DMEA 3852

DOCKET INDEX

ACTION DOCUMENTS

1. APPLICATION — DATE RECEIVED 6-9-55

2. CONTRACT — DATE 10-10-55

3. TERMINATION AGREEMENT: — DATE

   a. Mutual (with/without repayment provision).
   b. Unilateral.
   c. Amendment with automatic termination clause and with/without repayment provision.

4. CERTIFICATION — DATE

5. AUDIT REPORT — DATE

6. AMENDMENTS - NUMBERS — DATE

1	3-19-56
2	6-1-56
3	10-12-56

RECEIVED
OCT 29 1956

OCT 24 1956
REGION III
DENVER, COLORADO

EXPLORATION PROJECT CONTRACT
GEORGE W. KASKE
DOCKET NO. DMEA 3852
CONTRACT NO. Idm-E887

AMENDMENT NO. 3

It is agreed this 12th day of October, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and George W. Kaske, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. Idm-E887, Docket No. DMEA 3852, dated October 10, 1955, hereinafter called the "Contract," that the Contract is amended as follows, effective September 30, 1956:

1. The date fixed in "Article 3", as amended by Amendment No. 2, as the date on or before which the work shall be completed, is extended from September 30, 1956, to October 31, 1956.

2. The maximum period for royalty payments and lien for the payment thereof, provided for in the Contract, is increased to eleven (11) years.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, the fixed unit cost of any item of work, nor any item of allowable cost which is expressly designated "maximum."

Executed in sextuplicate the day and year first above written.

OPERATOR

By George W. Kaske
George W. Kaske

UNITED STATES OF AMERICA

By W. M. Traver
W. M. Traver
Executive Officer, DMEA
Field Team, Region III

3

EXPLORATION PROJECT CONTRACT
GEORGE V. KASKE
DOCKET NO. DMMA 3878
CONTRACT NO. 14m-2007

AMENDMENT NO. 2

It is agreed this 1st day of June, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and George V. Kaske, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. 14m-2007, Docket No. DMMA 3878, dated October 10, 1955, hereinafter called the "Contract," that:

1. The date fixed under "Article 3" of the Contract form, as amended by Amendment No. 1, is extended from "June 30, 1956" to "September 30, 1956."

2. Referring to the 100 feet of drifting on the vein provided under item "E" of Exhibit "A", not to exceed 30 feet of the 100 feet of drifting may be used to extend the adit crosscut that additional distance if found necessary to enable exploration of the vein to its north wall.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in octuplicate the day and year first above written.

UNITED STATES OF AMERICA

By W. M. Lowry
W. M. Lowry
Executive Officer, DMMA
Field Team, Region III

OPERATOR

By George V. Kaske
George V. Kaske

EXPLORATION PROJECT CONTRACT

GEORGE W. KAUKE

DOCKET NO. DMMA 3838

CONTRACT NO. IDM-2887

RECEIVED
APR 6 - 1956

AMENDMENT NO. 1

It is agreed this 19th day of March, 1956, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and George W. Kauke, hereinafter called the "Operator," parties to that certain Exploration Project Contract No. IDM-2887, Docket No. DMMA 3838, dated October 10, 1955, hereinafter called the "Contract," that the Contract is amended as follows:

1. The date of April 30, 1956, fixed under Article 3 of the Contract form as the date on or before which the Operator shall complete the work, is extended to June 30, 1956.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the fixed unit cost of any item of work.

Executed in duplicate the day and year first above written.

OPERATOR

George W. Kauke
George W. Kauke

UNITED STATES OF AMERICA

By W. M. Traver
W. M. Traver
EXECUTIVE OFFICER, DMMA,
Field Team, Region XII

Docket Copy

RECEIVED

OCT 31 1955

MF-200A
(Revised June 1954)

Docket No. DMEA 3852

Commodity Tungsten

Contract No. Idm-E 887

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this OCT 10 1955 day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] George C. Keske

, whose mailing address is P. O. Box 55, Sahuarita, Arizona, hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and 3 maps.

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Arizona, County of Cochise, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] owner of [5] all mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] location, [7] recorded in Book 104, page 189, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Tungsten. The work to be performed is described in Exhibit "A." The Operator on or before December 15, 1955 shall commence the work, and on or before April 30, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $10,000.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $7,500.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—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; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

GEORGE W. KASKE
(Operator)

By George W. Kaske

THE UNITED STATES OF AMERICA

By Frank E. Johnson
ACTING Administrator, Defense Minerals Exploration Administration

Robin Sleeper
"Appd. Sol. Off."
Chapman
Martin
Talbot

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

Selfridge

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

RECEIVED
OCT 3 1 1955

EXPLORATION PROJECT CONTRACT
GEORGE W. KASKE
DOCKET NO. DMEA-3852

ANNEX I

The land referred to in Article 2 of the contract form consists of one unpatented lode mining claim, recorded in Book 104, page 188, Cochise County, Arizona.

This claim is located in the Dos Cabezas Mining District, Section 30, T. 14 S., R. 28 E., G. S. R. B. and M. and is shown, outlined in green, on a claim map, Figure 2, attached hereto.

EXPLORATION PROJECT CONTRACT
GEORGE W. KASKE
DOCKET NO. DMEA-3852

RECEIVED
OCT 3 1 1956

EXHIBIT "A"

Description of the Work

1. By bulldozing, improve approximately 1 mile of road, build approximately 150 feet of access road to proposed adit portal site, and level area for portal site.

2. Drive a crosscut adit approximately 160 feet to a point under the existing shaft, and drift from the adit approximately 100 feet on the vein, the exact direction or directions to be determined by the extent of mineralization. This work is shown generally on Figure No. 2, and a geologic map, Figure No. 3. Crosscuts and drifts shall be not less than 4½ feet by 6½ feet in the clear.

3. Raise from the adit approximately 40 feet to connect with shaft. The raise shall be not less than 4 feet by 7 feet in the clear.

4. Assay approximately 30 samples for tungstic acid (WO_3). Samples shall be taken at 5-foot intervals in mineralized zones.

All workings shall be timbered as necessary.

The location, direction, and extent of all work are subject to the approval of the Government.

Estimated Cost of the Project

Fixed Unit Costs

1.	Bulldozing, 20 hours at $14.00/hr.	$ 280.00	
2.	Driving 260 feet of adit and drifts at $32.00/ft.	8,320.00	
3.	Raising 40 feet at $32.00/ft.	1,280.00	
4.	Assaying 30 samples at $4.00/each sample	120.00	
	Estimated Total Cost of Project		$10,000.00
	Government participation, 75 percent		7,500.00

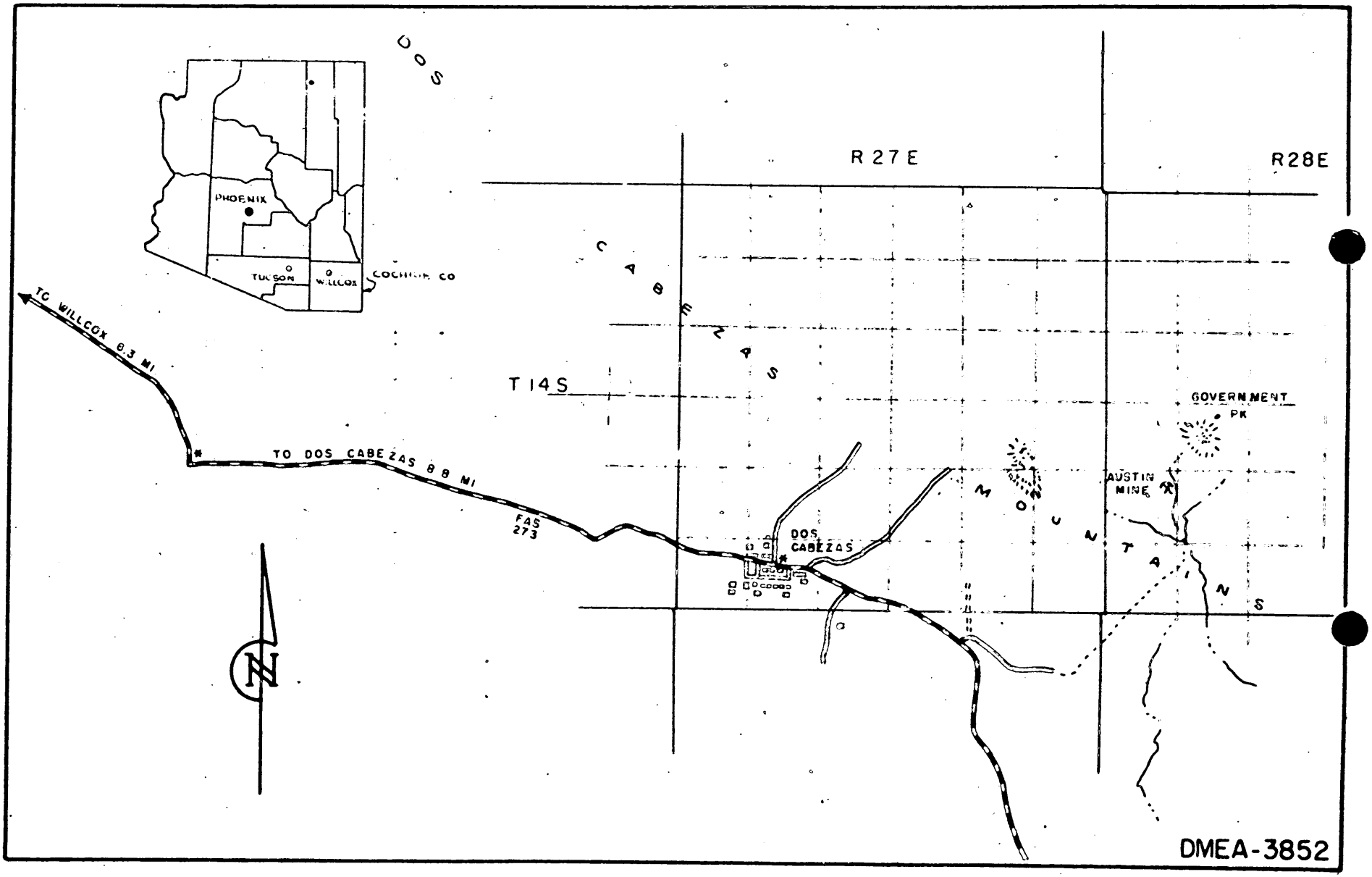


FIG.-1-LOCATION MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA

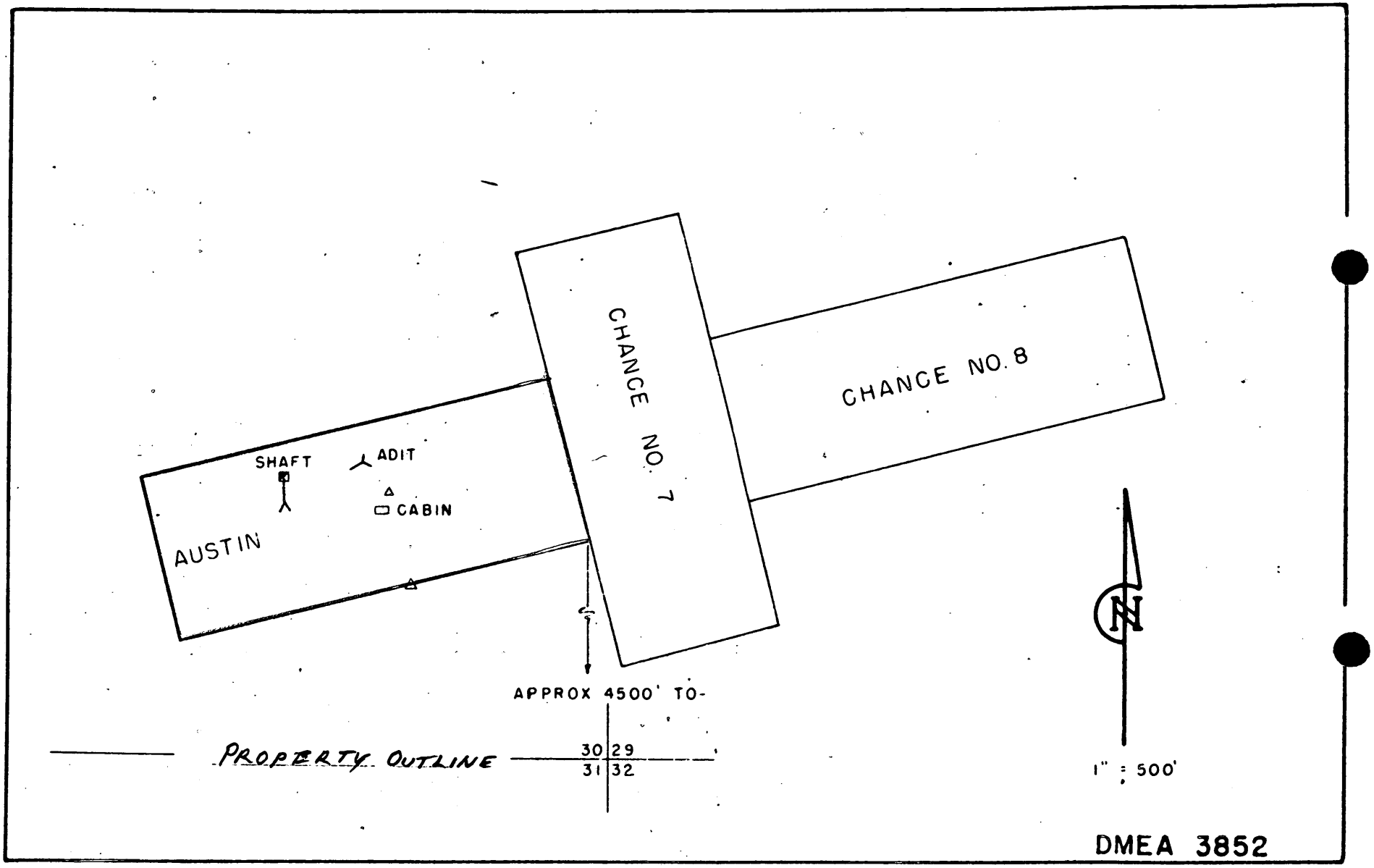
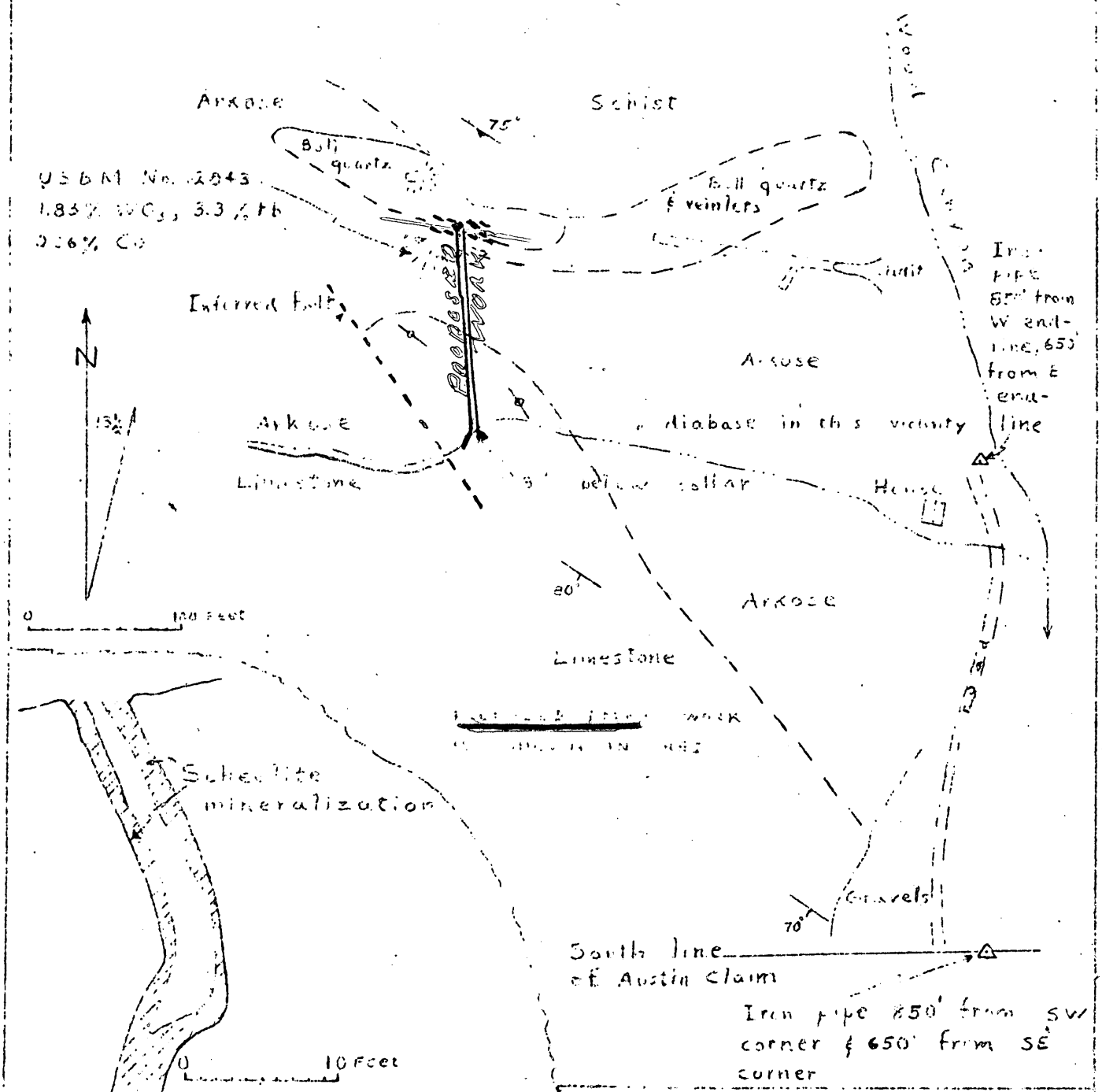


FIG. 2 CLAIM MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA



VERTICAL PROFILE
OF SHAFT, LOOKING WEST

FIGURE 3.- GEOLOGIC MAP, AUSTIN TUNGSTEN PROSPECT COCHISE COUNTY, ARIZ.

FIG. 3

DNEA 3852

Form 7
6)

OFFICIAL FILE COPY

Date	Surname	Code
3/1	Hopkins	400
	Martin	400
3/4	[illegible]	120
	[illegible]	~~110~~
21	Mittendorf	100
5/21	C	220
5-21	Chambers	800
		225

MAY 21 1957

Mr. George W. Kaske
P. O. Box 17
Dos Cabezas, Arizona

Docket No. DMA-3852 - Tungsten
Austin Claims
Cochise County, Arizona
Contract No. IDm-8687

Dear Mr. Kaske:

Reference is made to your completed exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the period indicated.

Your interest in the DMA exploration program and participation therein are fully appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JHopkins:ms 3/1/57
Copy to: Docket
Code 400
Mr. Hopkins
Admr. R. File
Field Team, Region III
Mr. Killsgaard, USGS
Mr. R. W. Holiday, USBM
Mr. Chambers

LA Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
2/21	Hopkins	400
2/21	Martin	400
		190
		110
		100

February 21, 1957

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division

Subject: Project Summary and Analysis of Field Team Report
Docket No. DMEA 3852 - Tungsten, Contract No. Idm-E887
George W. Kaske
Austin claims
Cochise County, Arizona

Operator: George W. Kaske
Dos Cabezas, Arizona

Property: The property consists of three unpatented claims - Austin, Chance No. 7 and Chance No. 8, located in Section 30, T. 14 S., R 28 E, Cochise County, Arizona and owned by George W. Kaske.

Contract: Dated October 10, 1955. Authorized the following work.

1.	Bulldozing 20 hrs. @ $14.00	$ 280.00
2.	Driving Adit Drift 360 ft. @ $32.00/ft.	8,320.00
3.	Raising 40 feet @ $32.00	1,280.00
4.	Assaying 30 samples @ $4.00/ sample	120.00
	Estimated Total Costs	$10,000.00

Amendments:

No. 1 extends completion date to June 30, 1956.
No. 2 extends completion date to September 30, 1956. Also authorizes a 20-foot extension of the adit crosscut in lieu of 20-feet of drifting.
No. 3 extends completion date to October 31, 1956 and the maximum period for royalty payments from ten to eleven years.

Work Completed:

1.	Bulldozing 20 hours @ $14.00/hr.	$ 280.00
2.	Crosscutting & Drifting 260' @ $32.00/ft.	$8,320.00
3.	Raising 38 ft. @ $32.00/ft.	1,216.00
4.	Assaying 11 samples @ $4.00 per sample	44.00
	Total Cost of Project	$9,860.00

Red

8623

Work was started December 15, 1955, and completed in October 1956.

Audit: Report of Review dated December 10, 1956

Total accepted cost of project	$9,860.00
Government participation @ 75%	7,395.00

Comments:

This project was designed to explore at depth a small showing of high-grade tungsten ore with moderate amounts of lead that is persistent throughout the entire depth of a 37 foot shaft.

The examiners favored the applicant's proposal to drive an adit crosscut to intersect the ore zone below the shaft, and then to raise to the bottom of the shaft and to drift on the ore zone from the adit. Consequently a contract embodying these features was drawn up and executed.

Geology: The rocks in the mine area are mainly Cretaceous and possibly older sedimentary and metamorphic rocks. They consist of:1)coarse-grained dark schist, 2) coarse arkosic quartzites, 3) limy shale and shaley limestone, and 4) dark grey limestones that strike northwest and dip vertically.

A vertical or steeply dipping zone of quartz partly follows the arkose-schist contact. The known tungsten mineralization occurs in sheared and silicified limestones near the south side of the quartz zone. The zone is 2 to 4 feet wide - average 2½ feet - and is localized along the principal shear.

The scheelite zone is exposed in walls of shaft from the collar to adit level, and is exposed in the drift that follows a fault or shear zone.

The scheelite occurs intimately associated with quartz in small lenses, seams and as disseminations. If upgraded by sorting these masses constitute a good quality of ore.

Ore Reserves: The ore consists of small lenticular masses localized in a shear zone on a quartz limestone contact. The nature of the occurrence precludes a reliable estimate of reserves. However, the shaft and project work has delineated a block of ore roughly 100 feet long, 83 feet deep and 2½ feet wide. The lenses and pods of ore are estimated to constitute about 20 percent of the material in the zone and would have to be sorted to obtain ore suitable for shipment and possible sale to the Don Lieberman Enterprise in Tucson, Arizona.

This block is estimated to contain 1,300 tons of material from which 260 tons of $2\frac{1}{2}$ to 3 percent WO_3 ore can be sorted.

260 tons - 520,000 lbs.

Assuming Dry Weight of 500,000 lbs. assaying 3 percent WO_3 or 15,000 lbs. = 750 short ton units, for which Don Lieberman Enterprise might pay $32.00/stu

750 STU @ $32.00 - $24,000.00
Government Royalty @ 5% = $1,200.00

Conclusions:

The above estimate of the value of the ore reserves of this project is believed to be the maximum amount that could be expected.

Recommendations:

The examiners recommend a certification of discovery or development because of a few tons of sorted ore stockpiled for shipment and the possibility that a small additional tonnage could be developed. The Geological Survey Commodity Division concurs in this recommendation. However, they also state that they are doubtful if the deposit can be mined because of its small size and high treatment cost.

The Field Team is of the opinion that there is insufficient likelihood of enough future production resulting to justify the expense and inconveniences involved in administering the project for the term required and therefore does not recommend certification. The Commodity Division of the Bureau of Mines concurs in the recommendation of the Field Team that the project not be certified.

This Division agrees that certification is not justified.

W. S. Martin

W. S. Martin, Chief
Iron and Ferro-Alloys Division

JHOPKINS:foc
2/21/57
cc to: Docket
Code 400
Admr. Read. File
Mr. Johnson

224 New Customhouse
Denver 2, Colorado

May 14, 1957

OFFICIAL FILE COPY
D M E A
RECEIVED MAY 17 195

DATE	INITIALS	CODE
5/17	C	220
5/17	EEF	800
		225

Mr. George W. Kaske
Box 17
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten), Contract
Idm-E887, Geo.W. Kaske (Austin Claim),
Cochise County, Arizona

Dear Mr. Kaske:

In view of the low recoverable WO_3 content contained in the stockpiled ore existent on your property September 5, 1956, you may disregard our letter to you of March 5, 1957.

Very truly yours,

Original Signed By
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer

MHM:ch

cc: Semiannual Report File E887)
Royalty File E887)
Corres. File E887) W/copy of Chairman's letter
Harshman) dated May 10, 1957
Emerick)
Storms)
Ch. Op. Comm. (2)
Marshall
Chron.

OFFICIAL FILE COPY

Date	Surname	Code
5-9	Hopkins	400
5-9	Martin	400
5-10	Chambers	800 130
"	Johnson	110
"	Mattendorf	100
		220
5/10	Selfridge	

MAY 10 1957

Mr. R. N. Harshman, Acting Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 3852 - Tungsten
George W. Haske
Austin Claims
Cochise County, Arizona
Contract No. Idm-8837

Dear Mr. Harshman:

Reference is made to your memorandum of April 30, 1957, requesting our comments and advice regarding royalty due on stockpiled ore on the subject property.

Please write to the Operator and tell him to disregard your letter of March 5, 1957, relating to royalties, as the recoverable WO_3 content of the stockpiled ore is insignificant.

Upon receipt of a copy of your letter to Mr. Haske, we will send him our closing letter.

Sincerely yours,

George C. Selfridge (by esf)
Chairman, Operating Committee

APPROVED:

P. F. Yopes (by esf)
Member, Bureau of Mines

Thor H. Kiilsgaard (by esf)
Member, Geological Survey

JHopkins:am 5-9-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 2 1957

DATE	INITIALS	CODE
5/2		220
		225

April 30, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, Geo. W. Kaske (Austin Claim), Cochise County, Arizona

Enclosed are the original and two copies of a memorandum dated April 24, 1957 by T. M. Romslo, Mining Engineer, USBM, prepared at our request in response to your letter of April 17, 1957.

Mr. Romslo comments that the potential value of the stockpiled ore would not pay the freight costs, and concludes that Government's royalty should be confined to approximately 5 tons of stockpiled production estimated to contain 2 percent WO_3. This being the case, we believe that the Operator should be informed that the Government defers the request for payment of royalty on stockpiled production existant as of September 1, 1956.

We invite your comments to our belief, and advice regarding the matter.

E. N. Harshman

E. N. Harshman

DMEA
DEPARTMENT OF THE INTERIOR
APR 26 1957
REGION III
DENVER, COLORADO

April 24, 1957

Memorandum

To: E. N. Harshman, Acting Executive Officer, DMEA
Field Team, Region III

From: Superintendent, Southwest Experiment Station

Subject: Docket DMEA-3852 (Tungsten), Contract Ldm-5887, George W. Kanke (Austin Claim), Cochise County, Ariz.

In answer to your memorandum of April 22, with copy of George C. Selfridge's letter to you of April 17, I am attaching a memorandum from T. M. Somale regarding the stockpiled ore at the Austin mine. At this time it would not seem desirable to certify this project because of the small amount of ore reserves. However, should Kanke do much additional exploratory work, he might uncover a fair amount of ore.

Signed by Walter R. Storms

Walter R. Storms

CC Exec. Off. (8)
DMEA-3852
DF

WRStorms:frj

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 2 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
BOX 4097
TUCSON 5, ARIZONA

April 24, 1957

Memorandum

To: Walter R. Storms, Superintendent, Southwest Experiment Station

From: T. M. Romslo, Mining Engineer, Tucson, Ariz.

Subject: Docket DMEA-3852 (Tungsten), Contract Idm-807, Geo. W. Kaske (Austin Claims), Cochise County, Ariz.

Reference is made to E. N. Harshman's memorandum of April 22, 1957 to you and its attached letter by George C. Selfridge.

The requested information on what the Operator does or intends to do was obtained from V. B. Dale, Mining engineer, U. S. Bureau of Mines, Tucson, Ariz. Mr. Dale visited subject mine April 8, 1957 in connection with his investigations of scheelite properties in southeastern Arizona, and found nobody on the property. On April 19, 1957, he interviewed Mr. Kaske at his residence in Cochise, Ariz. Mr. Kaske said that little or no work had been done on the Austin claim since termination of exploratory work under captioned contract. He planned to return to the mine and drive a crosscut after obtaining necessary equipment. The location of the proposed crosscut was not mentioned. He also told Mr. Dale that he had been unable to locally market the broken ore on the property and plans to ship it to a buyer in Salt Lake City were abandoned after he learned that freight costs alone would exceed the value of the ore.

Past production that would be subject to Government royalty, in my opinion, should be confined to the tonnage of items 2 and 3 of Harshman's letter of March 5, 1957 to Mr. Kaske. This potential ore comprises an estimated 5 tons of material containing about 2 percent WO_3.

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DMEA
RECEIVED MAY 2 1957

DATE	INITIALS	CODE

T M Romslo

T. M. Romslo, Mining Engineer
Southwest Experiment Station

CC Exec. Off. (Orig. & 8)
DMEA-3852
DF

TMRomslo:frj

OFFICIAL FILE COPY
DMEA
RECEIVED APR 24 1957

DATE	INITIALS	CODE
4/24	C	220
4/26	[illegible]	800
		225

224 New Customhouse
Denver 2, Colorado

April 22, 1957

Memorandum

To: W. R. Storms

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, Geo. W. Kaske (Austin Claim), Cochise County, Arizona

Enclosed is a copy of the Chairman's reply dated April 17, 1957 to our inquiry of April 4, concerning the feasibility of the Government to request the payment of royalties on certain stock-piled production.

Please note the comments made in the last paragraph of the Chairman's letter, and have an engineer from your office prepare a suitable memorandum on the subject for our submitting to the Washington Office, DMEA.

In the memorandum it may be desirable to indicate what part of the production, listed in our letter of March 5, 1957 to the Operator, would be subject to the Government's royalty in view of the opinion by the Legal Section should a certification be issued.

Original signed by
E. N. HARSHMAN

E. N. Harshman

Enclosure

MHM/vj

cc: Royalty File E887
Chair. Opr. Comm. (2)
Marshall
Chron.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
4/15	Hopkins	400
4/15	Martin	400
4-15	Chambers	800
	Robin	140
	Sanger	140
4/17	Selfridge	130
"	Johnston	220
"	Battendorf	100
4-18	C	220
		225

APR 17 1957

Mr. E. N. Harshman, Acting Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 3852 - Tungsten
George W. Kaske
Austin claims
Cochise County, Arizona
Contract No. Idm-E887

Dear Mr. Harshman:

Reference is made to your memorandum of April 4, 1957, regarding royalty on dump material and production stockpiled on the subject property.

It is the opinion of our legal division that ore mined prior to the date of a contract and standing in dumps on the property is not subject to the Government's royalty. Therefore, the dump material comprising approximately 25 tons mined from the shaft prior to the date of Contract No. Idm-E887 should be excluded from an estimate of production under the contract.

The tungsten trioxide content, probably not more than 10 units, of the ore at the bottom of the raise and in a stockpile at the portal of the adit is so insignificant that the Government's royalty can be ignored if the project is not certified.

The Government has until May 20th to decide on certification of this project. That decision could depend in part on what the Operator does or intends to do. Please make an effort to learn what further work is contemplated and advise this office by May 10, 1957, if feasible.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

JHopkins:am 4-15-57

cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

APPROVED:

Frank D. Lamb (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

April 4, 1957

OFFICIAL FILE COPY DMEA RECEIVED APR 8 1957		
DATE	INITIALS	CODE
4/8	C	220
		225

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852,(Tungsten), Contract Idm-E887, Geo. W. Kaske (Austin Claim), Cochise County, Arizona

Enclosed is a photocopy of the reply from George W. Kaske to our letter of March 5, 1957, which requested the computation and payment of royalty on certain stockpiled production.

From Mr. Kaske's letter it appears that attempt is being made to assign a value for this production but with little success. From the circumstances related by Mr. Kaske, please advise us of the action you favor we take to protect the interests of the Government.

E. N. Harshman

E. N. Harshman

Enclosure

P. O. Box 17
Dos Cabezas, Ariz.

DMEA
DEPARTMENT OF THE INTERIOR
MAR 29 1957
REGION III
DENVER, COLORADO

Mr. E. N. Harshman
Acting Executive Director
DMEA Field Team
Denver, Colo.

Docket 3852
IDM-E 887
Cochise County, Ariz.

Dear Mr. Harshman:

In reply to your letter of March 5, 1957, pertaining to the ore on the dumps on the Austin Claims, I wish to say that I have not received any word from the International Metal Corporation in Douglas, Arizona about milling this type of Sheelite ore. About 3 weeks ago I went to see the manager of Liebermans Mill in Tucson, who declined to buy any Tungsten ore for the present. The reply to my inquiry about freight rates from the S.P.R.R. Co. F.O.B. Willcox to Saltlake is $34.35 per ton in 100,000 lbs. lots (minimum) freight rate on Tungsten ore. So far I have not tried Bishop, Calif. I would appreciate it if you could give me some idea about computing the Royalty due the Government on this ore now mined from the Austin Claims, in order to comply with the contract (IAM-E887).

I expect to do additional exploration work with the hope of finding enough ore to justify the installation of a small mill to make a concentrate that can be shipped to Salt Lake, Utah to be leached there by the Salt Lake Tungsten Company.

Very truly yours,

George W. Roche

OFFICIAL FILE COPY
DMEA
RECEIVED APR 8 1957

DATE	INITIALS	CODE

PROTOCYTO
WO (2)
COORDSD
W. R. STORMS

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

March 5, 1957

3/8	C	220
3/8	C.E.E.	800
		225

Mr. George W. Kaske
Box 17
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten), Contract Idm-E887, Geo. W. Kaske (Austin Claim), Cochise County, Arizona

Dear Mr. Kaske:

We call your attention to Article 7(d) of Contract Idm-E887, and enclose one copy of DMEA Order No. 1 Amended, Section 10(d) of which stipulates:

> "If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment."

Our records indicate that six months ago the following production existed:

1. Dump from old shaft which contains approximately 25 tons of ore at an estimated 2 percent WO_3.

2. Muck at the bottom of the raise which contains approximately 1 ton of similiar material.

3. Stockpile at the portal of the adit which contains approximately 4 tons of ore at an estimated 1.5 to 2.5 WO_3.

Accordingly, this letter constitutes notice that you are required to compute and pay royalty on the value as of the date of this letter on the foregoing unsold production. The value assigned is to be based on local price schedules applicable to such production.

Very truly yours,

Original signed by
E. N. HARSHMAN

E. N. Harshman
Acting Executive Officer,
DMEA Field Team, Region III

Enclosure

MHM/vj

cc: Royalty File E887
Corres, File E887
Sec. Opr. Comm. (2)
W. R. Storms
Marshall
Chron.

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DMEA
RECEIVED JAN 28 1957

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Washington 25, D. C.

Date January 23, 1957

DMEA Docket No. 3852
DMEA Contract No. Idm-E887
Commodity Tungsten
Name of applicant George Kaske (also;
Name of property Austin Claims
Location of property Cochise County, Arizona
Estimated cost of project

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Br. of Ferrous Metals & Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Field Team Final Report
(Application, Field Team Report, etc.)

1. Date of subject document: 12/20/56. 2. Date received by reviewer: 1/11/57.

3. Prior reports on this property known to reviewer: Yes [ ] No [x]

4. Prior reports on nearby properties known to reviewer: Yes [ ] No [x]

5. Information available on past production: Yes [ ] No [x]

6. Other pertinent factors known to reviewer: Yes [ ] No [X]

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. _____ [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [X]
      1. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]

10. Remarks: (Use back of page if necessary) The Field Team examiners recommend certification of Discovery but the Field Team does not recommend certification. I agree with the Field Team recommendation of non-certification.

R W Holliday
R. W. Holliday

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

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1/14	Crow	100
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		130
1-15	C	220
1/15	WSM	400

December 21, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887
George Kaske (Austin Claims), Cochise County, Arizona
FINAL REPORT

Enclosed are the original and three copies of a joint final engineering and geologic report, dated December 20, 1956, by John N. Faick, Geologist, U.S.G.S., and T. M. Romslo, Mining Engineer, U.S.B.M., with its transmittal December 21, 1956, by W. L. Emerick, U.S.G.S., through E. N. Harshman, Member Region III Field Team, and W. R. Storms, Superintendent, Southwest Experiment Station, U.S.B.M.

The Operator's final engineering and geologic report was transmitted to you December 4, 1956.

Project work started December 15, 1955 and completed early in October, 1956, comprised 20 hours of allowable bulldozer work to improve one mile of existing access road and construction of 565 feet of new road, 260 feet of adit extension and drifting on the vein and driving a 38-foot raise. In addition, the Operator completed some additional exploration at his own expense. A total of 11 analyses were also made as an allowable cost under the contract. The accepted costs totalled $9,860.00, toward which the Government contributed 75%, or $7,395.00.

Final payment to the Operator was processed by this office December 11, 1956, in conformance with the Report of Review of accepted project costs by the Contract Administration and Audit Division, dated December 10, 1956.

The exploration work resulted in the discovery of an insignificant quantity of tungsten ore, and the authors of the report recommend a

Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT
Date 1-11

Referred to:

1. ~~Mr. Hyvendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. Gas & Gas Gathering Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Questionable certification
2. Possible royalty
3. returns appear to be
4. too small to justify continuation.

Recommend review and take appropriate action.

- - - - - - - -

Action taken by Division:

Review prepared
WSA
1/29/57

Robert W. Adams

Certification of Discovery or Development because of a few tons of sorted ore stockpiled for shipment, and the possibility that a small additional tonnage could be developed. However, the Field Team is of the opinion that there is insufficient liklihood of enough future production resulting to justify the expense and inconveniences involved in administering the project for the term required, and therefore do not recommend Certification.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126 University Station
Tucson, Arizona

IN REPLY REFER TO:
MINERAL DEPOSITS
DMEA
RECEIVED
DEC 27 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

December 21, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: W. L. Emerick Through: E. N. Harshman DHR for ENH
W. R. Storms WRS by DHS

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George Kaske (Austin Claims), Cochise County, Arizona

Enclosed are the original and 8 copies of a joint final report on the above docket by J. N. Faick and T. M. Romslo.

W L Emerick
W. L. Emerick

Traver (8)
Harshman
Storms
King
Emerick

DMEA
DEPARTMENT OF THE INTERIOR
DEC 28 1956
REGION III
DENVER, COLORADO

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Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

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RECEIVED JAN 7 1957

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT BY FIELD TEAM
REGION III

DMEA-3852 (Tungsten), CONTRACT Idm-E887

GEORGE W. KASKE - AUSTIN CLAIMS

COCHISE COUNTY, ARIZONA

John N. Faick, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

December 20, 1956

DMEA-3852 (Tungsten), Contract Idm-E887
GEORGE W. KASKE - AUSTIN CLAIMS
COCHISE COUNTY, ARIZONA

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INTRODUCTION	1
LOCATION, ACCESSIBILITY, PHYSICAL FEATURES AND CLIMATE	2
HISTORY AND PRODUCTION	3
EXTENT AND OWNERSHIP OF PROPERTY	4
GEOLOGY	4
THE EXPLORATORY PROJECT	6
COST OF WORK PERFORMED	7
EFFICIENCY OF OPERATION	8
ORE RESERVES	9
CONCLUSIONS AND RECOMMENDATIONS	10

ILLUSTRATIONS

Figure 1	LOCATION MAP	Following page 1
Figure 2	CLAIM MAP	" " 4
Figure 3	GEOLOGY MAP	" " 4
Figure 4	GEOLOGY MAP OF WORKINGS, INCLUDING SAMPLE ASSAYS	" " 7

INTRODUCTION

On June 3, 1955, the Defense Minerals Exploration Administration received an application from George W. Kaske, now residing at Dos Cabezas, Arizona, for Government aid on proposed exploration for tungsten ore on the Austin claim in Cochise County, Arizona. Proposed explorations involved improvement to existing roads, building a new road, and driving 250 feet in an adit, drift and raise. Total cost of the proposed project was estimated at $8,360.00, later revised to $10,000. The application was referred to the Field Team of Region III for field investigation. The property was examined under docket DMEA-3852 by L. Bryner, U. S. Geological Survey, July 12, 1955, and by T. M. Romslo, U. S. Bureau of Mines, on July 21, 1955. It later was visited by W. L. Emerick and J. N. Faick of the U. S. Geological Survey.

Examination of the property indicated that geological conditions were favorable for the existence of minable quantities of potentially commercial grade tungsten ore; therefore Government participation in exploration was recommended. Contract Idm-E887, covering the proposed explorations, was executed October 10, 1955. Work was started December 15, 1955, and was completed early in October 1956.

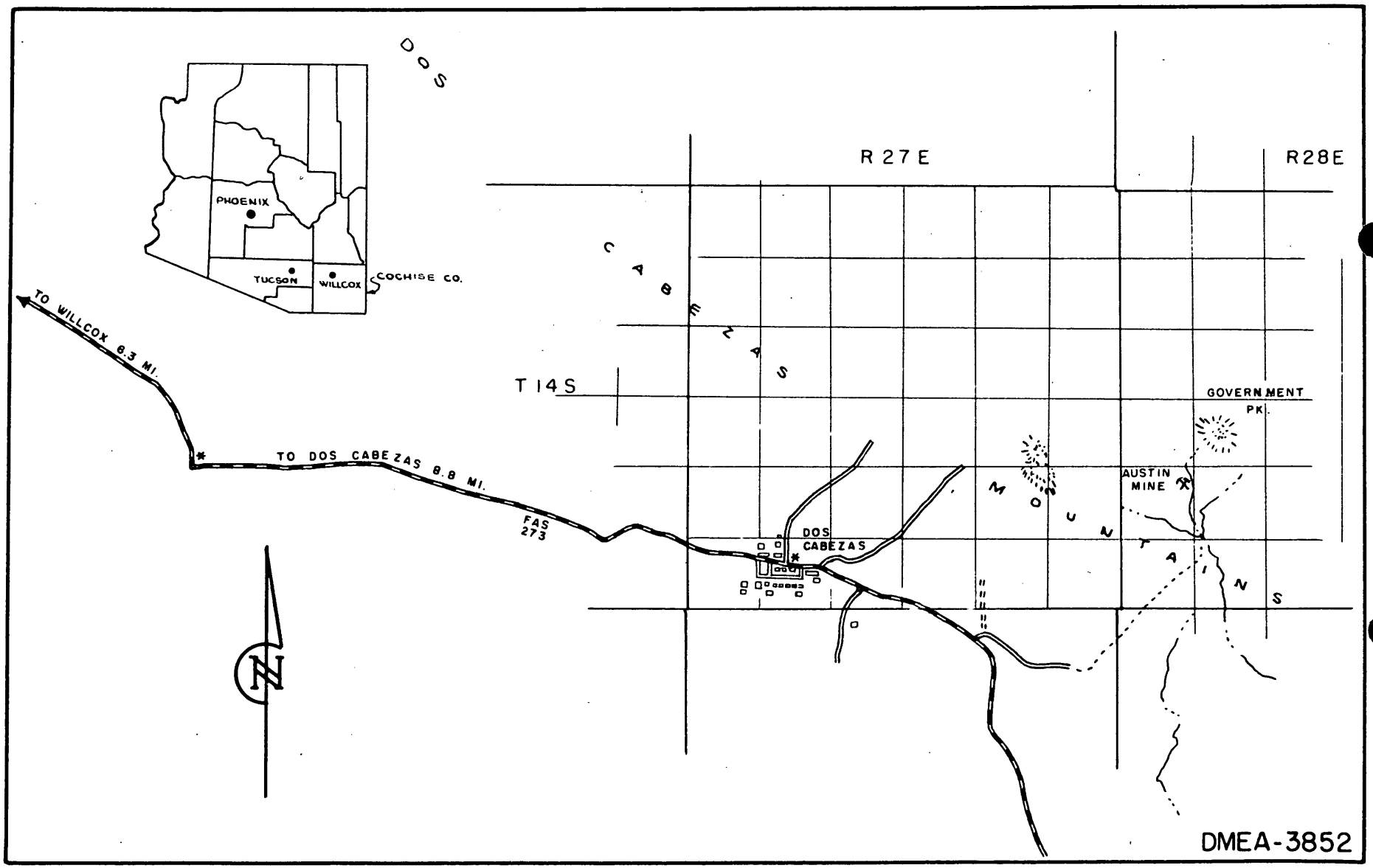


FIG.-1-LOCATION MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA

LOCATION, ACCESSIBILITY, PHYSICAL FEATURES AND CLIMATE

The Austin mine, figure 1, is about 19 air-miles southeast of Willcox, Arizona, a town on the Southern Pacific Railroad and U. S. Highway 66 and State Highway 86. The mine is in the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of sec. 30, T. 14 S., R. 28 E., Dos Cabezas Mining District, Cochise County, Arizona, as shown on figure 1. It is situated in Wood Canyon, which drains southward from the Dos Cabezas to Sulphur Spring Valley. The elevation of the property is about 6,000 feet. It is accessible from Willcox by driving 15.1 road miles southeasterly to the village of Dos Cabezas. A few miles of the road is paved and the remainder is of graded dirt construction. A road log of the remaining distance follows:

0.0 Dos Cabezas.
3.0 Turn left, cross cattle guard, and turn right on to De Borde Ranch road.
4.4 De Borde Ranch; turn right.
4.6 Gate.
5.4 Take left branch of "Y".
6.1 Gate.
6.9 Gate.
7.4 Gate at windmill and monument marking common corner of sections 29, 30, 31 and 32, T. 14 S., R. 28 E.
8.5 Cabin about 300 feet southeast of Austin shaft. This is the only building on the property.

The last 1$\frac{1}{2}$ miles of this road is rough and narrow and easily subject to washout by summer rains.

The climate and vegetation are characteristic of the intermediate altitudes of Southern Arizona. Summers are hot and winters are mild. Precipitation, mainly as summer showers and winter snow

flurries, averages about 15 inches annually. Water for domestic use and small mining and milling operations is available from springs and shallow wells. Vegetation is confined to native grasses and shrubs, except for scattered small groves of live oak along the principal drainages.

HISTORY AND PRODUCTION

According to the applicant, the Austin property originally was located for gold by Tom Hutton in 1880. In that year, or shortly thereafter, the property was explored by a 37-foot shaft and an 80-foot adit. The property then remained idle to 1943 when the applicant discovered scheelite in the shaft, and he, with two partners, extended an old adit to 120 feet from its portal. In 1948 the applicant submitted a sample of ore from the shaft to the Arizona Bureau of Mines for testing purposes. Gravity concentration of the sample, which contained 1.95 percent WO_3, yielded a concentrate containing 48.57 percent WO_3 and 21.5 percent lead, with a recovery of 80 percent. Concentrate of this quality was not marketable; therefore the property was abandoned.

The applicant relocated the property in July 1954, and had it examined by Arthur W. Jacobs, a Registered Mining Engineer of Tucson, As a result of the examination, the applicant decided to continue exploration of the property and applied to DMEA for assistance on May 29, 1955. As previously mentioned, DMEA investigations resulted in an exploratory project that was carried out under contract Idm-E887 during the period of December 15, 1955 to early October 1956. The work performed is described later in this report.

The only production from the mine comprises a few tens of tons of ore on the dump of the old shaft and several tons of hand sorted ore from the drift and shaft driven in 1956. The latter ore is stockpiled near the portal of the adit. Insofar as is known, no ore has been shipped from the mine.

EXTENT AND OWNERSHIP OF PROPERTY

The Austin property consists of three unpatented claims, located and owned by George W. Kaske. The claims are the Austin, Chance No. 7, and Chance No. 8, as shown on Figure 2.

GEOLOGY

The rocks in the mine area consist mainly of Cretaceous and possibly older sedimentary and metamorphic rocks that strike about northwest and dip vertically or steeply to the south (figure 3). In the project area these rocks, from north to south, are: 1) a coarse-grained, dark schist that possibly is of igneous origin, 2) a series of coarse, arkosic quartzites, 3) a narrow zone of limey shale and shaley limestone (not indicated on map), and 4) a series of dark gray limestones. The limestones are somewhat contorted and silicated along the easterly-trending gulch shown in figure 3, suggesting the presence of an easterly-trending fault along this gulch. Also a northwesterly-trending fault appears to have offset the beds in this gulch. A thin diabase dike or sill is exposed in places on the north side of the gulch.

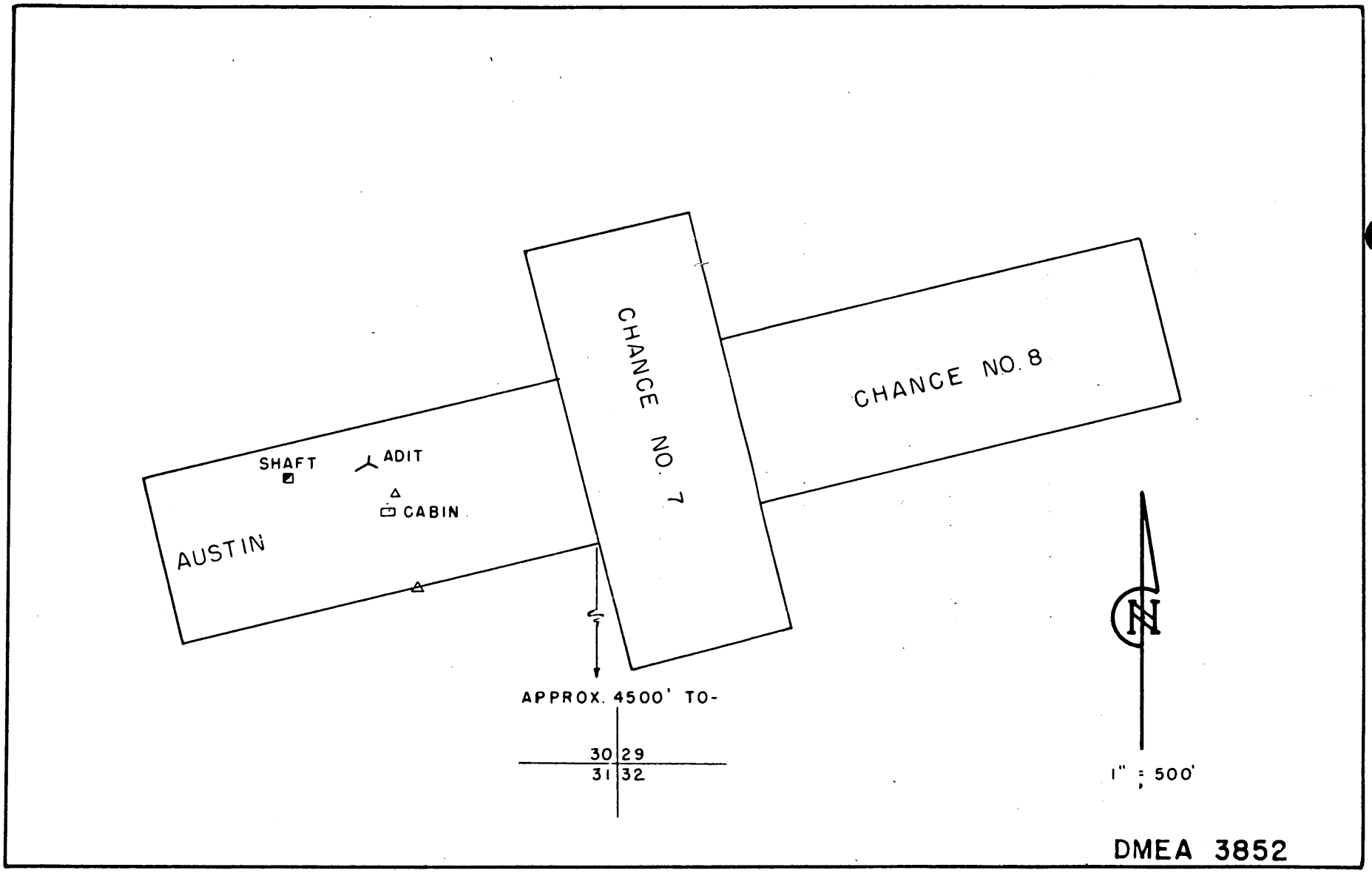
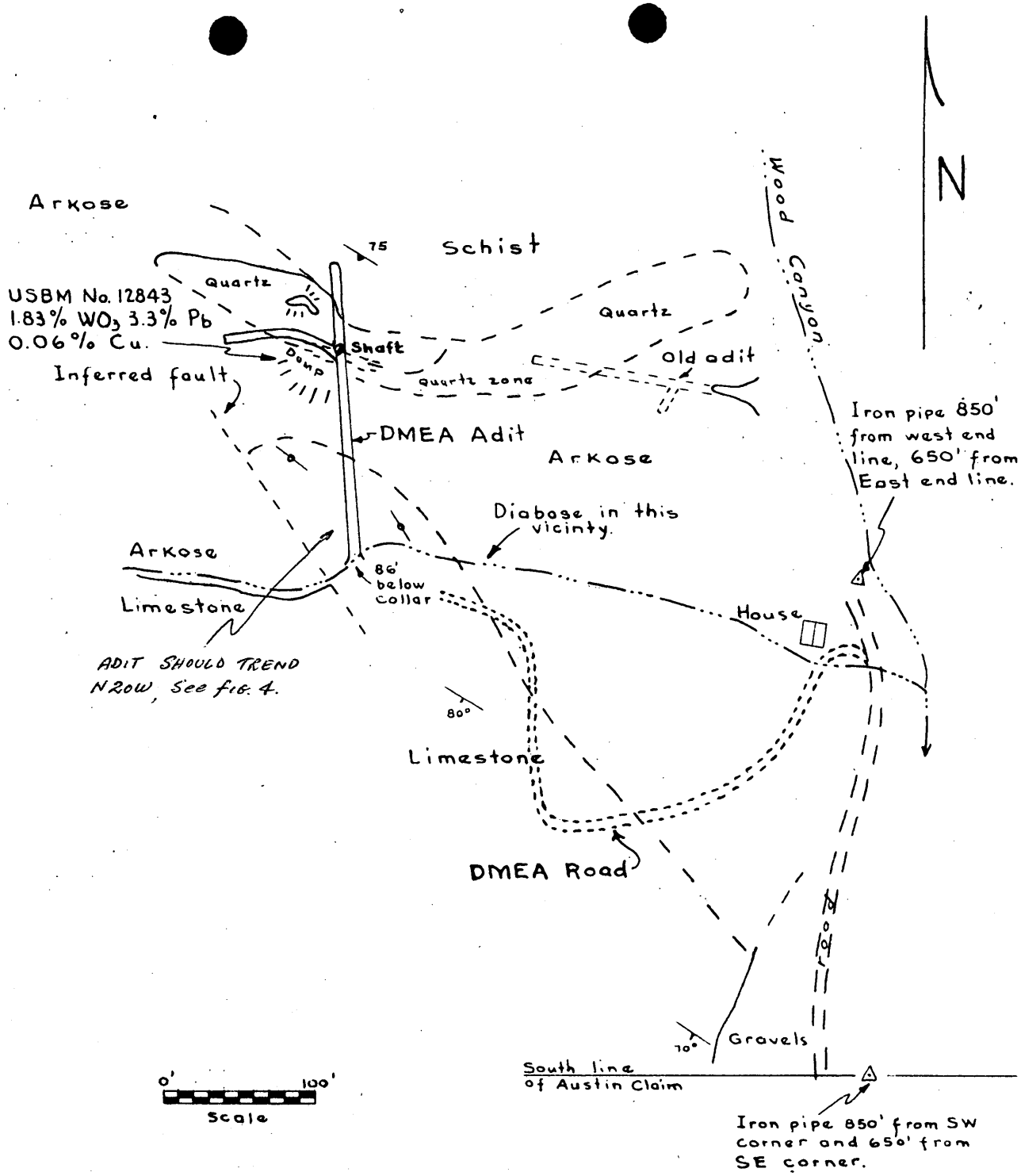


FIG. 2 CLAIM MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA

RECEIVED
JAN 2 '57
U.M.L.A.



From a Brunton-Pace Survey by
Leonid Bryner
US Geological Survey July 12 1955
Revised Nov. 1956
J.N.F.

Figure-3-Geologic Map, Austin Tungsten Prospect

Cochise County, Arizona

DMEA 3852
Idm-E887

RECEIVED
JAN 7 '57

An easterly-trending vertical or steeply dipping zone of quartz cuts diagonally across and partly follows the arkose-schist contact. The quartz crops out prominently in large masses ranging from a few to about 20 feet wide. Most of this quartz is confined to the arkose and gives the easterly-sloping ground a low, resistant "crown" that also trends east. The large masses of quartz grade out at their margins into the country rock through a network of veinlets. The known tungsten mineralization occurs in sheared and silicified limestone near the south side of the quartz mass.

The adit, driven about N. 20° W., penetrated about 50 feet of shale, about 90 feet of limestone, and about 20 feet of sheared or fractured silicified limestone containing small amounts of scheelite. The zone containing most of the scheelite ranges from 2 to 4 feet in width and averages about 2½ feet wide, and is localized along the principal shear. The scheelite zone is exposed in the walls of the shaft from its collar to the adit level, and at this level was exposed for a short distance in the drift that follows a westerly trending fault or shear zone.

The ore mineral at the Austin prospect is scheelite, some of which may contain molybdenum as is indicated by a yellow fluorescence of some grains under the ultraviolet light. The scheelite occurs in quartz and is intimately associated with galena and minor amounts of sphalerite, chalcopyrite and pyrite. Cerrusite, limonite, malachite, azurite, smithsonite and talc were identified in ore specimens

examined by LaMar G. Evans, U. S. Bureau of Mines, Tucson, Arizona. Insofar as Evans could determine by optical methods the ore does not contain lead tungstate minerals. The minerals in the ore are fine grained and microscopic investigation indicates that it will be necessary to grind the ore to about 100 mesh to separate the lead and tungsten minerals from each other and from the quartz gangue. The scheelite occurs intimately associated with quartz in small lenses, seams and as disseminations. Most of the scheelite-bearing masses are small -- they range in size from a few inches to a couple of feet across. If upgraded by sorting these masses constitute a good quality of ore.

THE EXPLORATORY PROJECT

Work started about December 15, 1955, and was completed early in October, 1956. The completion date was originally set for April 30, 1954, but was extended to June 30, 1956, by amendment No. 1, because of inclement weather and the operator's inability to obtain necessary equipment. Completion date was again extended to September 30, 1956, by amendment No. 2. The contract was again extended to October 31, 1956, by amendment No. 3, to allow for completion of desirable sampling and analyses.

The project work was initiated by improving about 1 mile of existing road and the building of 565 feet of new road. The road work was done in 23½ hours with a bulldozer operating under an independent contract. The cost of 20 of the 23½ hours of work was allowable under the project contract. Upon completion of the road work, the operator

started the adit from the end of a short side-hill trench. As shown in figure 4, the completed underground explorations comprised the 191-foot adit, the 73-foot drift and the 38-foot raise. The 264 feet of adit and drift was 4 feet more than authorized. The raise, connected to the existing shaft, was 2 feet less in length than the estimated and authorized 40 feet.

Three 12-foot exploratory holes were drilled into the face of the adit by the operator at no expense to the project. A total of 12 channel samples, 6 each from the raise and drift, were taken by the operator and analyzed at the Jacob's Assay Office, Tucson, Arizona. One of the samples was obtained from a portion of the drift not covered by the exploratory contract. The assays of these samples and others taken before initiation of the project are shown on figure 4.

The workings are in ground that is easily drilled and blasted. All of them stand with little or no timber support except at the portal of the adit where the installation of 3 drift sets was necessary.

COST OF WORK PERFORMED

All of the costs incurred were under Short Form Contract Idm-E887 that provided for payment by the Government to George W. Kaske, the operator, of 75 percent of the fixed unit costs of work actually performed.

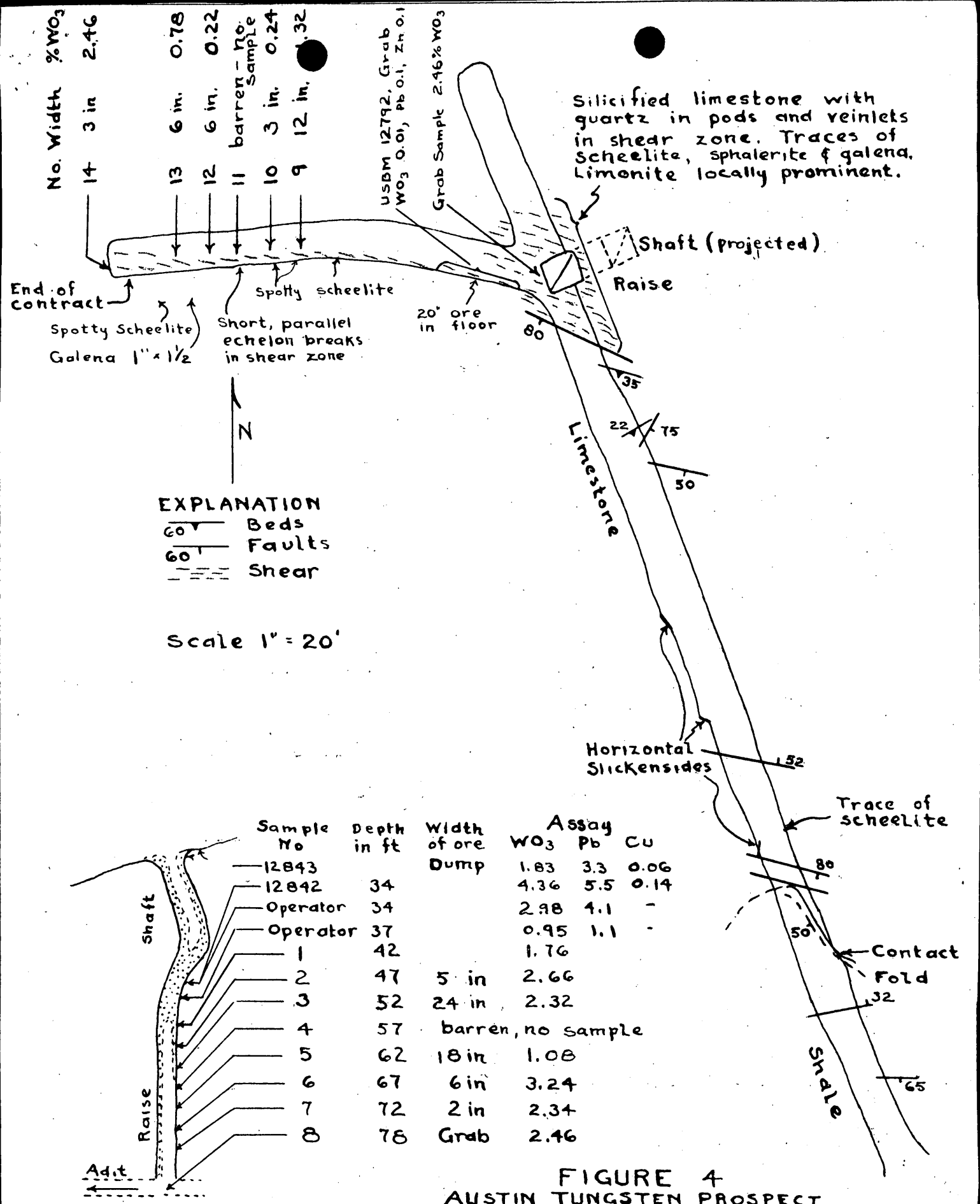


FIGURE 4
AUSTIN TUNGSTEN PROSPECT
COCHISE COUNTY, ARIZ.

DMEA 3852
Idm - E887

RECEIVED
JAN 2 '57

The fixed unit costs were:

1. Bulldozing, 20 hours at $14.00/hr	$ 280.00	
2. Driving 260 feet of adit and drift at $32.00/ft.	8,320.00	
3. Raising 40 feet at $32.00/ft.	1,280.00	
4. Assaying 30 samples at $4.00/each sample	120.00	
Estimated Total Cost of Project		$10,000.00
Government Participation, 75 percent		$ 7,500.00

The cost of the work actually performed under the contract was as follows:

1. Bulldozing, 20 hours at $14.00/hr.	$ 280.00	
2. Driving 190 feet of adit and 70 feet of drift - 260 feet at $32.00/ft.	8,320.00	
3. Raising 38 feet at $32.00/ft.	1,216.00	
4. Assaying 11 samples at $4.00/each sample	44.00	
Total cost of project		$9,860.00
Government participation, 75 percent		$7,395.00

EFFICIENCY OF OPERATION

The operations were conducted efficiently only during April and the first part of May, 1956. During this period Louis Strickrad, a sub-contractor, and 2 men completed more than 100 feet of adit at an average daily advance of 4 to 5 feet. He reportedly used good operating equipment, consisting of a 210 CFM compressor, a rocker type mine car loader, and Copco pneumatic drills and steel.

Mr. Kaske, working most of the time with 1 helper, completed the remaining work. His major equipment consisted of a jackhammer, a stoper, a 105 CFM compressor, a ramp-type car loader equipped with a slusher, and an old pick-up truck. Both the loader and compressor were built by Mr. Kaske. Delays, mainly due to equipment breakdowns, resulted in a very low daily advance in the exploratory headings.

ORE RESERVES

The ore at the Austin prospect consists of small lenticular discontinuous masses localized in a shear zone near the south side of a quartz-limestone contact. The nature of the occurrence precludes reliable estimation of ore reserves. The ore zone averages about $2\frac{1}{2}$ feet wide and is known to extend from the outcrop to the adit, a vertical distance of about 83 feet. The strike length is not known but may be on the order of 100 feet. The lenses and pods of ore are estimated to constitute about 20 percent of the material in this zone, and would have to be sorted to obtain ore suitable for shipment to a reduction mill. If these measurements and estimates are acceptable then the reserves would amount to about 250 tons. A little of this ore was mined and sorted during the life of the contract and is stockpiled on the dumps. The ore after sorting is estimated to contain 2 to 3 percent tungsten and about 3 percent lead and traces of gold, silver and copper. One of three 12-foot long drill holes in the face of the adit reportedly encountered a few grains of scheelite.

CONCLUSIONS AND RECOMMENDATIONS

The work explored the downward extension of the mineralized zone about 45 feet below the bottom of the old shaft, and explored the zone west of the shaft a distance of about 73 feet. It resulted in the discovery of small tungsten reserves. The ore is amenable to flotation by fine grinding, and to up-grading by hand sorting. The operator believes he can profitably mine, sort and ship the ore discovered by the project, and reportedly will attempt to do this. To the writers it appears doubtful if the deposit can be mined because the reserves are small, and the treatment cost will be high. The closest treatment plant is believed to be Bishop, California. High shipping costs are probable, and it is unlikely that payment would be made for the lead values in the ore. It appears unlikely that these inherent difficulties can be overcome.

Additional exploration of the Austin property with Government aid is not recommended because the results of exploring the best known part of the ore zone were unfavorable. Although the findings of the project were not significant, a certificate of discovery probably should be made because the operator has stockpiled a few tons of ore for shipment and could exploit additional ore exposed by the project.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED JAN 16 1957		
DATE	INITIALS	CODE
1-16	cw	220
		225

January 15, 1957
Re: DMEA 3852 Idm-E887
George Kaske
Austin Claims
Cochise County, Arizona
$10,000 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Final Report

A contract approving the expenditure of $10,000.00 was awarded the applicant for exploration of a scheelite-lead-bearing shear zone in silicified limestone.

The examiners estimate 250 tons of ore, assaying 2½ to 3% WO_3 after sorting, is indicated as a result of the work, and certification is tentatively recommended. The ore occurs in small lenticular masses in an ore zone about 2½ feet wide. The zone extends from the surface to the drift, 83 feet below and shows for 75 feet at the adit level.

The block 83 x 75 x 2½ would contain about 1,300 tons at 12 cu ft. per ton. The examiners assume about 1/5 of the block is ore, that is, the pay streak averages 6" wide and assays from 2½ - 3% WO_3. The ore bearing zone is open laterally and downward.

I recommend that a certificate of discovery be issued.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

December 4, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3852 (Tungsten), Contract No. Idm-E887, George W. Kaske (Austin claim), Cochise County, Arizona.

Enclosed are the original and one copy of the Operator's report, dated November 20, 1956, pertaining to work completed under the subject contract, and transmittal thereof from the Superintendent, Southwest Experiment Station, dated November 28, 1956.

The Field Team final report will be forwarded as soon as the engineering and geologic sections are available.

W. M. Traver

W. M. Traver

Enclosures

RECEIVED
DEC 6 1956
D.M.E.A.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
BOX 4097
TUCSON 5, ARIZONA

DMEA
DEPARTMENT OF THE INTERIOR
DEC 3 1956
REGION III
DENVER, COLORADO

November 28, 1956

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team

From : Superintendent, Southwest Experiment Station

Subject : Operator's Final Report, Docket DMEA-3852 (Tungsten), Contract Idm-E887, George W. Kaske (Austin Claim), Cochise County, Ariz.

Enclosed are original and 4 copies of the above final report by Kaske. Although this report does not contain all the information that we would like to have in a final report, I doubt if we could do any better if we returned it to Kaske, so I recommend that it be accepted as is.

W. L. Emerick of the Geological Survey and T. M. Romslo of the Bureau of Mines both have read the report and although they think it could be improved, they doubt if Kaske could submit a better one.

Walter R. Storms

Walter R. Storms

CC W. M. Traver (8)
W. L. Emerick
DMEA-3852
DF

WRStorms:frj

RECEIVED
DEC 3 1956
DMEA

U. S. BUREAU OF MINES
SOUTHWEST EXPERIMENT STATION
NOV 27 1956
TUCSON, ARIZONA

Dos Cabezas, Arizona
November 20, 1956

Bureau of Mines,
Department of the Interior,
Defense Minerals Exploration Admr.
Bureau of Mines, Tucson, Arizona.

RE: FINAL REPORT ON CONTRACT
No. Idm-E 887
Docket No. D.M.E.A. 3852

Atten: Mr. W.R.Storms:

Gentlemen:

Operation started December 15 1955, by hauling a bulldozer on the job and starting to excavate 550 feet of new road, from the house to the portal of the adit tunnel; and then one mile of rebuilding old road. Following that, 32 feet of approach which consisted of open cut out of solid ground,- This 32 feet of work not being charged to the contract. Not much progress was made due to unusually inclement weather and several break-downs occurred on the rented equipment. There was also an unexpected delay in replacement parts from Ingersoll-Rand Company, 8 weeks in all, which made it necessary to do most of the work by hand, ending February 1956.

Actually 11 feet of timber drift was advanced during March 1956.

April 1956:
The advance for April was 70 feet, totaling 81 feet. No Tungsten Mineralization was encountered during that time.

May, 1956:
79 feet of advance on the adit were made, totaling 160 feet.

June, 1956:
The adit tunnel was advanced under the amended contract, from 160 to 182 feet. No definite walls had been encountered, even with a 12 foot test hole. So the west drift was started at the best showing at about 150 feet from the portal, and an advance of 6 feet of drift from which several tons of $W.O_3$ was sorted out, which assayed 2.46% in $W.O_3$, from a grab sample. A pilot raise was driven under existing shaft for ventilation.

July, 1956:
The adit tunnel was advanced to 180 feet and the drift was advanced to 9 feet, and the pilot raise was connected to the existing shaft.

August 1956:
The adit tunnel was advanced to 191 feet which is one foot over the amended contract and which is not charged to the contract. The West drift was advanced 44 feet making a total of 53 feet. In the last 20 feet of drift WO3 mineralization was exposed varying from 2" to 12",but very eratic. The raise was widened out the size up to 15 feet above the adit tunnel. the width of

the ore varying from 3" to 15". The total footage for August is 44 feet of drifting and 4 feet of adit tunnel and 15 feet of raise.

September 1956:
The west drift was advanced from 53 feet to 70 feet,(plus 3 feet over the limit, not charged to the contract). The raise was finished with an advance from 15 feet to 38 feet, a total of 23 feet of raise, 17 feet of drift, or a total of 40 feet for September.

October 1956:
Samples were taken from the mineralized areas and assayed by Jacob's Assay Office, Tucson, Arizona, making the work complete.

SUMMARY

The total work on the amended contract is as follows:

191 feet of adit tunnel	(Contract calls for 190 feet)
73 feet of drift	(" " " 70 ")
38 feet of raise	(Contract calls for 40 feet,but
11 assays for WO3	(measured out to only 38 feet)

The amount of ore found in exploration contract did not meet expectations, as the ore is not of sufficient tonage to justify Don Lieberman Enterpries to install additional equipment to mill this ore.

No word to date has come from International Metals corporation of Douglas, Arizona, to mill this ore.

Writer expects to do more exploration work on the Austin Claim to find more ore.

Thanking all the officers and regional field team and the officers in Tucson, Arizona, for their considerate cooperation extended me, I am,

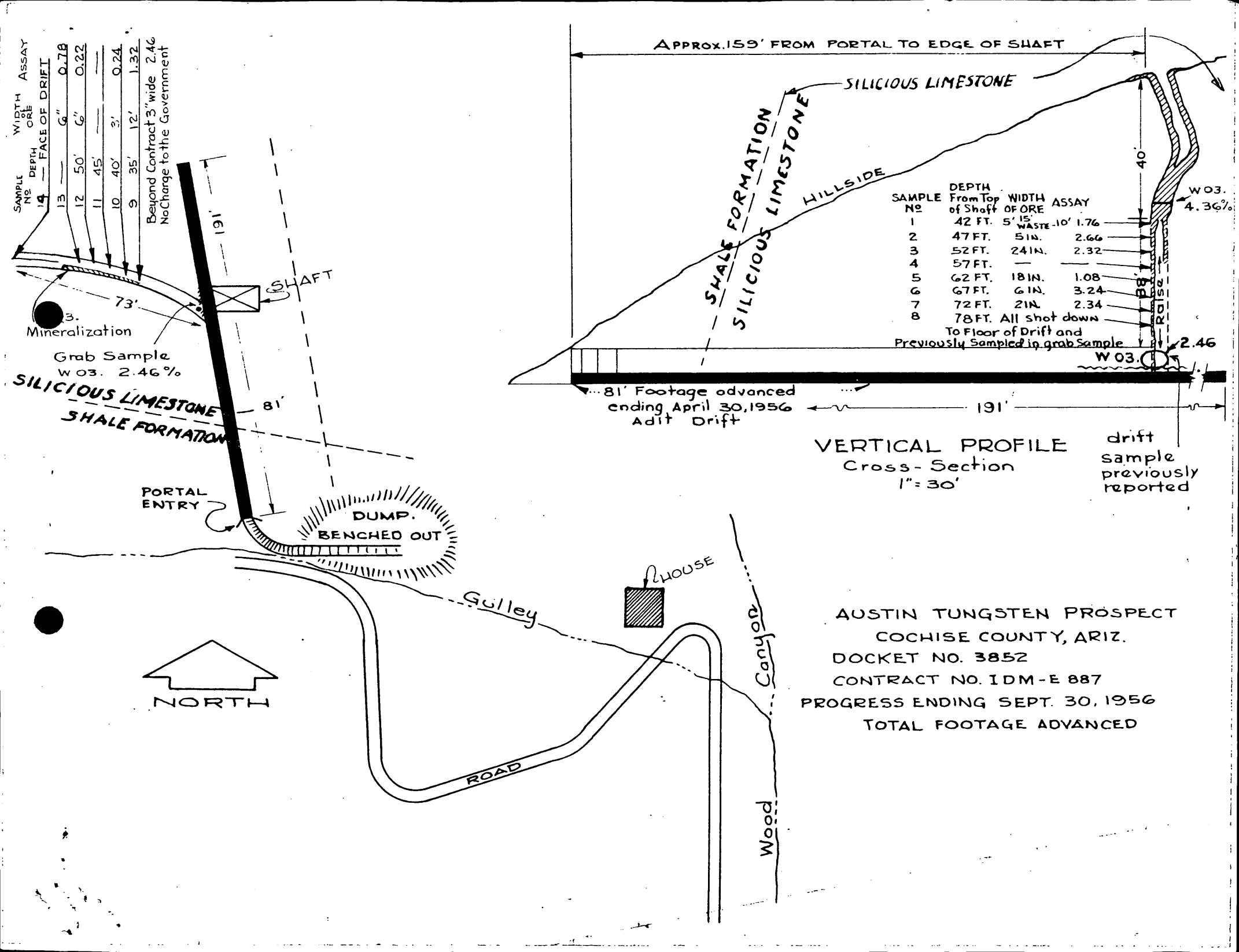
Very truly yours,

George W. Kaske

George W. Kaske
P O Box 17
Does Cabesas, Arizona.

enclosed is additional maps showing ground formation, with assay maps.

G.W.K.


SAMPLE No
DEPTH
WIDTH OF ORE
ASSAY
FACE OF DRIFT
14 —
13 — 6" 0.78
12 50' 6" 0.22
11 45' — —
10 40' 3' 0.24
9 35' 12' 1.32
Beyond Contract 3" wide 2.46
No Charge to the Government
191'
SHAFT
73'
3.
Mineralization
Grab Sample
W 03. 2.46%
SILICIOUS LIMESTONE
SHALE FORMATION
81'
PORTAL ENTRY
DUMP.
BENCHED OUT
HOUSE
Gulley
ROAD
Canyon
Wood
NORTH
APPROX. 159' FROM PORTAL TO EDGE OF SHAFT
SILICIOUS LIMESTONE
SHALE FORMATION
SILICIOUS LIMESTONE
HILLSIDE
40'
W 03.
4.36%
SAMPLE No
DEPTH From Top of Shaft
WIDTH OF ORE
ASSAY
1 42 FT. 5' 15' WASTE 10' 1.76
2 47 FT. 5 IN. 2.66
3 52 FT. 24 IN. 2.32
4 57 FT. — —
5 62 FT. 18 IN. 1.08
6 67 FT. 6 IN. 3.24
7 72 FT. 21 IN. 2.34
8 78 FT. All shot down To Floor of Drift and Previously Sampled in grab Sample
88'
Raise
2.46
W 03.
81' Footage advanced ending April 30, 1956 Adit Drift
191'
VERTICAL PROFILE
Cross-Section
1" = 30'
drift sample previously reported
AUSTIN TUNGSTEN PROSPECT
COCHISE COUNTY, ARIZ.
DOCKET NO. 3852
CONTRACT NO. IDM-E 887
PROGRESS ENDING SEPT. 30, 1956
TOTAL FOOTAGE ADVANCED

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

November 21, 1956

MEMORANDUM

To: Catherine Curtin, Statistics and Control Division

From: Hazel Berry, Operating Committee

Subject: Amendments to Contracts

Attached are the following docket copies of amendments to contracts which have been reviewed and approved by the commodity divisions and the Contract Administration and Audit Division.

These amendments do not require clearance by the Legal Division.

George W. Kaske, DMEA-3852, Idm-E887, Amendment No. 3.

John J. Thrasher, et al., DMEA-4240, Idm-E979, Amendment No. 1.

Attachments - 2

DMEA
DEPARTMENT OF THE INTERIOR
OCT 11 1956
REGION III
DENVER, COLORADO

RECEIVED OCT 11 1956
OCT 29 1956

Box 4126 University Station
Tucson, Arizona

MEMORANDUM October 9, 1956

To: Executive Officer, DMEA Field Team, Region III

From: T. M. Romslo, U.S. Bureau of Mines Through: W. R. Storms
W. L. Emerick, U.S.Geological Survey E. N. Harshman

Subject: Proposed Amendment, Contract Idm-E837, Docket DMEA-3852 (Tungsten), George W. Kaske (Austin Claim), Cochise County, Arizona

George W. Kaske in a letter of October 8, 1956 belatedly requests that the termination date of subject contract be extended 1 month, from September 30, to October 31, 1956.

Romslo visited the property for progress inspections September 6 and October 3, 1956. During the first of these visits, Kaske said that a time extension was not necessary because all work probably would be completed by September 30. During the latest visit, Romslo found all work completed except desirable sampling in the raise and adit. At that time, he informed Mr. Kaske that the cost of the sampling and assaying could not be approved unless the termination date of the contract was extended.

Mr. Kaske's request was made after the effective termination date of the contract. Although the request could be denied on this basis, we believe it should be approved so that the small amount of desirable sampling and assaying may be completed under the contract.

Original signed by
T. M. Romslo
T. M. Romslo

W L Emerick
W. L. Emerick

WLE:ms
cc: W. M. Traver (3)
Harshman
Storms
Emerick

DMEA
DEPARTMENT OF THE INTERIOR
OCT 11 1956
REGION VI
DENVER, COLORADO

RECEIVED
OCT 29 1956

Dos Cabezas, Arizona
October 8, 1956

Mr. W.M. Traver
224 New Customs House
Denver, Colorado

DOCKET DMEA-3852
Tungsten Contract Idu-5887
Austin Mining Claim
Cochise County, Arizona

Dear Mr. Traver:

I hereby request that the termination date of the Contract be extended a period of 1 month from September 30th, 1956, to October 31, 1956.

I had anticipated having all work done by September 30, 1956. As it turned out I completed all work except sampling. The samples were obtained during the first week of October and are being processed at Jacob's Assay Office in Tucson, Arizona.

Thanking you for your considerate cooperation, I am

Very truly yours,

George W. Kaske

George W. Kaske
Box 17, Dos Cabezas, Arizona

DMEA
DEPARTMENT OF THE INTERIOR
OCT 11 1956
REGION III
DENVER, COLORADO

P.O. Box 4126 University Station
Tucson, Arizona

RECEIVED
OCT 8 9 1956

MEMORANDUM October 9, 1956

To: Executive Officer, DMEA Field Team, Region III

From: T. M. Romslo, U.S. Bureau of Mines Through: W. H. Storms
W. L. Emerick, U.S.Geological Survey E. N. Harshman

Subject: Proposed Amendment, Contract Idm-5837, Docket DMEA-3352 (Tungsten), George W. Kaske (Austin Claim), Cochise County, Arizona

George W. Kaske in a letter of October 8, 1956 belatedly requests that the termination date of subject contract be extended 1 month, from September 30, to October 31, 1956.

Romslo visited the property for progress inspections September 6 and October 3, 1956. During the first of these visits, Kaske said that a time extension was not necessary because all work probably would be completed by September 30. During the latest visit, Romslo found all work completed except desirable sampling in the raise and adit. At that time, he informed Mr. Kaske that the cost of the sampling and assaying could not be approved unless the termination date of the contract was extended.

Mr. Kaske's request was made after the effective termination date of the contract. Although the request could be denied on this basis, we believe it should be approved so that the small amount of desirable sampling and assaying may be completed under the contract.

Original signed by
T. M. Romslo
T. M. Romslo

W L Emerick
W. L. Emerick

WLE:ms
cc: W. M. Traver (3)
Harshman
Storms
Emerick

RECEIVED
OCT 29 1956
DMEA
DEPARTMENT OF THE INTERIOR
OCT 1
REGION III
DENVER, COLO.

Dos Cabezas, Arizona
October 8, 1956

Docket DMEA-3852
Tungsten Contract Idm-X887
Austin Mining Claim
Cochise County, Arizona

Mr. W.M. Traver
224 New Customs House
Denver, Colorado

Dear Mr. Traver:

I hereby request that the termination date of the Contract be extended a period of 1 month from September 30th, 1956, to October 31, 1956.

I had anticipated having all work done by September 30, 1956. As it turned out I completed all work except sampling. The samples were obtained during the first week of October and are being processed at Jacob's Assay Office in Tucson, Arizona.

Thanking you for your considerate cooperation, I am

Very truly yours,

George W. Kaske

George W. Kaske
Box 17, Dos Cabezas, Arizona

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
OCT 29 1956

224 New Customhouse
Denver 2, Colorado

October 25, 1956

Memorandum

To: Chairman, Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten) Contract Idm-E887 George W. Kaske (Austin Claim) Cochise County, Arizona

Enclosed are the original and two copies of Amendment No. 3 to Contract Idm-E887, which has been executed under authority delegated to this office, to extend the date fixed for the completion of the project work from September 30, 1956 to October 31, 1956, and extend the maximum period for royalty payments from ten years to eleven years.

Also enclosed are four sets of data relative to the Amendment.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to others concerned.

W. M. Traver

W. M. Traver

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

November 20, 1956

Mr. George W. Kaske
General Delivery
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten)
Contract Idm-E887
George W. Kaske
(Austin Claim)
Cochise County, Arizona

Dear Mr. Kaske:

Form MF-104, Operator's Monthly Report and Voucher for October, 1956, has been received in this office.

The entire amount of reimbursement due on this voucher is withheld pending resolution of matters relative to closing the account, which includes the following

1. Receipt of your final report in conformance with Article 6 (c) of the contract form.
2. Release to this office of a Report of Review of contract expenditures by the Contract Administration and Audit Division, DMEA.

The total amount withheld from reimbursement to you is $430.00.

Very truly yours,

Original signed by
W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. E887
Chm. Op. Com. (2)
Harshman
Storms
Townsend
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
OCT 19 1956

224 New Customhouse
Denver 2, Colorado

October 17, 1956

Mr. George W. Kaske
General Delivery
Dos Cabezas
Arizona

Re: Docket No. DMEA 3852 (Tungsten)
Contract No. Idm-2887
George W. Kaske
(Austin Claims)
Cochise County, Arizona

Dear Mr. Kaske:

Enclosed are the original and five copies of proposed Amendment No. 3, which has been prepared pursuant to your request of October 8, 1956 for extension of the date fixed for completion of the project work from September 30, 1956 to October 30, 1956.

Please sign all copies of the Amendment as indicated and return them to this office. After signature by the Executive Officer, DMEA Field Team, Region III, for the Government, an executed copy of the Amendment will be returned to you.

Very truly yours,

J. W. Townsend

J. W. Townsend
Acting Executive Officer
DMEA Field Team, Region III

Enclosures

JWT:prl

cc: Chairman, Op. Comm. (2)
Harshman
Storms
Emerick
Townsend
Corres. file
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
OCT 19 1956

224 New Customhouse
Denver 2, Colorado

October 16, 1956

Mr. George W. Kaske
General Delivery
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten)
Contract Idm-E887
George W. Kaske
Austin Claim
Cochise County, Arizona

Dear Mr. Kaske:

Form MF-104, Operator's Monthly Report and Voucher for September, 1956, has been received in this office and is being processed for payment.

All contract work has been completed except for sampling and analyses. Therefore, an amount of $400.00 is withheld from reimbursement to you, pending resolution of matters relative to closing the account. An additional amount not in excess of $100.00 will be withheld from your next voucher.

Very truly yours,

J. W. Townsend
J. W. Townsend
Acting Executive Officer,
DMEA Field Team, Region III

JDC:jy
cc: Corresp. E887
Sec. Op. Comm. (2)
Storms
Townsend
Chron.

3852

ACTION ON MEMORANDUM
ON ORIGINAL FIELD TEAM REPORT
Date 10-12

Referred to:

1. ~~Mr. Mittendorf~~
2. ~~Mr. Johnson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. _____ Division
6. Docket Control Mails and Files

Note comments in report regarding:

1.

2.

3.

4.

and take appropriate action.

- - - - - - - -

Action taken by Division:

Robert L. Adams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
OCT 1 2 1956

224 New Customhouse
Denver 2, Colorado

October 9, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA 3852 (Tungsten), Contract No. Idm-E887, George W. Kaske (Austin claim), Cochise County, Arizona

Enclosed are the original and three copies of a memorandum interim report, dated October 5, 1956, from W. L. Emerick, Geologist, Geological Survey, pertaining to operations under the subject contract.

E. N. Harshman

E. N. Harshman

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 4126 University Station
Tucson, Arizona

IN REPLY REFER TO:
MINERAL DEPOSITS
DMEA
RECEIVED
OCT 8 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
OCT 12 1956
DMEA
DEPARTMENT OF THE INTERIOR
OCT 8 1956
REGION III
DENVER, COLORADO

October 5, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: W. L. Emerick Through: E. N. Harshman EMH

Subject: Interim report, Docket DMEA 3852 (Tungsten)
George W. Kaske, Austin claim, Cochise County, Arizona

A brief interim geological examination was made of the above property in the company of T. M. Romslo, U. S. Bureau of Mines, and George Kaske, the operator. The examination was made during Mr. Romslo's regular monthly progress checks, but inasmuch as the project contract terminated September 30, 1956, an examination was made of those parts of the contract completed since John N. Faick visited the property on August 1, 1956.

The adit was completed to a total distance of about 190 feet and the drift, driven along a crosscutting mineralized fault trending N. 75° W., was completed for a distance of 73 feet.

No significant quantity of ore was encountered along the N. 75° W. fault in the crosscut. Small, widely scattered pods and spots of scheelite in quartz were mined and some galena, pyrite, and chalcopyrite were found to accompany the scheelite in places in the crosscut. The N. 75° W. fault splits near the face into two parallel occasionally mineralized faults.

All other data in the mine remains essentially as recorded in Faick's interim report of August 1.

About 200 tons of ore from the adit, raise, and crosscut were stockpiled in the end of the adit for later shipment to a mill, and a few small patches of ore remain to be cleaned out from various places in the mine, principally the raise. Operator intimated he would probably continue working the mine for a few weeks longer.

W L Emerick
W. L. Emerick

WLE:ms
cc: Harshman (8)
Storms
Emerick

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.

RECEIVED
OCT - 1 1956

224 New Customhouse
Denver 2, Colorado

September 27, 1956

Mr. George W. Kaske
General Delivery
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten)
Contract Idm-E887
George W. Kaske
Austin claim
Cochise County, Arizona

Dear Mr. Kaske:

Form MF-104, Operator's Monthly Report and Voucher, for August, 1956 has been received in this office and is being processed for payment.

Records in this office indicate that there remained at the end of August, 1956 approximately 17 feet of drifting and 25 feet of raising to be completed under the contract in addition to the necessary sampling and assaying.

As we have received no contrary advice from you, we presume that all of the remaining contract work will be finished by September 30, 1956, the completion date of the contract. However, if for reasons beyond your control you will be unable to complete all of the work by September 30, 1956, you should immediately submit to this office for consideration by the Government, a request for extension of the completion date for such specific additional time as will be required to complete all authorized contract work. The original and five copies of such requests are required by the Government.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. E887
Sec. Op. Comm. (2)
Harshman
Storms
Townsend
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
AUG 13 1956

224 New Customhouse
Denver 2, Colorado

August 9, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George W. Kaske (Austin Claims), Cochise County, Arizona

Enclosed are the original and three copies of an interim report, dated August 6, 1956, from John N. Faick, Geologist, Geological Survey, pertaining to operations under the subject contract.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Box 4126 University Station
Tucson, Arizona

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IN REPLY REFER TO:
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RECEIVED AUG 8 1956
AUG 13 1956 U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO
DMEA
Date Rec'd
AUG 8 1956
BUREAU OF MINES
Denver, Colorado

August 6, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: John N. Faick

Through: E. N. Harshman
W. L. Emerick

Subject: Interim Report, Docket DMEA 3852 (Tungsten) Contract Idm-E887, Austin Tungsten Prospect, Cochise County, Arizona

On August 1, 1956 an interim geological examination of the Austin prospect was made by the writer in association with T. M. Romslo of the U. S. Bureau of Mines, and George W. Kaske, the operator. The purpose of the examination was to study the results of the work completed under terms of the contract. The project was last visited by a representative of the U. S. Geological Survey on June 4, 1956, when Leonid Bryner examined and mapped the DMEA adit.

The adit has now been driven a total distance of 186 feet and a 10-foot long drift was driven about N. 75° W., to explore a mineralized fault. At a distance of 155 feet from the portal of the adit a raise was put up to connect with the shallow shaft which had been sunk on a tungsten-bearing vein. The raise was connected with the shaft at the time of this examination but some work remained to complete it.

The adit penetrated a mineralized zone at a distance of 150 feet where a fault trending N. 75° W. crossed the adit. Along the fault were found a few large masses and pods of high-grade ore containing scheelite in quartz. Between the fault and the face of the adit sparse

widely scattered grains of scheelite occur in a few thin quartz veinlets and in silicified limestone. Several pods of high-grade scheelite ore were found in the raise. About 5 tons of hand sorted ore that is stock piled near the adit portal is estimated to contain about 2 percent WO_3. The ore is unusual in that considerable galena is associated with the scheelite.

Under terms of the contract about 4 feet of adit and about 60 feet drift remain to be driven and the raise remains to be completed. The best showing of scheelite is along or near the N. 70° W. trending fault and this is to be explored by drifting. A large mass of quartz exposed on the surface a few feet north of the shaft appears to be barren; however it is conceivable that the walls of this mass, where they are in contact with limestone, may be favorable for exploration. This will be tested by the remaining 4 feet of adit and long holes which the operation will drill.

Although the project found good quality ore, it does not appear to be present in minable amounts and the operator may abandon the project after the contract work is completed.

John N. Faick

JNF:ms

cc. Harshman (8)
Storms
File

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

July 6, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George W. Kaske (Austin Claim), Cochise County, Arizona

Enclosed are the original and two copies of Amendment No. 2 to Contract Idm-E887, which has been executed under authority delegated to this office, to extend the date fixed under Article 3 of the contract form for completion of the project work from June 30, 1956 to September 30, 1956; and to authorize an extension of the adit crosscut not to exceed an additional 30 feet.

Also enclosed are four sets of data relative to the Amendment.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and to other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

RECEIVED
JUL 9 - 1956

DMEA
Date Rec'd.
JUN 22 1956
BUREAU OF MINES
Denver, Colorado

JUN 22 1956

June 19, 1956

Memorandum

To : Executive Officer, DMEA Field Team, Region III

From : T. M. Rennie
J. H. Faick

Through: W. R. Stoms
E. H. Harshman

Subject : Proposed Amendments Nos. 2 and 3, Contract Idm-2067, Project DMEA-2068 (Tungsten), George W. Kuhn (Austin Claims), Cochise County, Ariz.

Reference is made to the attached five copies of Kuhn's letter, with maps, of June 16, 1956 to W. H. Trover.

Mr. Kuhn requests that: (1) the termination date of the contract be extended from June 30, 1956 to September 30, 1956; and (2) a 20-foot extension of the authorized 160-foot adit be allowed.

Our recommendations follow:

Proposed Amendment No. 2: Approval is recommended for reasons given by operator.

Proposed Amendment No. 3: An extension of the adit is recommended for reasons given by the operator and on the basis of detailed findings contained in Leonid Bryner's Interim Report of June 15, 1956 to the Executive Officer.

However, since the width of the favorable zone may be more than the requested additional 20 feet we recommend that the amendment should provide for driving the adit until the zone has been penetrated or until the findings indicate further advance is not warranted.

Permission to extend the adit beyond the authorized 160 feet should be made retroactive to May 1, 1956.

T. M. Rennie, Mining Engineer
U. S. Bureau of Mines

J. H. Faick, Geologist
U. S. Geological Survey

cc W. H. Trover (Orig. & 8)
E. H. Harshman
J. H. Faick
DMEA-2068 DF Tdmendsdfj

MINERAL DEPOSITS
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JUN 20 1956

U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
Date Rec'd.
JUN 1956

BUREAU OF MINES
Denver, Colorado

Box 4126 University Station
Tucson, Arizona

June 15, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: Leonid Brymer Through: J. N. Faick JNF
E. N. Harshman ENH

Subject: Interim report, Docket DMEA 3852 (Tungsten) Contract Idm-2887
Austin Tungsten Prospect, Cochise County, Arizona

On June 4, the writer visited the Austin Tungsten Prospect in order to inspect the DMEA adit which, according to the operator, had been driven the distance required by the contract.

The writer made a Brunton-tape traverse between the face of the adit and the shaft which contains the scheelite, the target at which the adit was aimed. The relative positions of the adit and the bottom of the shaft, according to this survey, are shown in figure 1. This survey also indicated that the back of the adit is approximately 50 feet vertically below the floor of the shaft. The adit therefore has been driven according to plan and offers a satisfactory starting point from which to raise toward the shaft.

The geology of the adit was mapped and is shown in figure 1. There is much faulting and small-scale folding and only the main features are shown in the sketch. In the last 20 feet, the adit has penetrated a vertical to steeply-dipping zone which contains scheelite. Bunches and veinlets of quartz, limonite-staining, chloritization that increases toward the face of the adit, and also the shattered condition of the rock, characterize this zone. Scheelite, as well as small stringers

of mixed galena and sphalerite, also distinguish the zone as probably the same one that is exposed in the shaft. Where quartz is most abundant, scheelite also is generally the most abundant. The scheelite, however, is considerably more scattered in the adit than in the shaft, and reaches maximum concentration in the west wall of the adit, about 10 feet back from the face. If the writer is correct in believing this to be the downward extension of the scheelite zone exposed in the shaft, the mineralization has noticeably declined with depth. On the other hand, as long as the adit is still in the shear zone and this zone continues to show tungsten, the adit should be extended forward. Two or three more five-foot rounds should be enough to show whether the main scheelite zone has already been cut. If so, a raise can be started to the shaft. Also, a drift can be started along the shear zone from the adit. Drifting can be carried in both directions from the adit, that is, W-NW and E-SE. The exact directions should be dependent on the direction which the scheelite mineralization takes, and should start where this mineralization is at a maximum.

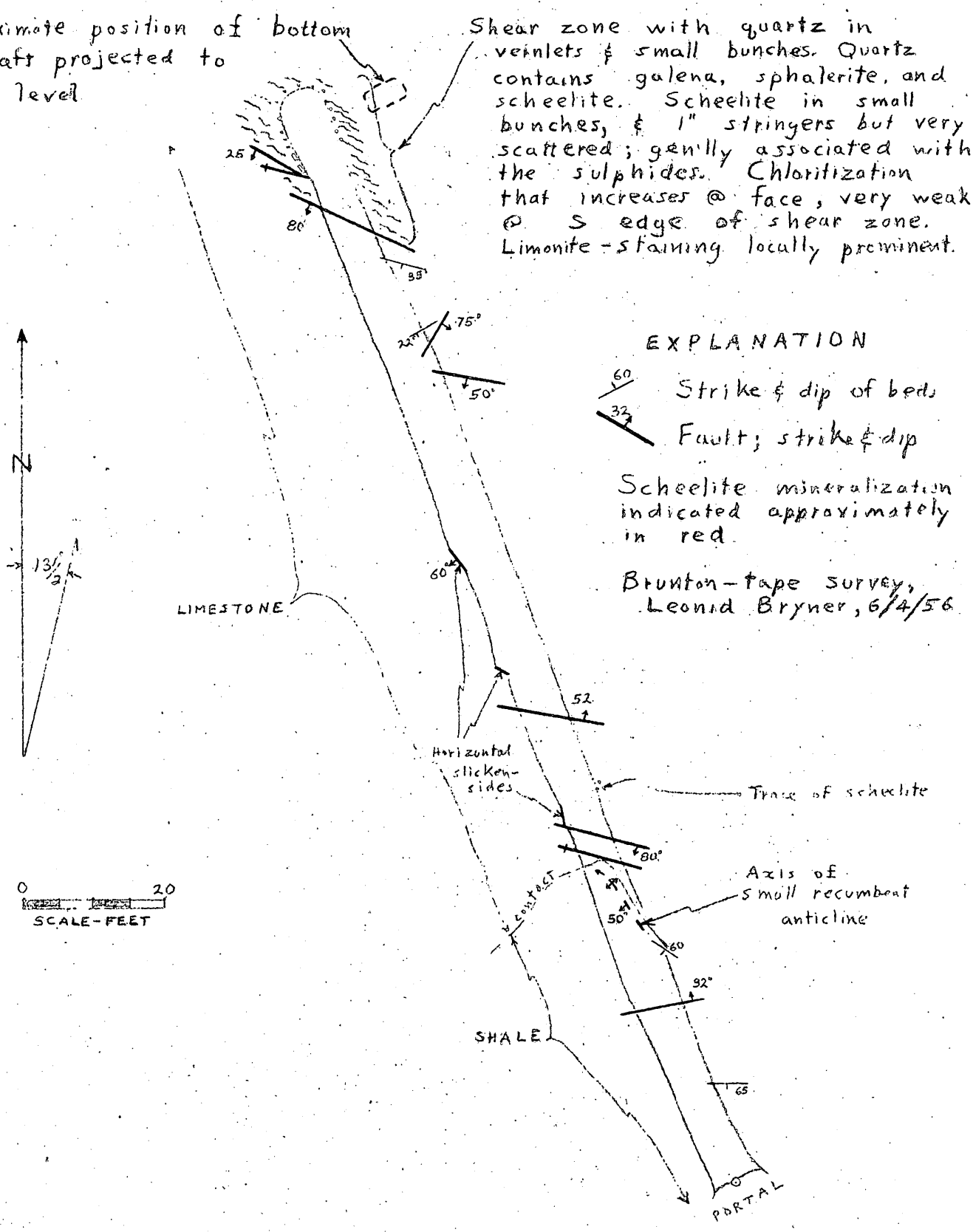


FIGURE 1 - GEOLOGY AND PLAN OF DMEA ADIT, AUSTIN TUNGSTEN PROSPECT, COCHISE CO., ARIZONA

DMEA 3852; CONTRACT Idm-E 887

DMEA
Date Rec'd.

JUN 22 1956

BUREAU OF MINES
Denver, Colorado

Dos Cabezas, Arizona
June 18, 1956

Mr. W. H. Traver,
224 New Customs House
Denver 5, Colorado.

RE: Docket No.3852 DMEA Tungsten Contract
Idm. E887 Austin Claim, Cochise County,
Arizona.

Dear Mr. Traver:

I herewith request Amendments Nos. 2 and 3, to the Contract:

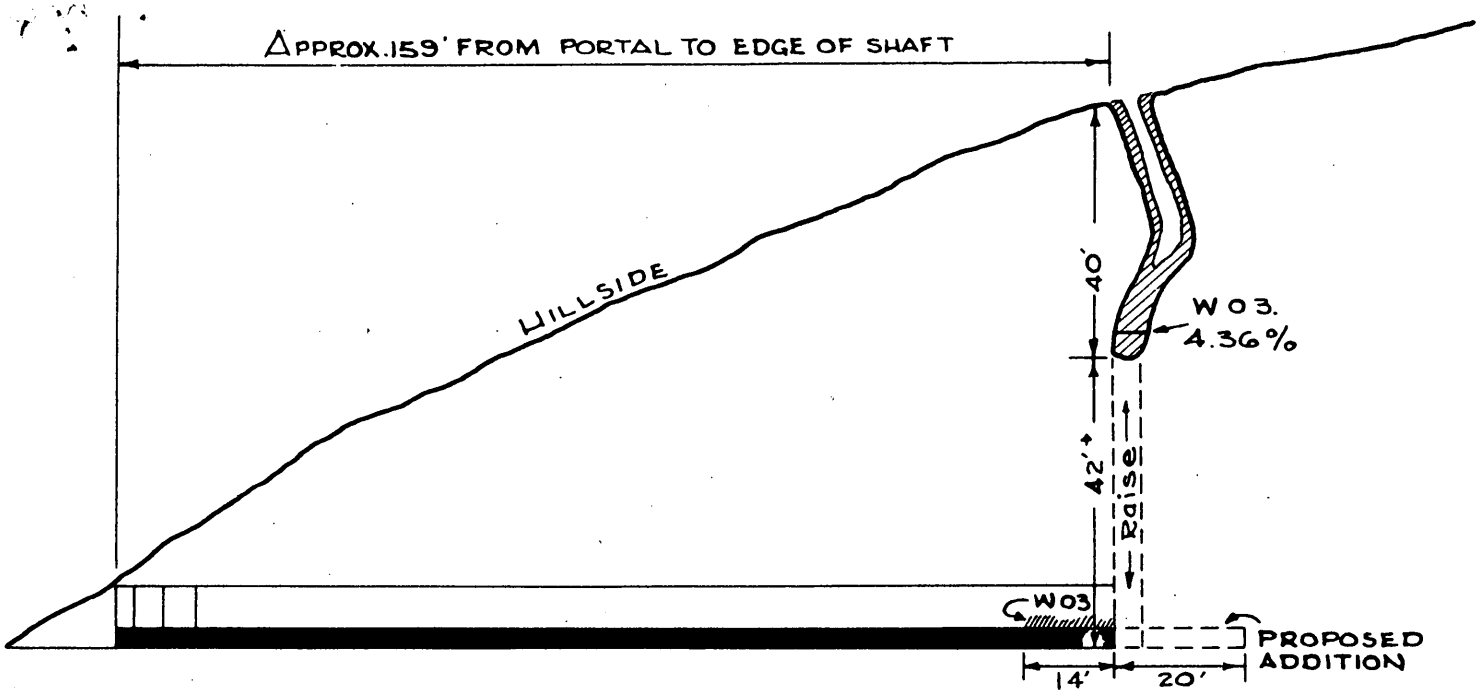
Amendment No.2: Extension of the termination date from June 30, 1956 to September 30,1956. Progress during the initial stages was slower than anticipated, but at present the rate of advance is such that authorized work should be completed before September 30, 1956.

Amendment No.3: Extension of the adit an estimated 20 feet. The adit has been driven the authorized 160 feet. 146 MR Tungsten mineralization was encountered at about 156 feet on the adit. It occurs irratically throughout the 14 feet as small pockets and blebs of scheelite in an altered limestone. Driving of the adit an additional 20 feet should result in the cutting of the full width of the mineralized zone and the selection of the most favorable site for the allowable raise and cross-cut.

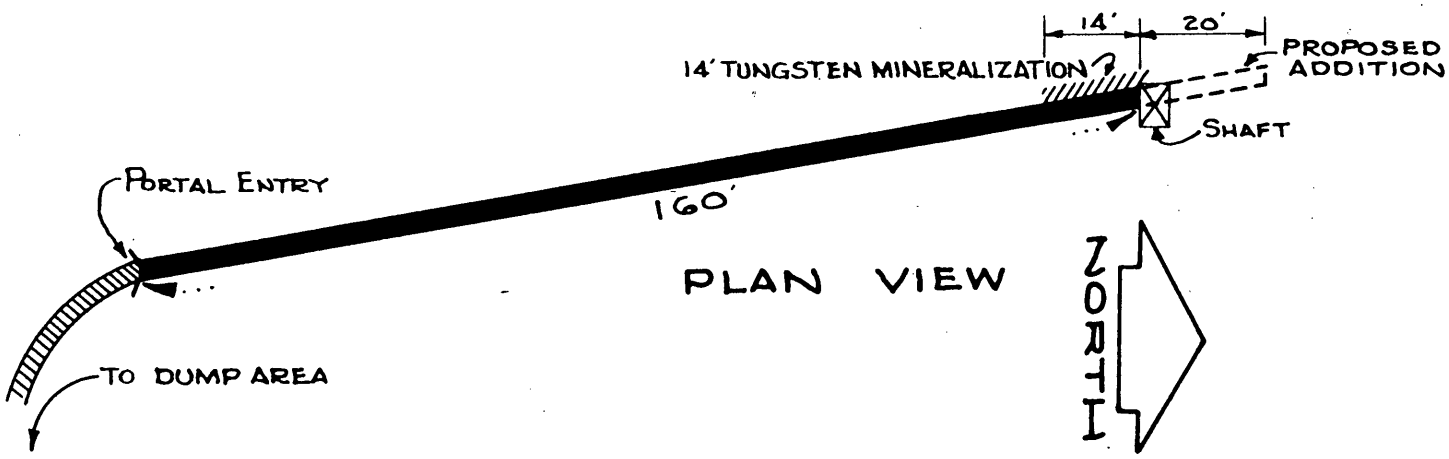
Very truly yours,

George W. Kaske

George W. Kaske
Box 17 Dos Cabezas
Arizona.



VERTICAL PROFILE
OF SHAFT—LOOKING WEST
Cross-Section
1" = 30'



PLAN VIEW

AUSTIN TUNGSTEN PROSPECT
COCHISE COUNTY, ARIZ.
DOCKET NO. 3852
CONTRACT NO-IDM-E887

DMEA
Date Rec'd
JUN 20 1956
BUREAU OF MINES
Denver, Colorado

JUN 22 1956

June 18, 1956

[redacted]

To : Executive Officer, DMEA Field Team, Region III

From : T. M. Rennie
J. H. Faick

Through: W. E. Steere
E. H. Harshman

Subject : Proposed Amendments Nos. 2 and 3, Contract No-2287, Project DMEA-2255 (Tungsten), George W. Kuhn (Austin Claims), Gunnison County, Colo.

Reference is made to the attached five copies of Kuhn's letter, with maps, of June 18, 1956 to W. M. Trumpy.

Mr. Kuhn requests that: (1) the termination date of the contract be extended from June 30, 1956 to September 30, 1956; and (2) a 20-foot extension of the authorized 160-foot adit be allowed.

Our recommendations follow:

Proposed Amendment No. 2: Approval is recommended for reasons given by operator.

Proposed Amendment No. 3: An extension of the adit is recommended for reasons given by the operator and on the basis of detailed findings contained in Leonid Hegner's Interim Report of June 15, 1956 to the Executive Officer.

However, since the width of the favorable zone may be more than the requested additional 20 feet we recommend that the amendment should provide for driving the adit until the zone has been penetrated or until the findings indicate further advance is not warranted.

Permission to extend the adit beyond the authorized 160 feet should be made retroactive to May 1, 1956.

T. M. Rennie, Mining Engineer
U. S. Bureau of Mines

J. H. Faick, Geologist
U. S. Geological Survey

cc: W. M. Trumpy (Orig. & 8)
E. H. Harshman
J. H. Faick
DMEA-2255 DF TMRennie:fr;

MINERAL DEPOSITS
DMEA
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JUN 20 1956
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

Box 4126 University Station
Tucson, Arizona

June 15, 1956

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: Leonid Kryzer Through: J. N. Falck JNF
E. N. Harshman E. Mtt

Subject: Interim report, Docket DMEA 3832 (Tungsten) Contract I6m-3887
Austin Tungsten Prospect, Cochise County, Arizona

On June 4, the writer visited the Austin Tungsten Prospect in order to inspect the DMEA adit which, according to the operator, had been driven the distance required by the contract.

The writer made a Brunton-tape traverse between the face of the adit and the shaft which contains the scheelite, the target at which the adit was aimed. The relative positions of the adit and the bottom of the shaft, according to this survey, are shown in figure 1. This survey also indicated that the back of the adit is approximately 50 feet vertically below the floor of the shaft. The adit therefore has been driven according to plan and offers a satisfactory starting point from which to raise toward the shaft.

The geology of the adit was mapped and is shown in figure 1. There is much faulting and small-scale folding and only the main features are shown in the sketch. In the last 20 feet, the adit has penetrated a vertical to steeply-dipping zone which contains scheelite. Bunches and veinlets of quartz, limonite-staining, chloritization that increases toward the face of the adit, and also the shattered condition of the rock, characterize this zone. Scheelite, as well as small stringers

of mixed galena and sphalerite, also distinguish the zone as probably the same one that is exposed in the shaft. Where quartz is most abundant, scheelite also is generally the most abundant. The scheelite, however, is considerably more scattered in the adit than in the shaft, and reaches maximum concentration in the west wall of the adit, about 10 feet back from the face. If the writer is correct in believing this to be the downward extension of the scheelite zone exposed in the shaft, the mineralization has noticeably declined with depth. On the other hand, as long as the adit is still in the shear zone and this zone continues to show tungsten, the adit should be extended forward. Two or three more five-foot rounds should be enough to show whether the main scheelite zone has already been cut. If so, a raise can be started to the shaft. Also, a drift can be started along the shear zone from the adit. Drifting can be carried in both directions from the adit, that is, W-NW and E-SE. The exact directions should be dependent on the direction which the scheelite mineralization takes, and should start where this mineralization is at a maximum.

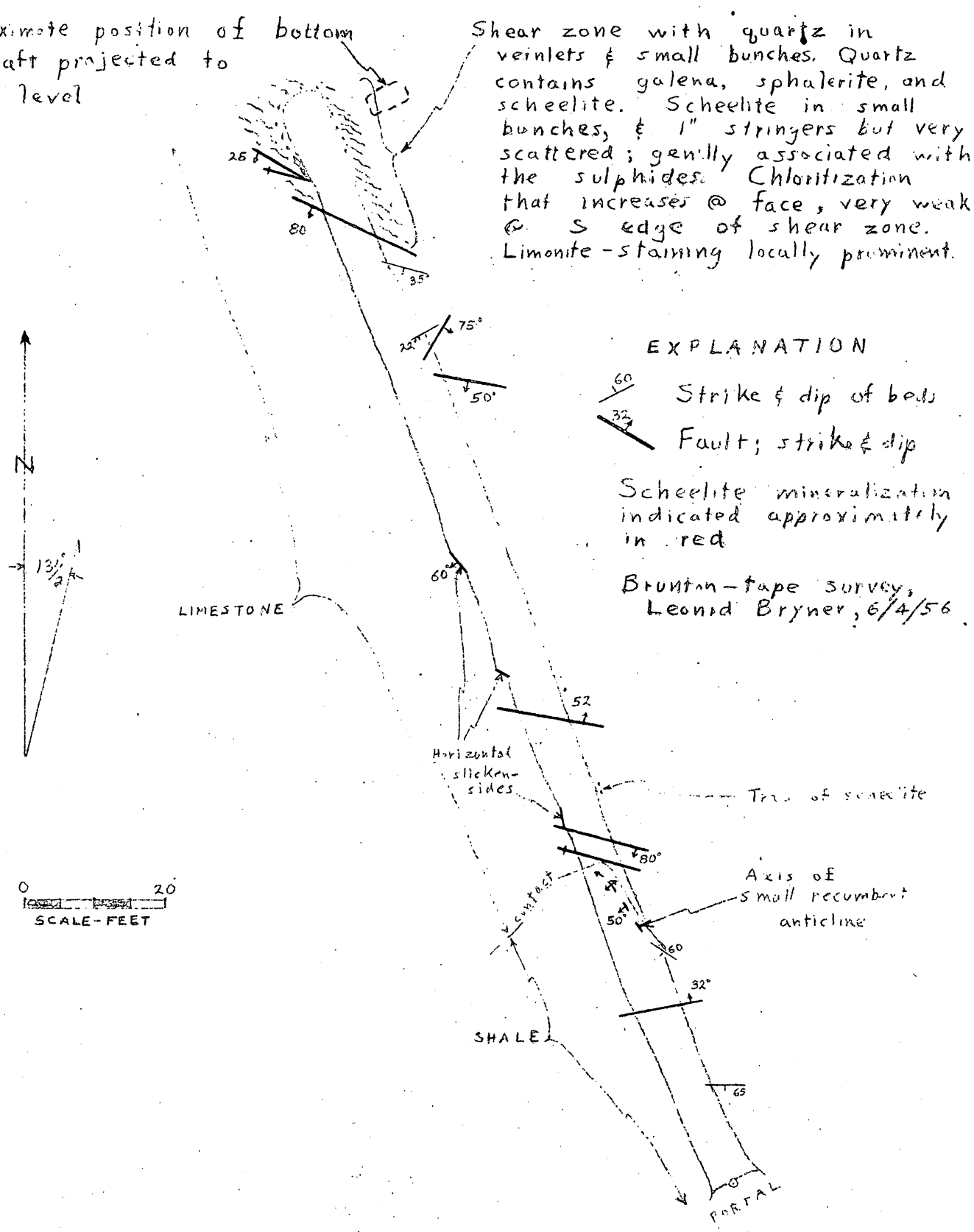


FIGURE 1 - GEOLOGY AND PLAN OF DMEA ADIT, AUSTIN TUNGSTEN PROSPECT, COCHISE CO., ARIZONA

DMEA 3852; CONTRACT Idm-

DMEA
Date Rec'd.

JUN 22 1956

BUREAU OF MINES
Denver, Colorado

Dos Cabezas, Arizona
June 18, 1956

Mr. W. M. Traver,
224 New Customs House
Denver 5, Colorado.

RE: Docket No.3852 DMEA Tungsten Contract
Idm. E887 Austin Claim, Cochise County,
Arizona.

Dear Mr. Traver:

I herewith request Amendments Nos. 2 and 3, to the Contract:

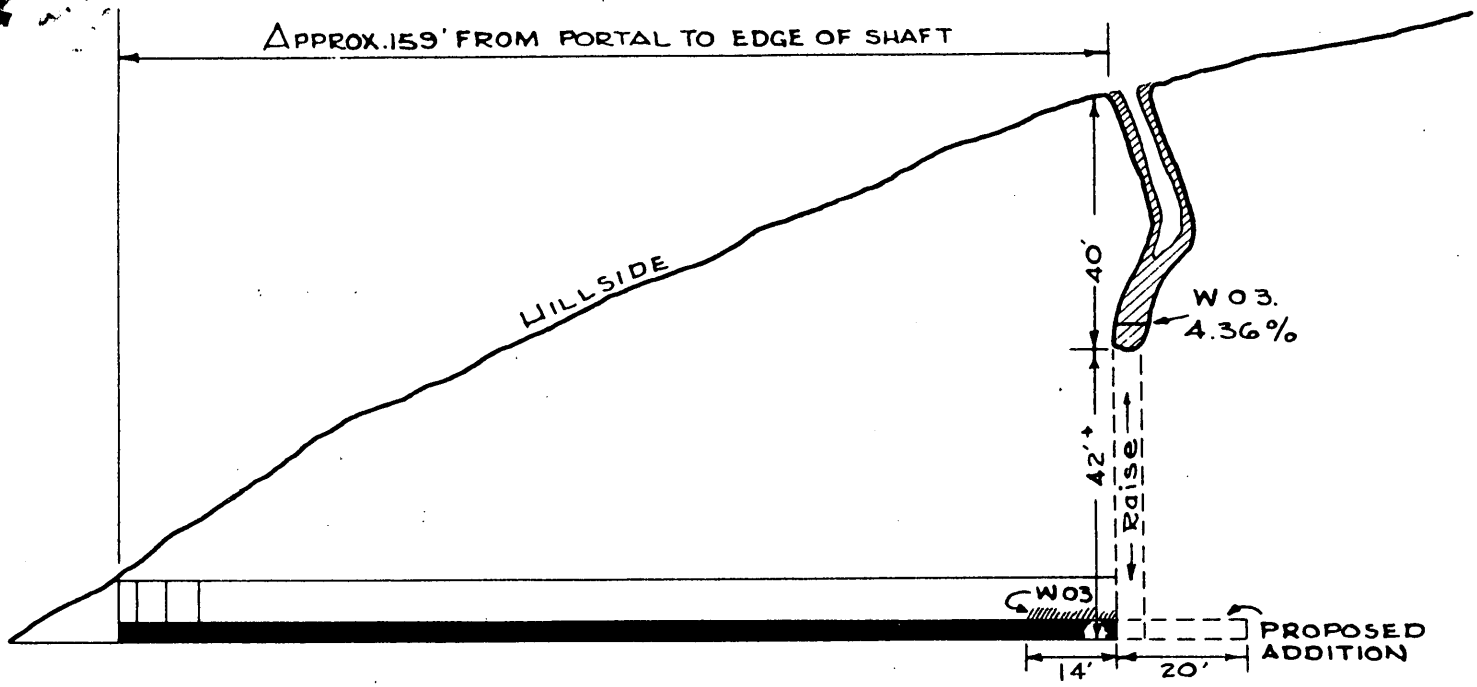
Amendment No.2: Extension of the termination date from June 30, 1956 to September 30,1956. Progress during the initial stages was slower than anticipated, but at present the rate of advance is such that authorized work should be completed before September 30, 1956.

Amendment No.3: Extension of the adit an estimated 20 feet. The adit has been driven the authorized 160 feet. Tungsten mineralization was encountered at about 156 feet on the adit. It occurs irregularly throughout the 14 feet as small pockets and blebs of scheelite in an altered limestone. Driving of the adit an additional 20 feet should result in the cutting of the full width of the mineralized zone and the selection of the most favorable site for the allowable raise and cross-cut.

Very truly yours,

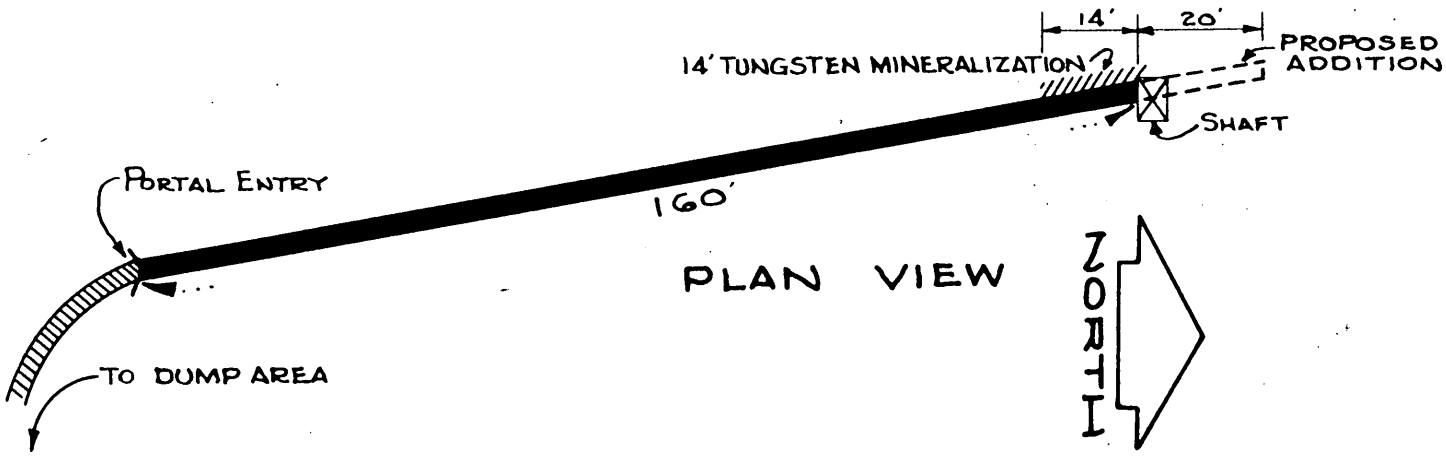
George W. Kaske

George W. Kaske
Box 17 Dos Cabezas
Arizona.



VERTICAL PROFILE

OF SHAFT—LOOKING WEST
Cross-Section
1" = 30'



PLAN VIEW

AUSTIN TUNGSTEN PROSPECT
COCHISE COUNTY, ARIZ.
DOCKET NO. 3852
CONTRACT NO-IDM-E887

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUN 15 1956

June 13, 1956

224 New Customhouse
Denver 2, Colorado

Mr. George W. Kaske
General Delivery
Dos Cabezas, Arizona

Re: Docket DMEA 3852 (Tungsten) Contract Idm-E887, Austin Claim, Cochise County, Arizona

Dear Mr. Kaske:

The completion date for work to be performed under DMEA Exploration Contract Idm-E887 is June 30, 1956.

If, for good reason, the work cannot be completed by the above date you should immediately submit to this office the original and five copies of a request for an extension of the completion date for such specific additional time as you estimate will be required to complete all of the approved contract work.

Very truly yours,

W. M. TRAVER,

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:ab

cc: Corresp. E887
Sec. Op. Comm. (2)
Storms
Townsend
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
APR 6 - 1956

224 New Customhouse
Denver 2, Colorado

April 4, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George W. Kaske, (Austin Claim), Cochise County, ARizona

Enclosed are the original and two copies of Amendment No. 1 to Contract Idm-E887, which has been executed under authority delegated to this office to extend the period for completion of the project work from April 30, 1956, to June 30, 1956.

Also enclosed are four sets of data relevant to the Amendment.

Copies of the Amendment have been distributed to the Operator, the Finance Office, Region III, and other offices concerned.

W. M. Traver

W. M. Traver

Enclosures

MINERAL DEPOSITS
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MAR 15 1956

DMEA
Date Rec'd.
MAR 16 1956

U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO

BUREAU OF MINES
MAR 13 1956

RECEIVED
APR 6 - 1956

March 13, 1956

Memorandum: Executive Officer, DMEA Field Team, Region III

From: T. M. Romslo
Leonid Bryner

Through: J. N. Faick
W. A. Storms
E. N. Harshman

Subject: Proposed amendment, Docket DMEA-3852, Contract Idm-1887, George W. Kaske's Austin Claims (Tungsten) Cochise County, Ariz.

George W. Kaske in the attached letter of March 12, 1956 to W. M. Traver, requests that the termination date of subject contract be extended from April 30, 1956 to June 30, 1956.

Kaske's request should be granted because work of the project has been unavoidably delayed by inclement weather and inability to obtain necessary equipment. Another reason for granting his request is that collaring of the adit has proved to be more difficult than anticipated.

T. M. Romslo
U. S. Bureau of Mines

Leonid Bryner
U. S. Geological Survey

cc W. M. Traver (Orig. & 3)
J. N. Faick
DMEA-3852
DF

TMROMSLO:
L BRYNER: frj

RECEIVED
APR 6 - 1956

Mr. W.M. Traver
DMEA Field Team, Reg. III
224 New Custom House Bldg.
Denver, Colorado.

Re: Doc. No. DMEA 3852
Contract No. Ide-E 887

Dear Sir:

I hereby wish to make application for a sixty days extension on the time of completion on my contract from April 30,1956 to June 30,1956.

Due to unusual inclement weather and my inability to obtain the mining equipment contracted in time, the work on the contract has been delayed.

Thanking you for your attention and consideration, I remain,

Respectfully yours,

George W. Kaske

George W. Kaske

March 12, 1956

MINERAL DEPOSITS
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MAR 15 1956
U.S.
GEOLOGICAL SURVEY
DENVER, COLORADO

DMEA
Date Rec'd
MAR 16 1956

BUREAU OF MINES
Denver, Colorado

March 13, 1956

RECEIVED
APR 6 - 1956

Memorandum: Executive Officer, DMEA Field Team, Region III

From: T. M. Romslo
Leonid Bryner

Through: J. N. Faick
W. R. Storms
E. N. Marshman

Subject: Proposed amendment, Docket DMEA-3852, Contract Ida-5887, George W. Kaske's Austin Claims (Tungsten) Cochise County, Ariz.

George W. Kaske in the attached letter of March 12, 1956 to W. R. Traver, requests that the termination date of subject contract be extended from April 30, 1956 to June 30, 1956.

Kaske's request should be granted because work of the project has been unavoidably delayed by inclement weather and inability to obtain necessary equipment. Another reason for granting his request is that collaring of the adit has proved to be more difficult than anticipated.

T. M. Romslo
T. M. Romslo
U. S. Bureau of Mines

Leonid Bryner
Leonid Bryner
U. S. Geological Survey

cc W. R. Traver (Orig. & 8)
J. N. Faick
DMEA-3852
DF

TMROMSLO:
L BRYNER: frj

RECEIVED
APR 6 - 1956

Mr. W.H. Traver
DMEA Field Team, Reg. III
224 New Custom House Bldg.
Denver, Colorado.

Re: Doc. No. DMEA 3852
Contract No. Ide-E 887

Dear Sir:

I hereby wish to make application for a sixty days extension on the time of completion on my contract from April 30,1956 to June 30,1956.

Due to unusual inclement weather and my inability to obtain the mining equipment contracted in time, the work on the contract has been delayed.

Thanking you for your attention and consideration, I remain,

Respectfully yours,

George W. Kaske

George W. Kaske

March 12, 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
APR 23 1956

224 New Customhouse
Denver 2, Colorado

April 20, 1956

Mr. George W. Kaske
General Delivery
Dos Cabezas, Arizona

Re: Docket DMEA-3852 (Tungsten)
Contract Idm-E887
Austin claim
Cochise County, Arizona

Dear Mr. Kaske:

No map was included with your Monthly Report for February-March, 1956. In your Narrative Report you make the following statement.

> "Upon completion of the adit drift writer will furnish a sketch accompanying next report."

Please be informed that in the future all Monthly Reports must contain adequate maps showing the work performed during each reporting period, as well as all work performed to date as of the end of the period.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

JDC:jy
cc: Corresp. E887
Sec. Op. Comm. (2)
Storms
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
MAR 19 1956

224 New Customhouse
Denver 2, Colorado

March 15, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George W. Kaske, Austin Claims, Cochise County, ARizona

Enclosed are three copies of the Operator's letter of March 12, 1956, wherein he requests, as a post script, that his mailing address be changed from P. O. Box 55, Sahuarita, Arizona, to General Delivery, Dos Cabezas, Arizona.

W. M. Traver

W. M. Traver

Enclosures

W.O.

Tucson, Arizona
March 12, 1956

DMEA
Date Rec'd.
MAR 15 1956
BUREAU OF MINES
Denver, Colorado

RECEIVED
MAR 19 1956

Mr. W.R. Storms
U.S. Bureau of Mines
P.O. Box 4097, Univ. Station
Tucson, Arizona

Re: Docket DMEA 3852 (Tungsten)
Contract Idn-E887

Dear Mr. Storms:

I am enclosing herewith original and copies of Narrative Report and Application for an extension of time on my contract with the Government. from

Thanking you for past considerations, I remain,

Respectfully yours,

George W. Kaske

George W. Kaske

Note

p.s. Will you please have my mailing address changed from P.O. Box 55 Sahuarita to Gen. Delivery, Dos Cabezas, Arizona.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
OCT 31 1955

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

October 26, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Contract Idm-E887, George W. Kaske, (Austin claims), Cochise County, Arizona

Enclosed are the Government's, Division, and Docket copies of Exploration Project Contract Idm-E887, which was forwarded by your letter of October 10, 1955, for signature by the Operator.

Also enclosed are two copies of a letter from this office to the Operator containing instructions relative to reporting on work performed under the contract.

Copies of the contract have been given to the Operator, Finance Office, Region III, and distributed to other DMEA personnel concerned.

W. M. Traver
W. M. Traver

Enclosures

RECEIVED
OCT 31 1955

224 New Customhouse
Denver 2, Colorado

October 24, 1955

Mr. George W. Kaske
P. O. Box 55
Sahuarita, Arizona

Re: Docket DMEA 3852 (Tungsten),
Contract Idm-E887

Dear Mr. Kaske:

Enclosed herewith is your copy of Exploration Project Contract No. Idm E-887, Docket No. DMEA 3852, which has been prepared in conjuction with your application for Government assistance in exploration work under the Defense Minerals Exploration Administration program.

Also enclosed are six copies of form MF-104, "Operator's Monthly Report and Voucher," and six copies of form MF-104A, "Operator's Unit Cost and Progress Report." At the completion of the first calendar month of operation and monthly thereafter you are required to submit five copies of the forms to Mr. W. R. Storms, U. S. Bureau of Mines, P. O. Box 4097, University Station, Tucson 5, Arizona. The sixth form is for your records.

Please note that the monthly report requires a narrative report which should be accompanied by maps or sketches. The narrative report must be signed by the operator. The monthly report will not be processed for payment unless accompanied by a narrative report. Additional copies of forms MF-104 and MF-104A will be forwarded to you as required.

For your information and in reply to many questions that have been asked, after forms MF-104 and MF-104A are received an engineer will check progress and approve your accounts, after which it will be sent to the Regional Office, Region III, U. S. Bureau of Mines, 224 New Customhouse, Denver 2, Colorado, for auditing and vouchering. If the report is in order a check will be issued by the Treasury Department for the Government's portion of the costs.

The contract is prepared on short-form MF-200A, which establishes fixed unit costs for performing the various categories of work and which are the basis for reimbursement to you under the terms of the contract as units of work are completed and reported on forms MF-104 and MF-104A.

No oral statement of any person shall be construed to modify or change the terms of this contract. Field representatives of the Government are not authorized to approve any changes in the work program or contract provisions. Such approval can only be given by the Washington Office, DMEA, or the DMEA Field Team, Region III.

There is a regulation that reimbursement for the cost of work accomplished prior to the date of the contract will not be allowed. It is a requirement and imperative that you notify this office in writing the date work actually commences under the contract, with a copy of your letter to Mr. Storms.

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures

JWT:prl
cc: Chairman, Oper. Comm. (2)
Amendment file
Marshman
Storms
Faiek
Townsend
Subject
Chron.

Docket.

CERTIFIED MAIL

224 New Customhouse
Denver 2, Colorado

October 18, 1955

Copy retained 400

Memorandum

To: W. R. Storms

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 3852 (Tungsten), Proposed Contract Idm-E887, George W. Kaske, Cochise County, Arizona

Enclosed are the original and five copies of proposed Exploration Contract No. Idm-E887, which have been signed by the Acting Administrator for the Government.

We have initiated a policy of, where possible, to deliver contracts to the operator in person, so that the contract and reporting procedure can be thoroughly explained to the operator, thereby facilitating administration of the contract. If the contract is satisfactory to you, please present it to the operator for his signature, retaining the operator's copy in your possession until the remaining copies have been properly executed and returned to you.

We are enclosing a letter of instructions to the operator which should be dated at that time. Upon return to this office of the executed copies of the contract and the extra copies of the letter, we will then send you your copies.

W. M. Traver

W. M. Traver

Enclosures

JWT:prl
cc: Chairman, Oper. Comm. (2)
Harshman
Faick
Townsend
Subject
Chron.

Copy retained

DOCKET
Surname:
Chapman
Martin
Felbert
Selfridge
Fjelsum

400

GJB.

OCT 1 0 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 3852, Tungsten
George W. Kaske
Austin Claim
Cochise County, Arizona

Dear Mr. Traver:

Enclosed are the original and five copies of a proposed contract for an exploration program by the above-referenced applicant, signed by the Administrator for the Government, together with Exhibit "A" (1 page), Annex I (1 page), and 3 maps.

If the terms and conditions of this proposed contract are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

If any part of the proposed contract does not have your approval or that of the Operator and cannot be altered within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

/s/ Robert W. Geehan (GCS)

Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)

Member, Geological Survey

cc: Docket
Code 400
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
W. McInnis, USBM
FT, Region 3

TLChapman/ls
10/5/55

RCh.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

OCT 3 1955

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. S. Martin

From: Associate Solicitor
Division of Mineral Resources

WSM

Subject: Docket No. DMEA-3852, George W. Kaske

As requested in Mr. Martin's memorandum of April 23 we have prepared the attached contract which is in satisfactory legal form for execution, subject to the attachment of the 3 maps referred to in the contract.

Robert P. Dwyer
Associate Solicitor
Division of Mineral Resources

Rubin
Dwyer

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

OCT 3 1955

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. S. Martin

From: Associate Solicitor
Division of Mineral Resources

Subject: Docket No. DMEA-3852, George W. Kaske

As requested in Mr. Martin's memorandum of April 23 we have prepared the attached contract which is in satisfactory legal form for execution, subject to the attachment of the 3 maps referred to in the contract.

Robert P. Dwyer

Robert P. Dwyer
Associate Solicitor
Division of Mineral Resources

HCRubin:wog

Copy to: DMEA Docket
Solicitor's Docket
W. S. Martin (2)
R. P. Dwyer
H. C. Rubin
Chron. File

DOCKET
Surname:
Chapman
Martin

400

April 23, 1955

Memorandum

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of proposed contract
Docket No. DMEA 3852 - Tungsten
George W. Kaske
Austin claim
Cochise County, Arizona

Transmitted herewith is a rough draft of a proposed contract for your use in preparing the final draft. Copies of the three maps referred to in the draft are attached hereto.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachments

TLChapman/ls
9/23/55

cc: Docket
Code 400

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
SEP 9 1955

September 8, 1955

Copy retained 400

Re: DMEA-3852
(Tungsten-Lead)
George W. Kaske
Austin Tungsten
Claims
Cochise Co., Ariz.

WSM

Memorandum

To: W. S. Martin, DMEA

From: O. M. Bishop,
Branch of Base Metals

Subject: Review of field team report and subject application

I have reviewed the application and field team report covering the proposed exploration on the Austin lode claim to the extent of $8,360.

The property consists of northwesterly-trending, steeply-dipping sediments and metamorphics which contain a zone of massive quartz and quartz veinlets which trends east-west, and is mapped as being about 400 feet long. At the south edge of the quartz mass, apparently at the contact with the arkose, a 37-foot shaft exposes an average of 2 1/2 feet of mineralization which contains about 2 percent WO_3, 3 percent lead and 0.1 percent copper. To the east a 120-foot adit level has been driven toward the shaft. It penetrated the quartz contact but showed no values.

The applicant proposes driving a new 160-foot adit crosscut from the south to a point 40 feet below the bottom of the shaft, raising 40 feet to connect with the shaft, and drifting totaling 50 feet.

The work plan seems thoroughly sound and I recommend it as planned for exploring and developing the presently discovered ore. It may be that during the life of the contract further exploration will be suggested. The value of the lead content of the ore is small as compared to the worth of the contained tungsten, and the prospect does not appear to hold much promise as a source of lead. I therefore suggest that the contract be written as a tungsten exploration contract rather than a tungsten-lead contract.

O. M. Bishop

O. M. Bishop

Copy to - Div. of Minerals
Mr. Kiilsgaard, Rm. 5222
O. M. Bishop
Files

Copy retained 400

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Docket

RECEIVED
SEP - 6 1955

September 2, 1955

Re: DMEA 3852
Geo. W. Kaske
Austin Tungsten Claim
Cochise Co., Arizona
$8,360 - Tungsten

WSM

Copy retained 400

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

If the prospectability of the ground traversed by the crosscut is high the work program set up for this promising prospect is tailored to the probable returns. Nothing is said about ore in the adit and presumedly there is no promise there, otherwise continuation of the adit might be preferred.

See p. 2 of Brynes Report

I concur with the acceptance recommendation of the Field Team.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Docket

RECEIVED
AUG 29 1955

August 25, 1955

224 New Customhouse
Denver 2, Colorado

WSM

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Report of Examination, DMEA Docket 3852 (Tungsten), George W. Kaske, Austin claim, Cochise County, Arizona

Enclosed are the original and three copies of the report pertaining to the above application.

We concur in the recommendation of the field examiners that exploration in the amount of $8,360.00. is warranted.

It is noted that small amounts of lead occur with the tungsten and some consideration might be given to a combined (Tungsten-Lead) contract with Government participation at 62.5%.

Nine copies each of figures 2 and 3 are included for possible use in the contract.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(date)

DMEA
Date Rec'd.
AUG 18 1955
BUREAU OF MINES
Denver, Colorado

TRANSMITTED
AUG 25 1955

RECEIVED
AUG 29 1955

Box 4097
Tucson 5, Ariz.

August 18, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team, Region III

From : Superintendent, Southwest Experiment Station

Subject : Field Examination Report, Docket DMEA-3852, George W. Kenke's Austin Tungsten Claim, Bee Cabezas Mining District, Cochise County, Ariz.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendation by Leonid Bryner of the Geological Survey and T. M. Rennie of the Bureau of Mines, and the section on Engineering by Rennie for the above report. A separate section on Geology will be submitted by the Survey.

As there seems to be a good chance of discovering tungsten ore by the proposed exploratory program and as the amount of Government financial assistance is small, the DMEA examiners have recommended Government aid. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. M. Traver (8)
J. N. Faick
DMEA-3852
RF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(date)

TRANSMITTED
RECEIVED
AUG 29 1955
AUG 25 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3852, George W. Kaske, Austin Tungsten Claim

Cochise County, Arizona

Leonid Bryner, Geologist
U. S. Geological Survey

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

August 1955

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(date)

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Leonid Bryner[1] and T. M. Romslo[2]

In an application to the Defense Minerals Exploration Administration, dated May 29, 1955, Geo. W. Kaske requested Government participation in a program estimated to cost $8,360, to explore for tungsten on the Austin claim, Cochise County, Arizona. The Austin claim is an unpatented lode claim, located and held by Kaske. It is situated in Wood Canyon, 9 miles by road east of the town of Dos Cabezas. The nearest rail point is Willcox, 15 miles northwest of Dos Cabezas.

The rocks in the mine area consist mainly of Cretaceous and possibly older sediments and metamorphics that strike northwest and dip vertically or steeply to the south. These rocks contain an easterly-trending, vertically-dipping zone of quartz. The quartz occurs in masses up to 10 feet wide and grades out into the country rock through a network of veinlets. Near the south edge of the quartz zone a 37-foot shaft has been sunk, and 280 feet east of the shaft, a 120-foot adit has been driven toward the shaft. Tungsten mineralization occurs in the east and west walls of the shaft. The average mineralized width is about 2½ feet and this showing is continuous from the collar to the bottom of the shaft. The tungsten occurs as scheelite. Lead in the form of very finely disseminated cerussite and galena accompanies the scheelite.

1/ Geologist, U. S. Geological Survey
2/ Mining engineer, U. S. Bureau of Mines

No ore is known to have been shipped from this property. Based on samples of the shaft walls and of dump material from the shaft the ore is estimated to contain 2 percent WO_3 and 3 percent lead. There are no measured reserves. Indicated and inferred reserves together are estimated at 2,000 tons. This reserve tonnage might be substantially increased by the proposed exploration.

The applicant proposes to explore for extensions of the mineralized zone at the shaft by: 1) driving a 160-foot crosscut adit from the gulch south of the shaft; 2) raising 40 feet to the shaft from the end of the adit; and 3) 50 feet of drifting from the adit. The estimated total cost of this work is $8,360. This plan appears to offer an efficient and relatively inexpensive way to initiate exploration for substantial reserves in the project area. Although a gravity concentration test and a microscopic examination of samples from the mine indicate that a marketable product may be difficult to obtain, the comparatively high tungsten content of the rock, combined with the possibility of finding a substantial tonnage, justify exploration. Therefore, it is recommended that the Government participate in this exploration project.

DMEA-3852, GEORGE W. KASKE, AUSTIN TUNGSTEN CLAIM
COCHISE COUNTY, ARIZONA

Engineering Report

By T. M. Romslo
Mining Engineer
U. S. Bureau of Mines

August 1955

Reviewed by
DMEA OPERATING COMMITTEE

9-2-55
(date)

DMEA-3852, GEORGE W. KASKE, AUSTIN TUNGSTEN CLAIM
COCHISE COUNTY, ARIZONA

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Proposed exploratory project	6
Estimated cost of proposed project	7
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ILLUSTRATIONS

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2	Claim map	3
3	Geologic map showing proposed explorations	4

INTRODUCTION

On June 3, 1955, the Defense Minerals Exploration Administration received an application from George W. Kaske for Governmental aid on proposed exploration for tungsten ore at the Austin mine in Cochise County, Ariz. Proposed explorations involved improvement to roads and driving 250 feet in an adit, drift and raise. Total cost of the proposed project was estimated at $8,360.00.

The application, docketed as DMEA-3852, was reviewed by the Operating Committee and referred to the Field Team of Region III for field investigation. Field investigations were made by L. Bryner, U. S. Geological Survey, July 12, 1955, and by T. M. Romslo, U. S. Bureau of Mines, on July 21, 1955. The applicant was present during Bryner's investigations, and discussed phases of the proposed work with Romslo on August 3.

LOCATION, ACCESSIBILITY, PHYSICAL FEATURES AND CLIMATE

The Austin mine is about 19 air-miles southeast of Willcox, Ariz., a town on the Southern Pacific Railroad and U. S. Highway 666 and State Highway 86. It is described as being in the north half of sec. 30, T. 14 S., R. 28 E., Dos Cabezas Mining District, Cochise County, Ariz. (figure 1).

The mine is accessible from Willcox by driving 15.1 road miles southeasterly to the village of Dos Cabezas. A few miles of the road is paved and the remainder is of graded dirt construction. A road log of the remaining distances follows:

0.0 Dos Cabezas;
3.0 Turn left, cross cattle guard, and turn right on to De Borde Ranch road;
4.4 De Borde Ranch. Turn right;
4.6 Gate;
5.4 Take left branch of "Y";
6.1 Gate;
6.9 Gate;
7.4 Gate at windmill and monument marking common corner of secs. 29, 30, 31, and 32, T. 14 S., R. 28 E.
8.5 House at few hundred feet southeast of Austin shaft.

About 6.5 miles is by fairly level dirt roads and the last 2 miles is over a rough road that follows up Wood Canyon. During the rainy season the Canyon road may become impassable for other than 4-wheel drive vehicles.

The property is situated on the southwestern flank of the Dos Cabezas Mountains. It is in a moderately rugged area at an average altitude of about 6,000 feet.

The climate and vegetation are characteristic of the intermediate altitudes of southern Arizona. Summers are hot and winters are mild. Precipitation, mainly as heavy summer thunder storms and light falls of snow and rain in the winter, probably averages about 15 inches annually. Vegetation is confined to native grasses and scrubs, except for scattered small groves of live oak trees along the principal drainages.

There are no permanent streams in the area that drains southwesterly to Sulphur Valley. Sufficient water for domestic use and small mining and milling operations is available from springs and shallow wells.

HISTORY AND PRODUCTION

According to the applicant, the Austin property originally was located for gold by Tom Hutton in 1880. In that year or shortly thereafter, Hutton sank the existing 37-foot shaft and drove the adit a distance of 80 feet. No ore was produced during this period of activity. The property then was idle to 1943 when the applicant discovered scheelite in the shaft. During 1943, the applicant and 2 partners advanced the adit to its present face at 120 feet from the portal. No further work was done until 1948 when the applicant supplied the Arizona Bureau of Mines with a sample of ore from the shaft for testing purposes.

Gravity concentration of the sample containing 1.95 percent WO_3, yielded a concentrate contained 48.57 percent WO_3 and 21.5 percent lead. Tailings containing 0.39 percent WO_3 for an indicated recovery of 80 percent of the tungsten. The property then was abandoned because expectable concentrates were not marketable.

The applicant relocated the property July 1954. Since then, assessment work has been done and Arthur W. Jacobs, a Registered Mining Engineer of Tucson, examined the property for the applicant.

EXTENT AND OWNERSHIP OF PROPERTY

The Austin property comprises a group of 3 unpatented lode mining claims (figure 2). It is owned by the applicant, George W. Kaske, P. O. Box 55, Sahuarita, Ariz.

Proposed exploratory work is confined to one of the 3 claims, the Austin.

PRESENT STATUS

At present, the property is inactive and the single structure, a cabin, is unoccupied.

The previously described principal workings consist of the accessible 120-foot adit, low and narrow in places, and the 37-foot nearly vertical shaft.

Mining equipment on the property is confined to one mine car. Equipment owned by the applicant and stored elsewhere comprises a 105-CFM portable compressor, a 160-CFM stationary compressor, and 3 jackhammers. He intends to supplement this equipment by purchasing a jackleg-type drill if the proposed project is approved.

Materials and supplies at the mine or in storage consist of a few hundred feet of track rail, with accessories, air and water lines, drill steel and bits, and miscellaneous small tools.

DESCRIPTION OF THE DEPOSIT

Known tungsten mineralization in place is confined to the shaft that is situated at the south margin of a quartz zone (figure 3). The quartz cuts diagonally across the contact of arkose and schist country rocks. Large masses of the quartz grade out into the country rocks as a network of veinlets. Traces of scheelite, the chief ore mineral, are found in float rock for a distance of about 150 feet west of the shaft.

The shaft follows a zone that consists mainly of quartz stringers and masses up to several feet wide. Wall rock of the zone is highly altered. Scheelite occurs in the quartz zone as irregular patches, up to an inch or two in diameter, and as interconnecting seams. Other minerals present in small amounts are cerussite, limonite, talc, malacite, azurite, smithsonite, galena, sphalerite, and chalcopyrite.

The mineralized zone is continuous from the collar to the bottom of the shaft. Its width ranges from approximately 2 to 4 feet and averages about 2.5 feet. Two samples, obtained during the investigation, were assayed at Tucson by the Bureau of Mines. Assays of these samples and two reported by the applicant follow:

Sample	Location	Width	Percent		
			WO_3	Pb	Cu
Applicant's	Bottom; east side of shaft.	47 inches	0.95	1.1	—
Applicant's	4' above bottom of shaft on west wall.	40 inches	2.98	4.1	—
USBM 12842	Same as above.	37 inches	4.36	5.5	0.14
USBM 12843	Dump rock.	—	1.83	3.3	0.06

Results of microscopic examination of the USBM samples are given in the Geological report. They indicate that grinding the material to pass a 100-mesh screen would be required to free a large portion of the lead and tungsten minerals from each other and from the quartz gangue.

ORE RESERVES

The deposit contains no measureable ore reserves.

Indicated and inferred reserves to a depth of 90 feet, the depth of proposed explorations, have been estimated at about 2,000 tons of

material containing approximately 2 percent WO_3 and 3 percent lead. These reserves could be substantially greater if the proposed exploration is successful.

PROPOSED EXPLORATORY PROJECT

The applicant proposes to explore for extensions of the mineralized zone at the shaft by: (1) driving a 160-foot adit from the gulch south of the shaft; (2) raising 40 feet to the shaft from the end of the adit; and (3) 50 feet of drifting from the adit (figure 3). Prior to initiation of this work, he proposes to repair short sections of the road near the mine and to build a new road from near the cabin to the site of the proposed adit, a distance of about 350 feet.

There are other ways in which the property could be explored at the suggested low cost. However, the examining team favors the applicant's plan for the following reasons:

1. The proposed adit will crosscut a possible favorable zone;

2. Sinking on the ore would require expenditures of possibly double the proposed $8,360.00 because (1) road work would be in rock for an estimated 750 feet, a surface plant and additional equipment would have to be installed, and the existing shaft would have to be straightened and timbered;

3. Extension of the existing adit would encounter the potential ore zone at a vertical depth of about 15 feet below the proposed adit. The overall cost of this plan would be about the same as that proposed, but potentially favorable ground south of the shaft would remain untested.

ESTIMATED COST OF PROPOSED PROJECT

Road Work

The applicant requested $250.00 for construction of an estimated 150 feet of road and necessary minor improvement of 1.0 miles of existing road. He said that an owner of a bulldozer who lives within about 10 miles of the mine had offered to do necessary work for the requested sum. A probably average bid would be about $250.00 for in-and-out haulage of the bulldozer and $12.50 to $17.50 an hour for work. As the requested amount is below average requirements, I suggest that road work be set up as an independent contract with estimated maximum bulldozer costs of $15.00 per hour and $250.00 for the job.

Underground Work

The applicant has offered to do the proposed underground work under an independent contract. Following are his proposed costs by units:

Adit, 160 feet at $33.50 per foot	$5,360.00
Drift, 50 feet at $30.00 per foot	1,500.00
Raise, 40 feet at $25.00 per foot	1,000.00
Total	$7,860.00

In addition to the above total cost he has requested $250.00 for assaying, accounting, liability insurance, and miscellaneous. If $110.00 is set aside for assay costs, then the total cost of the proposed 250 feet of underground work would be $8,000, or an average of $32.00 per foot.

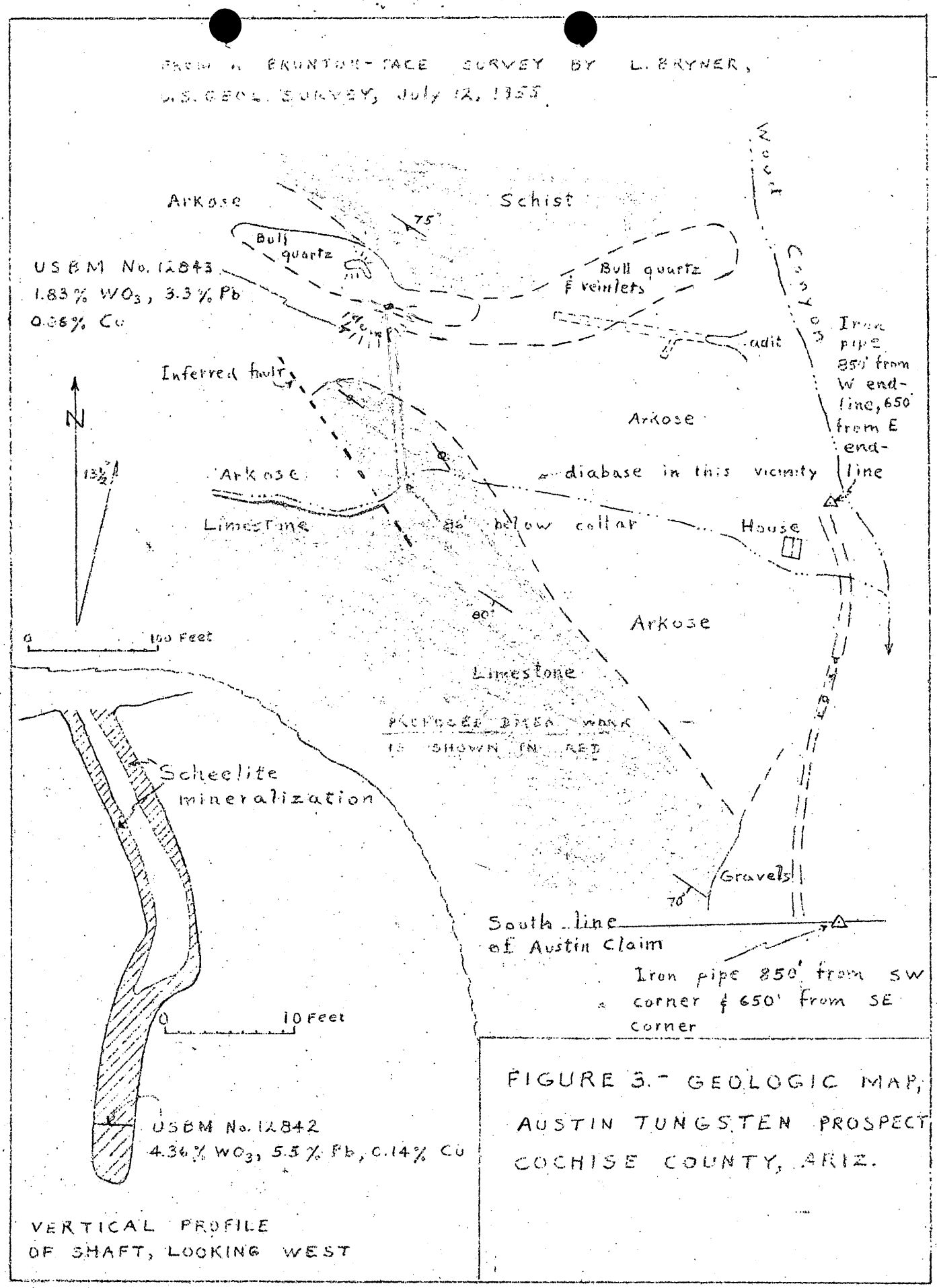


FIGURE 3.- GEOLOGIC MAP, AUSTIN TUNGSTEN PROSPECT COCHISE COUNTY, ARIZ.

I have estimated monthly supervision and labor costs, including insurance and taxes, at about $1,682.00. This cost is for 2 men working on each of 2 shifts for 6 days weekly. Estimated pay rates are 2 men at $1.50 per hour, 1 at $1.75 per hour, and $2.00 per hour for the applicant who would be employed as miner-supervisor. On this basis an expectable advance of 100 feet monthly, 4 feet per day, would result in a supervision and labor cost of $16.82 per foot. Other costs, including hauling in and installing equipment, would probably amount to an additional $16.00 or $17.00 a foot of advance. Thus the total estimated costs would be from $33.00 to $34.00 per foot.

The above estimates indicate that the applicant's proposed unit costs are acceptable. However, a fairer distribution of the costs would be $32.00 a foot for each type of heading, mainly because costs for haulage and timbering the vein zone of the drift and raise probably will exceed the cost of similar work in the adit.

Assays

The sum of $110.00 provides for actual costs of assaying samples of tungsten, lead and possibly silver.

Summary of Estimated Costs

Independent Contract.	
Road work with bulldozer - construct new road from near cabin to site of proposed adit and make necessary repairs to existing road	$250.00
Driving adit to a point below existing shaft, raising from end of adit to shaft, and drifting on vein zone, - estimated 250 feet at $32.00 per foot	8,000.00
Assaying	
Estimated channel samples for tungsten, lead and possibly silver	110.00
Total	$8,360.00

RECEIVED
AUG 29 1955

Proposed Work Specifications

All workings to be timbered where necessary.

Minimum cross sections, in the clear, should be 5 by 7 feet for the adit and drifts, and 5 by 8 feet for the raise.

Completion of the project would be expected in 4 months. Road and preparatory work should take about $1\frac{1}{2}$ months and the underground work should be completed in $2\frac{1}{2}$ months.

CONCLUSIONS

The Austin claim has a small exposure of material containing a relatively high percentage of scheelite and moderate amounts of sulfide and oxide lead minerals.

Geologic conditions indicate that exploration of the mineralized zone by the proposed feasible and low cost program has a good chance of developing a small tonnage of similar material and could possibly indicate the presence of substantial additional reserves.

A marketable product probably cannot be produced by gravity concentration, but it is possible that a satisfactory recovery of marketable tungsten and lead concentrates may be made by flotation.

If adequate reserves are indicated by the proposed explorations, metallurgical tests will be in order. Favorable results could result in development of the deposit and production of significant amounts of tungsten and lead.

RECEIVED
AUG 29 1955

RECOMMENDATION

Governmental participation in the proposed exploratory project costing an estimated $8,360.00 is recommended for approval.

IN REPLY REFER TO:
DMEA
Date Rec'd.
AUG 19 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

RECEIVED
AUG 29 1955

August 19, 1955

TRANSMITTED
AUG 25 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3852 (Tungsten), George W. Kaske, Austin claim, Cochise County, Arizona

Enclosed are the original and eight copies of a geologic report by Leonid Bryner, U. S. Geological Survey, covering his examination of the subject property.

Scheelite is found in a quartz vein associated with minor amounts of cerussite, limonite, talc, malachite, azurite, smithsonite, and galena. The country rocks are schist, arkosic quartzite, and limestone. Samples taken by the applicant and by the examiners indicate an average content of about 2 percent WO_3 across a width of 2-1/2 feet.

Although the strike length of the deposit may be relatively short, Bryner concludes that limited exploration is warranted.

I concur with this recommendation.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:arh

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(date)

RECEIVED
AUG 29 1955

AUG 18 1955

Box 4126 University Station
Tucson, Arizona

August 16, 1955

DMEA
Date Rec'd.
AUG 19 1955
BUREAU OF MINES
Denver, Colorado

MEMORANDUM

To: Mr. E. N. Harshman

From: J. N. Faick

Subject: Geo. W. Kaske, Austin Claim (Tungsten)
Cochise County, Arizona - DMEA 3852

Enclosed are the original and 8 copies of an examination report on the above subject property, by Leonid Bryner. A joint summary, conclusions and recommendation is being submitted through W. R. Storms with the engineering report. A small exploration project having an estimated cost of $8,360 is recommended. I concur with this recommendation.

John N. Faick
John N. Faick

JNF:ms

Enclosures

cc. Harshman (8)
Storms

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(Date)

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
AUG 29 1955
DMEA
Date Rec'd.
AUG 19 1955
BUREAU OF MINES
Denver, Colorado

REGION III

GEOLOGY

EXAMINATION REPORT

DMEA 3852

GEO. W. KASKE
AUSTIN CLAIM
COCHISE COUNTY, ARIZONA
(Tungsten)

By
Leonid Bryner
Geologist
U. S. GEOLOGICAL SURVEY
August 15, 1955

Reviewed by
DMEA OPERATING COMMITTEE
9-2-55
(date)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FIELD TEAM III

RECEIVED
AUG 29 1955

GEOLOGY
EXAMINATION REPORT
DMEA 3852
GEO. W. KASKE
AUSTIN CLAIM
COCHISE COUNTY, ARIZONA
(Tungsten)

CONTENTS

	Page
INTRODUCTION	1
GEOLOGY	1
PRODUCTION AND GRADE	4
EXPLORATION	5
RESERVES	5
CONCLUSIONS AND RECOMMENDATIONS	6

ILLUSTRATIONS

Fig. 1	Location Map	See Engineering Report
Fig. 2	Claim Map	" " "
Fig. 3	Geologic Map, Austin Tungsten Prospect	Following page 6

INTRODUCTION

In an application to the Defense Minerals Exploration Administration, dated May 29, 1955, George W. Kaske requested government participation in a program estimated to cost $8,360 to explore for tungsten on the Austin Claim, Cochise County, Arizona.

The claim is located in the NE$\frac{1}{4}$ of the NE$\frac{1}{4}$ of Section 30, T. 14 S., R. 28 E. It is in Wood Canyon, which drains southward from the Dos Cabezas Mountains to Sulphur Springs Valley. The elevation of the property is about 6,000 feet. The mine is 9 miles by road east of the town of Dos Cabezas. The last 1$\frac{1}{2}$ miles of this road is rough and narrow and easily subject to washout by summer rains.

The Austin claim is an unpatented lode claim. Geo. W. Kaske is the locator and present owner. Kaske accompanied the writer in his examination of the property on July 12. T. M. Romslo of the U. S. Bureau of Mines visited the property on July 21.

The deposit has not been described in any report known to the writer, and the geology of the surrounding mountains has been described only in a very general way.

GEOLOGY

The rocks in the mine area consist mainly of Cretaceous and possibly older sediments and metamorphics that strike about northwest and dip vertically or steeply to the south (fig. 3). In the project area these rocks, from north to south, are, 1) a coarse-grained, dark schist that possibly is of igneous origin, 2) a series of coarse, arkosic quartzites, 3) a narrow zone of limey shale and shaley limestone (not indicated on map), and 4) a series of dark gray limestones.

The limestones are somewhat contorted and silicated along the easterly-trending gulch shown in figure 3, suggesting the presence of an easterly-trending fault along this gulch. Also, a northwesterly-trending fault appears to have offset the beds in this gulch. A thin diabase dike or sill is exposed in the north bank of the gulch. An easterly-trending, steep to vertically-dipping zone of quartz cuts diagonally across and partly follows the arkose-schist contact. The quartz occurs in large masses up to 10 feet wide. Most of this "bull" quartz is confined to the arkose and gives the easterly-sloping ground a low but resistant "crown" that also trends east. The large masses of quartz grade out at their margins into the country rock through a network of veinlets. Near the south edge of this quartz zone, a 37-foot shaft has been sunk and, 280 feet east of the shaft, a 120-foot adit has been driven toward the shaft (fig. 3). The known tungsten mineralization is confined to the shaft.

The chief ore mineral is scheelite in irregular patches and interconnecting seams. These patches may be up to an inch or two in diameter. Under ultra violet light the color varies from chalky white to pale yellow, suggesting a certain amount of admixed powellite. But a microscopic examination by LaMar G. Evans, of the U. S. Bureau of Mines, found no powellite, and therefore the ore was not assayed for molybdenum. This microscopic examination was also to check for lead tungstates as lead was reputed to be a deterrent to successful concentration of this ore.

The report by Evans, dated July 28, reads as follows:

"Sample No. 12842 is composed predominantly of quartz in which small amounts of cerussite, scheelite, limonite, talc, malachite, azurite, smithsonite and galena occur. The cerussite and scheelite are closely associated throughout the sample; grinding of the ore to pass a 100-mesh screen will be required to free a large portion of the two minerals from each other and from the quartz gangue. Sporadic grains of scheelite have a greenish color due to absorbed malachite along the fracture planes. The lead content of this sample is represented by cerussite with only sporadic grains of galena. In sample No. 12843 the lead content is represented equally by cerussite and galena. This sample also contains small amounts of sphalerite and chalcopyrite in addition to the above listed minerals found in sample 12842. Insofar as could be determined by optical methods neither of the two samples contain any lead tungstate minerals."

The gangue mineral is vein quartz which, in the shaft, occurs as stringers and also as masses several feet wide in a soft, bleached rock that has been altered beyond recognition. A sketch of the distribution of tungsten minerals in the west wall of the shaft is shown in fig. 3. The scheelite on the opposite wall of the shaft, that is, the east wall, is more or less the mirror image of that on the west wall, indicating a westerly trend for the scheelite zone. This zone, exclusive of horses of waste, ranges from 2 to 4 feet in width and averages about $2\frac{1}{2}$ feet. The mineralization is more or less continuous from the collar to the bottom of the shaft. It appears to be higher grade near the bottom than near the collar. The strike length of the zone is unknown because of the talus mantle east and west of the shaft. To the west, however, for a distance of about 150 feet, traces of scheelite are found in the talus. As the float is uphill from the shaft it probably represents a westerly extension of the deposit. Evidence for an easterly extension, however, is

lacking. Though massive quartz occurs in the last 20 feet of the adit east of the shaft, no scheelite was recognized in the adit. Possibly the ore has been localized in tension fractures genetically related to the fault that is about one hundred feet southwest of the shaft.

The flat-lying beds on the applicant's geologic section actually should be shown as almost vertically dipping; and the "granite-gneiss intrusive" mentioned in the application apparently is what the present writer identifies as "bull" quartz.

PRODUCTION AND GRADE

Nothing is known of the history of this mine beyond what is given in a private report included with the application. Here it is stated that "the ground was originally located for gold by Mr. Tom Hutton in 1880. Scheelite was discovered in a 40-foot shaft by Mr. Kaske in 1943. There has been no production of tungsten ore for shipment from the property, except for testing purposes. The Ewell mine about a mile to the east and the Cottonwood mine about four miles to the south operated in the past for gold and silver."

The location of samples taken on the property are shown in fig. 3. A sample across the west wall of the shaft, about 4 feet above the floor (fig. 3) was taken by the applicant and also by the writer, with the following results:

	Width (inches)	WO_3 (percent)	Pb. (percent)	Cu. (percent)
Applicant's sample	40"	2.98	4.1	-
USBM No. 12842	37"	4.36	5.5	0.14

This represents better than average ore, both as to width and as to grade. The applicant also took a sample on the opposite wall of the shaft and at the same depth, with the following results:

Width (Inches)	WO_3 (percent)	Pb. (percent)
46	0.95	1.1

The writer took a grab sample of dump material from the shaft, with the following results:

	WO_3 (percent)	Pb. (percent)	Cu. (percent)
USBM #12843	1.83	3.3	0.06

From the above data it is concluded that the mineralized rock in this deposit will average about 2 percent WO_3 and about 3 percent Pb. The ore also contains traces of copper and it is reported to contain some silver.

EXPLORATION

The applicant proposes exploring for extensions of the ore in the shaft by driving an adit from the gulch immediately south of the shaft and raising and drifting from the end of the adit. Total cost for this work is estimated at $8,360. The examiners favor this exploration plan.

RESERVES

On the basis of total depth of 90 feet and a strike length of 120 feet, about 2000 tons of indicated and inferred reserve containing 2% WO_3 and 3% Pb are estimated for this deposit. This reserve

figure might be doubled or tripled if the exploration proposed above is successful. The total possible reserves of this deposit, however, appear to be limited horizontally by a strike length of about 150 feet, but there is nothing to indicate its probable depth.

CONCLUSIONS AND RECOMMENDATIONS

The Austin claim contains a persistent though small showing of fairly high-grade tungsten ore with moderate amounts of lead. Geologic indications are that the deposit has the possibility of several thousand tons of reserves. The proposed exploration program appears to offer an efficient way to discover whether such reserves exist and also to explore for additional possible veins, paralleling the known vein. Such exploration is needed also to gain some idea of whether, with further exploration, large enough reserves to justify a mill might be expected. Although the reserves, judging from our present knowledge of the deposit, probably are of a small order of magnitude, the exploration proposal is a relatively inexpensive one and not out of proportion to the possible size of the discovery. It is recommended, therefore, that the government participate in this exploration.

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUL - 5 1955

224 New Customhouse
Denver 2, Colorado

June 28, 1955

WGM

Memorandum

To: W. R. Storms (w/brochure)
J. N. Fick

From: Field Team, Region III

Subject: Docket DMEA-3852 (Tungsten), George W. Kaske, Austin claim, Cochise County, Arizona

already sent to FT for exam on 6/20/55

Enclosed is the subject application in the amount of $8,360.00.

The brochure consists of:

1. Form MF-103 and attached answering sheets.

2. A claim map of the Austin Mine.

3. Two assay certificates.

4. A USGS map of Cochise County.

Also attached is a copy of a letter from the Chairman of the Operating Committee and a relevant memorandum from N. E. Nelson.

A field examination and suitable report are required.

W. M. TRAVER

W. M. Traver

Enclosures

HMC:pw

E. N. Harshman

E. N. Harshman

cc: Sec.Op.Comm. (2)
Harshman
Subject
Chron

DMEA Field Team, Region III

DOCKET
SURNAME
400 Chapman
Martin
Holliday
Selfridge
Fleman

JUN 23 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 3852 - Tungsten
George W. Kasko
Austin claim
Cochise County, Arizona

Dear Mr. Traver:

The above documented application for exploration assistance is being referred to your office for a field examination of the property.

Two copies of a relevant memorandum dated June 16, 1955, by N. E. Nelson, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (WS)

Enclosure

TLChapman:foc 6-21-55
cc to: Docket
Code 400
Admr. Read. File
Operating Comm.
FT. REG. III
Messrs. Holliday, USBM
Kiilsgaard, USGS

APPROVED:

J. H. Hedges (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (WS)
Member, Geological Survey

A.C.R.

DOCKET
SURNAME
400 Chapman
Martin
Kilsgaard
Hedges
Selfridge
Fleming

JUN 23 1955

Mr. George W. Kaske
P. O. Box 55
Sahuarita, Arizona

Re: Docket No. DMEA 3852 - Tungsten
Austin claim
Cochise County, Arizona

Dear Mr. Kaske:

The above docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. M. Trever, Executive Officer, DMEA Field Team, Region III, Denver 2, Colorado, for a field examination of the property.

Any assistance that you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:foc
6-21-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. III
Messrs. Holliday, USBM
Killsgaard, USGS

R.G.H.

Docket

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

June 16, 1955

RECEIVED
JUN 17 1955

Re: DMEA-3852
G. W. Kaske
Austin Mine
Cochise Co., Ariz.
$8,360 - Tungsten

Copy retained 100

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

W309

I have no information on this property.

The geologic relations are favorable for the occurrence of scheelite, if as shown on the vertical cross section, and might continue so to the level of the proposed crosscut.

The "bite" of the crosscut tunnel would not be large, but 'staying with' the ore showing in shaft is believed to be the safer way.

Referral to the Field Team is suggested.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

George W. Kaske
Box 55
Sahuarita, Arizona

June 9, 1955
Subject: DMEA-3852
Re: Exploration Assistance

Dear Mr. Kaske:

The receipt of your application dated May 28, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3852 and referred to the Iron and Ferro-Alloys Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

June 9, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region

DMEA-3852 Austin Tungsten Prospect

Robert E. Adams
Chief, Operation's Control
and Statistics Division

Should be "George W. Kasko".
Miss Curtain and she would
try to catch this in mail
& correct it. L.S. 6-10-55
9:23 a.m.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUN - 6 1955

224 New Customhouse
Denver 2, Colorado

June 6, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Tungsten), George W. Kaske, Cochise County, Arizona

Enclosed are the original and two copies of the subject application to explore for tungsten at an estimated cost of $8,360.00.

One copy of the application is being retained in this office.

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUN - 9 1955

224 New Customhouse
Denver 2, Colorado

June 6, 1955

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA assistance (Tungsten), George W. Kaske, Cochise County, Arizona

Enclosed are the original and two copies of the subject application to explore for tungsten at an estimated cost of $8,360.00.

One copy of the application is being retained in this office.

W. M. TRAVER

Enclosures

W. M. Traver

DMEA
Date Rec'd.
JUN 3 1955
BUREAU OF MINES
Denver, Colorado

Sahuarita, Arizona
May 28, 1955

Defense Mineral Exploration Adminstration
U.S. Bureau of Mines, Region IV
224 New Customhouse Building
Denver 2, Colorado.

Gentlemen:

Enclosed herewith you will please find application , in quadruplicate, for an exploration loan on the Austin Tungsten Prospect located in Cochise County, Arizona.

I am also enclosing 4 copies of map or sketch showing the present workings and the proposed exploration work to be undertaken under the project. Also, you will find enclosed copies of assay reports made on samples taken from the property and two copies of U.S.G.S. on the Dos Cabezas Quadrangle.

If you find that you need further information on this application please advise me and I will submit the information required.

Thanking you for your attention and consideration, I remain,

Respectfully yours,

George W. Kaske

George W. Kaske
P.O Box 55
Sahuarita, Arizona.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED JUN 3 1955

JUN 9 1955 BUREAU OF MINES Denver, Colorado

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicants

Docket No. 3852
Metal or Mineral Tungsten
Date Received 6/9/55
Estimated Cost $8,360
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address:

George W. Kaske
P.O Box 55
Sahuarita, Arizona

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Austin unpatented mining claim, located July 1, 1954 Recorded in Docket 104 page 188 in the office of Recorder Cochise County, Arizona. Affidavit of Labor Performed filed April 13, 1955. Recorded in Docket 122 page 451-Land in S 30 T 14 S, R 28 E

(*b*) State any mine name by which the property is known. Austin Mine

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Austin Claim Docket 104 at page 188

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

16—66551-1

5. *The exploration project.*—(State the mineral or minerals for which you propose to explore Tungsten

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 60 days and be completed within 8 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 28, 1955

George W. Kaske
(Applicant)

By

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

GEORGE W KASKE
P.O. Box 55
Sahuarita, Arizona

APPLICATION FOR AID IN AN EXPLORATION PROJECT

1. Name of applicant.
   (a) George W. Kaske
   P.O. Box 55
   Sahuartia, Arizona

2. General.

3. Applicant's property rights.

   (a) The legal description of the land to be included in the exploration contract is as follows:-

   Austin unpatented mining claim located July 1, 1954 and recorded in Docket 104 at page 188 in the office of the Cochise County Recorder, at Bisbee, Arizona.
   Affidavit of Labor Performed for the year 1954-1955 was filed April 13,1955 with the Cochise County Recorder and is of record in Docket 122 at page 451.
   The land is situate in the north half of Section 30 in Township 14 South, Range 28 East, G.S.R.B & M. in Cochise County, Arizona in the public domain.

   (b) Austin Mine.
   (c) Owner
   (d)
   (e) No liens or encumbrance on the land. There is an agreement with the surface grazing rights lessee on the use of the available water supply on the land.
   (f) Claims recorded in Docket 104 at page 188 in the office of the Cochise County, Arizona Recorder.

4. Physical description.

   (a) There is no mining or exploration now being conducted upon the land. The present mine workings consist of a near verticle shaft 40 feet deep and an adit tunnel 130 feet long. Both the shaft and tunnel are accessible for examination and sampling. The shaft has a ladder-way and there are no obstructions in the tunnel. Both workings are dry.

G. W. K.

George W. Kaske
P.O. Box 55
Sahuarita, Arizona

4. Physical description (cont.)

(b) There has been no production of ore for shipment from the property, except for testing purposes. There is no present production. Ore produced from the shaft work in now on the dump. There are no ore reserves developed from present or existing mine workings.

(c) Attached to this application are copies of Report on the Austin Tungsten Prospect, a sketch showing the mining claims and mine workings, copies of assay reports on sample taken from the property, and report of metallurgical test on the ore made by the Arizona Bureau of Mines. Also U.S.G.S maps.

(d) It may be reached from Willcox, Arizona, a shipping point on the Southern Pacific Railroad, in a southeasterly direction by way of Dos Cabezas a distance of about 25 miles over a good road, part of it paved, and with about 2 miles of rough but passable road following up Wood Canyon to camp.

(e) Miners are available at Dos Cabezas, about 8 miles distant, and at Willcox. Materials, supplies and equipment can be obtained, at Dos Cabezas, Willcox and Tucson. Water is available from the creek during the rainy season and at other times from a nearby well. There is no electric power at camp. The nearest power-line is about 4 miles away.

5. The exploration project.

(a) Tungsten.

(b) Proposed work: It is proposed to drive a crosscut tunnel from a point in the gully south of the shaft and at a level about 80 feet below the collar of the shaft so as to intersect the probable downward extension of the ore-shoot showing in the shaft at a distance of approximately 160 feet from the mouth of the tunnel; if ore is encountered at the intersection then drift 25 feet to the east and 25 feet to the west on the ore; and to raise from the crosscut tunnel to connect with the bottom of the shaft a distance between 40 and 50 feet. Attached to this application is a sketch showing the present mine workings and the location of the proposed exploration work and the related geological features.

G.W.K.

George W. Kaske
P.O. Box 55
Sahuarita, Arizona

5. The exploration project (cont)

(c) The work will start within 60 days and be completed within 8 months from the date of an exploration project contract.

(d) The applicant has had varied experience in mining operations. Was employed as supervisor of operations for the Bisbee-Sonora Mining Co. in Mexico in 1935; performed mining work for Joe Muheim, of the Miners and Merchants Bank of Bisbee, Arizona; worked with R.E. Chilson in the King Mine, Helvitia, Arizona in driving a long exploration tunnel (drift); and for several years worked in mine leasing in the Cripple Creek, Colorado area.

6. Estimate of costs.-

(a) Independent contracts.- The work can be contracted on the following basis:-

Tunnel -	160	feet	at	$33.50	per	foot	$5,360
Drift -	50	"	"	30.00	"	"	1,500
Raise -	40	"	"	25.00	"	"	1,000
			Total				$7,860

(b) Applicant, owner, will supervise work.

(c) Operating materials and supplies will be furnished by contractor

(d) Operating equipment will be furnished by contractor.

(e) Contractor to provide living quarter for workers.

(f) No new buildings. Road to tunnel site and improvement on road about $250.00 cost.

(g) Assaying, accounting, liability insurance, and miscellaneous expenses about $250.00

(h) Contingencies. None

Total cost of proposed exploration project $8,360.00

G.W.K.

REPORT
on the
AUSTIN TUNGSTEN PROSPECT

RECEIVED
JUN 1956

OWNERSHIP and LOCATION

The Austin Tungsten property consisting of three unpatented mining claims is owned by Mr. George W. Kaske of Sahuarita, Arizona. It is located on the southeastern flank of the Dos Cabezas Mountains, in the Dos Cabezas Mining District, Cochise County, Arizona. The land is situate in the north half of Section 30 in Township 14 South, Range 28 East, G.S. R.B. & M. and in the public domain with the surface rights leased for cattle grazing purposes. It may be reached from Willcox, Arizona, a shipping point on the Southern Pacific Railroad, in a southeasterly direction by way of Dos Cabezas a distance of about 25 miles over a good road, part of it paved, and with about 2 miles of rough but passable road following up Wood Canyon to camp. This area is at an altitude of about 6,000 feet and is moderately rugged. Water is available for camp and mine use from the creek during the rainy season and at other times from a nearby well. An agreement exists between the mine claim owner and the cattleman surface lessee on the use of the available water.

HISTORY

It is reported that the ground was originally located for gold by Mr. Tom Hutton in 1880. Scheelite was discovered in a 40-foot shaft by Mr. Kaske in 1943. There has been no production of tungsten ore for shipment from the property, except for testing purposes. The Ewell mine about a mile to the east and the Cottonwood mine about four miles to the south operated in the past for gold and silver.

MINE WORKINGS

The mine workings consist of a nearly verticle shaft 40 feet deep with ladders and is accessible to examination and sampling. An adit tunnel from near the creek driven westerly in altered rock apparently following and paralell to the east-west outcropping granite-gneiss. The tunnel is also accessible for examination.

ORE DEPOSIT

The scheelite-bearing quart vein is a replacement deposit in a sheer zone of altered schistose rock showing seritization along the contact zone between the granite-gneiss intrusive and the sedimentary beds of limestone and shale. The structure has a general east and west trend and the vein

ORE DEPOSIT (cont)

dips about 85 degree to the north for about 25 feet from the surface then turns and dips to the south at an angle between 80 and 85 degrees. No outcrop is exposed except at or near the shaft.

MINERALIZATION

Scheelite mineralization extends from the surface down to the bottom on both sides of the shaft. The ore consists of a crystalline grayish-white quartz with irregularly distributed scheelite throughout the mass that range from coarse to very fine grained particles. The tungsten ore contains some galena and lead oxides with a small amount of pyrite and some copper stains. A sample cut across a 40 in. width on the west side of the bottom of the shaft assays 2.98% tungsten trioxide and 4.1% lead. Another sample cut across a 46 in. width on the east side of the bottom of the shaft assays 0.95% tungsten trioxide and 1.1% lead. No scheelite mineralization was found in the tunnel.

ORE MILLING

In July of 1948 the Arizona Bureau of Mines, ore testing service, Mr. George Roseveare, metallurgist, made metallurgical tests for the recovery of the tungsten values in a marketable concentrate. The heads assayed about 1.95% tungsten trioxide and the tails 0.39% WO_3 showing an indicated recovery of about 80% in a concentrate assaying 48.57% WO_3 and containing 21.5% lead, a product difficult to market at that time. Mr. Roseveare indicated that more tests would have to be made on the ore to bobtain the desired grade of tungsten concentrates.

The high lead contents of the tungsten concentrates made it unacceptable, however, there is now a market for this type of tungsten concentrate product, and the two tungsten custom milling plants in this area, the Don Lieberman Mill at Tucson and the Standard Tungsten Co. mill at Pomerene, near Benson, have offered to install in their milling plants the equipment necessary to handle this type of ore if sufficient ore is available to justify the expenditure.

FINDINGS and CONCLUSIONS

The scheelite mineralization extends from the surface to the bottom on both sides of the 40-foot shaft with very good tungsten values in the lower part of the shaft. Laboratory tests show that a good recovery can be made in a concentrate product that is now marketable. Custom milling facilities are now available.

FINDINGS and CONCLUSIONS (cont)

It is my opinion that a limited exploration program is warranted; that additional ore-shoots will be found; and that the ore can be mined, milled and marketed at a profit.

RECOMMENDATIONS

From the above findings and conclusions I recommend that the following work be performed: sink the present shaft about 50 feet deeper following the trend of the ore, and if ore continues to this depth, then drift 25 feet to the east and 25 feet to the west. Or, drive a cross-cut tunnel from a point in the gully south of the shaft (as indicated by map) a distance of approximately 160 feet to intersect the probable extension of the ore-shoot on its dip from the bottom of the shaft. If ore is found in the cross-cut tunnel, then drift 25 feet to the east and 25 feet to the west and raise on the ore to connect the cross-cut tunnel with the bottom of the shaft. If no ore is found in the cross-cut tunnel, then raise at the about 160-foot point distance to connect the cross-cut tunnel with the shaft.

The first plan, though more costly per foot of working, will cost less and will be following the trend of the ore. The second plan, the cross-cut tunnel, will cost less per foot of workings, but the total cost will be greater. The cross-cut tunnel, however, will serve to explore an area south of the shaft for possible parallel ore-shoots. It will also serve as a haulage and operating level and for a more econimical exploitation of the ore deposit.

The results obtained from this exploration program will determine the future plans for the development of the property.

Tucson, Arizona
May 28,1955

Arthur W. Jacobs
Registered Mining Engineer

30 So. Main St.
P. O. Box 1889

JACOBS ASSAY OFFICE

REGISTERED ASSAYERS

RECEIVED
JUN - 9 1955

Phone 2-0813

Tucson, Arizona, May 18th, 1955

Sample Submitted by Mr. Geo Kaske

Tungsten

Sample Marked	GOLD Ozs. per ton ore	GOLD Value per ton ore * $	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	WO_3 Per Cent Wet Assay	~~Per Cent Wet Assay~~	~~Per Cent Wet Assay~~
#1					4 1/10	2 98/100		
2					1 1/10	0 95/100		

* Gold Figured $35.00 per oz. Troy

Charges $ 10.50

Very respectfully,

Ben P. Jacobs

30 So. Main St.
P. O. Box 1889

JACOBS ASSAY OFFICE

REGISTERED ASSAYERS

RECEIVED
JUN - 9 1955

Phone 2-0813

DUPLICATE

Certificate No. —

Tucson, Arizona, Mar 28, 1955

Sample Submitted by Mr. Geo Kaske

SERIAL	SAMPLE MARKED	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	WO_3 Per cent Wet Assay
—	X ESIVP 20' 2nw 36"		$ Tungsten Trioxide		—		2 66/100

* Gold Figured $35.00 per oz. Troy

Charges $ 4.00 Paid

Very respectfully,

Ben Q. Jacobs

30 So. Main St.
P. O. Box 1889

JACOBS ASSAY OFFICE

REGISTERED ASSAYERS

Phone 2-0813

RECEIVED
JUN - 9 1955

DUPLICATE

Certificate No. ——

Tucson, Arizona, Mar 9, 1955

Sample Submitted by Mr. Geo Kaike - Don Cabezas

SERIAL	SAMPLE MARKED	~~GOLD~~ Ozs. per ton ore	~~GOLD~~ Value per ton ore *	~~SILVER~~ Ozs. per ton ore	~~COPPER~~ Per cent Wet Assay	~~LEAD~~ Per cent Wet Assay	WO_3 Per cent Wet Assay
			$				
—	X Bottom 36"		Tungsten Trioxide		—	—	2 91/100

* Gold Figured $35.00 per oz. Troy

Charges $ 4.00 Paid

Very respectfully,

Ben P. Jacobs

University of Arizona
TUCSON

COLLEGE OF MINES
DEPARTMENT OF MINING ENGINEERING
AND METALLURGY

RECEIVED
JUN - 9 1955

July 27, 1948

Mr. George W. Kaske
Box 2152
Bisbee, Arizona

Dear Mr. Kaske:

The tungsten ore contains galena, lead oxide, sphalerite and pyrite along with the scheelite. The sulphides and lead oxide must be removed before floating the scheelite. Two tests were made on the ore to concentrate the WO_3. and am sending you the pulps of Test 2 for assay for the following:

1. Sulphide combined rougher concentrate--lead gold, silver, WO_3
2. WO_3 concentrate -- WO_3
3. Cleaner Tailing --WO_3
4. Tailing -- WO_3

There may have to be more tests made on the ore to make the desired grade of WO_3 concentrates.

Yours very truly,

George Roseveare

George Roseveare
Metallurgist

ASSAYERS
CHEMISTS

EL PASO, TEXAS
BOX 4

HAWLEY & HAWLEY

W. E. HAWLEY, MANAGER
DOUGLAS, ARIZONA
537 12TH STREET
BOX 1060

SHIPPERS REPRESENTATIVES
BULLION BUYERS
ORE BUYERS

RECEIVED
JUN - 9 1955

WE HEREBY CERTIFY THAT THE FOLLOWING RESULTS WERE OBTAINED FROM SAMPLES OF Geo. W. Kaske

OFFICE NO.	MARKED	GOLD OZS.	SILVER OZS.	LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	IRON PER CENT	GOLD VALUE PER TON	SILVER VALUE PER TON	TOTAL VALUE
						% WO_3				
215379	# 1 Cleaner Tailings					2.38				
215380	#2 Test No.1051			21.5		48.57				
215381	#2 Test No.1051 Tails					.39				
215382	Rougher Concts. # 1 Sulfide & Combined	.04	14.2	23.3						

METAL QUOTATIONS:

GOLD $35.00 PER OZ. COPPER _____ C PER LB. CHARGES: $ 12.75

HAWLEY & HAWLEY

SILVER _____ PER OZ. _____ PER LB. DATE 8/18/48 PER [signature] ASSAYER.

CPD 1080-5M-448

UNIVERSITY OF ARIZONA
ARIZONA BUREAU OF MINES
ORE TESTING SERVICE

RECEIVED
JUN 9 1956

Ore No. 1051 Test No. 2

Conditions and Reagents

Point of Addition	Conditions			Reagents Pounds Per Ton									
	Time Mins.	% Solids	pH	Na_2CO_3	A-15	2-5	"N"	Q	482	484			
Ball Mill	20	60		2.0									
Conditioner	5	25	7.4										
Rougher #1	5												
" 2	5					0.1							
Conditioner	15			5.0			1.0	0.15					
Rougher	10		10.5						0.5*	0.5*			
Cleaner			9.8	2.0					.1				

Remarks: Na_2CO_3 Soda Ash
A-15 Aerofloat 15
"N" Sodium Silicate
Q Quebracho
482 Reagent S-482
484 Reagent S-484
* Stage ~~con~~ addition

Metallurgical Products

Product	Tons in 100 Tons Feed	Assays						% of Total					
Heads	100.0												
Sulphide Concentrate	2.6												
Sul/ #1 Concentrate	1.8												
#2													
WO_3 Concentrate	3.5												
Cleaner tailing	4.0												
Tailing	88.1												

Remarks: Sulphide concentrates combined for assay.
Grind 3.5 per cent on 100-mesh.

METALLURGICAL RESULTS OBTAINED ABOVE SHOULD BE CONSIDERED AS ONLY APPLICABLE TO MATERIAL CONFORMING TO THE CHARACTER OF THE SAMPLE UPON WHICH THE TESTS WERE MADE.

WAH CHANG CORPORATION
MINERS SMELTERS TUNGSTEN

MINERALS AND METALS

WOOLWORTH BUILDING
NEW YORK 7, N.Y.

CABLE ADDRESS "WAHCHANG" NEW YORK
ALL STANDARD CODES

RECEIVED
JUN - 9 1955

October 16, 1950

Mr. George W. Kaske
P. O. Box 2152
Bisbee, Arizona

Dear Sir:

We have your letter of September 8th informing us you have a prospect with a present mill average of 2.36% Wo3, plus about 2 to 5% lead.

From the information you have given us in your letter, we believe we will be able to use your material. If you should have any concentrates available at the present time, will you kindly send a sample to our plant as follows:

Wah Chang Smelting and Refining Company
of America, Inc.
63 Herbhill Road
Glen Cove, Long Island, N.Y.

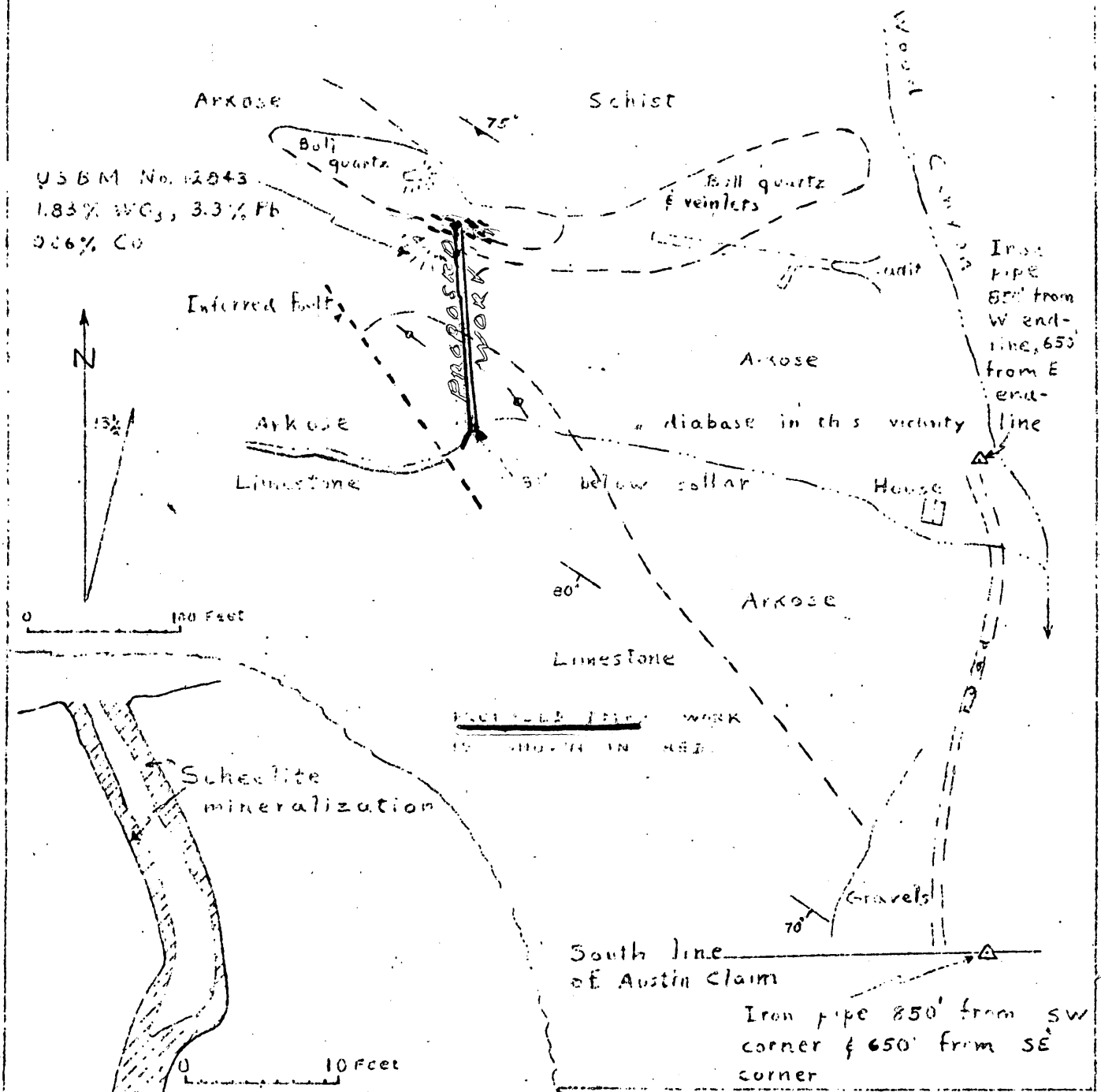
Yours very truly,

WAH CHANG CORPORATION

A Colligan

A. Colligan

ac



VERTICAL PROFILE OF SHAFT, LOOKING WEST

FIGURE 3.- GEOLOGIC MAP, AUSTIN TUNGSTEN PROSPECT COCHISE COUNTY, ARIZ.

FIG 3

DMEA 3852

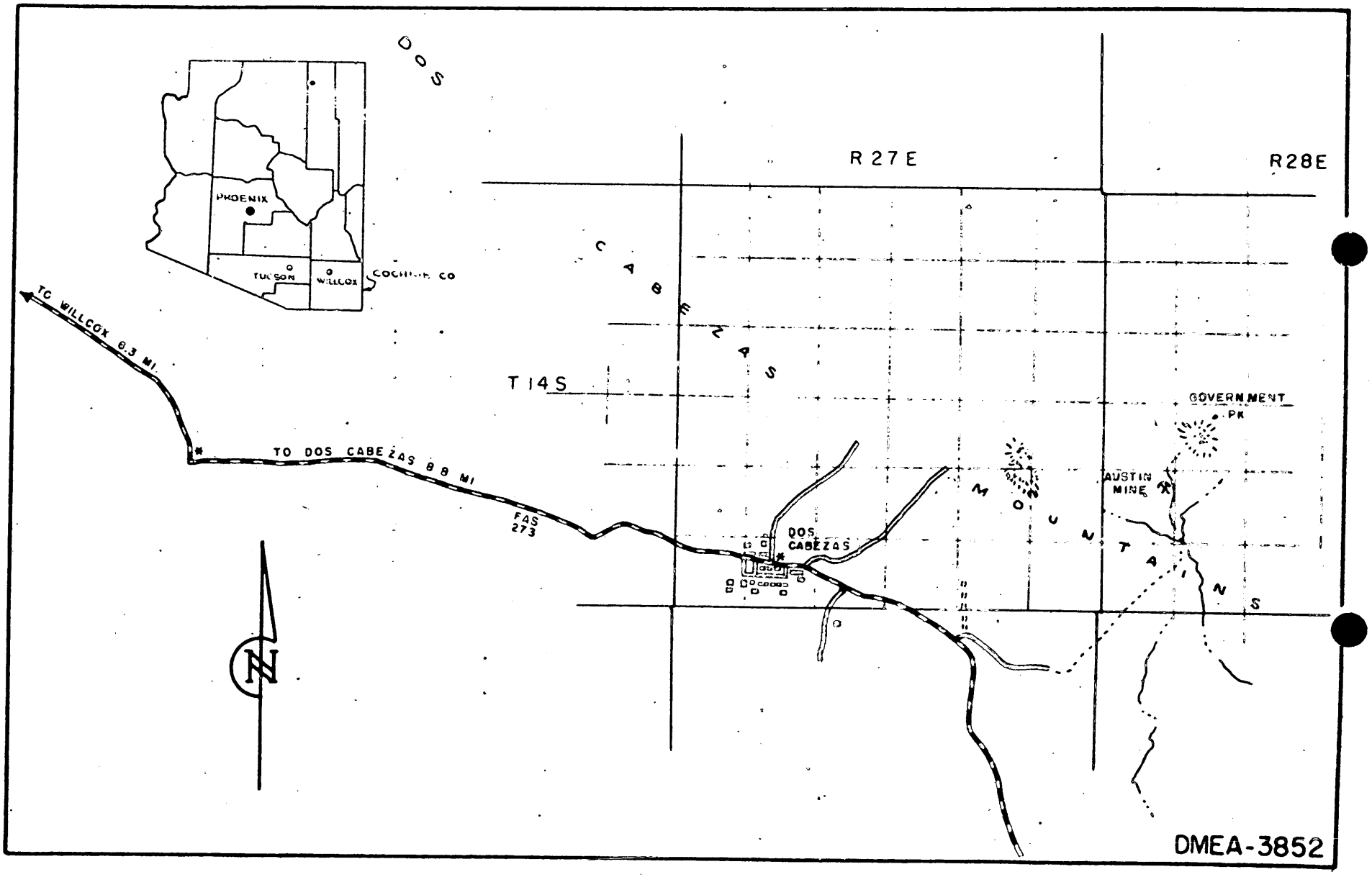


FIG.-1-LOCATION MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA

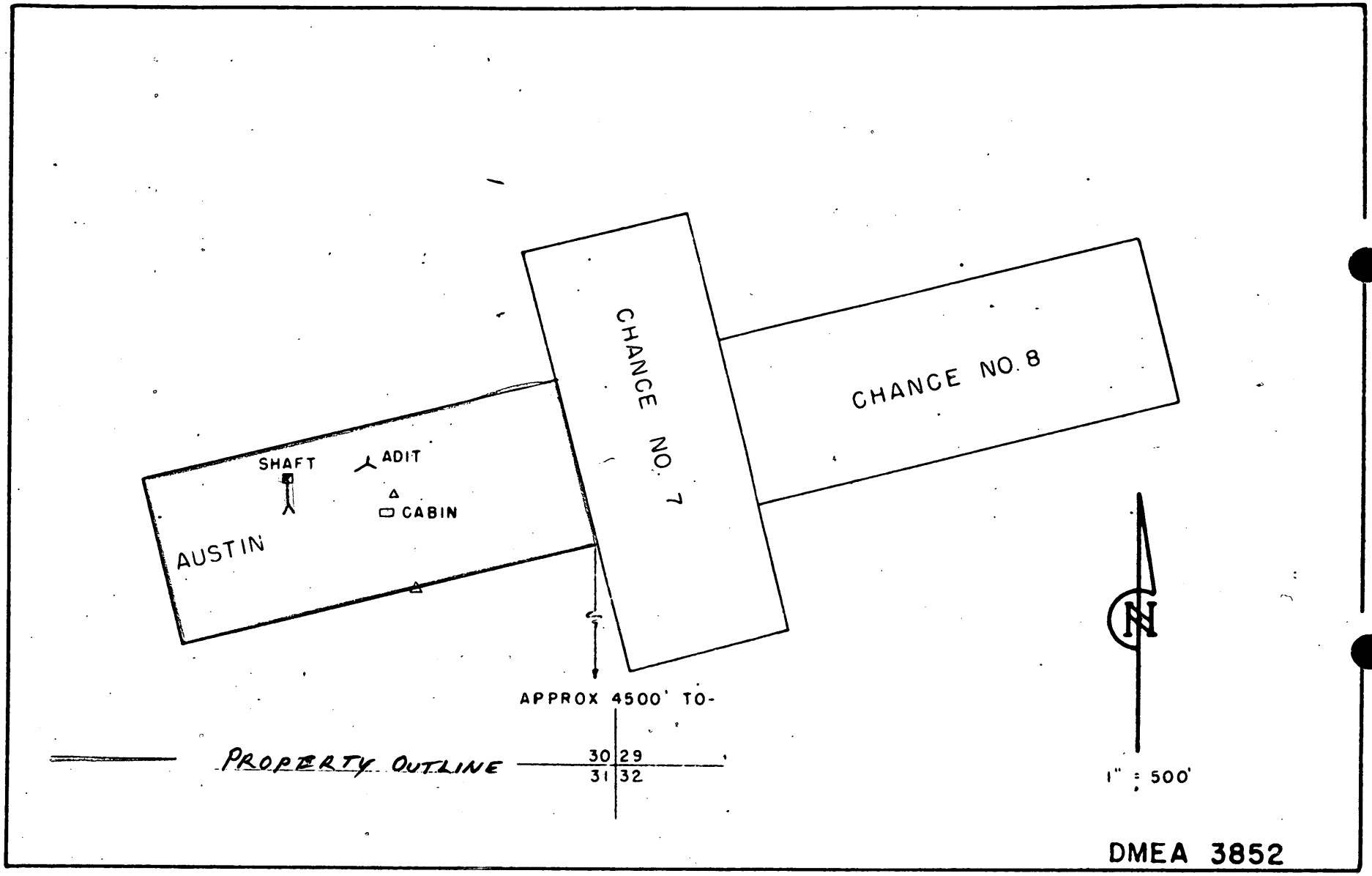
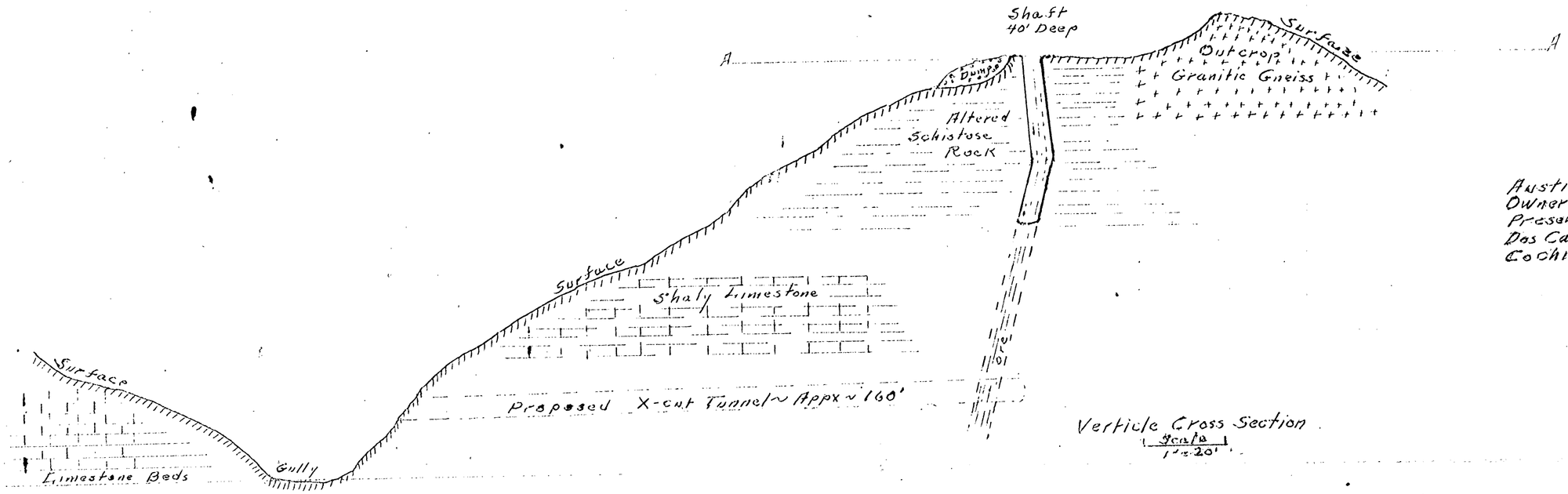


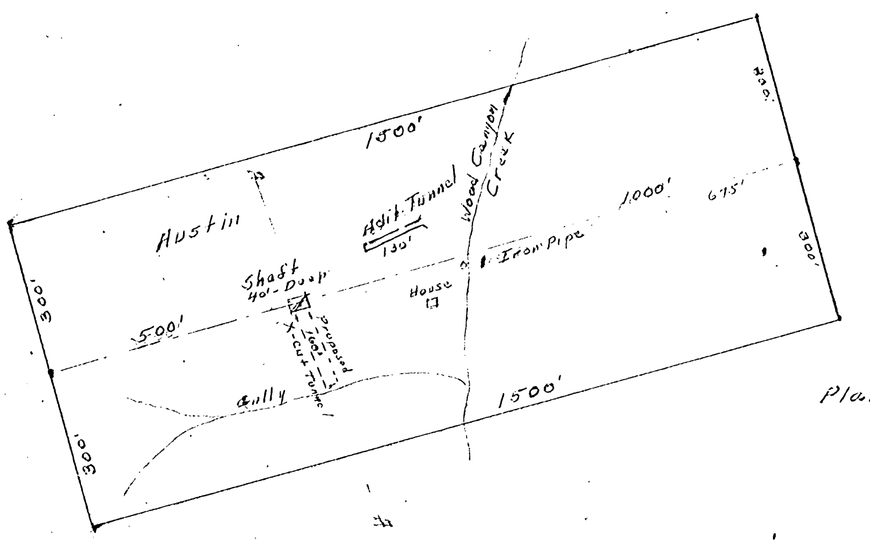
FIG. 2 CLAIM MAP, GEORGE W. KASKE, AUSTIN CLAIM
COCHISE CO. ARIZONA

RECEIVED
JUN - 9 1955



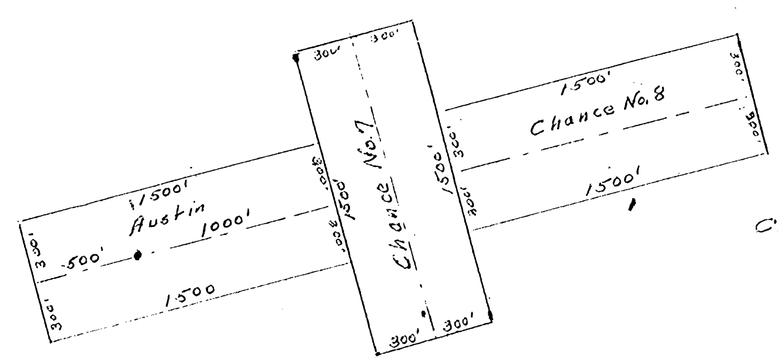
Sketch
Austin Mine
Owner: George W. Kaske
Present and Proposed Workings
Dos Cabezas Mining District
Cochise County, Arizona
May ~ 1955

Verticle Cross Section
Scale
1" = 20'



Plan ~ Austin Claim
Scale
1" = 200'

N



N

Claim Map
Scale
1" = 500'

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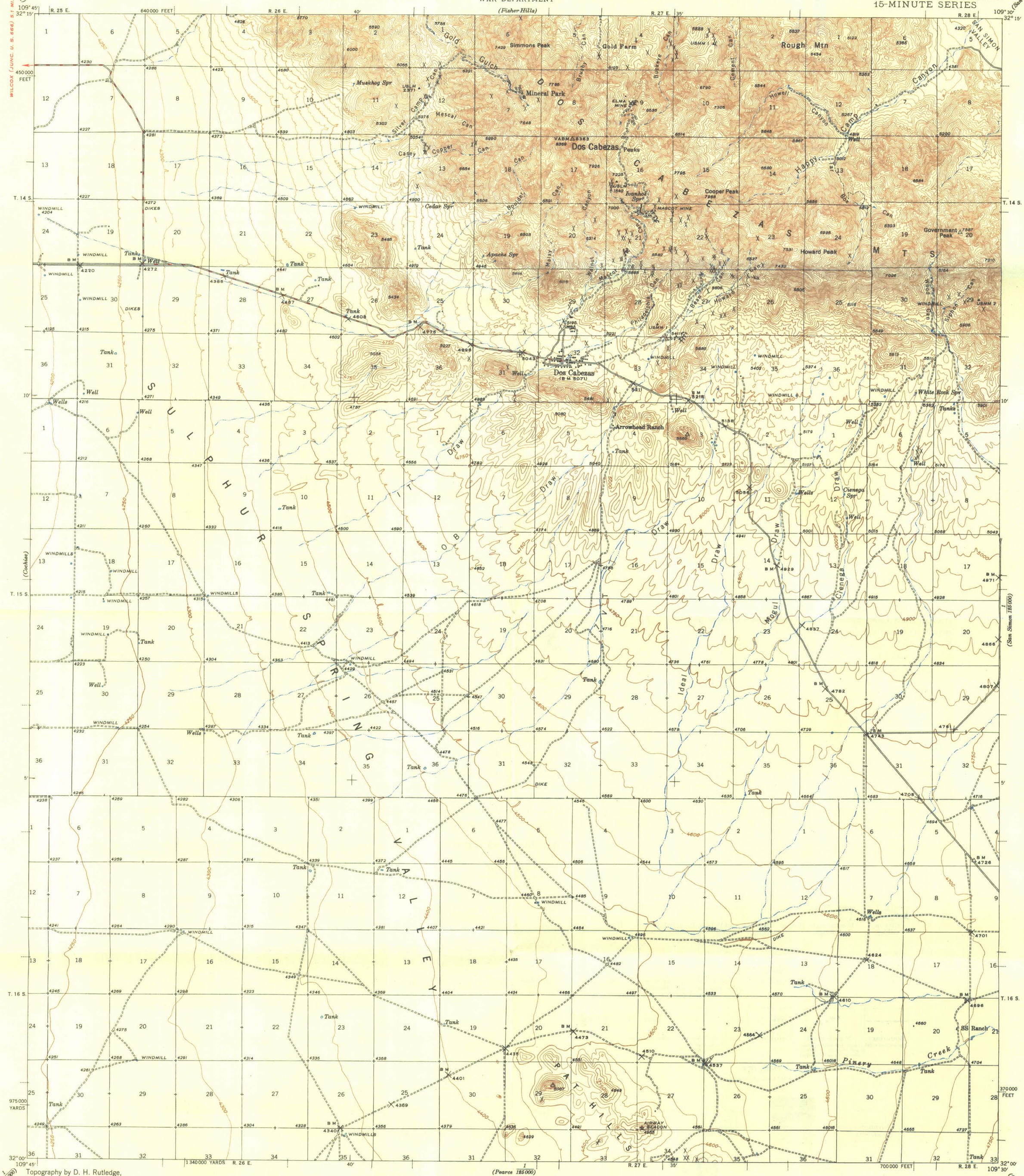
JUN - 9 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR DEPARTMENT

ARIZONA
(COCHISE COUNTY)
DOS CABEZAS QUADRANGLE
15-MINUTE SERIES



Topography by D. H. Rutledge,
W. E. Burton, and G. K. Jensen
Surveyed in 1940–1941

ROAD CLASSIFICATION

HARD-SURFACE ALL WEATHER ROADS		DRY WEATHER ROADS
Heavy-duty	4 LANE 2 LANE	Improved dirt
Medium-duty	4 LANE 2 LANE	Unimproved dirt
Loose-surface, graded, or narrow hard-surface		

U. S. Route — State Route

TRUE NORTH — MAGNETIC NORTH 13½°
APPROXIMATE MEAN DECLINATION, 1941

Scale $\frac{1}{62500}$

1 ½ 0 1 2 3 4 Miles
1000 500 0 1000 2000 3000 4000 5000 6000 7000 Yards
1000 0 3000 6000 9000 12000 15000 18000 Feet
1 .5 0 1 2 3 4 5 Kilometers

Contour interval 50 feet
Datum is mean sea level

Polyconic projection. 1927 North American datum
5000 yard grid based on U. S. zone system, F
10000 foot grid based on Arizona (East)
rectangular coordinate system

DOS CABEZAS, ARIZ.
Edition of 1943
reprinted 1948
N 3200—W 10930/15

13