



WATER-RIGHT DOCKET

Joshua Tree National Park

Docket No: 4

RYAN'S WELL. LOST HORSE VALLEY

Preliminary Docket Information

06-28-1974: water right/source docket information

WATER RESOURCES/WATER RIGHTS

DATE: June 28, 1974

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western AREA Joshua Tree National Monument
SITE Lost Horse Valley (Ryan's Well)
STATE California COUNTY Riverside DOCKET NO WR # 4
LOCATION NW 1/4 Section 21 T2S R8E
REGIONAL BASIN _____ LOCAL BASIN _____
ACQUIRED BY Purchase (Grant Deed)
APPLICATION _____ PERMIT _____ CERTIFICATE _____
ACTION DATE _____ PRIORITY _____ RESERVATION _____
QUANTITY _____ USE _____
STATUS Active SOURCE Well

REMARKS hydrologic unit # 18100100

NARRATIVE: In developing the Cap Rock visiting center in Lost Horse Valley located in Joshua Tree National Monument, a water supply was sought. The wells which the Park drilled (four dated June 25, 1965) or proposed to develop were either of too low a yield or were economically impractical as compared to other alternatives. One such alternative was the purchase of two inholdings and easements appurtenant thereto owned by a Mrs. Leanta Ryan. The two parcels consisted of a 120-acre homesite and a detached parcel of 13.5 acres, the latter designated as Lot No. 37, Mineral Survey No. 3333 (patented from the U.S. to Thomas C. Ryan, et al on August 11, 1897). This smaller parcel known as the Lost Horse Quartz Mine contained a mine shaft which produced water at a rate of 5,000 gallons per day, known as and hereinafter referred to as Ryan's Well. The U.S. purchased the two parcels by grant deed on July 12, 1966 along with the easements and right of way for a roadway and a water pipe. Mrs. Ryan, the grantor, reserved a life estate in the homesite parcel and the right to use the water from Ryan's Well as required. As a result of reduced production (down to 100 gallons per day) and contamination, Ryan's Well was rehabilitated by the Park Service (Work order # 20002 completed on Nov. 30, 1971) and was put in operation. This water source has never been recorded with the state.

Compiled by M.G. Ackerman

Approved by W. Werrell

Page 1 of 1

Joshua Tree National Monument

Water Right #4

Outline of Assembly - Correspondence

1. Memorandum to Director from Acting Assistant Regional Director, Operations, September 9, 1965
2. Memorandum to Director from Acting Assistant Regional Director, Operations, September 10, 1965
3. Memorandum to Regional Director from Chief Water Resources, September 27, 1965
4. Memorandum to Regional Director from Assistant Director, Specialized Services, October 1, 1965
5. Memorandum to Director from Acting Assistant Regional Director, Operations, January 18, 1966
6. Letter to Geo-Data from Supervisory Hydraulic Engineer, September 8, 1966
7. Memorandum to Chief Office of Land and Water Rights from Chief Water Resources, October 4, 1966
8. Letter to Geo-Data from Manuel Morris, October 24, 1966

I. Source Description

1. Map showing boundaries of Joshua Tree National Monument, NM-JT 3054
2. Map showing approximate vicinity of Ryan Wells NM-JT 3051
3. Well Driller's Report on four test wells dated June 25, 1965

II. Appropriation Data

1. Deeds, Special Use Permits, Etc.
 - a. Option to sell land to U.S. dated 4/28/66
 - b. Public Voucher for Purchases and Services Other Than Personal dated 6/24/66
 - c. Original of the Attorney General's Preliminary Title Opinion, dated 6/13/66
 - d. Executed, Acknowledged deed, recorded 8/30/66
 - e. Policy of Title Insurance issued by Title Insurance and Trust Company, No. 26228, dated 8/30/66
 - f. Certificate of Inspection and Possession, dated 9/1/66
 - g. Certificate re Taxes, dated 9/14/66
 - h. Attorney General's Final Title Opinion dated 10/20/66
 - i. Acceptance of deed dated 10/27/66
 - j. Grant Deed dated 6/12/66

Organization Code 8330

Docket Number 0 4

Source Number 01 of 01

Card #1

1A	1C
Add	Change

Site LOST HORSE VALLEY - RYANIS WELC

Location ① Township/Range --- T 2S R 8E Sec 21 A 2 C 0 of A B C D
Nor NAt SAt SEt Nor NAt SAt SEt Nor NAt SAt SEt

2 Lat/Long --- Latitude ^{deg} ^{min} ^{sec} N S Longitude ^{deg} ^{min} ^{sec}

3 Other ---

Card 42

2A	2C
Add	Change

Sequence Number 01 State 06 County RIVERSIDE

Acquired by	1	2	3	4	5
	Purchase	Appropriation	Riparian	Reservation	Other
	(Explain in Remarks)				

Application Number [] [] [] [] [] [] [] [] Cancellation Date [] [] [] [] [] []
year month day

Permit Number

Cancellation Date
year month day

Certificate Number

Cancellation Date
year month day

Land History



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

IN REPLY REFER TO:

OCT 28 1966

L1425-LWSSC

Memorandum

To: Assistant Director, Specialized Services

From: Chief, Office of Land and Water Rights, SSC

Subject: Acceptance of Deed covering Tracts 18C and 288, Ryan,
Joshua Tree

Enclosed for deed assembly and Form NPS-L-1 are the following:

1. Executed, acknowledged deed, recorded August 30, 1966.
2. Original of the Attorney General's Preliminary Title Opinion, dated June 13, 1966.
3. Original and one copy of the Attorney General's Final Title Opinion, dated October 20, 1966.
4. Policy of Title Insurance issued by Title Insurance and Trust Company, No. 262228, dated August 30, 1966.
5. Certificate of Inspection and Possession, dated September 1, 1966.
6. Certificate re Taxes, dated Sept. 14, 1966.
7. Copy of Payment Voucher.
8. Signed, accepted copy of Option-Contract NPS-JOTR-14-10-0434-3350.

It is assumed that you have a copy of the appraisal report on file for inclusion in the deed assembly.

Enclosures - *E*
As stated

cc:
Supt., Joshua Tree, w/copy
of Final Title Opinion

for Thomas Kornelis

JOTR

The attached deed from Leanta L. S. Ryan, a widow, recorded August 30, 1966, is hereby accepted on behalf of The United States of America pursuant to a currently effective delegation of authority this 27TH day of OCTOBER, 1966.

A handwritten signature in cursive script, reading "Bruce J. Millie", written in dark ink over a horizontal line.

ACTING Chief, Office of Land and Water Rights,
San Francisco Planning and Service Center,
National Park Service.

rec'd 10-25-66



**Office of the Attorney General
Washington, D. C.**

October 20, 1966

Honorable Stewart L. Udall
Secretary of the Interior
Washington, D. C.

My dear Mr. Secretary:

A re-examination has been made of the title data relating to 133.57 acres of land, more or less, Tracts Nos. 18C and 288, Joshua Tree National Monument Project in Riverside County, California. A fee title to 120.00 acres and a mining claim and certain easements in 13.57 acres of this land were conveyed to the United States of America under the provisions of existing legislation by Leanta L. S. Ryan under deed dated July 12, 1966, filed for record on August 30, 1966, and recorded among the land records of the county as Document No. 87566. The file number of this Department is 33-5-1575-47

The land, mining claim and easements are described in the aforesaid deed, which recites a consideration of \$40,000.00.

The title insurance policy, No. 262228, dated as of August 30, 1966, was prepared by Title Insurance and Trust Company and is satisfactory.

The title insurance policy, recorded deed and accompanying data disclose valid title to be vested in the United States of America, subject to:

1. Existing easements for public roads, and highways, rights of way for railroads, pipelines and public utilities including item 3, Schedule B of the title policy.
2. Provisions and reservations contained in the Patent from the United States noted at item 2, Schedule B of the title policy.

3

-2-

3. The reservation by grantor of the right to personally occupy and use the house and the water from the well on the premises as required, under the conditions set forth in the aforesaid deed.

Your Department has advised that objections 1, 2, and 3 will not interfere with the contemplated use of the land and easements.

It is to be noted that the purchase price for the land, easements and mining claim has not been paid.

The title insurance policy, deed and related papers are enclosed.

Sincerely yours,


Acting Attorney General

RE 29/15/66

CERTIFICATE RE TAXES

I, the undersigned, do hereby certify that I have made a diligent investigation of all taxing agencies in ^{Riverside} ~~San~~ County, California, having authority to tax the captioned property and I find no taxes, levies, or assessments against the property which are not shown as existing liens by the records of said taxing agencies or by the public records, except as shown below, and the undersigned has been advised by the taxing authorities that there is no possibility of action being taken by said taxing agencies under which a lien may be created subsequent to the recordation of the deed to the United States which will relate back to an effective lien date which is prior to the recordation of said deed.

Taxes, levies, assessments or possible assessments that might be made, which are not shown as existing liens by the records of said taxing agencies or by the public records are as follows:

None, other than shown on Title Report #262228, Mrs. Leanta L. S. Ryan.

Dated: September 14, 1966


Wm. R. Supernagh

(Title) Superintendent

6

Area Joshua Tree N.M.

CERTIFICATE OF INSPECTION AND POSSESSION

I, Wm. R. Supernaugh, an employee
of the Department of Dept. of the Interior, hereby certify that on the
1st day of September, 1966, I made a personal exam-
ination and inspection of that certain tract or parcel of land situated in
the County of Riverside, State of California,
designated as Tracts No. 18C & 288, and containing 133.57
plus rights of way across Acres, (proposed to be) acquired by the United States of
Government Lands America in connection with the purchase project, from
Leanta L. S. Ryan
(In the condemnation proceeding entitled _____
Civil No. _____.)

1. That I am fully informed as to the boundaries, lines and corners of said tract; that I found no evidence of any work or labor having been performed or any materials having been furnished in connection with the making of any repairs or improvements on said land; and that I made careful inquiry of the above-named vendor (and of the occupants of said land) and ascertained that nothing had been done on or about said premises within the past six months that would entitle any person to a lien upon said premises for work or labor performed or materials furnished.

2. That I also made inquiry of the above-named vendor (and of all occupants of said land) as to his (their) rights of possession and the rights of possession of any person or persons known to him (them), and neither found any evidence nor obtained any information showing or tending to show that any person had any rights of possession or other interest in said premises adverse to the rights of the above-named vendor or the United States of America.

3. That I was informed by the above-named vendor (and by all other occupants) that to the best of his (their) knowledge and belief there is no outstanding unrecorded deed, mortgage, lease, contract, or other instrument adversely affecting the title to said premises.

4. That to the best of my knowledge and belief after actual and diligent inquiry and physical inspection of said premises there is no evidence whatever of any vested or accrued water rights for mining, agricultural, manufacturing, or other purpose; nor any ditches or canals constructed by or being used thereon under authority of the United States, nor any exploration or operations whatever for the development of coal, oil, gas, or other minerals on said lands; and that there are no possessory rights now in existence owned or being actively exercised by any third party under any reservation contained in any patent or patents heretofore issued by the United States for said

land.

5. That to the best of my knowledge and belief based upon actual and diligent inquiry there is no outstanding right whatsoever in any person to the possession of said premises nor any outstanding right, title, interest, lien, or estate, existing or being asserted in or to said premises except such as are disclosed and evidenced by the public records.

6. That said premises are now wholly unoccupied and vacant except for the occupancy of none as tenant(s) at will, from whom disclaimer(s) of all right, title, and interest in and to said premises, executed on the _____ day of _____, 19____, has (have) been obtained. The property is also occupied by the following:

Leanta L. S. Ryan with interest described below.

Name

Interest claimed

Dated this _____ day of _____, 19____.

Approved:

Leanta L. S. Ryan with interest claimed for life estate which expires with the death of Leanta L. S. Ryan.

Signed:

Wm. R. Suparnaugh
Wm. R. Suparnaugh, Superintendent

TO 1687 CA
American Land Title Association
U. S. Policy Form-1963
1-64

POLICY OF TITLE INSURANCE

Issued by

Title Insurance and Trust Company

Title Insurance and Trust Company, a California corporation, herein called the Company, for a valuable consideration

HEREBY INSURES

THE UNITED STATES OF AMERICA

hereinafter called the Insured, against loss or damage not exceeding the amount stated in Schedule A, together with costs and expenses which the Company may become obligated to pay as provided in the Conditions and Stipulations hereof, which the Insured shall sustain by reason of:

any defect in or lien or encumbrance on the title to the estate or interest covered hereby in the land described or referred to in Schedule C, existing at the date hereof, not shown or referred to in Schedule B or excluded from coverage by the General Exceptions;

all subject, however, to the provisions of Schedules A, B and C and to the General Exceptions and to the Conditions and Stipulations hereto annexed.

IN WITNESS WHEREOF, Title Insurance and Trust Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers, as of the date shown in Schedule A, the effective date of this policy.



Title Insurance and Trust Company

By *Brian H. Wells* PRESIDENT

Attest *Richard H. Hurlburt* SECRETARY

TD 1012.1-1A C
California Land Title Association
Standard Coverage Policy—1963

SCHEDULE A,

Premium \$ 197.00

Amount \$40,000.00 Effective
Date AUGUST 30, 1966 AT 9:00 A.M. Policy No. 262228
INSURED

THE UNITED STATES OF AMERICA

1. Title to the estate or interest covered by this policy at the date hereof is vested in:

MRS. LEANTA L. S. RYAN, A WIDOW, AS TO A LIFE ESTATE RESERVED
IN DEED TO THE UNITED STATES OF AMERICA DATED JULY 12, 1966,
AND IN THE UNITED STATES OF AMERICA, AS TO THE REMAINDER

2. The estate or interest in the land described or referred to in Schedule C covered in this policy is:

A FEE AS TO PARCELS 1 AND 2, AND AN EASEMENT AS TO PARCEL 3.

TO 1012-1-1066-18 C
American Land Title Association Loan Policy
Additional Coverage-1962
or
California Land Title Association
Standard Coverage Policy-1963

SCHEDULE B

This policy does not insure against loss or damage by reason of the following:

1. UNPATENTED TUNNEL CLAIMS AND MILLSITE CLAIMS; WATER RIGHTS, CLAIMS OR TITLE TO WATER.

2. THE PROVISIONS AND RESERVATIONS CONTAINED IN THE PATENT FROM THE UNITED STATES OF AMERICA, DATED AUGUST 11, 1897, RECORDED OCTOBER 15, 1930 IN BOOK 9 PAGE 470 OF PATENTS, AS FOLLOWS:

(A) THAT THE PREMISES HEREBY GRANTED, WITH THE EXCEPTION OF THE SURFACE, MAY BE ENTERED BY THE PROPRIETOR OF ANY OTHER VEIN, LODE OR LEDGE, THE TOP OR APEX OF WHICH LIES OUTSIDE OF THE BOUNDARY OF SAID GRANTED PREMISES, SHOULD THE SAME IN ITS DIP BE FOUND TO PENETRATE, INTERSECT OR EXTEND INTO SAID PREMISES, FOR THE PURPOSE OF EXTRACTING AND REMOVING ORE FROM SUCH OTHER VEIN, LODE OR LEDGE.

(B) THAT THE PREMISES HEREBY GRANTED SHALL BE HELD SUBJECT TO ANY VESTED AND ACCRUED WATER RIGHTS FOR MINING, AGRICULTURAL, MANUFACTURING OR OTHER PURPOSES AND RIGHTS TO DITCHES AND RESERVOIRS USED IN CONNECTION WITH SUCH WATER RIGHTS AS MAY BE RECOGNIZED AND ACKNOWLEDGED BY THE LOCAL LAWS, CUSTOMS AND DECISIONS OF COURTS. AND THERE IS RESERVED FROM THE LANDS HEREBY GRANTED, A RIGHT OF WAY THEREON FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES.

(C) THAT IN THE ABSENCE OF NECESSARY LEGISLATION BY CONGRESS, THE LEGISLATURE OF CALIFORNIA MAY PROVIDE RULES FOR WORKING THE MINING CLAIM OR PREMISES HEREBY GRANTED, INVOLVING EASEMENTS, DRAINAGE AND OTHER NECESSARY MEANS TO ITS COMPLETE DEVELOPMENT.

SAID MATTER AFFECTS PARCEL 2.

3. RIGHTS, RIGHTS OF WAY AND EASEMENTS, AS RESERVED IN DEED FROM SOUTHERN PACIFIC LAND COMPANY, A CORPORATION, RECORDED JANUARY 27, 1945 IN BOOK 659 PAGE 241 OF OFFICIAL RECORDS, AND AS REFERRED TO IN AGREEMENT BETWEEN JEPHTHA D. RYAN AND ADDIE B. RYAN, HUSBAND AND WIFE, AND LEANTA L. S. RYAN, A WIDOW, AND SOUTHERN PACIFIC LAND COMPANY, A CORPORATION, RECORDED JANUARY 29, 1945 IN BOOK 661 PAGE 105 OF OFFICIAL RECORDS.

TO 1019-1-1086-1 C O C C
American Land Title Association Loan Policy
Additional Coverage—1962
or
California Land Title Association
Standard Coverage Policy—1963

*SCHEDULE C

The land referred to in this policy is described as follows:

PARCEL 1:

THE WEST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, NORTHEAST QUARTER OF THE SOUTHWEST QUARTER AND THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 2 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

PARCEL 2:

THAT PATENTED LODGE MINING CLAIM LOCATED IN TOWNSHIP 3 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, KNOWN AS THE LOST HORSE QUARTZ MINE AND DESIGNATED AS LOT NO. 37, MINERAL SURVEY NO. 3333, BEING MORE PARTICULARLY DESCRIBED IN THAT CERTAIN PATENT FROM THE UNITED STATES OF AMERICA TO THOMAS C. RYAN, ET AL, DATED AUGUST 11, 1897 AND RECORDED OCTOBER 15, 1930 IN BOOK 9 PAGE 470 OF PATENTS, AS FOLLOWS:

BEGINNING AT THE WEST END OF LODGE LINE A STONE 6 BY 10 BY 24 INCHES, MARKED WITH A CROSS (X) AND L. N. 1 L.W., FROM WHICH THE NORTH QUARTER CORNER OF SECTION 3 IN TOWNSHIP 3 SOUTH OF RANGE 8 EAST, SAN BERNARDINO MERIDIAN, BEARS NORTH 39° 21' EAST, 39 CHAINS AND 58 LINKS DISTANT, AND THE MOUTH OF INCLINE TUNNEL BEARS SOUTH 87° 15' EAST, 56 LINKS DISTANT; THENCE, FIRST COURSE, NORTH 15° 30' EAST, 300 FEET TO A GRANITE ROCK 8 BY 10 BY 24 INCHES, MARKED WITH A CROSS (X) AND L.H.2; THENCE, SECOND COURSE, SOUTH 87° 15' EAST, 1,004 FEET TO A GRANITE ROCK 6 BY 8 BY 30 INCHES, CHISELED WITH A CROSS (X) AND MARKED L. H. 3; THENCE, THIRD COURSE, SOUTH 15° 30' WEST, 300 FEET TO A POINT ON A LARGE IRREGULAR ROCK IN PLACE MARKED WITH A CROSS (X) AND L. H. L. E., 600 FEET TO A TRIANGULAR GRANITE ROCK MARKED WITH A CROSS (X) AND L. H. 4; THENCE, FOURTH COURSE, NORTH 87° 15' WEST, 1,004 FEET TO A GRANITE ROCK, CHISELED WITH A CROSS (X) AND L. H. 5; THENCE, FIFTH COURSE, NORTH 15° 30' EAST, 300 FEET TO THE WEST END OF LODGE LINE THE PLACE OF BEGINNING.

SAID LAND IS WITHIN JOSHUA TREE NATIONAL MONUMENT.

PARCEL 3:

(A) AN EASEMENT AND RIGHT-OF-WAY FOR A PRIVATE ROAD 20 FEET IN WIDTH, AS LOCATED ON DECEMBER 26, 1944 OVER AND ACROSS SECTIONS 21, 29 AND 33, TOWNSHIP 2 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, AS GRANTED TO LEANTA L. S. RYAN, A WIDOW, BY DEED DATED DECEMBER 26, 1944, RECORDED JANUARY 27, 1945 AS INSTRUMENT NO. 2805 IN BOOK 659 PAGE 241 OF OFFICIAL RECORDS.

EXCEPT ANY PORTION INCLUDED IN PARCEL 1 HEREINABOVE DESCRIBED.

(B) AN EASEMENT AND RIGHT-OF-WAY FOR A PRIVATE ROAD 20 FEET IN WIDTH, AS LOCATED ON DECEMBER 26, 1944 OVER AND ACROSS SECTION 21, TOWNSHIP 2 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, AS GRANTED TO LEANTA L. S. RYAN, A WIDOW, BY DEED DATED DECEMBER 26, 1944 AND RECORDED JANUARY 27, 1945 AS INSTRUMENT NO. 2805 IN BOOK 659 PAGE 241 OF OFFICIAL RECORDS.

EXCEPT ANY PORTION INCLUDED IN PARCEL 1 HEREINABOVE DESCRIBED.

(C) AN EASEMENT AND RIGHT-OF-WAY 10 FEET IN WIDTH FOR A WATER PIPE LINE, AS CONSTRUCTED ON DECEMBER 26, 1944 OVER AND ACROSS SECTIONS 21, 27 AND 33, TOWNSHIP 2 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF, AS GRANTED TO LEANTA L. S. RYAN, A WIDOW, BY DEED DATED DECEMBER 26, 1944 AND RECORDED JANUARY 27, 1945 AS INSTRUMENT NO. 2805 IN BOOK 659 PAGE 241 OF OFFICIAL RECORDS.

EXCEPT ANY PORTION INCLUDED IN PARCEL 1 HEREINABOVE DESCRIBED.

TO H&L C C
American Land Title Association
U. S. Policy Form—1963
1-64

GENERAL EXCEPTIONS

Governmental Powers

1. Because of limitations imposed by law on ownership and use of property, or which arise from governmental powers, this policy does not insure against:

(a) consequences of the future exercise or enforcement or attempted exercise or enforcement of police power, bankruptcy power, or power of eminent domain, under any existing or future law or governmental regulation; (b) consequences of any law, ordinance or governmental regulation, now or hereafter in force, (including building and zoning ordinances) limiting or regulating the use or enjoyment of the property, estate or interest described in Schedule C or the character, size, use or location of any improvement now or hereafter erected on said property.

Matters Not of Record

2. The following matters which are not of record at the date of this policy are not insured against:

(a) rights or claims of parties in possession not shown of record; (b) questions of survey; (c) easements, claims of easement or mechanics' liens where no notice thereof appears of record; and (d) conveyances, agreements, defects, liens or encumbrances, if any, where no notice thereof appears of record; provided, however, the provisions of this subparagraph 2(d) shall not apply if title to said estate or interest is vested in the United States of America on the date hereof.

Matters Subsequent to Date of Policy

3. This policy does not insure against loss or damage by reason of defects, liens or encumbrances created subsequent to the date hereof.

Refusal to Purchase

4. This policy does not insure against loss or damage by reason of the refusal of any person to purchase, lease or lend money on the property, estate or interest described in Schedule A.

NO 1085.1 D C
American Land Title Association
U. S. Policy Form - 1963
1-64

CONDITIONS AND STIPULATIONS

NOTICE OF ACTIONS

1. If any action or proceeding shall be begun or defense asserted which may result in an adverse judgment or decree resulting in a loss for which this Company is liable under this policy, notice in writing of such action or proceeding or defense shall be given by the Attorney General to this Company within 90 days after notice of such action or proceeding or defense has been received by the Attorney General; and upon failure to give such notice then all liability of this Company with respect to the defect, claim, lien or encumbrance asserted or enforced in such action or proceeding shall terminate. Failure to give notice, however, shall not prejudice the rights of the party insured. (1) if the party insured shall not be a party to such action or proceeding, or (2) if such party, being a party to such action or proceeding be neither served with summons therein nor have actual notice of such action or proceeding, or (3) if this Company shall not be prejudiced by failure of the Attorney General to give such notice.

NOTICE OF WRITS

2. In case knowledge shall come to the Attorney General of the issuance or service of any writ of execution, attachment or other process to enforce any judgment, order or decree adversely affecting the title, estate or interest insured, said party shall notify this Company thereof in writing within 90 days from the date of such knowledge; and upon a failure to do so, then all liability of this Company in consequence of such judgment, order or decree or matter thereby adjudicated shall terminate unless this Company shall not be prejudiced by reason of such failure to notify.

DEFENSE OF CLAIMS

3. This Company agrees, but only at the election and request of the Attorney General of the United States, to defend at its own cost and expense the title, estate or interest hereby insured in all actions or other proceedings which are founded upon or in which it is asserted by way of defense, a defect, claim, lien or encumbrance against which this policy insures, provided, however, that the request to defend is given within sufficient time to permit the Company to answer or otherwise participate in the proceeding. If any action or proceeding shall be begun or defense be asserted in any action or proceeding affecting or relating to the title, estate or interest hereby insured and the Attorney General elects to defend at the Government's expense, the Company shall upon request, cooperate and render all reasonable assistance in the prosecution or defense of such proceeding and in prosecuting appeals.

If the Attorney General shall fail to request and permit the Company to defend, then all liability of the Company with respect to the defect, claim, lien or encumbrance asserted in such action or proceeding shall terminate; provided, however, that if the Attorney General shall give the Company timely notice of all proceedings and an opportunity to suggest such defenses and actions as it shall conceive should be taken and the Attorney General shall present the defenses and take the actions of which the Company shall advise him in writing, then the liability of the Company shall continue; but in any event the Company shall permit the Attorney General without cost or expense to use the information and facilities of the Company for all purposes which he thinks necessary or incidental to the defending of any such action or proceeding or any claim asserted by way of defense therein and to the prosecuting of an appeal.

COMPROMISE OF ADVERSE CLAIMS

4. Any compromise, settlement or discharge by the United States or its duly authorized representative of an adverse claim, without the consent of this Company shall bar any claim against the Company hereunder. Provided, however, that the Attorney General may at his election submit to the issuing company for approval or disapproval any proposed compromise, settlement or discharge of any adverse claim and in the event of the consent of the issuing company to the proposed compromise, settlement or discharge it shall be liable for the payment of the full amount paid.

STATEMENT OF LOSS

5. A statement in writing of any loss or damage sustained by the party insured, and for which it is claimed this Company is liable under this policy, shall be furnished by the Attorney General to this Company within 90 days after said party has notice of such loss or damage and no right of action shall accrue under this policy until 30 days after such statement shall have been furnished. No recovery shall be had under this policy unless suit be brought thereon within one year after said period of 30 days. Failure to furnish such statement of loss or to bring such suit within the times specified shall not affect the Company's liability under this policy unless this Company has been prejudiced by reason of such failure to furnish a statement of loss or to bring such suit.

POLICY REDUCED BY PAYMENTS OF LOSS

6. All payments of loss under this policy shall reduce the amount of this policy pro tanto.

AMENDMENT OF POLICY

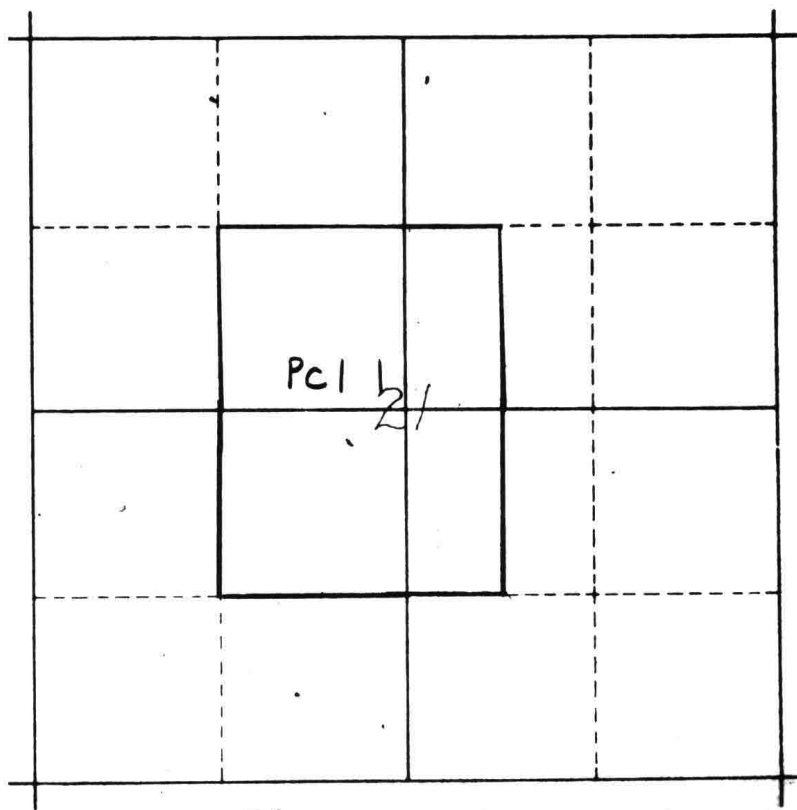
7. No provision or condition of this policy can be waived or changed except by writing endorsed hereon or attached hereto signed by the President, a Vice President, the Secretary, an Assistant Secretary or other validating officer of the Company.

NOTICES, WHERE SENT

8. All notices required to be given the Company and any statement in writing required to be furnished the Company shall be addressed to it at the office which issued this policy or to its Home Office, 433 South Spring Street, Los Angeles 54, California.

9. THE PREMIUM SPECIFIED IN SCHEDULE A IS THE ENTIRE CHARGE FOR TITLE SEARCH, TITLE EXAMINATION AND TITLE INSURANCE.

TO 77A
(400)



SECTION 21 TOWNSHIP 2-5 RANGE 8-E

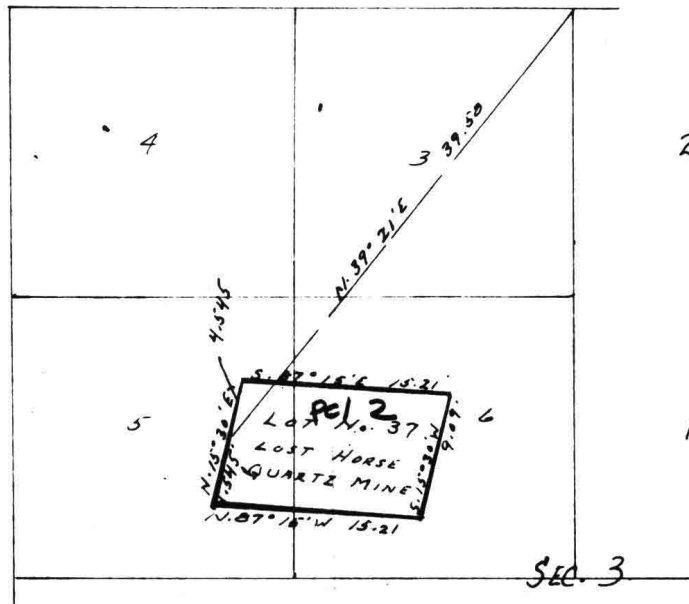
This is not a survey of the land but is compiled for information by the
Title Insurance and Trust Company from data shown by the official records.

TO SEE C

NW 1/4 SEC 3 T. 3S. R. 8E



POR. OF FRACTIONAL
NW 1/4 OF SECTION 3,
T. 3S. R. 8E.



WHEN RECORDED MAIL TO: DEPARTMENT OF THE INTERIOR NATIONAL PARK
SERVICE, WESTERN REGIONAL OFFICE
P. O. BOX 36063, SAN FRANCISCO, CALIF. 94102
ATTN: BRUCE MILLER, ROOM 9434-T
RE P.O. NO. 940-351

G R A N T D E E D

THIS INDENTURE made the 12 day of July, in the year 1966
between Mrs. Leanta L. S. Ryan, a widow, the party of the first part, and
THE UNITED STATES OF AMERICA, the party of the second part.

W I T N E S S E T H

THAT the said party of the first part, for and in consideration of the
sum of Forty Thousand Dollars (\$40,000) lawful money of the United States of
America, to her in hand paid, by the said party of the second part, the
receipt whereof is hereby acknowledged, together with tenure as described
below, does by these presents grant, bargain, sell, convey and confirm unto
the said party of the second part and its assigns forever,

ALL of that tract of land situate and lying in the County of Riverside,
State of California, described as follows:

Parcel 1: The west half of the southwest quarter of the northeast quarter
($W\frac{1}{2}SW\frac{1}{4}NE\frac{1}{4}$), the southeast quarter of the northwest quarter ($SE\frac{1}{4}NW\frac{1}{4}$), the
northeast quarter of the southwest quarter ($NE\frac{1}{4}SW\frac{1}{4}$), west half of the
northwest quarter of the southeast quarter ($W\frac{1}{2}NW\frac{1}{4}SE\frac{1}{4}$) of Section Twenty-
one (21), Township Two South (T2S), Range Eight East (R8E), San Bernardino
Meridian, containing one hundred and twenty (120) acres, more or less.

Together with an easement and right-of-way for a private road twenty
(20) feet in width as now located and extending from the Lost Horse Ranch
to the Lost Horse Mine and across Sections Twenty-one (21), Twenty-nine (29)
and Thirty-three (33) in Township Two South (T2S), Range Eight East (R8E),
San Bernardino Meridian.

Also together with an easement and right-of-way for a private road
twenty (20) feet in width as now located and extending from said Lost Horse
Ranch to a connection with the Key's point in Twentynine Palms Road, over
and across said Section Twenty-one (21).

Also together with an easement and right-of-way ten (10) feet in width
for a water pipe line as now constructed and extending from said Lost Horse
Ranch across Sections Twenty-one (21), Twenty-seven (27), and Thirty-three
(33) in said Township and Range to Lost Horse Mine.



87566

262228-PCW

Microfilm made from this document
by the National Archives and Records Administration

87566

Parcel 2: A mining claim described as the Lost Horse Quartz Mine and shown as Lot Thirty-seven (37) in Fractional Section Three (3), Township Three South (T3S), Range Eight East (R8E), San Bernardino Meridian, containing thirteen and fifty-seven one-hundredths (13.57) acres, more or less.

The total area exclusive of easements described herein is one hundred and thirty-three and fifty-seven one-hundredths (133.57) acres more or less.

Additionally, the party of the first part reserves as tenure to herself for her lifetime, or until such time as she notifies the Superintendent of Joshua Tree National Monument that she desires to relinquish such right, the right to personally occupy and use the house and water as required from the well located on subject property together with the following described land:

North half of the west half of the southwest quarter of the southwest quarter of the northeast quarter (N $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$), of Section Twenty-one (21), Township Two South (T2S), Range Eight East (R8E), San Bernardino Meridian.

Upon the death of the party of the first part, all her right, title and interest to the property shall automatically terminate and a good and indefeasible title to said property shall vest in the United States.

Said land is within Joshua Tree National Monument.

To HAVE and to HOLD, all and singular, the above mentioned and described premises, together with the appurtenances, unto the said party of the second part, and to its assigns forever.

IN WITNESS WHEREOF, the said party of the first part has executed these presents the day and year first above written.

Signed and delivered in the presence of

[Signature]
Witness

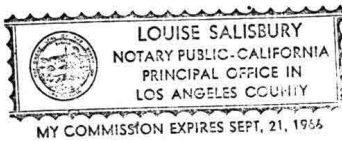
[Signature]
Witness

[Signature]

State of California }
County of Los Angeles } ss

On this 12 day of July, in the year 1966, before me, _____
the undersigned _____ a NOTARY PUBLIC in and for the County of
Los Angeles, State of California, residing
therein, duly commissioned and sworn, personally appeared _____
Leanta S. Ryan, known to me to be the person whose name
is subscribed to the within instrument, and acknowledged to me that she
executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official
seal in said County of Los Angeles, the day and year in this certifi-
cate first above written.



Louise Salisbury
Notary Public in and for said

County of Los Angeles
State of California

My commission expires:
LOUISE SALISBURY
My Commission Expires September 21, 1966

87566

3

RECEIVED FOR RECORD
AUG 30 1966

AT 9:00 O'CLOCK A.M.
At Request of
TITLE INS. & TRUST CO.
Recorded in Official Records
of Riverside County, California

W.H. Doherty
FEE \$ 3.60 Recorder

INDEXED
6-3



**Office of the Attorney General
Washington, D. C.**

June 13, 1966

Honorable Stewart L. Udall
Secretary of the Interior
Washington, D. C.

My dear Mr. Secretary:

An examination has been made of the title data relating to 133.57 acres of land, more or less, Joshua Tree National Mounment Project in Riverside County, California. A fee title to 120.00 acres of this land, a mining claim of 13.57 acres and certain easements are to be acquired for a consideration of \$40,000.00 by authority of existing legislation. The file number of this Department is 33-5-1575-47.

The land mining claim and easements are described in the enclosed draft of deed from Mrs. Leanta L. S. Ryan, to the United States of America.

The preliminary title report, No. 940-351, dated as of February 24, 1966, was prepared by Title Insurance and Trust Company and is satisfactory in form.

The title report and accompanying data disclose the title to be vested in Leanta L. S. Ryan, subject to:

1. All taxes and assessments including those noted at item 1, page 1 of the title report.
2. Rights or claims of persons in possession, if any, not shown of record.
3. Mechanics' liens, if any, not shown of record.
4. Existing easements for public roads and highways, railroads, pipelines and public utilities, including item 4, page 2 of the title report.

- 2 -

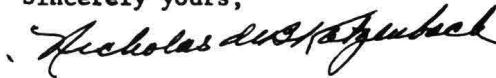
5. Provisions and reservations contained in the patent from the United States noted at item 3, page 1 of the title report.
6. Unpatented tunnel claims and millsite claims; water rights, claims or title to water noted at item 2, page 1 of the title report.
7. Rights of the United States under the executed option.
8. Satisfactory proof that the easements described in the option are wholly within the lands covered by the preliminary title report.

According to the option and administrative approval of your Department the land and easements are to be acquired subject to the rights and easements referred to in objections 4 and 5 above and the reservation by the vendor of the right to personally occupy and use for her lifetime, the house and water as required from the well located on subject property and other land, which are therefore waived.

When the above objections numbered 1, 2, 3 and 8 have been met, and the enclosed draft of deed from the above-named owner to the United States, duly executed and properly stamped, has been recorded, the purchase price has been paid, and a title insurance policy in approved form has been obtained showing the vesting of a valid title in the United States of America, and this Department has been informed in writing that objection 6 will not interfere with the contemplated use of the land, the title will be approved subject to the rights and easements referred to in objections 4, 5 and 6 and the reservation above set forth.

The preliminary title report and related papers are enclosed.

Sincerely yours,



Attorney General

Form No. 1031A

PUBLIC VOUCHER FOR PURCHASES AND
SERVICES OTHER THAN PERSONAL

Use continuation sheets if necessary

VOUCHER NO.

Department of the Interior

U. S. National Park Service, SSC, Box 3606

June 24, 1966

San Francisco, California 94102

Voucher prepared at

(Give place and date)

Payee's Account No.

Discount Terms

Lemata L. S. Ryan, a widow

c/o Chief, Office of Land and Water Rights, SSC

National Park Service, 450 Golden Gate Ave., Box 3606

San Francisco, California 94102

PAID BY

Contract No.

Date

Req. No.

Date

Invoice Rec'd.

Shipped from

to

Weight

Govt. B/L No.

No. and Date of Order	Date of Delivery or Service	ARTICLES OR SERVICES (Enter description, item number of contract or Federal supply schedule, and other information deemed necessary)	Quantity	UNIT PRICE		AMOUNT
				Cost	Per	
		Payment for Lemata L. S. Ryan property containing 133.57 acres of land to be added to Joshua Tree National Monument as described in option-Contract: NFS-2023-1A-10-0434-3350	Two Parcels	\$40,000	Unit of Two Parcels	\$40,000. plus lifetime tenure to house and water.
TOTAL						

PAYMENT

(PAYEE MUST NOT USE THIS SPACE)

COMPLETE

PARTIAL

FINAL

PROGRESS

ADVANCE

(Sgd) Manuel Morris
Supervisory Hydraulic Engineer

DIFFERENCES

Amount verified, correct for

(Signature or initials)

\$40,000

MEMORANDUM

ACCOUNTING CLASSIFICATION (Appropriation Symbol must be shown; other classification optional)

Paid by

Check No. _____ on Treasurer of the United States

Check No. _____ on _____ (Name of Bank)

Cash, \$ _____, on _____, 19 _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

CONTRACT NUMBER:
NPS-JOTR-14-10-0434-3350

OFFER TO SELL REAL ESTATE
TO
THE UNITED STATES GOVERNMENT

THE UNDERSIGNED, hereinafter known as the vendor, in consideration of the examination and appraisal of the land herein below described by the United States and other good and valuable consideration, the receipt of which is hereby acknowledged, does hereby agree for himself, herself, or themselves, or heirs, administrators, executors and assigns, as follows:

(1) That at any time within ninety (90) days from the date of this instrument, if requested so to do by an authorized representative of the United States, the said vendor will sell and at his, her, their, or its own expense, convey, free of all liens or encumbrance except as provided herein, to the United States or its nominee by proper grant deed, under conditions hereinafter provided, all of that tract or tracts of land situate and lying in the County of Riverside, State of California, more particularly described as follows:

Parcel 1: The west half of the southwest quarter of the northeast quarter (~~W1/2SW1/4NE1/4~~), the southeast quarter of the northwest quarter (~~SE1/4NW1/4~~), the northeast quarter of the southwest quarter (~~NE1/4SW1/4~~), west half of the northwest quarter of the southeast quarter (~~W1/2NW1/4SE1/4~~) of Section Twenty-one (21), Township Two South (T2S), Range Eight East (R8E), San Bernardino Meridian, containing one hundred and twenty (120) acres, more or less.

Together with an easement and right-of-way for a private road twenty (20) feet in width as now located and extending from the Lost Horse Ranch to the Lost Horse Mine and across Sections Twenty-one (21), Twenty-nine (29) and Thirty-three (33) in Township Two South (T2S), Range Eight East (R8E), San Bernardino Meridian.

Also together with an easement and right-of-way for a private road twenty (20) feet in width as now located and extending from said Lost Horse Ranch to a connection with the Key's point in Twentynine Palms Road, over and across said Section Twenty-one (21).

Also together with an easement and right-of-way ten (10) feet in width for a water pipe line as now constructed and extending from said Lost Horse Ranch across Sections Twenty-one (21), Twenty-seven (27), and Thirty-three (33) in said Township and Range to Lost Horse Mine.

Parcel 2: A mining claim described as the Lost Horse Quartz Mine and shown as Lot Thirty-seven (37) in Fractional Section Three (3), Township Three

South (T3S), Range Eight East (R8E), San Bernardino Meridian, containing thirteen and fifty-seven one-hundredths (13.57) acres, more or less.

The total area exclusive of easements described herein is one hundred and thirty-three and fifty-seven one-hundredths (133.57) acres more or less.

(2) That the price at which said land will be sold to the United States as hereinbefore provided shall be \$40,000 and tenure as provided in para. (9) of this option.

(3) That in case the vendor is unable to show and establish title to the above-described lands satisfactory to the United States Government, then, and in that event, the vendor agrees that the United States may, in its discretion, institute condemnation proceedings for the acquisition of said lands and that the price hereinabove set forth is hereby agreed to by the vendor as to the value of the land to be acquired under said condemnation proceedings.

(4) That the title to be conveyed to the United States as described in paragraph (1) hereof shall be free from lien or encumbrance except for rights of way for roadways, telephone lines, and transmission lines outstanding in their parties as of the date of this option.

(5) The vendor further agrees, except as to any title defects specifically waived by the United States, to correct any title defects disclosed by the Attorney General's title report. The vendor shall pay all taxes which have become liens upon the above-described property and no part thereof shall be apportioned to or payable by the purchaser. The vendor will obtain a release of the aforesaid property from all taxes. The vendor shall pay for such revenue stamps as may be required.

(6) That when the United States of America acting through the Secretary of the Interior, or other authorized representative, shall have approved and signed this option for the purchase of the lands herein provided then, in that event, this instrument shall constitute a contract of bargain and sale between the parties hereto.

(7) If this option is approved as provided in paragraph (6) hereof, the United States will have use and possession of the said lands beginning on recording of deed. The vendor shall retain use and possession until the above date even though title may be conveyed to the United States prior to said date. Provided, further that during the period the vendor retains use and possession, the vendor does hereby grant to the officers and accredited agents and representatives of the United States, at all proper times, unrestricted right and privilege to survey or enter said lands for all proper and lawful purposes in connection with the negotiations for the acquisition thereof.

(8) No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom. Nothing in this paragraph, however, shall invalidate this contract if made with a corporation for its general benefit.

(9) As additional consideration there is reserved to the vendor for her lifetime, or until such time as she notifies the Superintendent of Joshua Tree National Monument that she desires to relinquish such right, the right to personally occupy and use the house and water as required from the well located on subject property together with the following described land:

North half of the west half of the southwest quarter of the southwest quarter of the northeast quarter (NW1/4SW1/4NE1/4), of Section Twenty-one (21), Township Two South (T2S), Range Eight East (R8E), San Bernardino Meridian.

Upon the death of the vendor, all her right, title and interest to the property shall automatically terminate, and a good and indefeasible title to said property shall vest in the United States.

In witness whereof said vendor has set her hand and seal of these presents on this 28th day of April, 1966.

Witnesses:

Vendor:

James K Chilcoat - #
334 Ft. Mc. Bennett Ave. Henderson.
74725 Lardano - Twenty-nine Palms, Calif

James K Chilcoat

Approved for the National Park Service

By: Thomas Romelin 5/12/66
Chief, Office of Land and Water Rights, SSC

Joshua Tree National Monument
Twentynine Palms, California 92277

L1425

July 8, 1965

Memorandum

To: Regional Director, Western Region
From: Superintendent, Joshua Tree
Subject: Ryan Property, Joshua Tree National Monument

Mr. Trask Gant, attorney handling Mrs. Ryan's business affairs, visited this office inquiring as to the possibility of Government purchase of the Ryan Property. He stated that a group from Bakersfield, California are insisting on buying this property for a dude ranch, and that a realtor from Joshua Tree was attempting to secure it, but he is asking Mrs. Ryan to hold out until the Government can give them a definite answer as to their intent.

Price was discussed, and he agreed that though Mrs. Ryan was asking \$75,000., that he would try to persuade her to take an offer of \$40,000. if the Government would offer this amount. He asked that, in the offer following appraisal, we state the appraised price, and that we want to avoid condemnation if at all possible. He stated this would assist him in convincing her to sell. It would also be an inducement to her if we could give her life tenure, so that she could visit the place occasionally.

Wm. R. Supernaugh
Superintendent

L54

Joshua Tree National Monument
Twenty-nine Palms, California 92277

June 11, 1965

CHANGE ORDER NO. 1

BZM, Inc.
3118 Union Avenue
Bakersfield, California

Gentlemen:

In accordance with the General Provisions of your Contract No. 14-10-0434-1916, dated May 4, 1965, you are hereby directed to perform the following additional work:

1. Furnish all labor, equipment, and material necessary to complete the test drilling at the Indian Cove site to the desired depth and, drill one test hole for water exploration at the Caravan Camp site located in SW¹/₄, Sec. 22, T1S, R9E, S36W.

You will be compensated at the rates shown in your contract for a total not to exceed \$4000.00. Your contract will be increased by this amount and will now be an amount not to exceed \$7000.00.

If you agree, please sign the enclosed letter and return to me.

Sincerely yours,

W. H. Superbaugh
Superintendent

I Concur:
James Morris

Harold F. Johnson
Contracting Officer

J. T. N.
Water

Lost Horse Valley
Indian Cove
Caravan Camp site

Joshua Tree National Monument
Twentynine Palms, California 92277

FINDINGS OF FACT

Change Order No. 1, Contract No. 14-10-0434-1916

At the time the present contract was programmed no determination could be made as to the material to be drilled through nor the length of time required to reach the desired depth. The material at the Indian Cove site was rocky slowing the drilling process and increasing the time required to reach the desired depth.

A new exploratory site, Caravan Camp, was selected to be drilled and tested for a possible productive well.

The work is directly connected with ground water exploration at Joshua Tree National Monument.

The present contractor on the job has offered to do the work for a price that is fair and reasonable. This is specialized service and no other firm exists which does this kind of work. It would be impracticable for another to move in necessary men, also materials, and equipment and do this work for this price.

It is in the interest of the National Park Service to determine if water is available at these locations for future development.

Wm. R. Supernough
Superintendent

I concur
Manuel Morris

Date 6/11/65

Dear Sir:

TRIM, Inc.

(Title)



W0BC

25 June 1965
United States National Park Service

Water Exploration Program
Joshua Tree National Monument
Final Report

TEST HOLE NO. 1

Test Hole No. 1 was drilled in Lost Horse Valley to a depth of 148 feet. The formation was essentially granite residuum becoming firmer with depth. Plastic observation pipe was set at 127 feet. All test indicate no water is present.

TEST HOLE NO. 2

Test Hole No. 2 was drilled in Lost Horse Valley to a depth of 105 feet. The formation was essentially granite residuum becoming firmer with depth. Plastic observation pipe was set at 91½ feet. All test indicate no water is present.

TEST HOLE NO. 3

Test Hole No. 3 was drilled in Indian Cove to a depth of 228 feet. The formation was aluvium with the bottom 20 feet being very hard sand stone. Tests indicate water saturation at 153.5 feet with a production capacity of 25 to 30 gallons per hour in a 4 3/4 inch well. A larger bore would increase the capacity. A well with laterals set perpendicular to the ground slope should have a capacity of approximately 20 gallons per hour per foot of lateral. Water quality is good, less than 600 ppm TDS.

TEST HOLE NO. 4

Test Hole No. 4 was drilled in an upper portion of the 29 Palms Fan to a depth of 58 feet. The formation was aluvium consisting of sand and boulders bottoming in a quartz intrusive. All tests indicate no water is present. Observation pipe is set at 54 feet.

B Z.M. INCORPORATED

(Page Two)

RYAN'S WELL

Ryan's Well is located on the Ryan's property in Lost Horse Valley. Mining methods were used for its construction. A windmill pump is mounted over the well and is in working condition. The well is 70 feet deep with approximately 70 feet of 3.5 by 6 feet laterals. The formation consists of firm granite rock. A general jointing plane is present with a strike of North 48° West, dip 71° East. The laterals contained approximately 6 inches of water at the time of investigation. No fractures or seeps indicated the source of water. The mode of construction suggest exploration for a fractured or faulted zone. The North lateral contains a 4 by 4' feet shaft 9 feet deep. This shaft is probably the source of water entry.

The well produces approximately 5,000 gallons per day. This estimate was arrived at in five ways.

1. The first day, the well was pumped down $1\frac{1}{2}$ feet. Subtracting the number of gallons contained with $1\frac{1}{2}$ feet of the shaft from the amount pumped out yields the amount of inflow during the pumping time. Approximately 5,000 gallons per day.
2. Pumping was started on a continuous basis for 6 days. During the first 12 hours, the well was pumped down $7\frac{1}{2}$ feet. Subtracting the number of gallons contained within $7\frac{1}{2}$ feet of the shaft from the number of gallons pumped out yields the amount of inflow during the time of pumping. Approximately 5,000 gallons per day.
3. The pump was stopped for 10 minutes at 1:00 am of the second day. The well recovered 2 inches in the 10 minutes. The amount contained in 2 inches of the shaft times 6, times 24, yields the production per day. Approximately 5,000 gallons per day.
4. The total amount of water pumped out less the amount contained by the geometry of the well yields the inflow during pumping. Approximately 5,000 gallons per day.
5. Upon completion of inspection, the well was not pumped. Water level raised $1\frac{1}{2}$ feet per day, filling the laterals. The calculated volume contained within a $1\frac{1}{2}$ foot interval of the laterals is approximately 5,000 gallons.

Most of the timber in the well is poor and should be removed. The timber was used for the construction of the well and is not required for support. Total storage capacity of the well would be increased by removal of back fill by approximately 2500 gallons. Referring to the photo "looking north from near entrance to north lateral." A definite dark line may be seen and the roof is all blackened. This appeared to be smoke residue possibly from an oily fire. No odor was noted.

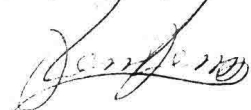
B Z-M, INCORPORATED

(Page Three)

RYANS WELL cont.

Total production could possibly be improved by extending the 9 foot inner shaft either down or laterally. There is apparently no direct connection between this well and the same type well now being used by the Park Service.

Respectively Submitted:



Kenyon Kemp
Engineer-Geologist
BZM, Inc.

KK:ma



29 July 1965

Explanation of Data

Test Hole No. 3 Joshua Tree National Monument

The results of tests made at Indian Cove indicates a limited supply of water is available. Following is a discussion of the data obtained and of possible exploitation of the site for water production. Please refer to the chart, sketch or log indicated.

Recovery Data Chart

Test Hole No. 3, was pumped down to a depth of 202 feet. The pumping was stopped and the water level had recovered to 179 feet in one hour. The hole is 4 3/4 inch diameter and contains .92 gallons per linier foot. The production rate is 21 gallons per hour.

202 ft - 179 ft. - 23 ft. recovery per hour
23 ft/hr x .92 gal/ft - 21 gal/hr

The ultimate recovery to the zone of saturation at the time was 155 feet. Recovery above 175 feet is very slow, indicating low yields above 175 feet.

Approximate Hole Size - Production Chart

Approximate production increases values with increase of hole size can be extrapolated from work done by Muskat. (Muskat, Morris: "Physical Principles of Oil Production", Mc Graw Hill) Essentially, production increases logarithmically with increase of hole size and the production will double with increase of hole size by a factor of 10. From the chart, a 48 inch hole will produce 42 gallons per hour and a 24 inch hole will produce 28 gallons per hour if test Hole No. 3 were enlarged.

Electric Log

The most productive sand is indicated by the log between 180 feet and 190 feet. Sands at less depth would produce if the saturation level should rise. Quality, as indicated by the log, is no problem.

Possible Installation sketch

A hypothetical installation was made in order to better present the possible potential present. Assume a 48 inch well were drilled to 200 feet and two 20 foot by 24 inch laterals were set at 184 feet. The laterals would be in the center of the most productive sand in a direction perpendicular to the direction of ground water movement. Referring back to the above charts, some calculation can be made.



Page Two 29 July 1965

The test hole yields 21 gal per hour from 30 feet of sand

$$\frac{21 \text{ gal/hr}}{30 \text{ ft sand}} \text{ equals } .70 \text{ gal/hr/ft sand}$$

A 48 inch hole would yield twice as much

$$2 \times .70 \text{ gal/hr/ft sand equals } 1.40 \text{ gal/hr/ft sand}$$

The laterals would take 2 feet of the sand leaving 28 feet of sand

$$1.40 \text{ gal/hr/ft} \times 28 \text{ ft equals } 39.2 \text{ gal/hr}$$

A 24 inch hole would yield 28 gal/hr from the 30 feet of sand.

$$\frac{28 \text{ gal/hr}}{30 \text{ ft sand}} \text{ equals } .93 \text{ gal/hr/ft sand}$$

A lateral set perpendicular to direction of groundwater movement in the most favorable sand should double in yield. If 40 feet of 24 inch lateral is used

$$40 \text{ ft} \times 1.8 \text{ gal/hr/ft sand equals } 72 \text{ gal/hr}$$

Combining the lateral and the 48 inch hole,

$$72 \text{ gal/hr plus } 39 \text{ gal/hr equals } 111 \text{ gal/hr}$$

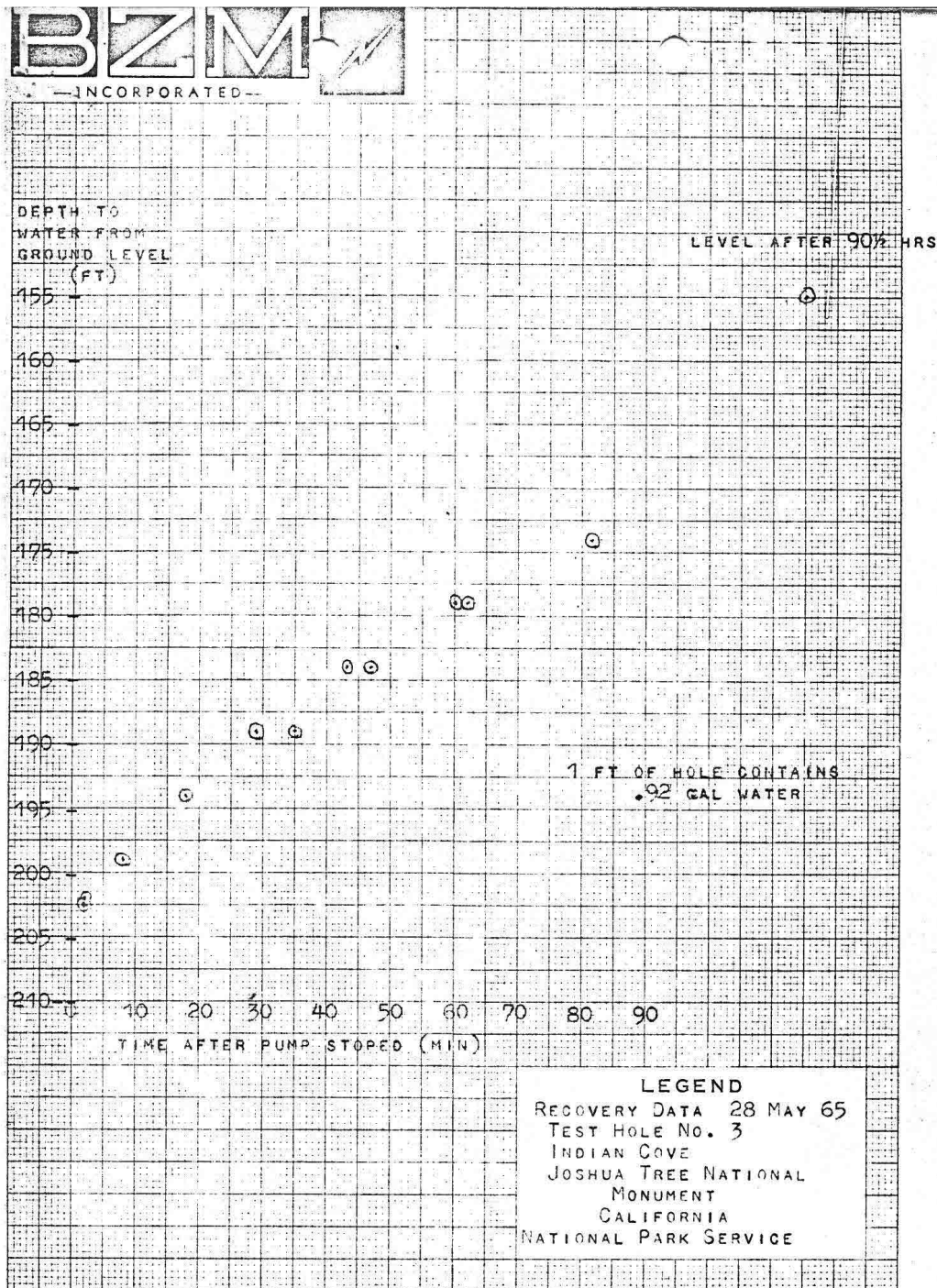
Several factors should be considered. The test results are based on measurements made shortly after drilling was completed. The hole was drilled using clay-gel fluid. Development will remove clay particles and improve the production somewhat. The test was performed during a time of lowest ground-water levels. More production could be expected with decrease of depth to field saturation. The increased production would be approximately 1.4 gal/hr with each one foot rise of field saturation.

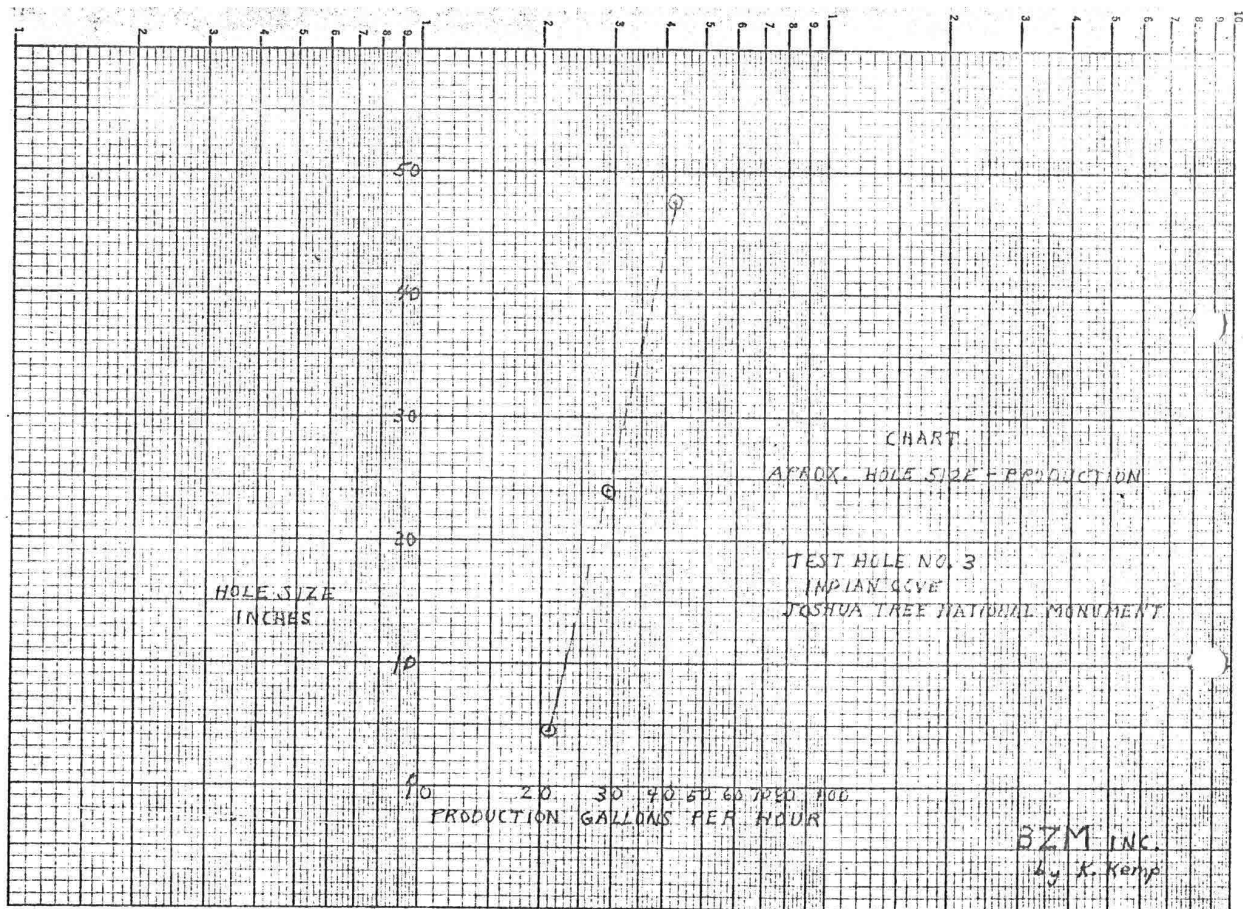
The capacity of the system for storage can be calculated. The usable storage level would be at a depth of 170 feet. The rate of inflow above 170 feet is very slow. The usable storage level would be raised if the field saturation level should rise.

$$30 \text{ ft of } 48 \text{ in hole (2826 gal) plus } 40 \text{ ft of } 24 \text{ in hole (940 gal) equals } 3766 \text{ gal storage (170 feet to 200 feet)}$$

At 111 gal/hr production, it would require approximately 34 hours to fill the storage area.

Ken Kemp, Engineer
BZM, Inc.



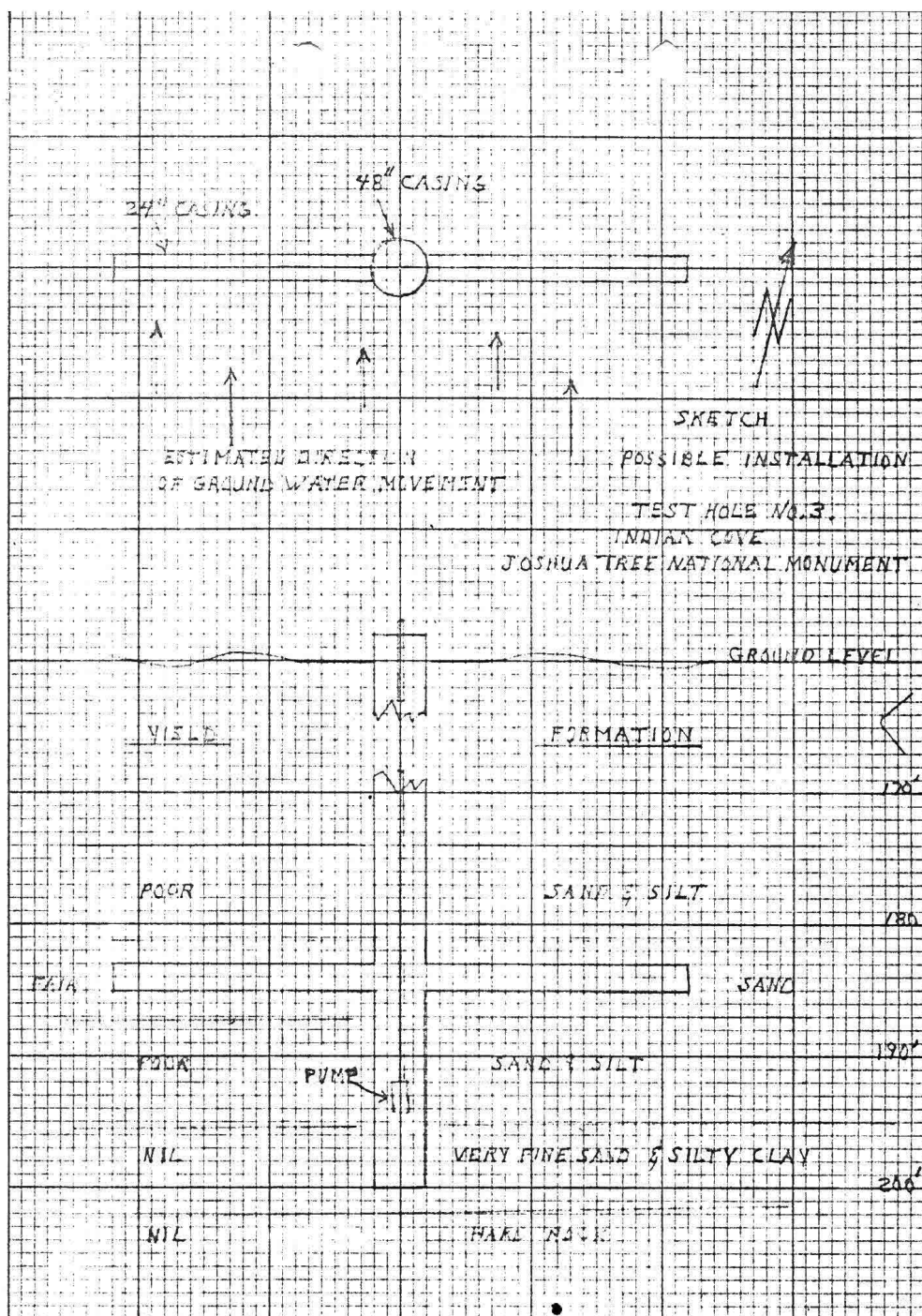


Company UNITED STATES NATIONAL DATA SERVICE		LOCATION	
WELL TEST HOLE NO. 2		NEAR CENTER OF EAST EDGE OF	
TOWN LAST HORSE VALLEY		Twp. 2 S. R. 2 E. S. 1 E.	
COUNTY RIVERSIDE STATE CALIFORNIA		Section 2000	
DATE 20 MAY 60		BY 20 MAY 60	

FORMATION		WATER	
DEPTH	LOG	DEPTH	LOG
5 to 75	SOLID		
75 to 105			
105 to 120			
120 to 135			
135 to 150			
150 to 165			
165 to 180			
180 to 195			
195 to 210			
210 to 225			
225 to 240			
240 to 255			
255 to 270			
270 to 285			
285 to 300			
300 to 315			
315 to 330			
330 to 345			
345 to 360			
360 to 375			
375 to 390			
390 to 405			
405 to 420			
420 to 435			
435 to 450			
450 to 465			
465 to 480			
480 to 495			
495 to 510			
510 to 525			
525 to 540			
540 to 555			
555 to 570			
570 to 585			
585 to 600			
600 to 615			
615 to 630			
630 to 645			
645 to 660			
660 to 675			
675 to 690			
690 to 705			
705 to 720			
720 to 735			
735 to 750			
750 to 765			
765 to 780			
780 to 795			
795 to 810			
810 to 825			
825 to 840			
840 to 855			
855 to 870			
870 to 885			
885 to 900			
900 to 915			
915 to 930			
930 to 945			
945 to 960			
960 to 975			
975 to 990			
990 to 1005			
1005 to 1020			
1020 to 1035			
1035 to 1050			
1050 to 1065			
1065 to 1080			
1080 to 1095			
1095 to 1110			
1110 to 1125			
1125 to 1140			
1140 to 1155			
1155 to 1170			
1170 to 1185			
1185 to 1200			
1200 to 1215			
1215 to 1230			
1230 to 1245			
1245 to 1260			
1260 to 1275			
1275 to 1290			
1290 to 1305			
1305 to 1320			
1320 to 1335			
1335 to 1350			
1350 to 1365			
1365 to 1380			
1380 to 1395			
1395 to 1410			
1410 to 1425			
1425 to 1440			
1440 to 1455			
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1890 to 1905			
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1935 to 1950			
1950 to 1965			
1965 to 1980			
1980 to 1995			
1995 to 2010			
2010 to 2025			
2025 to 2040			
2040 to 2055			
2055 to 2070			
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2190 to 2205			
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2940 to 2955			
2955 to 2970			
2970 to 2985			
2985 to 3000			

GENERAL REMARKS: THE LOG INDICATES SOME PROXIMITY TO 75 FEET. THE SOLID MATERIAL APPEARS TO BE FRACTURED FROM 75 FEET TO 105.

		LITHOLOGY LOG		
COMPANY UNITED STATES NATIONAL PARK SERVICE		LOCATION SOUTH EAST CORNER Sec. 8 Twp. 2 S Rge. 8 E		
WELL TEST HOLE No. 1		DATE: 19 MAY 1965		
FIELD LOST HORSE VALLEY		ENGINEER: K. KEMP		
COUNTY RIVERSIDE STATE CALIFORNIA				
Permanent Datum GROUND LEVEL Elev. 4200		Elev. K.B. Bit Size 4X to 148		
Log Measured From G.L. 0 ft. Above Perm. Datum		D.F. Bit Size to		
Drilling Measured From GROUND LEVEL		G.L. 4200 Bit Size to		
		Mud Type CLAY-GEL		
		Drill Rig BARNES WG		
LEGEND: ☐ Sand ☐ Silt ☐ Volcanic ☐ Gravel ☐ Clay ☒ Igneous ☐ Conglomerate ☐ Shale ☐ Other		REMARKS: NEARLY ALL OF THE FORMATION APPEARS TO BE GRANITIC RESIDUAL		
Field Notes				
PERCENTAGE GRAPH	DEPTH	PHYSICAL DESCRIPTION	NOTES	Rate of Penetration Ft. per Hr.
* * * * *		V/POOR SORT CLEAR-WH ANG QTZ F.		90
* * * * *		FELD SD, SOME BIOTITE		75
* * * * *		SAME W/ SOME LT COLORS		56
* * * * *		SAME, BECOMING MOST CSE		45
* * * * *		MOST CSE ANG CLEAR-WH-LT YELL QTZ		39
* * * * *		FELD, SOME V/DK ROCK FRAG, TR BID	LOOSING MUD	36
* * * * *		SAME (MIX MUD, POOR SAMPLE)	"	28
* * * * *		POOR SORT AS ABOVE	REGAIN CIRCULATION	31
* * * * *		SAME	WT 74	21
* * * * *		FIN-MED MOST CLEAR QTZ ANG SD, SOME FELD	VIS 47	11
* * * * *		POOR SORT SD AS ABOVE, V/LY BRN SILT, SOME BIOTITE		
* * * * *		WEATHERED GRANITE		
F.O. 148				



Other Supporting Information



IN REPLY REFER TO:

L54-PN

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

May 16, 1972

Memorandum

To: Director, Western Region
Attention: Mr. Gerard S. Witucki

From: Chief, Water Resources, PN

Subject: Completion Report - "Rehabilitation of the Ryan Well System" -
Joshua Tree

Enclosed is a copy of the subject completion report which should be
filed in Water Right Docket #4.

A copy should be furnished to the Superintendent for similar action.

Manuel Morris
Manuel Morris

Enclosure

6/9/72
cc: Supdt.
Joshua Tree

RECEIVED WATER RESOURCES SECTION MAY 16 1972			
ACT.	INFO.	INITIALS	DATE
	WITUCKI, G.		
	BARRETT, B.		
	Augien, L.		
	CHAVEZ, G.		
	KENNEDY, M.		
	GOLD, S.		
	FILE		
REMARKS			



National Parks Centennial 1872-1972

Form 10-174
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Park Joshua Tree National Monument	Region Western	Work Order No. 20002 (Contract No.) 497031007
Location in Park Ryan Well System	State(s) California	Fund Symbol 14X1035
☒ Contract and/or ☐ Day Labor	County or Counties Riverside	Year Programmed 1971
Work Order Title Rehabilitation of the Ryan Well System		PCP No. U-38-1
		Master Plan No. NM-JT-3051
		Master Plan Corrected By
		As Built Drawings By
		Date Started About Sept. 15, 1971
		Date Completed Nov. 30, 1971

DESCRIPTION OF FIXED ASSETS
(For completion by employee in charge of project)

The Ryan Well System rehabilitation began on Sept. 15, 1971. The well was completely cleaned out to satisfaction. All debris was removed from the well, and removed from the site. The windmill was taken down and put in storage at Pinto Wye. Concrete foundation and slab was poured, pump and motor was installed, building was installed, pipe line to reservoir was laid, and storage tank was painted on the inside. The system is in operation, and is presently pumping water.

TOTAL COSTS
(For completion by FFO)

19-32

MAR 2 1972

27,104.21

TOTAL

~~\$23,367.55~~

DISTRIBUTION		THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES			
No.	To				
1	WASO	Submitted:			
2	WSC	By: <u>Roman F. Dott</u>	Title: <u>Maintenance Supervisor</u>	Date: <u>12-17-71</u>	
1	WR-Prog.	Approved:			
1	JOTR	By: <u>Peter V. Parry</u>	Title: <u>Superintendent</u>	Date: <u>12-30-71</u>	
1	WR-FFO				
2	WR-Prop	COSTS VERIFIED			
		BY <u>Foon Lee</u>	Title: <u>Supv. Accountant</u>	Date: <u>3/24/72</u>	

11360

Form 10-174A
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

156 - 20002

Fund Symbol

1 4 X 1 0 3 5

Year Programmed

1 9 7 1

Park

Joshua Tree National Monument

Region

Western

Location in Park

Lost Horse Valley

Work Order Title

Rehabilitation of the Ryan Well System

COMPOSITION OF COST

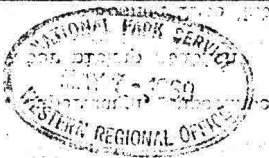
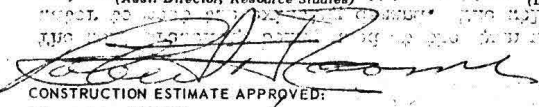
COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE

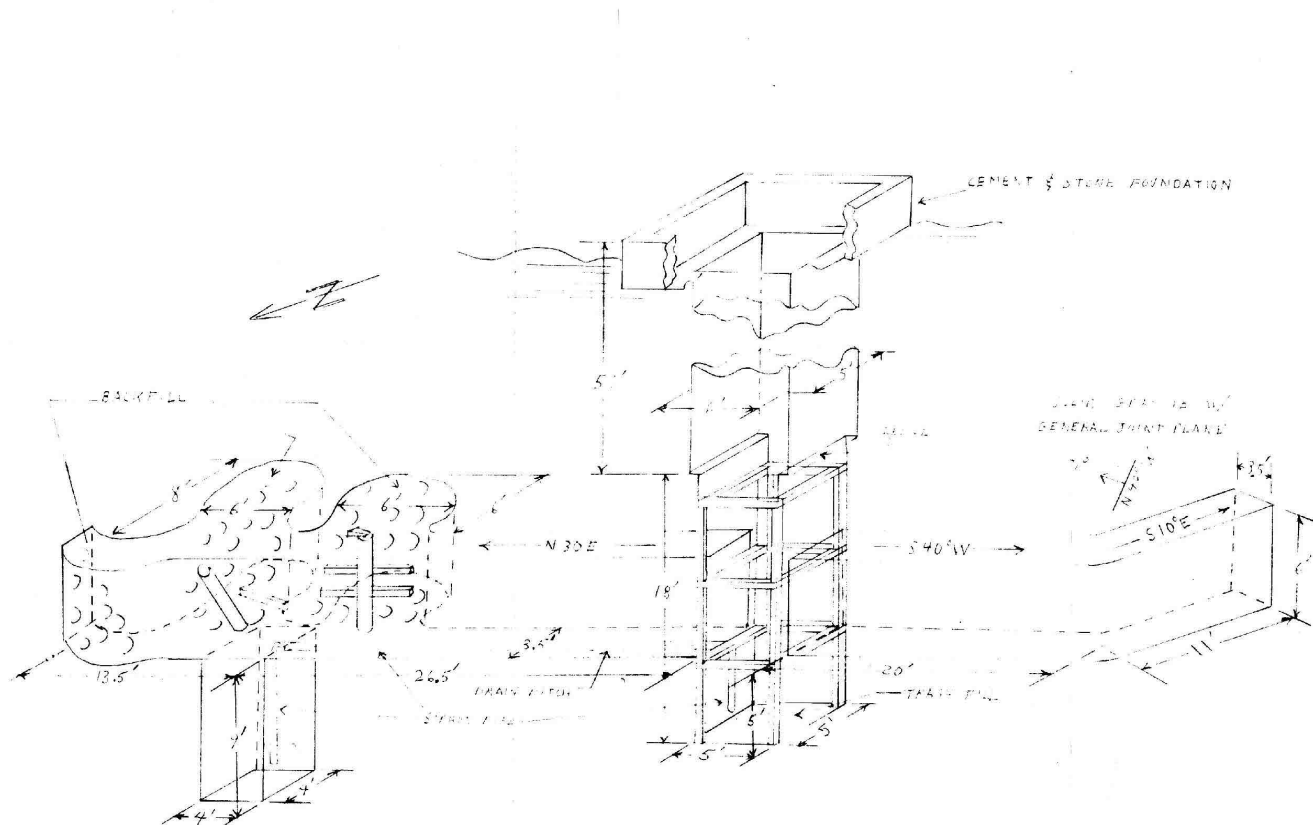
(1) Personal Services.....	\$	
(2) Travel.....		
(3) Contract Work	23,365.70	
(4) Supplies and Materials.....		
(5) Other Direct Expenses.....		
(6) Operation of Equipment.....		
(7) Depreciation of Equipment.....		
(8) Purchase of Construction Equipment.....		
(9) Purchase of Other Accountable Equipment		
(10) Other Costs:		
(11) TOTAL COST CHARGED TO PFO FUNDS	XXXXXXXXXX	\$' 23,365.70

OTHER COSTS:

(12) PS&S, AP, and/or Facilitating Services @ 16 %.....	\$ 3,738.51	
(13) Inventory and Other Non-Fund Costs		3,738.51
(14) GROSS WORK ORDER COSTS	XXXXXXXXXX	\$ 27,104.21
LESS:		
(15) Residual Value of Construction Equipment on Line 8	\$	
(16) Other Credits		
(17) NET COST OF FIXED ASSETS	XXXXXXXXXX	\$ 27,104.21

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

JOSHUA TREE N. M.		D/L		U-38-1	
CLASS ☐ (A) - Estimate based on working Drawings CLASS ☐ (B) - Estimate based on preliminary plans CLASS ☒ (C) - Estimate based on similar facilities in other parks		S. & S. by ☐ R ☐ NPS ☒ Supervision			
ESTIMATE					
ITEM		QUANTITY		COST	
					
Ryan Well Development 1-Clean and Recrib Well and Construct New Well Capping 2-Pumphouse Including Pump and all Appurtenances 3-Clean and Paint 30 M. Gal. Tank 4-Misc. Materials & Services 5-2" G.S. Pipe @ 3.00 L. Ft.		L.S. L.S. L.S. L.S. 600 L. Ft.		2,500 8,500 3,500 1,550 1,800	
NOTE: Estimate prepared from Revised Management requirements which increased the scope of the project as originally proposed.					
RESEARCH ESTIMATE APPROVED: (Asst. Director, Resource Studies) (Date) 		ESTIMATE TOTALS RESEARCH Construction Plans, Survey, and Supervision Contingencies CONSTRUCTION SUB TOTAL INTERPRETIVE SUB TOTAL (100%) GF TOTAL			
CONSTRUCTION ESTIMATE APPROVED: HUGH T. COOMBS SUPVR, PROJECT CONTROL & ESTIMATES For (Design Office Chief) INTERPRETIVE ESTIMATE APPROVED: (Asst. Regional Director, Ops) (Date)		MAY 28 1969			





IN REPLY REFER TO:

L54-SLW

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

October 4, 1966



Memorandum

To: Chief, Office of Land and Water Rights, SSC

From: Chief, Branch of Water Resources

Subject: Ryan well, Joshua Tree

The copy of Mr. Morris' letter of September 8 to Mr. Kemp and the accompanying letter of September 1 from Mr. Kemp outlining his proposal to attempt to increase the yield of the Ryan well have been reviewed here.

As I understand it, Mr. Kemp proposes to clean out the shaft, drift, and winze and then extend the winze in an effort to intercept more crevices in the rock and then increase the yield. Assuming an attempt to increase the yield of the well is necessary and desirable, Mr. Kemp's proposal appears to be logical. Even if no increase in yield is needed, the well should be cleaned out and chlorinated before being used as a source of supply. I have no way of checking Mr. Kemp's estimates of costs but they look reasonable in comparison with drilling costs. I agree with Mr. Kemp that the mining methods have a greater likelihood of success than drilling.

It may be worthwhile to discuss this with U. S. Geological Survey personnel. I remember a short report by someone in the California District on wells that were primarily a shaft dug by mining methods to the water table and a drift or drifts to intercept crevices. Thus they may have some information or opinions on the subject.

The development of the Ryan well is more extensive and costly than you anticipated in your current work order wherein \$2,500 was authorized. We believe that we have accomplished as much as is possible within our sphere of activity under the Water Rights Acquisition program. The D&C Office, with the benefit of data we have gathered, should assume the responsibility and costs involved in the development of the well. However, if an emergency situation exists, we should be advised so that consideration can be given to the possibility of expending Water Rights Acquisition funds with the understanding that reimbursement from B&U funds would be forthcoming as soon as available.

Incidentally, a water right docket should be assembled to document the acquisition of the Ryan property. The option and deed should be included therein.


E. W. Reed

cc:
Superintendent, Joshua Tree
Chief, D&C, SSC

SOME OF THE TERMS AND WORDS USED IN DISCUSSING MINING ARE NOT GENERALLY UNDERSTOOD BY PEOPLE NOT CONECTED DIRECTLY WITH MINING. THEREFORE, BELOW ARE DESCRIPTIONS OF SOME TERMS USED IN THE DISCUSSION OF THE JOSHUA TREE PROJECT.

AIR TUGGER- A WINCH, GENERALY SMALL, OPERATED BY AN AIR MOTOR
BACK - THE TOP OF A HORIZONTAL OR SLOPING OPENING, THE ROCK ABOVE

DRIFT - A HORIZONTAL OR NEARLY SO OPENING STARTING FROM ANOTHER OPENING, UNDER GROUND. IN THIS CASE, 2 DRIFTS START FROM THE SHAFT.

END DUMP CAR-A CONTAINER MOUNTED ON WHEELS, GENERALY RUN ON RAILS TO TRANSPORT ROCK IN FAIRLY LEVEL CONDITIONS WHICH CAN BE DUMPED FROM AN END INTO ANOTHER CONTAINER.

FACE - THE ROCK SURFACE THAT WOULD NEXT BE REMOVED IN A MINING OPERATION. IN A DRIFT, THE WALL AT THE END OF THE DRIFT.

HEADFRAME - A TOWER STRUCTURE SUPORTING HOIST CABLES ETC ABOVE A SHAFT.

MANWAY - AN OPENING CONSTRUCTED FOR THE USE OF MEN, GENERALY IN A SHAFT. LADERS ARE OFFSET SO A MAN WILL NOT FALL MORE THAN 10 FT. BEFORE ENCOUNTERING A FLOOR OR AT LEAST A PLANK.

MUCK - THE BROKEN ROCK THAT HAS TO BE CLEANED OUT AFTER A BLAST HAS BEEN SET TO BREAK THE ROCK.

RAISE - LIKE A SHAFT IN CONSTRUCTION BUT STARTED FROM THE BOTTOM AND DUG UP, GENERALY FROM A DRIFT

SET - A PORTION OF TIMBER SUPORTS USUALLY COMERISING A POST, BEAM AND SILL ARRANGMENT, CONSTRUCTED AT ONE TIME AS A UNIT

SHAFT - A VERTICLE OPENING STARTED FROM THE SURFACE AND CONSTRUCTED DOWNWARD OR INCLINED SHAFT, DUG AT AN ANGLE

SKIP - A CONTAINER USED IN SHAFTS TO CARY ROCK UP AND DUMP AUTOMATICALLY

SPRAG - TIMBERS FOR BRACING AGAINST THE ROCK WALLS, BACKS ETC.

SWING STAGE- A PLATFORM TO WORK OFF OF WHICH IS SUPORTED BY A HOISTING LINE

WINZE - SAME AS A SHAFT EXCEPT IT IS STARTED UNDERGROUND AND DUG DOWNWARD, GENERALY STARTED FROM A DRIFT.



P. O. BOX 6413

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BAKERSFIELD, CALIFORNIA

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24 HR. PHONE 366-4685

RECEIVED	
San Francisco Planning and Service Center	
Office of Land and Water Rights	
NATIONAL PARK SERVICE	
SEP 6 1966	
ACT. INFO.	INITIALS/DATE
CHIEF	
ASST. CHIEF	
COPY. APPR.	

UNITED STATES NATIONAL PARK SERVICE
OFFICE OF LAND AND WATER RIGHTS
450 GOLDEN GATE AVENUE Box 36063
SAN FRANCISCO, CALIFORNIA 94102
ATTN: MR. MANUEL MORRIS

1 SEPTEMBER 1966

DEAR MANUEL;

AS PER OUR TELEPHONE CONVERSATION FO 30 AUGUST 1966, HERE IS
A PROPOSAL CONCERNING THE IMPROVEMENT OF THE WATER SUPPLY FROM
THE SHAFT AT JOSHUA TREE NATIONAL MONUMENT.

PREVIOUS INVESTIGATION OF THE WORKINGS INDICATES THAT WATER IS
COMING FROM FRACTURES IN THE QUARTZ MONZONITE COUNTRY ROCK; THOSE
OPENED BY THE WINZE. (SEE ENCLOSED DEFINITIONS OF MINING TERMS.)
PROBABLY THE BEST METHOD OF TRYING TO INCREASE THE WATER PRODUCTION
IS TO EXPLORE THE WINZE. THE EXPLORATION MAY BE DONE EITHER BY
DRILLING METHODS OR MINING METHODS.

MINING METHODS

A CONSIDERABLE AMOUNT OF DEVELOPMENT WORK WOULD BE REQUIRED
BEFORE ACTUAL WORK COULD COMMENCE. FULL ADVANTAGE SHOULD BE
TAKEN OF ITEMS ON HAND AT THE LOCATION. MAY I SUGGEST YOU OBTAIN
THE DRAWING FROM THE REPORT FOR REFFERANCE.

THE PRESENT WINDMILL TOWER MAY BE CONVERTED TO A HEAD FRAME
WITHOUT TOO MUCH DIFFICULTY. A DUMP SCHUTE MAY BE CONSTRUCTED
ABOUT HALF WAY UP SO ROCK MAY BE DUMPED AND UNLOADED BY GRAVITY.
THE GROUND SLOPE IS FAIRLY STEEP SO THAT VERY LITTLE DUMP HANDLING
WILL BE REQUIRED. THE HOIST WILL CONSIST OF AN AIR TUGGER MOUNTED
AT THE BASE OF THE HEAD FRAVE. THE SKIP WILL CONSIST OF A STEEL
BARREL OF ABOUT 60 GALON CAPACITY (1/2 TON). THE SKIP WILL BE
FITTED WITH A SELF DUMP BAIL.

OTHER SURFACE WORK WOULD INVOLVE USING TAR OR CEMENT TO REPAIR
LEAKS IN THE STONE TANK NOW EXISTING NEXT TO THE SHAFT. A LEVEL
PLACE WILL BE MADE TO SET A 250 CFM AIR COMPRESSOR AND TO PARK
THE LOGGING TRUCK. THE LOGGING TRUCK WILL FURNISH 110 VOLT POWER
ABOVE GROUND FOR ELECTRIC SAWS, DRILLS ETC, SET OF BLAST BY USE
OF SPECIAL PANEL IN TRUCK, AND AS AN EMERGENCY HOIST. MINE
LIGHTING WILL BE 12 OR 24 VOLT SYSTEM RUNNING OFF THE AIR
COMPRESSOR GENERATOR WHICH WILL SAVE THE TIME AND EXPENSE REQUIRED
TO MAKE 110 VOLTS POWER SAFE IN THE WET UNDERGROUND CONDITIONS.
THE HOIST SIGNAL SYSTEM WILL ALSO BE LOW VOLTAGE SOUNDERS.

NEXT WOULD BE TO START CONSTRUCTION OF MANWAYS IN THE MAIN SHAFT.
CONVENTIONAL MINE SPRAGS WILL BE USED. THIS MODIFIED TYPE OF
TIMBERING WILL RETAIN A LADDER BUT IS LESS INVOLVED THAN SHAFT
TIMBER SETS. A SPECIAL SWING STAGE WOULD BE BUILT TO WORK OFF OF
THE HOIST LINE DURING THIS STAGE OF CONSTRUCTION. A LOADING
STATION WILL BE CONSTRUCTED IN THE SHAFT AT THE DRIFT LEVEL

CONSISTING OF A SIMPLE STEEL CHUTE TO AID IN DUMPING THE MINE CAR. (A 3/4 TON END DUMP CAR WILL BE USED.). LIMIT BLOCKS TO PLACE SKIP AT PROPER LOCATION WILL ALSO BE INSTALLED. AIR HOSES, WATER LINES (IN AND OUT), LIGHTS ETC. ARE NOW PLACED IN THE SHAFT.

PUMPING WILL BE DONE WITH A DOUBLE DIAFRAM AIR DRIVEN PUMP WITH A 25 GPM CAPACITY AGAINST A 200 FT. HEAD. TWO INCH LINE PIPE WILL BE USED TO TRANSPORT WATER UP THE SHAFT TO THE STORAGE TANK. (USED PIPE AT A GOOD PRICE IS AVAILABLE IN BAKERSFIELD.) THE PUMP WILL BE SET IN THE SHAFT WHEN SHAFT CONSTRUCTION BEGINS AND THEN MOVED TO THE WINZE WHEN THE DRIFT LEVEL IS REACHED. PUMPING WILL PROBABLY BE CONTINUOUS EXCEPT FOR DAYS OFF ETC. AFTER INSTALLATION IN THE WINZE. WATER WILL BE PUMPED INTO THE STORAGE TANK WHICH IN ADDITION TO REPAIRS WILL HAVE A SPILLWAY ADDED SO THE TANK MAY OVERFLOW. A ONE INCH LINE PIPE (TEMPORARY) WILL BE INSTALLED TO CARRY WATER FROM THE TANK BACK DOWN TO THE DRILL.

CLEANING OUT EXISTING FILL SHOULD BE DONE BEFORE PROGRESSING MUCH FURTHER. THE FILL IS IN THE WAY AND TAKES UP STORAGE SPACE THAT WILL LATER BE USED FOR WATER STORAGE.

NEXT WOULD BE TO CONSTRUCT A RAISE OVER THE WINZE. A RAISE WILL BE NEEDED TO GIVE HOISTING ROOM TO WORK ON THE WINZE. THE RAISE WILL BE CONSTRUCTED APPROXIMATELY TWO SETS ABOVE THE DRIFT BACK AND TWO SETS LONG, A SET BEING 5 FT X 5 FT X 5 FT. SQUARE SET TIMBER CONSTRUCTION WILL BE USED FOR THE HOIST AND STORAGE AREA. THE HOIST ITSELF WILL BE SET NEAR THE DRIFT FACE.

WHY A RAISE?? THE MAN HOURS REQUIRED AFTER EXPLORATION PROPER GETS STARTED WILL BEPEND DIRECTLY ON THE WINZE. ONLY ONE MAN CAN WORK IN THE WINZE AT A TIME SO IT BECOMES IMPORTANT TO MAKE HIS TIME MOST PRODUCTIVE. THE MOST TIME CONSUMMING OPERATION IS THE REMOVAL OF MUCK AFTER A ROUND HAS BEEN FIRED. HAND HOISTING OF SMALL BUCKETS IS MUCH TOO SLOW. HOWEVER THE CONTAINER CAN NOT BE TOO BIG BECAUSE IT MUST FIT IN BESIDE THE MAN TO BE LOADED, THUS AN AIR TUGGER SHOULD BE USED. THE BUCKET WILL BE HAULED INTO THE RAISE AND THERE BE SELF DUMPED AND LOWERED BACK TO BOTTOM. THE STORAGE BIN IN THE RAISE WILL BE LARGE ENOUGH TO CONTAIN ONE CYCLE OF MUCKING FROM THE WINZE.

AFTER MUCKING HAS BEEN DONE AND DRILLING COMMENCES, THE OTHER MAN WILL LOAD THE MUCK OUT OF THE RAISE BIN AND TRUCK TO THE SHAFT SKIP AND FROM THERE TO SURFACE DUMP. WITHOUT THE RAISE BIN, WORK WOULD HAVE TO STOP IN THE WINZE WHILE MUCK WAS BEING MOVED TO MAKE ROOM.

STANDARD SHAFT SETS WILL BE CONSTRUCTED IN THE WINZE WITH LADER WAYS ETC AS WORK PROCEEDS. SETS ARE NEEDED BECAUSE THE DRILL, PUMP AND OTHER EQUIPMENT WILL HAVE TO BE SUPORTED, FLYING DEGRIES FROM BLASTS WILL BE HEAVY AND OVERHEADS WILL HAVE TO BE LAID IN WHILE RAISE IS BEING EMPTIED TO PROTECT MAN IN WINZE. THE WINZE IS NOW 4 X 4, IT WILL BE ENLARGED TO 4 X 6 BECAUSE THE SPEED OF DOING WORK IN A LARGER AREA COMPARED TO THE TIME USED TO MOVE THE EXTRA ROCK IS IN FAVOR OF THE LARGER AREA. THE RAISE HOIST WILL ALSO SERVE TO LOWER TIMBER AND TO LIFT PUMPS, DRILLS ETC. PRIOR TO BLASTING.

THE EXPLORATORY WORK WILL CONSIST PRIMARLY OF INVESTIGATING FRACTURES. THE WINZE WILL BE GENERALLY DOWNWARD BUT IT WILL FOLLOW FRACTURES. ATTEMPS WILL BE MADE TO SPRING FRACTURES WITH EXPLOSIVES. THE FRACTURE SYSTEM WILL BE MAPED AS WORK PROGRESSES. THE WATER FLOW WILL BE MEASURED AS OFTEN AS NECESSARY. IF FLOW SHOULD EXCEED THE PUMP CAPACITY, EXPLORATORY WORK WOULD BE STOPED AND ADDITIONAL PUMPS WOULD BE USED IF NEEDED WHILE EQUIPMENT ETC. WAS PULED OUT.

WHEN WORK IS COMPLETED, EITHER BECAUSE OF SUFFICIENT WATER INCREASE OR BECAUSE IT HAS BEEN DECIDED THE CHANCE OF INCREASE IS POOR, AN ORDERLY ABANDONMENT WILL BE INITIATED. ALL EQUIPMENT WILL BE PULLED OUT OF THE WINZE AND ALL LOOSE MATERIAL CLEANED UP. THE STEEL FOR SKIDS ETC. WILL BE REMOVED. THE AREA WILL BE HOSED DOWN AND SUMPS CLEANED OUT. THE PUMP WILL BE HUNG IN THE MAIN SHAFT AND THE RAISE HOIST DISMANTLED AND REMOVED. CHLORINE WILL BE PLACED IN THE WINZE, THE PUMP PULLED FROM THE SHAFT AND THE AREA ALLOWED TO FLOOD TO MAXIMUM AFTER WHICH HIGHLY CHLORINATED WATER FROM THE STORAGE TANK WILL BE DUMPED INTO THE SHAFT. EQUIPMENT WILL BE REMOVED FROM THE SITE AND FURTHER DISMANTELLING CONTINUED ON HEAD FRAME ETC. AS REQUESTED BY THE SUPERINTENDENT. A SANITARY SEAL WILL BE CONSTRUCTED OF A TYPE YOU DESIRE. PROBABLY CORROGATED PIPE AND CEMENT WILL BE BEST.

FOLLOWING IS A LIST OF EQUIPMENT GEO-DATA WOULD HAVE TO FURNISH.

- 2 10 HP AIR TUGGERS
- 1 250 CFM 110 PSI AIR COMPRESSOR
- 1 TWIN DIAPHRAM AIR DRIVE WATER PUMP, 25 GPM WITH 200 FT HEAD
- 1 40 POUND SINKER DRILL
- 1 ELECTRIC ARC WELDER
- 2 HOIST BUCKETS
- 1 LOGGING UNIT FOR SETTING BLASTS, FURNISH 110 VOLT, TOW EQUIPMENT, EMERGENCY HOIST
- 1 PICKUP TRUCK TO HAUS FUEL ETC.
- ALL HAND TOOLS.
- ALL EXPENDABLES, STEEL PLATE FOR SIKIDS ETC. DYNAMITE (1/2 TON)
- CAPS, AIR LINE, WATER LINE TO DRILL, ELECTRIC LIGHTS
- WIRE, PLUGS ETC., HOISTING CABLES, FUEL, SIGNAL SYSTEM ETC.

FOLLOWING WOULD BE REINBURSABLES (ARTICLE III SECTION J) WHETHER LEFT IN THE WORKINGS OR NOT.

- ALL LUMBER AND NAIL REQUIRMENTS
 - ALL TAR AND CEMENT
 - ALL 2 INCH LINE PIPE
 - ALL MATERIALS USED FOR SURFACE SEAL
- ALL ABOVE MATERIAL NOT LEFT IN THE SHAFT UPON COMPLETION TO BE NEATLY STACKED ON LOCATION AND LEFT FOR THE PARK SERVICE. FOR EXAMPLE, IT IS EXTREAMLY DOUBTFULL THAT THE EXACT AMOUNT OF LUMBER REQUIRED CAN BE ESTIMATED AND SOME WILL BE LEFT OVER OR WILL BE REMOVED AFTER THE JOB. GEO-DATA HAS NO USE FOR THIS MATERIAL, BUT THE PARK WOULD PROBABLY BE ABLE TO USE ALL OF IT IN A REASONABLE TIME. THE TWO INCH LINE PIPE SHOULD BE REMOVED. AGAIN, GEO-DATA HAS NO USE FOR THIS MATERIAL BUT THE PARK DOES. THE SAME FOR CEMENT, NAILS, TAR ETC. I KNOW BOOTS CAN USE ALL

THIS MATERIAL. THE ONE INCH PIPE TO BRING WATER DOWN TO THE DRILL, I CAN FURNISH BECAUSE IT IS USED FOR WATER TESTS AND IS ON HAND. HOSES, ELECTRIC WIRE, LIGHT BULBS, BITS, ETC. ARE EITHER EQUIPMENT, NOT REUSABLE OR JUST SHOULDN'T BE CONSIDERED AS A REINBURSABLE ITEM.

FOLLOWING IS EACH OPERATION AND AN ESTIMATED TIME WE EXPECT TO TAKE TO DO THE JOB BASED ON A 10 HOUR DAY. THE ESTIMATES ARE HIGH, THAT IS, WE HOP TO FINISH IN A SHORTER TIME THAN SHOWN.

OPERATION	DAYS	COST
MOVE IN	1	REFUNDED
SURFACE WORK	2	\$ 500
LADDER IN SHAFT	5	1250
CLEAN OUT DRIFT	1	250
RAISE	5	1250
SET HOIST IN RAISE	1	250
LADDER IN EXISTING WINZE	1	250
TOTAL PHASE ONE, SETTING UP		\$ 3750
DEEPIING WINZE 2FT/DAY TO 50 FT (MAY BE MORE FT/DAY, DEPENDS ON DRILLING, SIZE OF BREAK AND WATER) 25		
TOTAL PHASE TWO, EXPLORATION		\$ 6250
PULL OUT AND SEAL	3	\$ 750
MOVE OUT	1	REFUNDED
TOTAL PHASE THREE, CLEAN UP		\$ 750
TOTAL ESTIMATED PROJECT		\$ 10750

DRILLING

DRILLING MAY BE CONSIDERED TWO WAYS. FIRST WOULD BE TO SET UP FOR EXPLORATORY DRILLING AS IN THE PAST, DRILL THROUGH THE OVER-HEAD INTO THE WINZE. SURFACE PIPE WOULD HAVE TO BE SET FROM THE SURFACE TO THE BOTTOM OF THE WINZE TO INSURE CIRCULATION AT THE START. THE PIPE WOULD HAVE TO BE GROUTED AT THE TOP AND BOTTOM AND THE GROUT IN THE WINZE COULD SHUT OUT WATER. THE DRILL HOLE COULD EASILY MISS THE FRACTURED ZONE. IF OTHER DRILLING WORK WAS PLANNED, IT MAY BE WORTH A TRY. HOWEVER, FOR JUST THIS ALONE, I DON'T THINK SO. THE COST OF MOBILIZING EQUIPMENT PER FOOT OF HOLE DRILLED WOULD BE HIGH, ROAD WORK WOULD HAVE TO BE DONE TO GET THE RIG OVER THE LOCATION. UNLESS WE WERE LUCKY AND STRUCK A GOOD FRACTURE ZONE, THE RESULTS WOULD BE DOUBTFUL BECAUSE WE STILL WOULD NOT KNOW THE POTENTIAL PRESENT IF THE RIGHT FRACTURES WERE PENETRATED. SO, I WOULD RECOMMEND EXPLORATION DRILLING AS A SECONDARY PROJECT WHEN ON THE WAY TO OTHER PROJECTS OR WHEN PERFORMING OTHER WORK IN THE AREA BUT NOT AS A PRIMARY PURPOSE.

SHAFT DRILLING HAS BEEN SUCCESSFUL IN A NUMBER OF CASES, USUALLY WHEN EXTENSIVE DEPTHS ARE INVOLVED. IN THIS CASE, WE WOULD NEED AT LEAST A 30 INCH HOLE TO MAKE IT WORTH WHILE. THE HOLE WOULD BE DRILLED THROUGH THE OVER HEAD TO ENABLE REMOVAL OF MUCK AS THE WINZE IS BEING DEPEDED. THIS WOULD NOT SAVE ANYTHING. THE MAIN EXISTING SHAFT WOULD STILL HAVE TO BE FITTED WITH A MAN WAY, UTILITIES, THE RAISE DISCUSSED ABOVE WOULD NOT HAVE TO BE MADE AND ONLY ONE HOIST WOULD BE NEEDED BUT A HEAD FRAME WOULD

HAVE TO BE CONSTRUCTED ABOVE THE NEW SHAFT. EXTENDING THE WINZE BY SHAFT DRILLING WOULD STILL PRESENT THE PROBLEM OF MISSING THE FRACTURES AS WELL AS NUMEROUS EXPENSIVE DRILLING PROBLEMS. I DO NOT BELIEVE THE COST OF MOVING IN A LARGE RIG TO DO THE DRILLING AND THE COST OF BIT WOULD WARRANT SUCH A COURSE.

COST

THE COST OF EXPLORATION DRILLING WOULD BE AS PER CONTRACT. I HAVE NOT OBTAINED AN ACTUAL ESTIMATE FOR LARGE HOLE DRILLING BUT I'M SURE THE COST IS PROHIBITIVE. THE MINING APPROACH WOULD BE ON THE CONTRACT UNDER ARTICLE III SECTION EYE. (ASSUMING THE PROPOSAL BEFORE YOU IS ACCEPTED.

MOVING WILL BE AT 10c/MILE FOR THE LOGGING TRUCK AND WHAT IT IS TOWING AND 30c/MILE FOR THE OTHER VEHICLE OR 40c/MILE FROM BAKERSFIELD TO SITE AND RETURN. IT IS ABOUT 500 MILES ROUND TRIP OR \$200. FROM THE CONTRACT, ARTICLE III SECTION A, PART 5 WOULD AMOUNT TO \$1.20 PER HOUR REDUCTION ON TRANSPORTATION. THUS THE TRANSPORTATION WOULD BE REFUNDED AFTER 17 TEN HOUR DAYS. THE RATE WOULD HAVE TO BE SET AT \$25.00 PER HOUR, TIME STARTING WITH ACTUAL WORK AND ENDING WITH ACTUAL WORK AT THE SITE. THE ESTIMATE I CAME UP WITH OVER THE PHONE WAS \$23 BUT UPON CLOSE FINAL APPROXIMATION, I FOUND AN IMPORTANT ITEM WAS OMITTED. THAT WAS FUEL. THE AIR COMPRESSOR WILL RUN BETWEEN 6 AND 7 GAL. PER HOUR OR ABOUT \$2.00 SO THAT IS WHY THERE IS A DIFFERENCE. AS STATED ON THE PHONE, UNLESS TIMBER IS OBJECTIONABLE, IT WOULD BE MOST ECONOMIC TO LEAVE IT IN PLACE BECAUSE SEVERAL DAYS WOULD BE REQUIRED TO PULL IT ALL OUT AND THEN IT WOULD ONLY MAKE SCRAP VALUE. THE TIMBER IS ESTIMATED BETWEEN \$600 TO \$700 WITH A POSSIBLE ADDITIONAL \$100 TO HAVE IT DELIVERED TO THE MONUMENT. MOST WILL BE "MINE CLASS 1" WHICH IS NON SELECT ROUGH. LADDER MATERIAL WILL HAVE TO BE SELECT GRADE 2.

SORRY THIS LETTER?? IS SO LONG BUT TO DIG A HOLE GETS PRETTY INVOLVED WHEN YOU GET RIGHT DOWN TO IT. I HAVE TRIED TO GIVE YOU ENOUGH DETAIL TO ILLUSTRATE THE PROBLEMS INVOLVED, THE TIME REQUIRED AND WHY THE MINING METHOD IS PROBABLY BEST AS WELL AS AN INSIGHT INTO THE COSTS(GENERALLY ESTIMATING HIGH I HOPE.)

TO WORK

IF YOU GIVE AN O.K. THE MINER (CARL KRATZER) AND I WILL FIRST MAKE A ONE DAY TRIP TO THE SITE TO MAKE A CLOSE EVALUATION OF SURFACE FACILITIES AND TALK THINGS OVER WITH BILL SUPERNAUGH AND BOOTS. NEXT WOULD BE TO ORDER THE LUMBER DELIVERED AT THE SITE, GATHER UP HOISTS, SHEET STEEL, COMPRESSORS, TOOLS, DYNAMITE, ETC. WHICH WILL TAKE ABOUT A WEEK. THEN GO TO WORK.

I'M REALLY LOOKING FORWARD TO THIS PROJECT. I HAVE NOT BEEN DIRECTLY CONNECTED WITH MINING FOR QUITE A TIME. THERE ARE SOME VERY INTERESTING CHALLENGES AND WORKING WITH PARK PERSONEL AT JOSHUA TREE HAS BEEN MOST ENJOYABLE. AT PRESENT IT APPEARS WE COULD START RIGHT AWAY AND WOULD LIKE TO.

BE TALKING WITH YOU

SINCERELY,


KENYON KENNER

January 18, 1966

Morris

Kornelis

Stratton

McCaw

L1425-SLW
XL54 - SLW

Memorandum

To: Director

From: Acting Assistant Regional Director, Operations, Western Region

Subject: Appraisal Report - Ryan property, Joshua Tree

Enclosed is a copy of an appraisal of Mrs. Leanta L. S. Ryan's property in the Lost Horse District at Joshua Tree. This property is sometimes also identified as the Lost Horse Mine and Ranch and is listed in our L-3's as Tract No. 18-C. Appraisal was made by Albert L. Johnson, M.A.I., and our review indicates that the values given in the report are well supported. Acquisition of this property will be made with water rights funds under Work Order 4-WR-66B, 3rd Revision. This property is being purchased for the water well located on Lost Horse Ranch, the only successfully located and developed source of water in Lost Horse Valley. All our explorations to locate water in this area have been unsuccessful. An existing NPS well adjacent to the Ryan property, has had a very low yield that varied to a high of one gallon per minute, and during the last year, this dropped to 300 to 500 gallons per week. Development of the visitor center at Cap Rock in Lost Horse Valley has been deferred several times due to the absence of water.

We are holding an option for this property and are proceeding with acquisition pending receipt of satisfactory title.

Wallace C. McCaw

cc:
Supt., Joshua Tree

Enclosure

b.c. Ed Reed, Branch of Water Resources, WASO

MMorris:af

LS4-SLW

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Memorandum

To: Regional Director, Western Region
From: Assistant Director, Specialized Services
Subject: Acquisition of Ryan properties, Lost Horse No. 1 well,
Joshua Tree

Please refer to Mr. Fagerlund's memorandum of September 9 in which he proposes to acquire the Ryan properties and the Ryan (Lost Horse No. 1) well in Joshua Tree National Monument using water rights funds.

The recent survey by BZM, Inc., confirms the 1963 U. S. Geological Survey report that water is scarce, difficult to find, and expensive to develop in Lost Horse Valley. The Ryan well should produce about 5,000 gpd and additional construction and development of the well may produce more. If the properties can be acquired for about \$40,000 this would probably be less than the cost of finding and developing water elsewhere in the valley.

In general, we concur with the proposal to acquire the Ryan properties subject to the results of the appraisal and availability of water rights funds. Mr. Fagerlund indicates that an appraisal will be made in the near future.

(SGD) JACKSON E. PRICE

cc:
Superintendent, Joshua Tree
Chief, WODC (2)

EXTRA FILE COPY

September 27, 1965

L54-SLW

Memorandum

To: Regional Director, Western Region
From: Chief, Branch of Water Resources
Subject: Water Resources Activities, Joshua Tree

We have reviewed the BZM, Incorporated data and reports submitted with Mr. Fagerlund's memorandum of September 10 on the above subject.

The results of the test drilling are disappointing but not unexpected. In general they confirm the 1963 reconnaissance report of the U. S. Geological Survey. Considering the extremely limited supplies of water demonstrated by the drilling, the recommendation that public supplies outside the Monument be used for the Twenty Nine Palms Fan and Indian Cove areas seems logical, assuming, of course, that the public supply can and will meet the present and future water needs of these areas.

The Lost Horse area and the Ryan well will be the subject of a separate memorandum in response to Mr. Fagerlund's memorandum of September 9.

Except for the criticism of the method of drilling, which will be corrected in future work, Mr. Fagerlund indicates that the BZM services were satisfactory and the Western Region will use these services in the future. Our only criticism is the brevity of the reports, but perhaps this is due to unfamiliarity with the area. Presumably if the reports, as submitted by BZM were not entirely clear, the company would answer additional questions to the best of its ability and clarify any statements in its reports.

SIGNED

E. W. Reed

cc:
Superintendent, Joshua Tree
Chief, WODC (2)

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Memorandum

To: Director

From: Acting Assistant Regional Director, Operations, Western Region

Subject: Water Resources Activities, Joshua Tree

This will provide a resume of recent water resource activities undertaken at Joshua Tree National Monument.

An exploratory drilling program was undertaken utilizing the services of B.Z.M., Inc. This company, you may remember, provides information only based on their drilling, but does not leave a test hole that can be converted to production wells. The holes, however, have been saved for use in the USGS ground water measurement program. The USGS was present during most of the drilling and logging.

The USGS informally has indicated that they are unsure of the value of this type of testing because the drilling fluid consisting of bentonite-gel mud can too easily plug very low yield aquifers such as are encountered at Joshua Tree. It was felt that the service of B.Z.M. was quite worthwhile for high yield sources, and that the methods would be quite suitable if some other drilling media could be used. B.Z.M. proposes to use air and/or reverse rotary on future work, and we propose to try this firm again.

At Lost Horse Valley we drilled test holes Nos. 1 and 2. At Indian Cove, we drilled hole No. 3. Test hole No. 4 was advanced from a future year. This is at an area in the vicinity of the Pinto Wye intended for a trailer park, and has been referred to as the Caravan Camp at Twenty-nine Palms Entrance. All the tests revealed insufficient water to justify further drilling.

The enclosed materials consisting of logs and a final report are self-explanatory.

(Handwritten mark)

Chief, WDC (2)

On Test Hole No. 3, Indian Cove, we asked for the additional information enclosed. This was the only water encountered at any of the four holes. Assuming a 48-inch diameter well with 40 feet of 24-inch diameter laterals, the yield will likely still be under 2 gpm, or less than 2700 gallons per day. A preliminary estimate suggests the cost of such a well is likely to exceed the cost of installing a 2-mile extension from a public water supply located just north of the Park boundary. This supply will require a lift station to bring it into Indian Cove, but the major advantage is that this is an assured supply with sufficient capacity to meet all the future needs. It is our recommendation to use this supply rather than develop our own.

The report on Test Hole No. 4 was also negative and, here also, we are inclined to recommend an extension from the public water supply also located just north of the Park.

B.Z.M. investigated the water well located at the Ryan Property in Lost Horse Valley. This report is included with the work done above although the Ryan investigation was done as a separate item of work and not included in the test drilling contract. Because of its importance, we are making this report a separate memorandum.

(SGD) GUNNAR O. FAGERLUND

Gunnar O. Fagerlund

Enclosures

cc:
Supt., Joshua Tree, w/encl
Chief, WDC (2), w/encl ✓
USGS, Sacramento, w/encl

September 9, 1965

154-SLW
XL1425
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Memorandum

To: Director

From: Acting Assistant Regional Director, Operations, Western Region

Subject: Lost Horse #1 Well (Ryan), Joshua Tree

As indicated in my memorandum of this same date, subject: Water Resource Activities, Joshua Tree, this memorandum will provide a resume of the recent activities concerning water resources specifically related to development of the proposed Cap Rock Visitor Center in Lost Horse Valley.

The firm scheduling of this project has been put off from year to year due among other reasons to the uncertainty of a water supply. The only known available supply of water comes from the Park's own well which at the time it was put into use furnishing water at the Ryan Pickup Station has not yielded more than 1 gallon per minute. Recently, the yield had dropped to the order of 200 - 300 gallons every couple of days. The need is for an improved and assured supply for camper use as well as use in the Visitor Center. The indication of additional supplies from new wells has been shown by the recent tests to be remote and unpredictable.

The one known source is the privately owned Lost Horse #1 Well, located on the Ryan inholding, Tract No. 18-C. The acquisition of this inholding has been for the past few years the first priority acquisition at Joshua Tree. It consists of two parcels, the homesite which includes the well contains 120 acres, and a detached parcel of 13.5 acres where the Lost Horse Mine is located. Mrs. Ryan is quite elderly and has indicated she will not sell the parcels separately.

It is our proposal to acquire this inholding for its water, using water rights acquisition funds if they can be made available. To determine the worthiness of the well, we engaged B.Z.M., Inc. while at the Park in connection with test well drilling to investigate the Ryan Well. Mrs. Ryan's permission was secured, and the pump tests and physical exploration was made. BZM's report includes a sketch of the well. In addition,

[Handwritten mark]

Superintendent Supermaugh's memorandum of June 22, 1965, subject: Pump Test of Lost Horse #1 Well and the attachments, provide additional information.

The calculated yield from this well of 5000 gpd with the possibilities of improving both yield and storage encourages us to seek acquisition. In this regard, please note Superintendent Supermaugh's memorandum of July 8, 1965, file L1425, Subject: Ryan Property. Several days ago, we confirmed these values with him, and he feels Mrs. Ryan's attorney can persuade her to accept \$40,000 if offered. We will have this property appraised by a qualified appraiser with full consideration of the value of the water and the mine. We propose to adjust our B Work Order to meet the necessary appraisal costs.

We will keep you advised of new developments.

(S&S) GUNNAR O. FAGERLUND

Gunnar O. Fagerlund

Enclosure

cc:
Supt., Joshua Tree
Chief, WODC (2), w/encls ✓

Joshua Tree National Monument
Twentynine Palms, California 92277

D5039 X W14

June 22, 1965

Memorandum

To: Regional Director, Western Region
From: Superintendent, Joshua Tree
Subject: Pump Test of Lost Horse #1 Well, Joshua Tree N M

In order that you may have the information before you receive the BZM Report on the pump test of the Lost Horse #1 Well, we are sending drawings of the well and pictures, which were taken in the well.

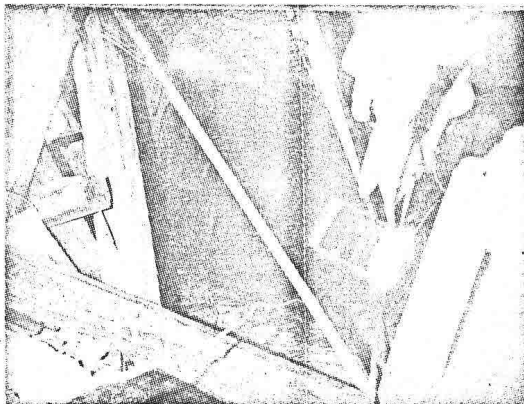
This will meet our needs, for with the storage capacity in the well and additional above ground, we could have a large supply of water on hand.

After finding the development which has taken place in this well, it would be hard to estimate the cost of duplication of such a well. We feel every effort should be made to purchase this property. Although her asking price is high, the development of the well alone might cost more than she has asked for the land, including her mine.

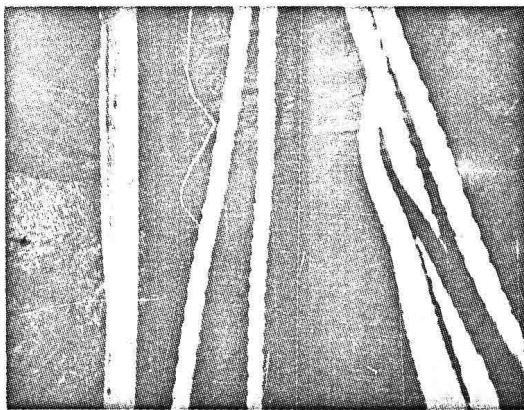
Wm. R. Supernaugh
Superintendent

Enclosures

LOST HORSE #1 (Mrs. Ryan's Well)
17 June '65 BZM Inc

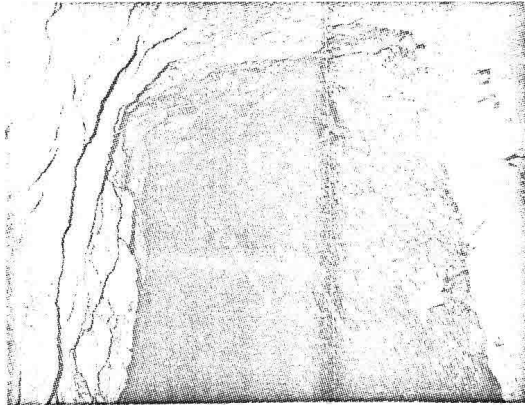


LOOKING UP WELL SHAFT FROM LATERAL
LEVEL

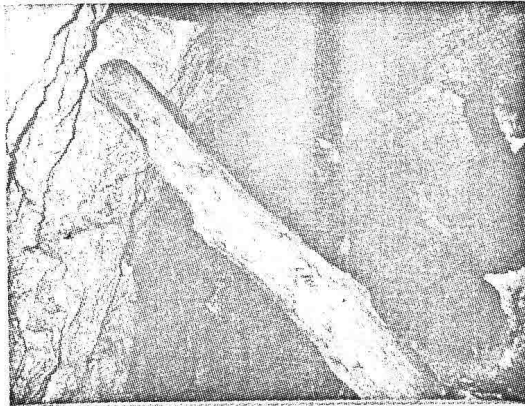


LOOKING ACROSS WELL SHAFT AT
ENTRANCE TO NORTH LATERAL FROM
ENTRANCE TO SOUTH LATERAL

LOST HORSE #1 (Mrs. Ryan's Well)
17 June '65 BZM Inc

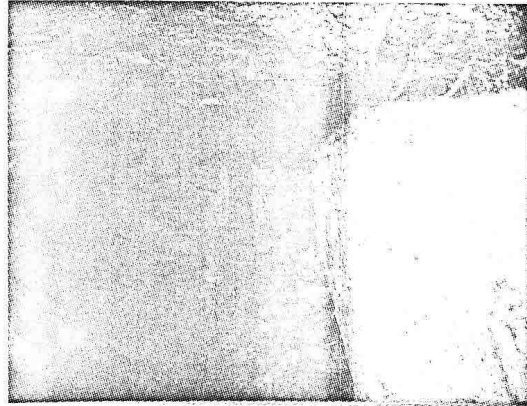


LOOKING SOUTH FROM CENTER OF SOUTH
LATERAL

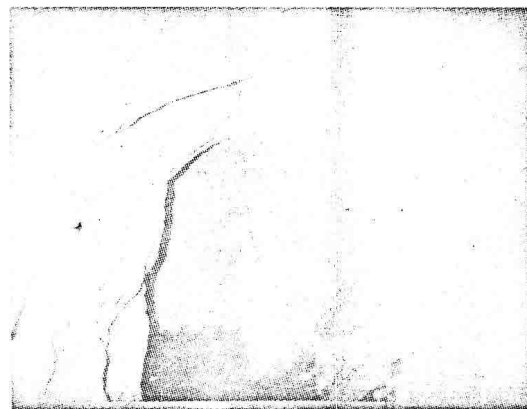


LOOKING NORTH FROM CENTER OF NORTH
LATERAL SHOWING FALLEN TIMBER. 9 FT
SHAFT JUST IN FRONT OF TIMBER

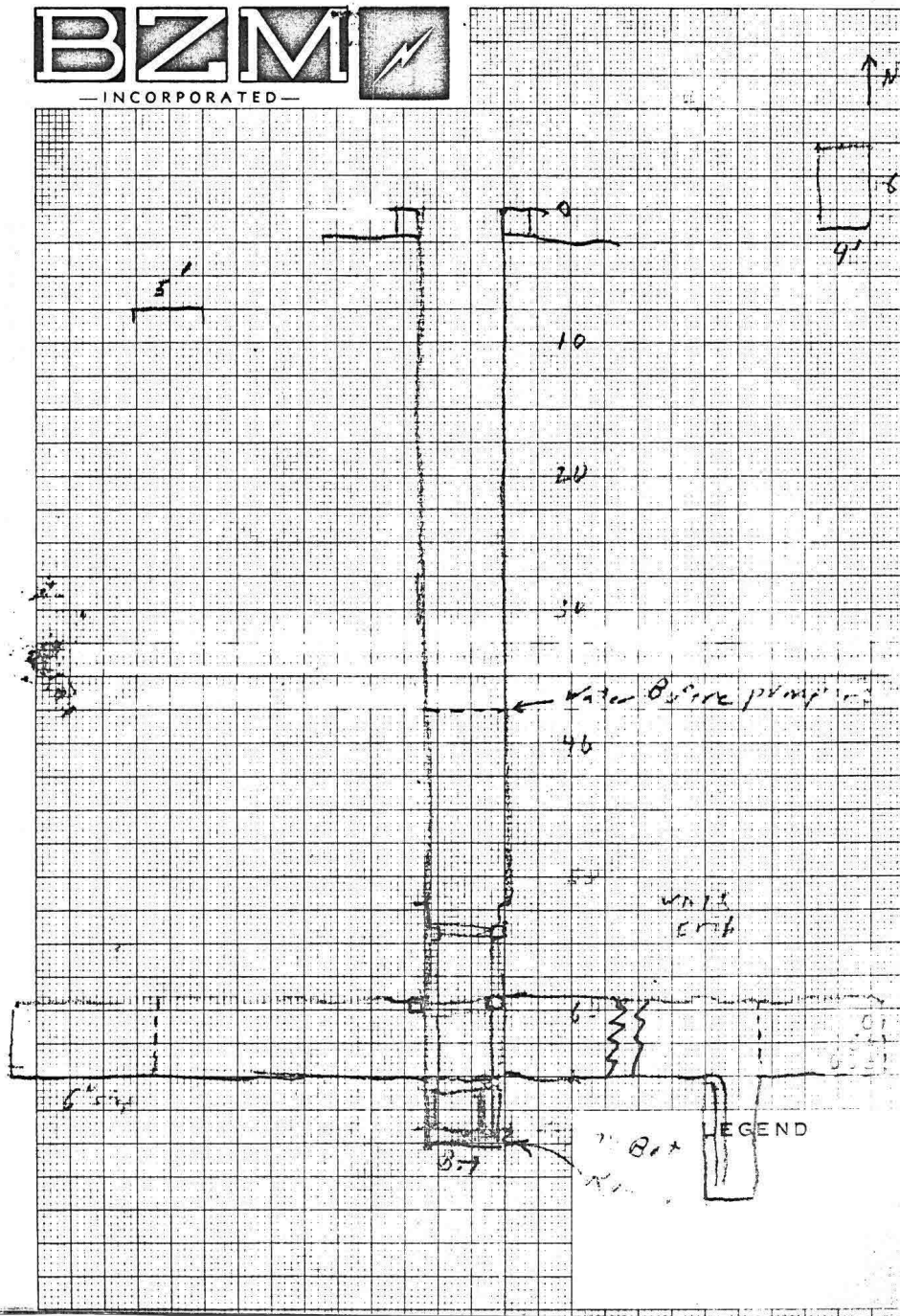
LOST HORSE #1 (Mrs. Ryan's Well)
17 June '65 BZM Inc

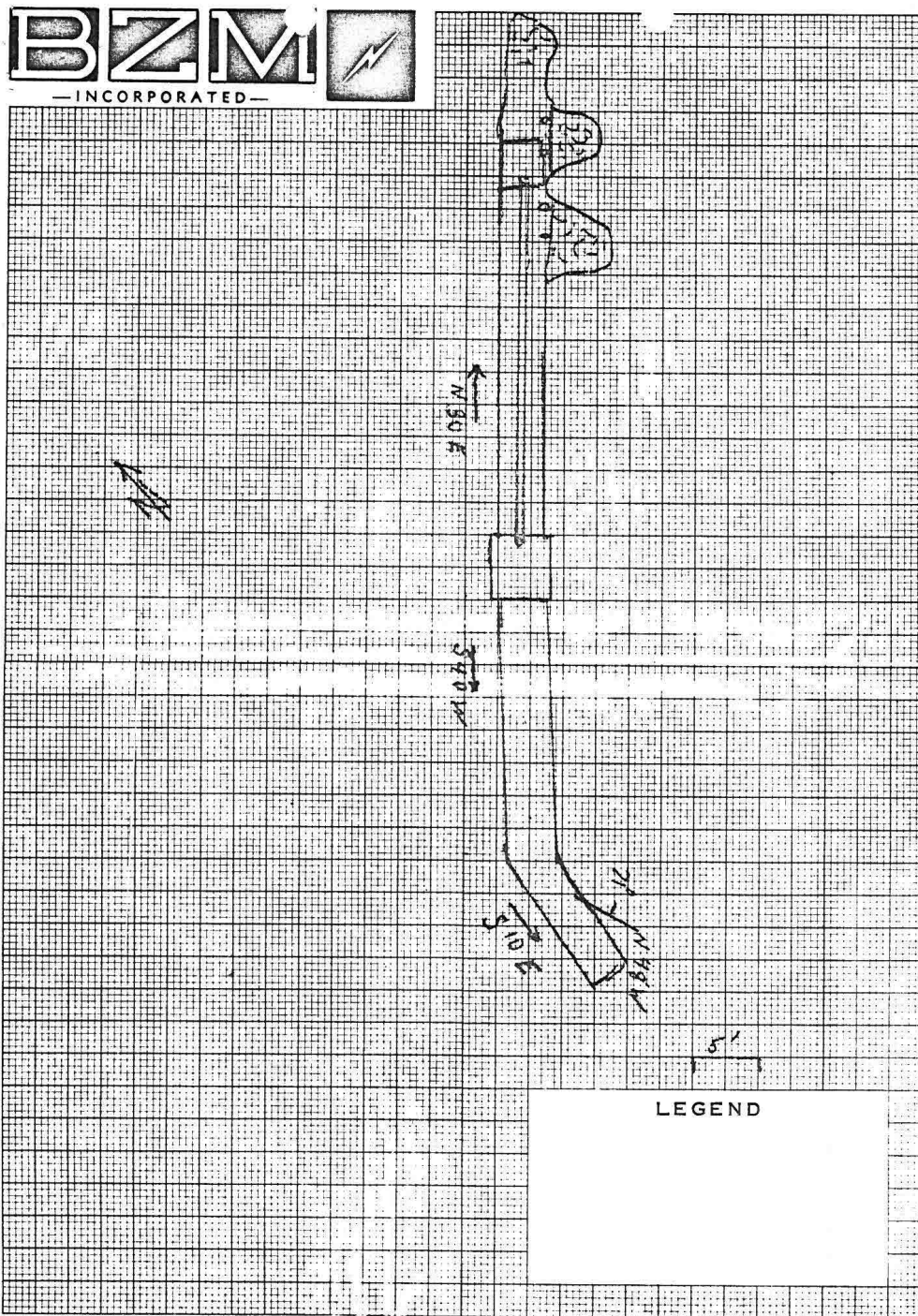


LOOKING NORTH FROM NEAR ENTRANCE TO
NORTH LATERAL. 9 FT SHAFT JUST PAST
TIMBER

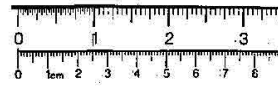


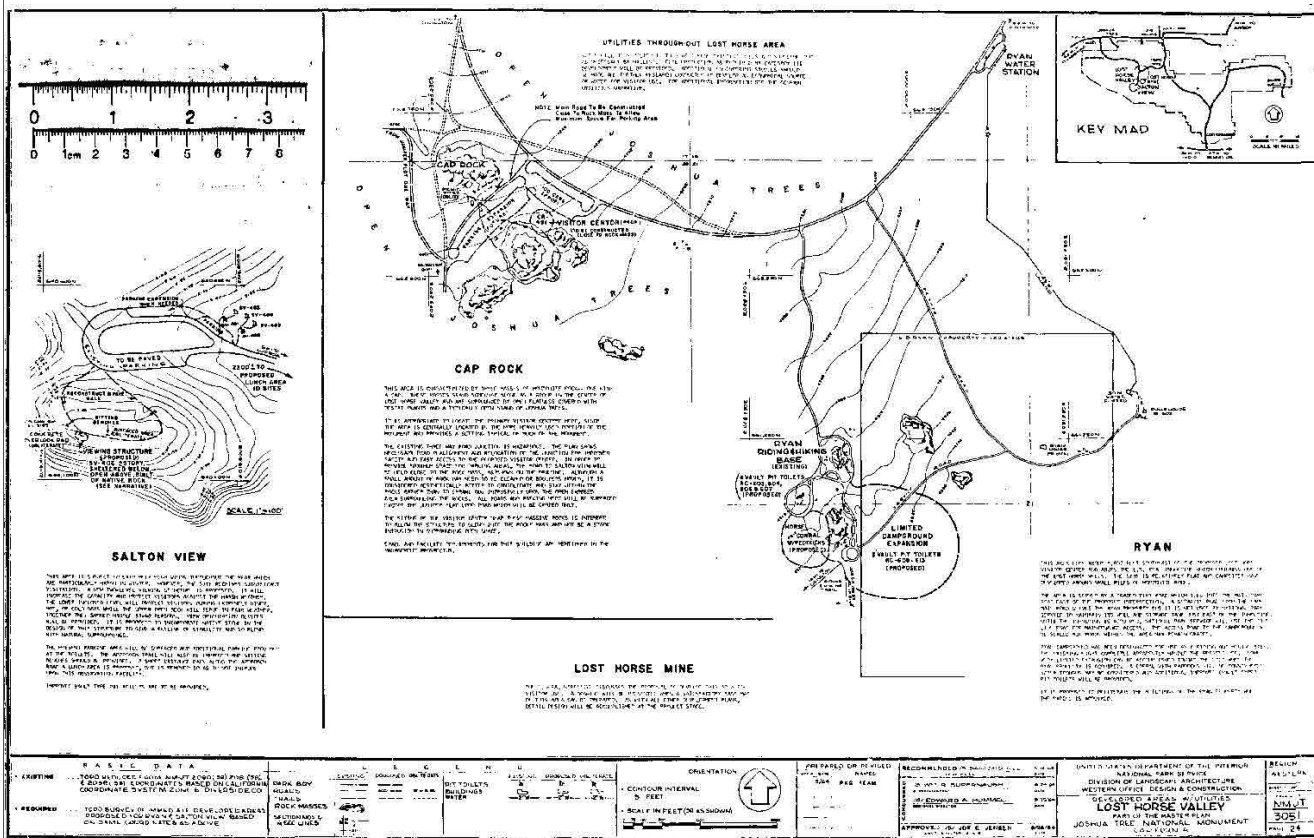
LOOKING SOUTH FROM ENTRANCE TO
SOUTH LATERAL











Docket Compiled: 4/19/2011