall be finished as specified and as directed. If the yield is not satisfactory, the Contractor shall continue drilling to the maximum depth unless such drilling in the opinion of the Contracting Officer is believed will not produce the desired yield, then the Contractor shall remove the well casing if any, and plug the abandoned bore. The temporary well casing will remain the property of the Contractor and shall be removed from the area by him.

A pumping test to determine yield and drawdown shall be made each time the Contracting Officer determines that a yield test is desired. One or more additional installations of the test pump following additional drilling or development may be required should the first pumping test reveal an adequate supply of water may be obtained.

1-.02 MATERIALS AND CONSTRUCTION

SPECIFIC REQUIREMENTS:

(a) Bore

Well shall be drilled large enough to receive the size of casing specified and shall be straight and plumb.

(b) Drilling

Choice of method of drilling shall be made by the Contractor using either a rotary or churn drill rig.

(c) The Depth

The exact depth of each bore and length of casing shall be determined by the Contracting Officer, but shall not exceed a maximum total bore depth of 75 feet, nor unreasonably beyond the estimated depth unless mutually agreed to in writing between the Contracting Officer and the Contractor, in which case adjustments may be made in the contract unit bid price.

(d) Collection of Formation Samples:

Samples shall be taken by the Contractor at each change in formation and at intervals not to exceed (5) feet. Each sample must be representative of the formation and include fine and coarse materials after the water is decanted.

These samples shall be collected in rigid containers, with lids; approximately one quart in size and shall be labeled to show the name of the well, the date, and the depth from which the sample was obtained. The containers shall be furnished by the Contractor.

(e) Drilling Log:

The Contractor shall keep an accurate daily log of each well. The log will show the type of material, the thickness of the various formations, and the depth at which any change of materials occurred. The log will show all of the materials penetrated and full descriptive notes made of everything found by the drill and of all difficulties or unusual conditions met in drilling. All water bearing strata shall be described in special detail as to whether the material is loose, compact, its color, and if gravel, whether it is water worn or angular. The log shall be kept current with drilling operations and shall be available to the Government at all times during the course of drilling. Upon completion of the well, the log shall be prepared in quadruplicate (4 copies), signed by the Contractor, and delivered to the Contracting Officer. The Contractor's daily log of drilling operations shall also show the depth to which the well has been drilled as of the close of each day.

1-.03 MATERIALS:

(a) General

All materials shall be new and free from objectionable defects. No used or old material will be accepted. However, if the Contractor deems it necessary or desirable to use temporary casing, the casing may be used or new. The temporary casing shall remain the property of the Contractor and shall be removed by him upon final completion of the well.

- (b) The well shall be of a single casing type with a bore of sufficient size to accept 6-inch (I.D.) casing. The casing shall be minimum 6-inch (I.D.) black steel pipe weighing not less than 18.97 lbs. per foot (plain ends). Casing shall be furnished in approximately 20' lengths and joints full-fillet electric arc welded as casing is placed in the bore. Welds shall be free of slag and in conformance with standard welding practices. Casing shall extend not less than 18" nor more than 2' above natural ground unless otherwise directed by the Contracting Officer. The total length of any perforated casing shall be within the limits of the water-bearing aquifer or as determined by the Contracting Officer. Perforated pipe shall not have more than 10% open space area. Drilled holes or sawed slots are preferred. Punched holes or slots cut by machine or burned by torch may be permitted if approved by the Contracting Officer. Openings must be evenly spaced, of uniform size, and free from jagged edges and other irregularities. Whenever feasible, perforations will be based on actual mechanical analysis of the aquifer material. Perforations of the casing to form a screen shall be accomplished if such screen in the opinion of the Contracting Officer will be satisfactory to exclude loose formation materials from collecting inside of the well.

(c) Well Screen

- (1) Determination of Screen Criteria. Final determination of need for screen and determination of screen criteria will be made by the Contracting Officer after exploration of water-bearing strata and after analysis of samples therefrom. Determination of screen criteria will depend upon the thickness and uniformity of water-bearing strata, analysis of aquifer samples, and requirements of the well, and will be based upon recommendations of screen manufacturer, and/or qualified Agency of the Government.
- (2) Characteristics of Screen. The screen and fittings shall be of Everdur metal or silicon bronze and is the basis of the Contractor's estimate of cost of screen. The type of screen, the size of openings, diameter and final length of screen shall be approved by the Contracting Officer. The screen shall have adequate strength to resist external forces after installation and to resist damage during installation. The fittings shall seal top of screen tightly to casing and to close bottom of screen. If screen is installed inside casing, lead packer seal shall be provided at top of screen with 12-inch minimum overlap of casing and screen.

1-.04 Developing and Testing:

(a) Developing

After completion of drilling operations and alignment tests (hereinafter specified) the Contractor shall develop, then clean out the well. As approved by the Contracting Officer, the Contractor shall develop the well to obtain maximum yield of water with a suitable surge plunger or other similar device designed to develop the water-bearing formation encountered. The development shall extract from the water-bearing formation the practical maximum quantity of such fine materials as may, during the life of the well, be drawn into casing when the well is pumped under maximum conditions of drawdown. All equipment and materials furnished and used by the Contractor to develop the well shall remain his property and shall be removed by him upon completion of the work.

(b) Time of Tests

Upon completion of the drilling of the well bore, developing of the well, cleaning of accumulated sediments from the well, the Contractor shall make preliminary determination of yield by bailing or other approved method. Approximate determination of water level in well shall be made to Contracting Officer's satisfaction before and immediately after completion of preliminary test.

In event of an unsuccessful preliminary test, reasonable time shall be allowed for the Government to evaluate the geologic and hydrologic data and decide upon further course of action. The contract time may be extended a corresponding amount.

After the well has been completely constructed, developed, cleaned out and if preliminary tests show or indicate an adequate supply is available, the Contractor shall notify the Contracting Officer to that effect and make necessary arrangements to conduct final tests. Final tests shall be run with similar equipment and in like manner to that hereinafter described.

(c) Plumbness and Alignment Test

Plumbness and alignment shall be tested by lowering into the well, to a depth determined by the Contracting Officer (lowest anticipated pump setting), a section of pipe twenty (20) feet long or a dummy of the same length. The outer diameter of the pipe shall be a minimum of $5\frac{1}{2}$ inches. If a dummy is used, it shall consist of a rigid spindle with three rings, each ring being 12 inches wide. The rings shall be truly cylindrical and shall be placed at each end of the dummy and one ring in the middle thereof. The central member of the dummy shall be rigid so that it will maintain the alignment of the axes of the rings. Should the dummy, or pipe, fail to move freely through the length of the casing or hole to the depth required by the Contracting Officer, or should the well vary from the vertical in excess of two-thirds of the smallest inside diameter of that part of the well being tested per 100 feet of depth, or beyond limitations of this test, the plumbness and alignment of the well shall be corrected by the Contractor at his own expense and, should he fail to correct such faulty alignment or plumbness the Contracting Officer may refuse to accept the well.

(d) Test Pump and Equipment

The Contractor shall furnish, install, and operate necessary pumping equipment capable of pumping from the well a maximum of not less than 30 gpm. Throttling devices shall be furnished so that the discharge may be reduced to zero gpm. The pumping unit shall be complete with prime mover of ample power, controls and appurtenances, and shall be capable of being operated without interruption for a period of 24 hours.

He shall also furnish, install, and operate equipment of approved size and type for measuring the flow of water, such equipment to be a weir box, orifice or water meter. To measure the elevation of the water level in the well, an air line, complete with gauge, hand pump and check valve shall be provided. Unless otherwise directed, the air line shall be securely fastened to the pumping unit, and shall terminate approximately at the maximum desired pumping level, but in no case shall it be within two (2) feet of the pump intake. All equipment and material furnished and installed by the Contractor for the pumping test shall remain his property, and shall be removed by him upon completion of the work.

(e) Duration of Pumping Tests

The Contractor shall furnish all labor, motive power, lubricating oil, and other necessary materials, equipment, labor, and supplies required and shall operate the pumping unit as hereinafter described. (1) Accidental Interruptions in test pumping operations will require extension of test run time, unless data obtained prior to such interruptions is useful and accepted by the Contracting Officer. After completion of the final test, the Contractor shall remove by bailing, sand pumping or other methods, any sand, stones, or other foreign material that may become deposited in the well. (2) The duration of each pumping test specified herein, will be sufficient to obtain the complete required data, as directed by the Contracting Officer. The Government reserves the right to extend the periods of testing or to make additional tests.

(f) Maximum Yield

The Contractor shall operate the pumping equipment at increasing discharge rates until the specified maximum gpm is reached, or the water level reaches a point where further increases would pump the well dry, or there is danger of damage to the well, whichever rate is smallest. The Contractor shall then pump continuously for a period of six hours at that maximum rate and shall ascertain the water level and make certain that the water level remains stationary during this pumping period. At the end of this test, the well shall be allowed to fully recover its static water level.

(g) Varied Discharges (Step Test)

Based upon the preliminary analysis (Section 1-.01 General) and approved by the Contracting Officer, the Contractor shall pump the well at 4 different discharge rates, including the maximum, estimated from the preliminary test observations, or 30 gpm whichever is the least. The 3 intermediate discharges will be evenly distributed within the range of zero to maximum discharges. Each rate of discharge shall be held constant until the water surface in the well stabilizes and remains constant for a period of one hour, or as directed by the Contracting Officer. During each pumping rate test the time of observations, the water surface level (drawdown) and the rate of discharge shall be recorded simultaneously at 5 minute intervals. At the end of these tests, the water surface shall be allowed to recover to its initial static level.

(h) Constant Pumping Rate-Drawdown Curve

The Contractor shall operate the pumping equipment at a constant discharge rate specified by the Contracting Officer, and simultaneously at 5 minute intervals, record the drawdown in the well as a function of time of test. Duration of this test will be such as to reach a depth where no further drawdown is noted. See Paragraph (i).

(i) Desired Yield

Upon completion of the above test, the Contractor shall determine the gallons per minute delivered at sixty percent of the maximum drawdown at maximum yield or point where no fine material is pumped, whichever is the lesser. He shall then operate his pump, delivering water at this rate, for a period of not less than twenty-four (24) hours continuously after the pumping level reaches stability unless otherwise directed. The Contractor shall make certain that the water level remains stationary during this period.

(j) Pumping Test Data

Drawdown reading and discharge rates for the "Constant Pumping Rate - Drawdown Test" shall be taken every five minutes until the maximum drawdown for such discharge has been reached and held for a period to be determined by the Contracting Officer. At the end of this test, recovery levels shall be measured every five minutes until the water surface has risen to within five (5) feet of the original or starting level. Drawdown readings and discharge rates for the "Desired Yield Test" shall also be taken every five minutes. All data shall be carefully recorded and a written report containing all data shall be delivered to the Contracting Officer in quadruplicate.

(k) Reports

When the well and tests have been completed, the Contractor shall submit to the Contracting Officer a written report, in quadruplicate, showing the log and all pertinent data.

1-.05 Grouting:

Upon acceptance of the well by the Contracting Officer, the upper 10 feet of the bore shall be reamed to not less than a diameter of 8-inches greater than the casing O.D., and the casing shall be centered in this section and held in place with sufficient spacers to maintain true alignment and then grouted. Grout shall consist of 1 part Portland Cement and 3 parts sand mixed with only sufficient water to form a workable mix. The grout shall be placed in such a manner that surface water and other impurities will be prevented from entering the well by infiltration along the bore and casing, and shall include forcing grout from bottom of grout space toward ground surface. Grouting operation shall be continuous. The grout shall be allowed to set for 3 days before any work may be done which would disturb it or cause it to crack. Care shall be taken to protect the grout from damage and insure a proper curing during this 3-day setting period. Method of grouting shall be approved by the Contracting Officer before grouting is started.

1-.06 Protecting Water Supply:

The Contractor shall take such necessary precautions, as approved by the Contracting Officer, to prevent contaminated water or water having undesirable physical or chemical characteristics from entering, through the opening made by the Contractor in drilling the well, the stratum from which the well is to draw its supply. He shall also take all necessary precautions during the construction period to prevent contaminated water, gasoline, etc., from entering the well either through the opening or seepage through the ground surface.

1-.07 Corrective Work:

In the event that the well becomes contaminated, or that water having undesirable physical or chemical characteristics does enter the well due to the neglect of the Contractor, he shall, at his own expense, perform such work or supply such casings, seals, sterilizing agents or other material as may be necessary to eliminate the contamination or shut off the undesirable water.

1-.08 Temporary Capping:

At all times during the progress of the work, the Contractor shall protect the well in such a manner as to effectively prevent either tampering with the well or the entrance of foreign matter into it, and, upon its completion, he shall provide and set a substantial screwed or flanged cap satisfactory to the Contracting Officer at a distance not less than 18 inches or more than two feet above the normal ground surface, or as directed.

1-.09 Abandonment of Well:

If a satisfactory water supply is not found, the well shall be abandoned, at the direction of the Contracting Officer. The abandoned well bore shall be plugged with impervious material as required by the State, or as directed. All salvable materials recovered by the Contractor shall remain his property unless specifically purchased by the Government.

If, for any reason, the Contractor should abandon drilling at one location in favor of another, or should fail to complete a satisfactory well bore as specified or required, he shall plug the abandoned bore as specified or required above, at no cost to the Government and without compensation for drilling operations performed at the abandoned site. Salvaged materials shall remain the Contractor's property.



IN REPLY REFER TO:

L54

Dino

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Dinosaur National Monument
Vernal, Utah

February 13, 1963

Reg. Director	
Admin. Asst.	
Asst. to Dir.	
Admin.	
Cons. Int. Sec.	<i>mo</i>
Res. Plan. & Eval.	<i>ds</i>
Reg. & Int. Aff.	
Inf. & Pub. Aff.	
Fin. & Soc.	
Legal Coun.	<i>7/16</i>
Records Mgmt.	<i>2/18</i>
Training	
Ac. & Eval.	
Off. of Cong. & Public Affairs	

Memorandum

To: Regional Director, Midwest Region

From: Superintendent, Dinosaur

Subject: Bobcat Spring Source for Round Top Mountain,
Development area, Dinosaur National Monument

Last fall when Mr. Mott visited at Dinosaur, Mr. A. C. Caldwell was unable to meet with us to discuss possibilities of negotiating the use of subject spring water for the Round Top Mountain development area.

Mr. Caldwell visited with the Superintendent several weeks ago and the following points were brought out during the discussion about the Service's desire to use water from subject spring for NPS needs.

1. Bobcat Spring is located about 2 miles from Round Top Mountain.
2. An existing 1½" pipe line extends from the spring to a point approx. ¾ mile up the hill toward Round Top Mountain. This line traverses a 50% grade.

Also an existing 1½" to 1" to ¾" pipe line extends up a draw from the spring on a westward course toward Round Top Mountain.

Mr. Caldwell advised me that the service may utilize the existing pipe lines over either route and extending the pipe line to Round Top Mountain development area.

3. Mr. Caldwell is agreeable to having the Service design and construct a concrete reservoir at the Spring site.
4. Mr. Caldwell will consider donation of pipeline right of way across his privately owned lands if Government builds reservoir and pipe line to Round Top Mountain and will agree to providing a valve outlet to service and supply his stock watering tank near the top of the mountain on his grazing allotment.

*File
drawing
neg. off
file*

C.C. Mott
BY <i>Mott</i> DATE <i>2/18</i>

RECEIVED
REGION TWO OFFICE
1963 FEB 14 AM 9 59
NATIONAL PARK SERVICE
OMAHA, NEBRASKA

It is recommended that the Service design a plan for a reservoir, pipe line system and pumping unit to provide water facilities to the Round Top developed area with a view of presenting the plan to Mr. Caldwell and negotiate a long term contract for water to serve this developed area.

Mr. Caldwell indicated that he is willing to negotiate with the service for any reasonable and workable solution for providing the water needs for Round Top Mountain Developed area and the water needs for his ranching operations.


Earl M. Semingsen
Superintendent

In dupl.

cc: Chief, WODC

Dinosaur National Monument
Vernal, Utah

LS4

January 31, 1963

Office of the State Engineer
232 State Service Building
1525 Sherman Street
Denver 3, Colorado

Attention: George W. Colburn

Gentlemen:

Thank you for your letter of January 22, 1963 in which you pointed out discrepancies between the permit forms, the log and history forms, and plotted map locations. We have checked our locations and find that some errors were made on our original permits and some errors made on the log and history form. Listed below are the correct locations of the wells on the Yampa River in Dinosaur National Monument.

No. 12223 - Andersons Hole; NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 13, T6N, R100W, 6PM

No. 12224 - Deerledge; SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 21, T6N, R99W, 6PM

No. 12225 - Hardings Hole; NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 22, T6N, R102W, 6PM

No. 12226 - Box Elder; NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 34, T7N, R103W, 6PM

No. 12227 - Echo Park; SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Sec. 28, T7N, R103W, 6PM

On the Log and History Form, under pump data, it was indicated that 2 HP gas engine centrifugal pumps were being used. This gas engine pump was used for test pumping only. We will install hand pumps on each of these wells with a 1 $\frac{1}{2}$ inch outlet.

We are sorry for the discrepancies and hope this will clear up the matter. If we can be of further assistance please do not hesitate to call on us.

Thank you for your cooperation.

Sincerely yours,

Verne R. Bertsch
Verne R. Bertsch
Acting Superintendent

MM Reg ✓
cc: Contract File



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

September 19, 1962

IN REPLY REFER TO:

L-54

Dino

Reg. Director	
Admin. Asst.	
Asst. to Dir.	
Adm. Serv.	
Cons. Int. Use	
Res. Plan'g	
Reg. Affairs	
Inf. & Pubs.	
Rec. Mgmt.	
Training	
Off. Liaison	
As. n taken	
File	

Memorandum

To: Regional Director, Midwest Region

From: Acting Chief Engineer, WODC

Subject: Round Top Water Supply, Bobcat Spring - Dinosaur

This is in reply to Mr. Novak's memorandum of September 13, 1962 transmitting the water analysis on the subject spring.

The analysis indicates that this is an adequate quality water that will not require further treatment for domestic use other than chlorination. The water is a little hard, but is under the requirement of 300 ppm for hardness.

Donald S. Marley

Donald S. Marley
Acting Chief Engineer, WODC

In duplicate

Copy to: Supt., Dinosaur
Proj. Supv. Egan, Dinosaur
Mr. William Mott, Dinosaur

C.C. MAILED TO	
BY	DATE

1962 SEP 21 AM 11 10

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

Heubner

PESmith

September 13, 1962

L-54

Memorandum

To: Regional Director, Midwest Region
From: Chief Engineer, WODC
Subject: Bob Cat Spring, Round Top Mountain Development -
Dinosaur

In answer to Mr. Snegosky's memorandum of August 20, 1962, we have not progressed far enough with our planning to know what our exact water requirements will be for the subject development.

At the present time, it appears that there will be a small Visitor Center combined with a fire lookout and quarters for the lookout. With this in mind, a source from two to three gpm will probably suffice. We would certainly like to have the spring measured so that if we acquire the spring and decide to use it, we will be able to better design the system when the time comes. The water system is now scheduled for construction in F.Y. 1965.

SIGNED

P. E. Smith
Chief Engineer, WODC

In duplicate

Copy to: Asst. Dir., D&C
Chief, Water Resources Sec.
Supt., Dinosaur
Proj. Supv. Egan, Dinosaur

PESmith

Informational: Heubner, Stratton, Richey
ADHeubner:rs

FILE COPY

Can



IN REPLY REFER TO:

L54

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
Region Two Office
307 Federal Office Building
106 South 15th Street
Omaha 2, Nebraska

SEP 13 1962

W O D C	
SEP 17 1962	
CH	
AS	
PER	
P & P	
ARCH	
ENGR	9/17/62
L. A.	
SPEC	
CONT	
SFTY	
ACTION TAKEN - DATE	
9/19/62	

Memorandum

To: Chief, WODC

From: Assistant Regional Director

Subject: Round Top Water Supply, Bobcat Spring
Dinosaur National Monument

Enclosed is a copy of water analysis report on the subject spring supply. This water supply appears to be a possible source of water to supply the Round Top Mountain development.

It will be necessary to determine the potential yield of the spring and we plan to install a weir for this purpose, and observe the flow for a period of one year or so. Local reports indicate the spring issues quite an appreciable year-around flow. It is located approximately one and one-half miles from the top of Round Top and on private property.

We would appreciate your comments on this water analysis report. Mr. Mott plans to be at Dinosaur about October 5, so please send a copy of your comments to him at the Superintendent's office.

Frank J. Novak
Assistant Regional Director

Enclosure

In duplicate

cc:
Superintendent, Dinosaur

Cam

Dinosaur National Monument
91 West Main, Vernal, Utah

L54

September 7, 1962

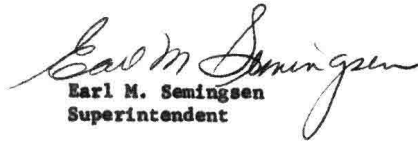
Memorandum

To: Regional Director, Midwest Region

From: Superintendent, Dinosaur

Subject: Round Top Water Supply, Bobcat Spring

Attached are photo copies in duplicate of the analyses by the Geological Survey of the subject spring. Your assistance to help us measure this spring as indicated in Assistant Regional Director Novak's memorandum of August 31, will be appreciated as soon as you can. If this spring proves out to be all right for public use, we will then contact Mr. Caldwell for securing satisfactory arrangements for use of the water and negotiate for pipeline right of way.


Earl M. Semingsen
Superintendent

✓
In dupl. w/attachments

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

Salt Lake City Lab. No.	25125					
Date of collection	8-3 1962					
Silica (SiO₂)	10					
Iron (Fe), dissolved*						
Iron (Fe), total	.02					
Manganese (Mn), dissolved*						
Manganese (Mn), total						
Calcium (Ca)	52					
Magnesium (Mg)	16					
Sodium (Na)	4.1					
Potassium (K)						
Bicarbonate (HCO₃)	227					
Carbonate (CO₃)	0					
Sulfate (SO₄)	7.0					
Chloride (Cl)	5.5					
Fluoride (F)	.2					
Nitrate (NO₃)	2.9					
Boron (B)						
Dissolved solids						
Sum						
Residue on evaporation						
at 180° C	198					
Hardness as CaCO₃	195					
Non-carbonate	9					
Alkalinity as CaCO₃	186					
Specific conductance						
(micromhos at 25° C)	380					
pH	7.7					
Color						
CO₂ (calculated)						

*In solution at time of analysis.

25125 - Spring, Moffat County, Colorado. Clear. Poc: at Bobcat Spring. Owner: National Park Service, Dinosaur National Monument. Collected by: Ranger Wm. Paul Ellis.

GPO 335221

Printed to revision

L54

New

AUG 31 1962

Mott 8/30
Auto 8/30
Inrush 8/30

Memorandum

To: Superintendent, Dinosaur
From: Assistant Regional Director
Subject: Round Top Water Supply, Bobcat Spring

Your August 1 memorandum to Chief Ranger Bertsch indicates Mr. A. C. Caldwell seemed very pleasant and was very cooperative with regard to using the water supply of Bobcat Spring at Round Top development.

If the water analysis of this water supply indicates it is satisfactory for domestic use, we suggest the potential yield of the spring be determined by measurement before proposing an agreement with Mr. Caldwell.

If the spring supply is adequate and potable, the Service should discuss with Mr. Caldwell satisfactory arrangement for use of the water and negotiations for a pipeline right of way.

This office can assist with the procedure to measure the potential yield.

(Sgd) Fred J. Novak

Assistant Regional Director

WAMott/etb



IN REPLY REFER TO:

L54

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
Region Two Office
307 Federal Office Building
106 South 15th Street
Omaha 2, Nebraska

AUG 20 1962

W O D C
AUG 23 '62
CHF
ADM
PERS
P & P
ARCH
ENGR 31/13
L.A.
SPEC
CONT
OFFY
1-Stratton 8/10
2-Henderson
3-Park 8-19
ACTION TAKEN DATE
7/13/62

Memorandum

To: Chief, WODC

From: Acting Assistant Regional Director

Subject: Bob Cat Spring, Round Top Mountain Development,
Dinosaur National Monument

Enclosed is an analysis report of the water from subject spring. This spring is located on private property, about one and one-half miles distant from the crest of Round Top Mountain.

The yield of the spring was estimated (in June 1962) to be two to three gallons per minute. A sample of this supply was analyzed for preliminary consideration whether the spring could be used to supply water for the Round Top Mountain development.

Mr. Semingsen has indicated the owner, Mr. A. C. Caldwell, is cooperative and interested in the development of water supply for the Round Top Mountain area.

We suggest, by copy of this memorandum, the Superintendent determine from Mr. Caldwell and report on the following:

1. Easement on the spring area and right of way for pipeline to the Round Top Mountain development.
2. Agreement permitting the Service to use water from the spring.
3. Filing for a water right on the spring supply.

Presently there is a pump at the spring that delivers water to a storage tank, located up on the mountain side where it is more readily accessible.

We would appreciate your comments on the water requirements and the need to investigate the potential spring supply by installing weirs and observing the flow.

H. A. Sneydsky
Acting Assistant Regional Director

In duplicate

Enclosure

cc: Superintendent, Dinosaur, w/enclosure
The Director (2), w/enclosure

DYNION WATER SYSTEMS, IN.

6120 Blaney Street

Lab No: 191

Omaha 4, Nebraska

Date 6-25-62

Distributor

221 3431 - 3446

Dealer

Address

DINOSAUR

Customer

MR. MATT

Address

Bob Cat SPRINGS

Source of Supply

People in household or gallons used

ANALYSIS AND EXPLANATION OF APPLICABLE CONDITIONS

Compensated Grains Per Gallon
 HARDNESS Actual 1.2 Grains Per Gallon

Water containing the mineral salts of calcium or magnesium is hard and difficult to use. Hard water forms scale that is detrimental to plumbing, heating systems, and hot water equipment, thereby causing expensive repair bills. Such water also doubles soap consumption - shortens life of clothing and textiles - gives lusterless shampoo - affects taste and tenderness of cooked foods. Water Softeners remove calcium and magnesium.

IRON NONE Parts Per Million

Iron, if separated from water, would appear as a red sediment. Iron in water stains plumbing and bath room fixtures, kitchen ware, etc., discolors and damages clothing and expensive linens - imparts bad taste to food and beverages. Water having an iron content above 0.5 parts per million should be treated for iron removal.

pH 7.5

pH is the index of acidity or alkalinity of the water. Neutral water has a pH of 7.0. All pH values above 7.0 denote alkalinity and pH values below 7.0 denote acidity. Water having a pH below 6.5 usually denotes high acidity which causes excessive corrosion in piping.

ALKALINITY Grains Per Gallon

Alkalinity is a measurement of that portion of hardness most common in water.

CHLORIDES 5.9 PPM Grains Per Gallon

Chlorides, in drinkable water, affect both the taste and corrosive tendencies. Chlorides cannot be removed by softening.

SULFATES Grains Per Gallon

Sulfates contribute to the total hardness of water and particularly so in the presence of calcium or magnesium (softening removes calcium and magnesium).

SODIUM SALTS Grains Per Gallon

The sulfates, chlorides, and carbonates of sodium affect the taste of water but do not add to the hardness.

SUSPENDED SOLIDS OR TURBIDITY

MANGANESE NONE

NITRATE 1.0 PPM

PHOSPHATE PO4 PPM

COLI COUNT Per 100 ML

Coli is a bacteria which grows in fecal matter. Public health standards require "0" Coli.

TOTAL BACTERIA COUNT Per 1 ML

Generally harmless bacteria which exists in all types of water

SPECIAL INFORMATION AND REMARKS:

.....

.....

.....

.....

.....

.....

.....

RECOMMENDATIONS:

.....

.....

.....

.....

.....

.....

.....

Dinosaur National Monument
91 West Main, Vernal, Utah

August 1, 1962

L54

Memorandum

To: Chief Ranger Bertsch
From: Superintendent, Dinosaur
Subject: Round Top Water Supply, Bobcat Spring, Dinosaur

As suggested by Hydraulics Engineer Mott, please have two gallons of water collected from Bobcat Spring. Be sure that the bottles are sterilized and have new corks. When this has been secured, have them delivered to the Vernal Office for shipment to USGS for analyzing and testing.

For your information, Mr. A. C. Caldwell, has given me verbal permission to have the water sample test made. After this has been done, we will negotiate with Mr. Caldwell for use of the Bobcat Spring water for Round Top development. Also for your information, Mr. Caldwell seemed very pleasant and he was very cooperative with regard to the potential use of Bobcat Spring water for Round Top.

Earl M. Semingsen
Earl M. Semingsen
Superintendent

cc: Reg. Dir. Midwest Region
Attention: Mr. Mott

ROUTE: Ranger Ellis

EMS:jta

Reg. Director
Admin. Asst.
Asst. to R. D.
Admin. <i>MD</i>
Cons-Int-Use
Res. Planning
Log. Coord.
Info. & Publs.
Field Solic.
<i>MD</i>
<i>MD</i>
Action taken <i>MD</i>
<i>MD</i>
File <i>MD</i>

RECEIVED
REGION TWO OFFICE

1962 AUG 2 AM 10:19

NATIONAL PARK SERVICE
OMAHA, NEBRASKA

154

Dino

Mott 7/23
attn 7/23

Memorandum

JUL 23 1962

To: Superintendent, Dinosaur
From: Acting Assistant Regional Director
Subject: Round Top Water Supply (Bobcat Spring), Dinosaur

Your memorandum of July 16, 1962 advises that no water right filing has been made upon the subject spring.

When Mr. Mott visited the spring last month, it appeared that if the two sources of water supply were collected and developed there might be a sufficient supply for the Round Top Mountain development. The estimated total yield was about 4 to 5 gpm.

We suggest you have an analysis made of the water and if it is satisfactory, determine from Mr. C. A. Caldwell the sort of agreement that might be made for development of the spring and for a pipeline right of way between the spring and the Round Top Mountain development area. We would like to know upon what terms Mr. Caldwell would make the water available.

Should a satisfactory agreement be possible with Mr. Caldwell, then a request would possibly be in order to WDC to study the yield of the spring and prepare an estimate of costs of development.

In event the study of the spring supply or the costs of development seem unfeasible, then a test well may be needed to investigate a ground water supply. It would, of course, be necessary to program a geological investigation and funds for drilling the test well.

Please let us know the outcome of your discussions with Mr. Caldwell.

(Sgd) John F. Aiton

Acting Assistant Regional Director

WAMott/etb



IN REPLY REFER TO:

L54

Dino.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Dinosaur National Monument
91 West Main, Vernal, Utah

July 16, 1962

Reg. Director	
Admin. Asst.	
Asst. to R. D.	
Admin.	
Cons. Int. Use	
Res. Planning	
Prog. Coord.	
Info. & Publs.	
Field Solic.	
Action taken 7-23-62	
Thms to Supt - Dino	
File	7/23

Memorandum

To: Regional Director, Midwest Region

From: Superintendent, Dinosaur National Monument

Subject: Water Right - Bobcat Spring - A.C. Caldwell

Mr. Mott requested information about water right filing on the subject spring located south of Round Top and the Dinosaur National Monument boundary.

Records at the Moffat County courthouse and the abstract office at Craig have been examined and no filing on this spring was found. The spring is located in the E $\frac{1}{2}$ NE $\frac{1}{4}$, Section 1, T.5N., R.103W., 6th PM.

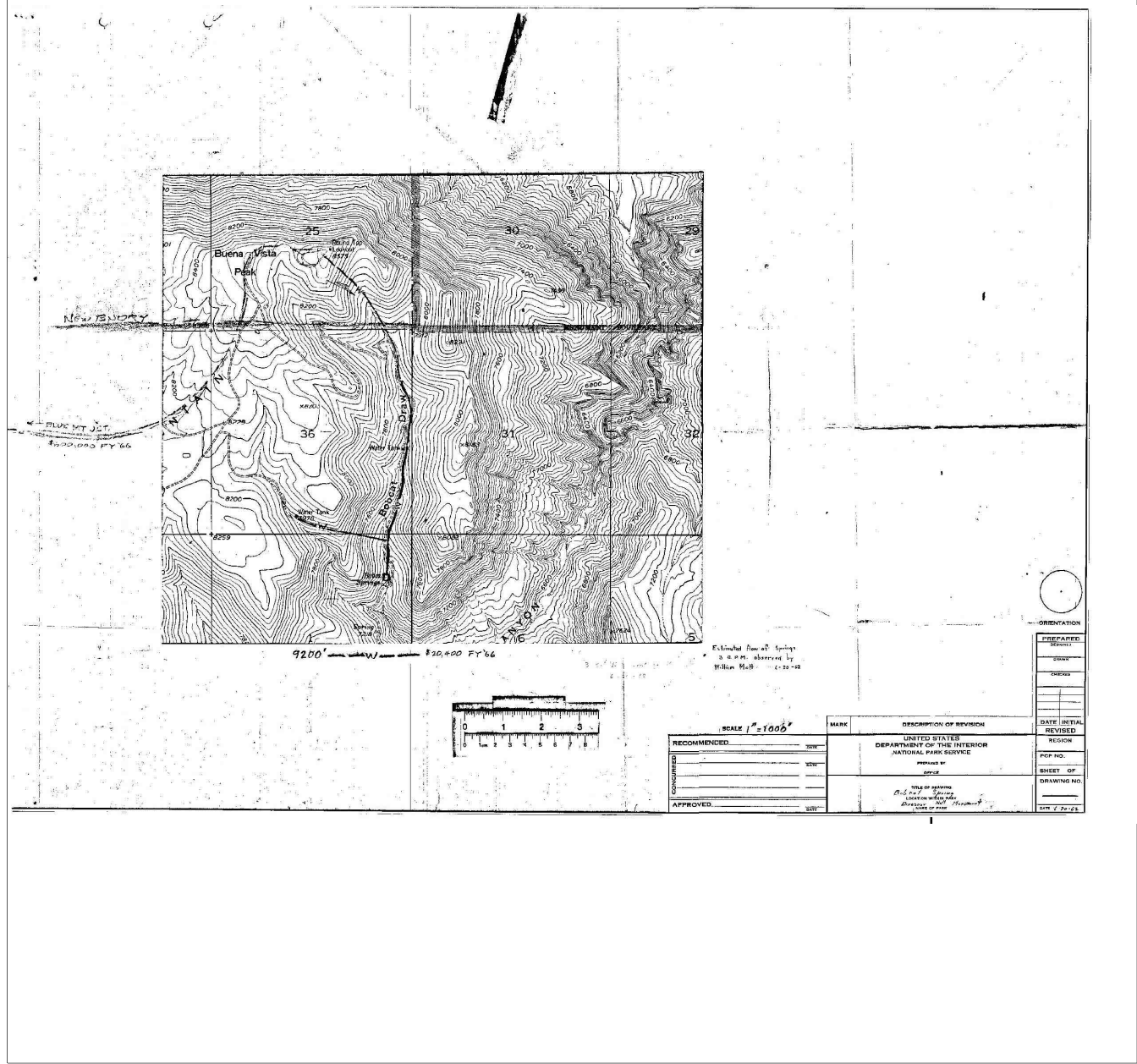
Earl M. Semingsen
Earl M. Semingsen
Superintendent

In duplicate

*Retained in
water resources file*

C.C. MAILED TO	
.....	
BY	DATE

RECEIVED
REGION TWO OFFICE
1962 JUL 18 AM 9 56
NATIONAL PARK SERVICE
OMAHA, NEBRASKA



Docket Information

Number of Documents in Docket 33

Documents Dated from 6/25/1962 to 6/20/1967

Docket Compiled: 3/9/2011