DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMEA ~~DMA~~ Docket No. 2600

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To:	Code 400, Rm. 3538	Date	7-2-52
To:	Op Com	Date	7-21-52
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CONTROLLED DOCUMENT

2600

Mr. J. L. Russell, President
Diamond Mining Company
P. O. Box 409
15th and North C Streets
Sacramento, California

FEB 26 1953

Re: Docket No. TAK 2600 - Tungsten
Diamond Mining Company
San Joaquin Mine (Brothers Mine)
Madera County, California

Dear Mr. Russell:

In accordance with Mr. Miller's request of February 12, 1953, we are returning your lease on the subject property and the reports and maps by Mr. Fred L. Humphrey. We were sorry to hear of your loss of records by fire, and hope the on hand data will be of assistance.

The following are enclosed:

1 original	"Preliminary Report on the S. J. Brothers Scheelite Property", Fred L. Humphrey, Geologist, 4 figs., June 24, 1952.
1 photostat	Ore analysis by Horne Laboratories.
1 original	"Supplementary Report on the S. J. Brothers Scheelite Property", Fred L. Humphrey, Geologist, 1 geological map, July 17, 1952.
1 photostat	Topographic map of San Joaquin Tungsten Mines.
1 original	Lease of Mining Claims by and between D. L. Brothers and Harris Brothers, and Art Jones and Phillis Jones, hereinafter called Lessors, and J. L. Russell, hereinafter called Lessee.
1 original	Assignment of lease by J. L. Russell to [illegible]

Sincerely yours,

[illegible]

Administrator

Enclosures

Fountleiye/hmb
2/25/53

CC: Docket
File 400
Adm. Asst. File
[illegible]
[illegible]
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Field Team, Region 3

400

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 20 1953

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

February 18, 1953

AIR MAIL

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2600 (Tungsten), Diamond R. Mining Company, San Joaquin Mine (Carethers Mine), Madera County, Calif.

Mr. J. L. Russell, President, Diamond R. Mining Company, P. O. Box 488, 16th and North R Streets, Sacramento, California, called me long distance today, asking if I had a copy of the company's lease on the San Joaquin Mine. Copies of the lease and a map or maps of the property were included in the application for an Exploration lease, of which the four copies must be in the Washington files as we have no copy here.

The butane tank at the company's property recently exploded and the resultant fire destroyed the company's copies of its lease and maps. It is for that reason that Mr. Russell would like to have one of our copies of the lease and maps returned to him.

It will be appreciated if you will meet Mr. Russell's request and send the requested material directly to him at the above Sacramento address without delay. Another outfit has found, as he told me, some promising ore on the property which his company did not know of at the time its application for lease was made. These parties now want to negotiate a lease from the Diamond R. Company.

H. C. MILLER

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Administrator, DMEA Oct. 28, 1952

Iron and Ferro-Alloy Division, DMEA

Denial of application for exploration assistance in the amount of $39,997.23
Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

The denial of the subject application by this Division is based on the following information:

1. The applicant proposed exploration by diamond drilling of the tungsten occurrences at the old Carothers mine. The proposed program was too ambitious for the expected target. Several cost items including that of supervision were much too high.

2. The tungsten mineralization is confined to a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite.

   All evidence to date indicates that the tungsten ore shoots are small, spotty, and as yet have never been capable of sustained mining.

3. Six samples of area A taken by the examining field team averaged 0.12 percent WO_3. Only one sample contained more than 0.15 percent WO_3 - 0.32 percent.

4. A sample of ore presumably from this area submitted by the Diamond R Mining Company contained 0.35 percent WO_3. This sample was undoubtedly representative of the best material present. Approximately 50 percent of the tungsten was recoverable by gravity concentration.

5. Analyses of samples taken by the applicant were much higher than those taken by the field team and also much higher than the metallurgical sample submitted.

6. A field team examination by Frank J. Wiebelt, U. S. Bureau of Mines, recommends denial.

7. The field team recommends denial because the property does not have sufficient merit to warrant Government aid.

8. The Commodity Division of the U. S. Geological Survey recommends denial.

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

FARutledge'lm
10/28/52

cc: Admn. Reading File
Docket
G. C. Selfridge
F. A. Rutledge

OCT 30 1952

Mr. J. L. Russell, President
Diamond R Mining Company
P.O. Box 400
16th and North B Streets
Sacramento, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

Dear Mr. Russell:

Your request for exploration assistance and other reports concerning the San Joaquin mine available to us in Washington have been carefully reviewed.

This information, although noting the occurrence of a small amount of scheelite mineralization in a series of lenticular beds in a belt of schist and quartzite intruded by tongues and dikes of granodiorite, indicates to us that the probability of disclosing mineable reserves of tungsten ore by your proposed exploration is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing this property to our attention.

Sincerely yours,

T. D. Mittendorf

Administrator

FARutledge:lm
10/26/52

cc: Admin. Reading File
Docket
H. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
C. C. Selfridge
F. A. Rutledge

IN REPLY REFER TO:

C-MD-CF

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

400

October 23, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 8 1952

Memorandum

To: George C. Selfridge

From: T. P. Thayer

Subject: DMSA 2600 - Tungsten Diamond R. Mining Co.

Despite the complaints of the applicant regarding the adequacy of the field examination, the Geological Survey concurs with the recommendation of the Field Team that the application be denied. The present report agrees in general with the Geological Survey report of 1944 that reserves of minable-grade ore are small and scattered, and that no promising exploration target has been demonstrated.

T. P. Thayer

TPThayer:gt

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

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

October 13, 1952

Memorandum

To: DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 2600 (Tungsten), Diamond R. Mining Company, San Joaquin Mine, Madera County, California

Reference is made to the request given by Mr. Selfridge in his letter to me, dated July 14, for an examination of the subject property.

Attached are four copies of a report - DMEA-2600 (Tungsten) Diamond R Mining Co. (San Joaquin Mine), Madera County, California by Frank J. Wiebelt, Mining Engineer, U. S. Bureau of Mines, dated September 4, 1952.

According to the examining engineer, the analyses of samples taken from various outcrops on the property will not result in developing sufficient tungsten ore for an economic operation of the property. He has recommended that the applica- be denied.

A review of the geology and reserves by the U. S. Geological Survey, samples taken by the examining engineer and test work done by the Hydrometallurgical and Ore Dressing Branch of Region III, does not indicate that the property has sufficent merit to warrant Government aid to explore the property.

Our sending the report to you was delayed in this office, awaiting the results of some assays which Mr. J. L. Russill, President of the Company, promised to send in.

When the assay results were received, it was noted that they were very much higher than what Mr. Wiebelt reported, even though Mr. Russill stated they were taken close to the places Wiebelt sampled. Mr. Russill indicated that he was not satisfied

Reviewed by
DMEA OPERATING COMMITTEE

10-24-52
(date)

with Wiebelt's sampling in that he only took chip samples across the veins and let the fines go to waste, whereas his samples were caught in a wash tub, and, therefore, so he claims were more representative.

Mr. Russill's samples assayed by the Morse Laboratories in Sacramento ran as follows:

"A" Drift	2.59% WO_3
Center Bed	0.36% WO_3
Incline Shaft - 8'	0.74% WO_3
Top Bed - 20'	0.89% WO_3.

Samples assayed by The Twining Laboratories in Fresno, California ran:

Top	0.47% WO_3
Center	2.83% WO_3
Shaft	0.68% WO_3.

These individual samples with one exception ran considerably higher than the "representative" sample I asked Mr. Russill to send to our Reno laboratories for preliminary concentrating tests. That sample ran 0.35% WO_3.

Mr. Russill called me on the phone some weeks ago, expressing dissatisfaction with the examination made of his property, so on September 22 I wrote him that I would gladly discuss the work with him if he would call at the office. To date he has not called, so rather than hold the report any longer, I sending it on to you.

The docket is being returned herewith.

H. C. MILLER

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to A. C. Johnson, Reno, Nevada ~~(with copy of report)~~
E. H. Bailey, USGS (with copy of report)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2600 (Tungsten) Diamond M. Mining Co.
(San Joaquin Mine)

Madera County, Calif.

Frank J. Wiebelt, Mining Engineer
U. S. Bureau of Mines

September 4, 1952

Reviewed by
DMEA OPERATING COMMITTEE

10-24-52
(date)

DIAMOND R. MINING CO.
(San Joaquin Mine)
Madera County, Calif.

Docket No. DMEA-2600 (tungsten)

Name and address of applicant: Diamond R. Mining Co. (Nevada Corporation), 16th & North B Street, Sacramento, California. P. O. Box 409.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The property was examined on July 28 and 29, 1952. The examiner sampled the outcrops involved in the project and also some of the other main outcrops. Lamping with ultra-violet lamp preceded the sampling operations. The underground workings, with the exception of one 31-foot inclined shaft were caved and inaccessible for sampling. In the areas A and B involved in the proposed project, only one sample contained more than 0.50% WO_3. The exposures are poor and continuity between outcrops is conjecturable.

Conclusions: The analyses of samples taken from the various outcrops suggest that the proposed work will not result in developing sufficient ore of commercial WO_3 content to make economic operation of the property feasible. The exploration program is much too pretentious for the expected target and the cost estimates for supervision are top heavy.

Recommendations: It is recommended that the application for exploration work aid be denied.

TIME SPENT ON PROPERTY AND NAMES OF PERSONS ACCOMPANYING EXAMINER

The examiner spent from the evening of July 28 through 9:30 A.M. of July 30, 1952 on the property.

Mr. G. R. Carothers, one of the lessors of the property and Mr. Harvey Terbush representing the lessee, accompanied the examiner. Mr. E. L. Reeves, Sec'y & Treasurer of the Diamond R. Mining Co. was at the property but on account of illness was not able to accompany the examiner and remained in bed.

NAME AND LOCATION OF PROPERTY

The name of the mine is the San Joaquin mine.

A. Distance by road to nearest town: 18.5 miles easterly of North Fork, Calif.

B. County and State: Madera County, Calif.

C. Mining District, and Township, Range and Section, if Surveyed: The property covers portions of sections 3, 4, 9, 10, and 15 of T. 8 S., R. 24 E., M.D.B.&M.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The road from North Fork to the property is in good condition and except during periods of heavy snowfall, is accessible throughout most of the year. The nearest railroad shipping point is at Friant, Calif., 45 miles by surfaced road from the mine.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The examiner is not in a position to state qualifications of applicant and operating personnel.

APPLICANT'S PROPERTY RIGHTS

The applicant holds the property under a lease. A copy of this lease accompanies the applicant's application for aid. The examiner was told by G. R. Carothers, one of the owners of the property, that the applicant already has the owner's consent to lien. The application also contains Book and Page numbers of record of location notices.

DESCRIPTION OF PROPERTY

a. Surface and surface facilities:

There are no surface facilities such as mine buildings on the property. Also no mine equipment.

b. Mine workings and underground facilities:

According to a memorandum dated July 5, 1952 from D. M. Lemmon, U.S.G.S. to George C. Selfridge, DMEA, Subject DMEA 2600 Diamond R. Mining Co., the workings include a 45-foot inclined shaft, an 18-foot vertical shaft, 3 small open pits, 4 adits (105 feet, 38 feet, and 6 feet long), and many small pits, trenches, and bulldozer cuts.

The examiner was unable to inspect the above underground workings as they are now caved. However, a new 31-foot inclined shaft, in close proximity to the above inclined shaft was open and two samples were taken from this shaft.

c. Existing development:

The claim map of the property furnished by the applicant is shown in figure 2. This map also shows the areas containing scheelite-bearing tactite outcrops.

A plan of the workings in areas A and B of the above map are shown in detail in figure 3. This plan was prepared by the U. S. Geological Survey. The only underground workings that are now accessible in Area A, the area in which most of the project work was to be done, was the new 31-foot inclined shaft in that area.

The following samples were taken by the examiner, and their analyses are as follows:

Sample No. 1 - 0.60% WO_3. This is a grab sample of ore dump material taken from small outcrop, now caved and filled in by surface debris, in Area C in fig. 2.

Sample No. 2 - 0.10% WO_3. This sample is a combination of grab from ore dump material and some of exposed outcrop from tactite in Area D in fig. 2.

Sample No. 3 - 0.12% WO_3. Area A in fig. 2. This sample was 4.7 feet in length and was taken from a point 10 feet down and 6 feet to the right of the new 31-foot inclined shaft.

Sample No. 4 - Less than 0.01% WO_3. Area A in fig. 2. This sample, 6 feet in length, was taken from the north side of the new 31-foot incline, 23.5 feet below the collar of shaft.

Sample No. 5 - 0.12% WO_3. Area A in fig. 2. This sample, 7.5 feet in length, was taken 41 feet N 30° E from the south side of collar of new 31-foot incline.

Sample No. 6 - Less than 0.01% WO_3. Area A. This sample represents the upper 6 feet of tactite beds northeast of collar of 31-foot incline.

Sample No. 7 - 0.14% WO_3. Same tactite bed as sample No. 6. Sample represents width of 4.5 feet in middle of tactite bed.

Sample No. 8 - 0.32% WO_3. Lower 7 feet of same tactite bed as samples No. 6 and No. 7.

Sample No. 9 - 0.03% WO_3. Sample taken from tactite outcrop on Crystal A claim.

Sample No. 10 - 0.06% WO_3. Grab sample of greenish (decomposed epidote?) material found above granitic rocks in some of the bulldozer cuts. No large tonnage involved. The owner, Mr. Carothers stated that sometimes small highgrade pockets of scheelite were found in this greenish decomposed material. The main object of taking the sample was to test for uranium but geiger counter denoted no uranium.

Samples 3, 4, 5, 6, 7 and 8 were taken from Area A in which area most of the project work was contemplated.

A sample of ore presumably from this area was sent by E. L. Reeves and J. L. Russill of the Diamond R. Mining Co. for a preliminary metallurgical test to the Hydrometallurgical & Ore Dressing Branch, J. B. Zadra, Chief, Bureau of Mines, Reno, Nev. The following items were abstracted from the report of this test:

"A flotation test with standard reagents was run on several charges of ore, stage-ground to minus 100-mesh. The rougher concentrates from each charge were combined and cleaned once. The cleaner concentrates contained 6.57 percent WO_3, representing 66.2 percent recovery of scheelite. The cleaner tailings carried 0.16 percent WO_3 and the rougher tailings 0.11 percent WO_3.

"The flotation test demonstrated two things:

(1). That about 30 percent of the total scheelite was probably very fine-grained and not liberated by the 100-mesh grind in the test procedure, so that unless higher grade ore was mined, recovery after combined gravity and flotation treatment might not be economical.

(2). The presence of considerable micaceous mineral in the ore as a result of the garnet, might cause difficulty in producing a satisfactory grade of flotation concentrates. This factor, however, might be eliminated by further flotation investigations if the project is continued.

"As far as gravity concentration results could be estimated by the examination made of crushed and sized portions of the ore, it is probable that about 50 percent recovery could be made by this method alone, and that an additional 15 percent could then be recovered by flotation of slimes and reground middlings. The low tungsten content of the ore does not offer much encouragement for further action on this project."

No samples were taken from Area B, in which a few holes were to be drilled according to the proposed work, because the material was not in place or possibly buried.

Areas A and B were lamped with the ultra-violet lamp prior to sampling operations. The assays of samples agree with results of lamping operations.

GEOLOGY AND ORE RESERVES

The following was abstracted from a U. S. Geological Survey report on the areas A and B in which the project work was contemplated:

"The workings are in a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite. The general strike of the metamorphic rocks is north to northwest and dips range from 30 to 70 degrees West. Granodiorite appears to cut off the beds on the southeast and probably underlies them at shallow depths. The tactite beds change to marble and lime hornfels along the strike. Rich ore occurs locally near granodiorite contacts and in small pods elsewhere, but the average grade of ore is much lower.

"In the tactite beds at the west side of the mine area (see fig. 3) surface exposures show 0.3 - 1% ore. The 105-foot adit below the road cuts only a little low-grade tactite, hence probably is near the bottom of this orebody. In the three closely-spaced beds 200 feet east, patches

of 1 - 1.5% ore remain; distribution of the ore appears to be erratic except that the richest ore was found in the inclined shaft (Note: Examiner found this shaft caved) along the granodiorite contact. Workings in the tactite beds at the east side of the mine area have caved, bulldozer cuts just above the workings show that the tactite ends abruptly northward.

"The U.S.G.S. estimates that the entire mine area (see fig. 5) totals 1500 tons (or 1150 units) of indicated ore reserves and 12,200 tons (or 820 units) of inferred ore reserves."

The examiner's samples indicate that in the three closely spaced tactite beds 200 feet east mentioned above, the upper 6 feet carried less than 0.01% WO_3, the middle 4.5 feet contained 0.14% WO_3 and the lower 7 feet contained 0.32% WO_3. Two samples taken from the new 31-foot inclined shaft contained 0.12% and less than 0.01% WO_3 respectively. A sample between the above samples and the inclined shaft contained 0.12% WO_3. These samples indicate that only very small patches of 0.3% WO_3 ore exist in area A where most of the project work was contemplated. The probable grade of ore is too low grade to be of commercial value. As only one sample (sample No. 8) was found to carry sufficient scheelite values (0.32%) of economic importance, no estimate of ore reserves is made by the examiner. The examiner believes that most of the higher grade pockets mentioned in the above U.S.G.S. report has been removed.

PAST OPERATION

The following information was obtained from a U. S. Geological Survey report on the property, in 1945 by K. B. Krauskopf.

A small mill on the property produced concentrates from May to December 1942; in 1943 the mine was leased to the Budd-Wheeler Company and some additional ore was milled; mine and mill were idle in May 1944 and probably has been idle since.

AVAILABILITY OF LABOR, MATERIALS, ETC.

Labor is available in the vicinity of North Fork. Supplies and equipment may be obtained from North Fork, Fresno, Madera and Sacramento. Water supply is available from water rights to 5 second-feet on Fish Creek and from four springs on the property. The Southern California Edison Company has an electric power house three miles southeast of the property.

STATEMENT OF APPLICANT'S PROPOSAL, SUGGESTED ALTERNATIVE OR PREFERRED EXPLORATION METHODS, IF ANY, AND FEASIBILITY.

The applicant's proposal is to explore two scheelite-bearing tactite areas A and B on their property by means of 16 to 18 diamond drill holes aggregating 4,430 feet; the holes would vary in depth from 100 feet to 500 feet. The estimated cost of this drilling program, including necessary road work to the drill sites and some surface trenching amounts to approximately $40,000.00

No discussions between the applicant and the examiner were held.

The funds requested are considerably more than the small size of the geologic targets warrant.

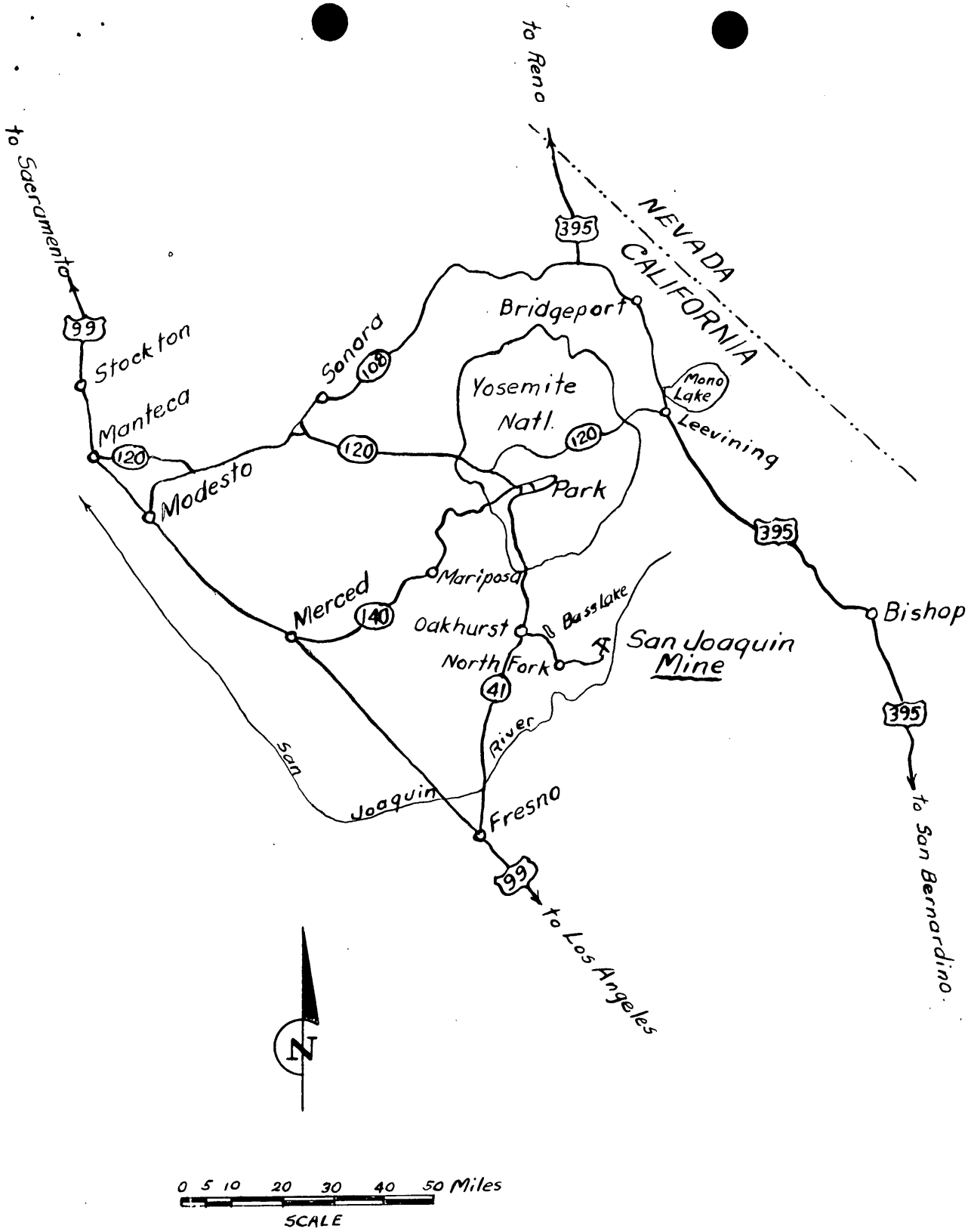

Fig. 1. - Location map, San Joaquin tungsten mine, Madera County, California.

MF-201
(June 1951)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the holder of a mortgage, claim, lien, or encumbrance identified and described as follows*:

.....

.....

upon that certain parcel of ground described in a certain Exploration Project Contract dated

....., 195...., between .....

.....,

and the United States of America;

NOW, THEREFORE, the undersigned does by these presents subordinate all of his right, title, and interest in said mortgage, claim, lien, or encumbrance to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights under the provisions of said mortgage, claim, lien, or encumbrance; and

The undersigned agrees to commit no act nor assert any right, title, or interest under said mortgage, claim, lien, or encumbrance that might contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this ..... day of ....., 195....

.....

*Include date of the instrument, and if recorded, book, page, and county of record.

U. S. GOVERNMENT PRINTING OFFICE 16—64581-2

MF-201
(June 1951)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the holder of a mortgage, claim, lien, or encumbrance identified and described as follows*:

.....

.....

upon that certain parcel of ground described in a certain Exploration Project Contract dated

....., 195...., between .....

.....,

and the United States of America;

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The undersigned agrees to commit no act nor assert any right, title, or interest under said mortgage, claim, lien, or encumbrance that might contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

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Dated this ..... day of ....., 195....

.....

*Include date of the instrument, and if recorded, book, page, and county of record.

U. S. GOVERNMENT PRINTING OFFICE 16—64581-2

400

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond M Mining Company
Carruthers Mine (San Joaquin Mine)
Madera County, California

Dear Mr. Miller:

In accordance with the last paragraph of the letter of July 14, 1952, sent you by the Operating Committee, there is transmitted herewith one copy of the Wyant and Erickson map of the Carruthers Mine.

Sincerely yours,

George C. Selfridge

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

Enclosure

GCSelfridge:ls
7/28/52

cc: Docket
Admn. Read. File
Field Team, Reg. 3
G. C. Selfridge
D. M. Lemmon, USGS
R. W. Geehan, USBM

EXPLORATION

Mr. M. C. Miller, Executive Officer
DMEA Field Team, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Tungsten Mine
Madera County, California

Dear Mr. Miller:

This is to acknowledge receipt of the subject application forwarded with your letter of June 27, 1952, and to request that you please arrange for a field examination of the subject property.

As noted by Mr. Lemmon in his memorandum attached hereto, the exploration program appears quite ambitious. It would appear that the property warrants more sampling especially, and trenching followed by further work if warranted. If the labor is to be used for road work in part, the amount and estimated cost should be mentioned. The work of a consultant should apply solely to the exploration project and not to further examination and report writing on the various claims.

We are attempting to secure a copy of the Wyant and Erickson map. If we can secure it within the next week or 10 days, we shall send it to you immediately.

Sincerely yours,

George C. Selfridge

ACTING Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

GCSelfridge:ls 7/7/52

CC: Docket
Admn. Reading File
G. C. Selfridge
Field Team, Reg. 3
D. M. Lemmon, USGS
R. W. Geehan, USBM
Operating Committee

EXPLORATION

Mr. J. L. Russill, President
Diamond R Mining Company
P. O. Box 409
16th and North B Streets
Sacramento, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R. Mining Company
San Joaquin Tungsten Mine
Madera County, California

Dear Mr. Russill:

Your application for assistance in exploring the San Joaquin Tungsten Mine in Madera County, California, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. N. C. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination. Any assistance that you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

(signed) FRANK E. JOHNSON

Acting Administrator
Defense Minerals Exploration
Administration

GCSelfridge:ls
7/7/52
CC: Docket
Admn. Reading File
Field Team, Region 3
G. C. Selfridge
D. M. Lemmon, USGS
R. W.Geehan, USBM
Operating Committee

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

400

G-FD-DML

Memorandum July 3, 1952

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application $39,997.23 DMEA 2600 - Tungsten
Diamond R. Mining Company
Sacramento, California

Property: San Joaquin tungsten mine, also known as Carothers property. Consists of 31 unpatented claims known as the Garnet, Tungsten and Crystal groups. Secs. 3, 4, 9, 10 and 15, T. 8 S., R. 24 E., Madera County, California, 17 miles by road east from North Fork.

Past Production: About 550 units of WO_3 was produced in 1942-43.

Geology: The property was examined for the Geological Survey in 1942 by D. G. Wyant and M. P. Erickson, in 1944 by K. B. Krauskopf. In a manuscript report describing tungsten deposits of Madera, Fresno and Tulare Counties (1945), Krauskopf gives the following information:

"The Carothers mine is west of the San Joaquin River, about 10 miles airline east of North Fork. The property has been known at different times as the Carothers-Root mine, Madera Tungsten, Inc., and San Joaquin mine. A small mill on the property produced concentrates from May to December 1942; in 1943 the mine was leased to the Budd-Wheeler Company and some additional ore was milled; mine and mill were idle in May 1944 and probably have been idle since. (The property was mapped by Wyant and Erickson late in 1942 and was revisited by Krauskopf in May 1944.

"Workings include a 45-foot inclined shaft, an 18-foot vertical shaft (now caved), 3 small open pits, 4 adits (105 feet, 38 feet, 28 feet and 6 feet long) and many small pits, trenches and bull-dozer cuts. The workings are in a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite. The general strike of the metamorphic rocks is north to northwest and dips range from 30 to 70° W. Granodiorite appears to cut off the beds on the southeast and probably underlies them at shallow depths. The tactite beds change to marble and lime hornfels along the strike. Rich ore (2-20% WO_3) occurs locally

near granodiorite contacts and in small pods elsewhere, but the average grade of ore is much lower (0.5-1.0% WO_3).

"In the tactite bed at the west side of the mine area surface exposures show 0.3 1% ore. The 105-foot adit below the road cuts only a little low-grade tactite, hence probably is near the bottom of this ore body. In the three closely-spaced beds 200 feet east patches of 1-1.5% ore remain; distribution of the ore appears to be erratic except that the richest ore was found in the inclined shaft along the granodiorite contact. Workings in the tactite beds at the east side of the mine area have caved; bull-dozer cuts just above the workings show that the tactite ends abruptly northward. The grade of ore in these eastern beds ranges from 0.3 to 0.8% WO_3.

"Several other claims owned by Mr. Carothers are undeveloped. Scheelite is visible in surface exposures of tactite on some of the claims."

In his notes of May 1944, Krauskopf gives some additional information as follows:

"The Carothers mine, together with several other Madera County properties, was leased during 1943 by the Budd-Wheeler Mining Company. Local opinion of the company is uniformly bad. Budd, according to report, is a promoter with grand ideas, who spent Wheeler's money trying to make a big operation out of one deposit after another. Some ore was milled, but Budd apparently failed to tell any of the mine owners how much tungsten was produced. Having exhausted Wheeler's resources, he disappeared early last fall, leaving behind him some new roads, some extensive bulldozer cuts, some beautiful new orebins, and a sheaf of unpaid bills.

"Budd renamed the Carothers property "San Joaquin Mine", but the name never came into local use. Since he left the mine has been idle, but Mr. Carothers says that John Elam plans to reopen it shortly. Another lessee who toged with the mine briefly before Budd's appearance was John E. Winters ("North Fork Mining Company").

"Budd's development work makes necessary a downward revision in Wyant and Erickson's estimate of reserves. Underground workings at the east bed (Wyant and Erickson's nomenclature) have caved; the only new work consists of bulldozer excavations above the old cut, which show that tactite is not continuous above the cut as indicated by Wyant and Erickson's map. This fact suggests a slight lowering of inferred ore to 2000 tons or 1000 units. Workings at the central bed are unchanged except for enlargement of the upper open cut, which probably furnished all of the ore which Budd milled

at this property — on the order of 300 tons. Sufficient low-grade ore is exposed by the new excavation to warrant a slight increase in inferred reserves, to 200 tons or 200 units. At the west bed the principal changes are a 40-foot trench along the tactite at the top of the hill and a 105-foot adit from a point 40 feet below the road which follows the strike of the tactite. The entrance of the adit is in granite; tactite appears about 50 feet from the mouth and attains a maximum thickness of four feet; toward the end of the adit it changes to quartz-garnet rock and fingers out into schist and granite. The tactite has a few small spots of good ore, but over 40 feet a one-foot width would hardly average 0.4% WO_3. The small amount of tactite in the adit and its low grade suggest that this level is the bottom of the ore body, which would reduce the amount of inferred reserves to 10,000 tons or 4000 units. The revised totals for the entire mine are: indicated, 1300 tons or 1150 units; inferred, 12,200 tons or 5200 units."

Comment: Available information suggests that the chances are slim of finding sufficient ore to make a commercial operation of the property. The exposures are apparently poor and continuity between outcrops is still speculative. The outcrops are not adequately sampled.

The exploration program is far too ambitious for the expected target. Apparently some mining is planned inasmuch as a miner, laborer, compressor and blasting supplies are listed, but no statement is made about their utilization.

Although one competent geologist at $600 to $700 per month could handle the project easily, the applicant includes a consulting geologist, an engineer-manager, and a foreman at a total cost of $1,515 per month. The map and geological report attached to the application do not support the assumption that the consulting geologist is worth $75 daily.

The property possibly warrants sampling, more trenching, followed, if successful, by a small amount of drilling. It is improbable that any of the mineralized beds extend 300 feet down the dip (figure 4 of application), and such deep drilling should not be considered.

Recommendation: I suggest that the Field Team, Region III, be asked to examine the property and comment on the exploration proposal. Mineralized exposures should be adequately sampled as part of the field examination.

DM Lemmon

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

400

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

June 27, 1952

DMEA 2600

Memorandum

To: Defense Minerals Exploration Administration,
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for an Exploration Loan (Tungsten),
Diamond R Mining Co., J. L. Russill, Pres.,
16th & North B St., Sacramento, Calif.
San Joaquin Tungsten Mine, Madera County, Calif.

Attached are three of the four copies of an application for aid in the exploration of subject property, received in this office today. The fourth copy is being retained in this office for the use of our field engineers, in case your office desires us to make a field examination.

Inasmuch as Mr. Fred L. Humphrey, of Stanford University, examined and reported on the property and the fact, I believe, that Dwight Lemmon, of the Geological Survey, has personal information on it, a field examination by our engineers and/or geologists may not be necessary. Mr. Humphrey, in whom we have much confidence, is apparently very favorably impressed with the property and its possibilities.

Six copies of Owner's Consent to Lien also are attached.

H. C. MILLER

H. C. Miller
Executive Officer, DMEA Field Team
Region III

Attachments

Copy to: E.H.Bailey, USGS

400

FILE COPY
SURNAME:

Rutledge
Martin

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

Mr. J. L. Russill, President
Diamond R Mining Company
P. O. Box 409
16th and North B Streets
Sacramento, California

FEB 26 1953

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

J.C. 2/26/53

Dear Mr. Russill:

In accordance with Mr. Miller's request of February 19, 1953, we are returning your lease on the subject property and the reports and maps by Mr. Fred L. Humphrey. We were sorry to hear of your loss of records by fire, and hope the enclosed data will be of assistance.

The following are enclosed:

1 original	"Preliminary Report on the E. L. Reeves Scheelite Property", Fred L. Humphrey, 8 pp., 4 figs., June 24, 1952.
1 photostat	Ore analysis by Morse Laboratories.
1 original	"Supplementary Report on the E. L. Reeves Scheelite Property", Fred L. Humphrey, 9 pp., 1 geologic map, July 15, 1952.
1 photostat	Topographic map of San Joaquin Tungsten Mines.
1 original	Lease of Mining Claim. By and between G. R. Carothers and Carrie Carothers, and Art Jones and Phyllis Jones, hereinafter called LESSORS, and J. L. Russill, hereinafter called LESSEE.
1 original	Assignment of lease by J. L. Russill to DIAMOND R MINING COMPANY.

Sincerely yours,

G. O. Mittendorf (for)

Administrator

Enclosures

FARutledge/hhb
2/25/53

CC: Docket
Code 400
Admn. Read. File
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team, Region 3

Docket

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 20 1953

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

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

February 19, 1953

AIR MAIL

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2600 (Tungsten), Diamond R. Mining Company, San Joaquin Mine (Carothers Mine), Madera County, Calif.

Mr. J. L. Russill, President, Diamond R. Mining Company, P. O. Box 409, 16th and North B Streets, Sacramento, California, called me long distance today, asking if I had a copy of the company's lease on the San Joaquin Mine. Copies of the lease and a map or maps of the property were included in the application for an Exploration loan, of which the four copies must be in the Washington files as we have no copy here.

The butane tank at the company's property recently exploded and the resultant fire destroyed the company's copies of its lease and maps. It is for that reason that Mr. Russill would like to have one of our copies of the lease and maps returned to him.

It will be appreciated if you will meet Mr. Russill's request and send the requested material directly to him at the above Sacramento address without delay. Another outfit has found, so he told me, some promising ore on the property which his company did not know of at the time its application for loan was made. These parties now want to negotiate a lease from the Diamond R. Company.

H. C. Miller
Executive Officer
DMEA Field Team, Region III

FILE COPY
SURNAME: 400

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

Rutledge
Selfridge
Hudson
Kimbell
Hedges
Johnson

OCT 30 1952

Mr. J. L. Russill, President
Diamond R Mining Company
P.O. Box 409
16th and North B Streets
Sacramento, California

BL

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

Dear Mr. Russill:

Your request for exploration assistance and other reports concerning the San Joaquin mine available to us in Washington have been carefully reviewed.

This information, although noting the occurrence of a small amount of scheelite mineralization in a series of tactite beds in a belt of schist and quartzite intruded by tongues and dikes of granodiorite, indicates to us that the probability of disclosing mineable reserves of tungsten ore by your proposed exploration is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing this property to our attention.

FARutledge:lm
10/28/52

Sincerely yours,

C. O. Mittendorf (for) J.H. 10-30-52

Administrator

cc: Admn. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
F. A. Rutledge

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Administrator, DMEA

DATE: Oct. 28, 1952

FROM : Iron and Ferro-Alloy Division, DMEA

SUBJECT: Denial of application for exploration assistance in the amount of $39,997.23
Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

The denial of the subject application by this Division is based on the following information:

1. The applicant proposed exploration by diamond drilling of the tungsten occurrences at the old Carothers mine. The proposed program was too ambitious for the expected target. Several cost items including that of supervision were much too high.

2. The tungsten mineralization is confined to a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite.

   All evidence to date indicates that the tungsten ore shoots are small, spotty, and as yet have never been capable of sustained mining.

3. Six samples of area A taken by the examining field team averaged 0.12 percent WO_3. Only one sample contained more than 0.15 percent WO_3 - 0.32 percent.

4. A sample of ore presumably from this area submitted by the Diamond R Mining Company contained 0.35 percent WO_3. This sample was undoubtedly representative of the best material present. Approximately 50 percent of the tungsten was recoverable by gravity concentration.

5. Analyses of samples taken by the applicant were much higher than those taken by the field team and also much higher than the metallurgical sample submitted.

6. A field team examination by Frank J. Wiebelt, U. S. Bureau of Mines, recommends denial.

7. The field team recommends denial because the property does not have sufficient merit to warrant Government aid.

8. The Commodity Division of the U. S. Geological Survey recommends denial.

G. C. Selfridge.

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

FILE COPY 400
SURNAME:

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

Administrator, DMEA

Oct. 28, 1953

Iron and Ferro-Alloy Division, DMEA

Denial of application for exploration assistance in the amount of $39,997.23
Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Mine (Carothers Mine)
Madera County, California

The denial of the subject application by this Division is based on the following information:

1. The applicant proposed exploration by diamond drilling of the tungsten occurrences at the old Carothers mine. The proposed program was too ambitious for the expected target. Several cost items including that of supervision were much too high.

2. The tungsten mineralization is confined to a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite.

   All evidence to date indicates that the tungsten ore shoots are small, spotty, and as yet have never been capable of sustained mining.

3. Six samples of area A taken by the examining field team averaged 0.12 percent WO_3. Only one sample contained more than 0.15 percent WO_3 - 0.32 percent.

4. A sample of ore presumably from this area submitted by the Diamond R Mining Company contained 0.35 percent WO_3. This sample was undoubtedly representative of the best material present. Approximately 50 percent of the tungsten was recoverable by gravity concentration.

5. Analyses of samples taken by the applicant were much higher than those taken by the field team and also much higher than the metallurgical sample submitted.

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G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

FARutledge'lm
10/28/52

cc: Admn. Reading File
Docket
G. C. Selfridge
F. A. Rutledge

IN REPLY REFER TO:

G-MD-CF

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1952

October 23, 1952

Memorandum

To: George C. Selfridge

From: T. P. Thayer

Subject: DMEA 2600 - Tungsten Diamond R. Mining Co.

Despite the complaints of the applicant regarding the adequacy of the field examination, the Geological Survey concurs with the recommendation of the Field Team that the application be denied. The present report agrees in general with the Geological Survey report of 1944 that reserves of minable-grade ore are small and scattered, and that no promising exploration target has been demonstrated.

T. P. Thayer

T. P. Thayer

Copy retained 400

C-MD-GP

October 23, 1952

Memorandum

To: George H. Wolfbridge

From: T. P. Thayer

Subject: DMC 26(1) - Cumberland Diamond D. Mining Co.

Despite the complaints of the applicant regarding the adequacy of the field examination, the Geological Survey concurs with the recommendation of the field team that the application be denied. The present report agrees in general with the Geological Survey report of 1944 that reserves of minable grade are very small and scattered, and that no promising exploration target has been demonstrated.

T. P. Thayer

TPThayer:gt

Copies to: Dir's reading file-4212
Branch reading file
R. W. Meehan - Int. 3521

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

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

10/29/52

October 13, 1952

Memorandum

To: DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 2600 (Tungsten), Diamond R. Mining Company, San Joaquin Mine, Madera County, California

Reference is made to the request given by Mr. Selfridge in his letter to me, dated July 14, for an examination of the subject property.

Attached are four copies of a report - DMEA-2600 (Tungsten) Diamond R Mining Co. (San Joaquin Mine), Madera County, California by Frank J. Wiebelt, Mining Engineer, U. S. Bureau of Mines, dated September 4, 1952.

According to the examining engineer, the analyses of samples taken from various outcrops on the property will not result in developing sufficient tungsten ore for an economic operation of the property. He has recommended that the applica- be denied.

A review of the geology and reserves by the U. S. Geological Survey, samples taken by the examining engineer and test work done by the Hydrometallurgical and Ore Dressing Branch of Region III, does not indicate that the property has sufficent merit to warrant Government aid to explore the property.

Our sending the report to you was delayed in this office, awaiting the results of some assays which Mr. J. L. Russill, President of the Company, promised to send in.

When the assay results were received, it was noted that they were very much higher than what Mr. Wiebelt reported, even though Mr. Russill stated they were taken close to the places Wiebelt sampled. Mr. Russill indicated that he was not satisfied

Reviewed by
DMEA OPERATING COMMITTEE

10-24-52
(date)

OCT 13 1952

with Wiebelt's sampling in that he only took chip samples across the veins and let the fines go to waste, whereas his samples were caught in a wash tub, and, therefore, so he claims were more representative.

Mr. Russill's samples assayed by the Morse Laboratories in Sacramento ran as follows:

"A" Drift	2.59% WO_3
Center Bed	0.36% WO_3
Incline Shaft - 8'	0.74% WO_3
Top Bed - 20'	0.89% WO_3.

Samples assayed by The Twining Laboratories in Fresno, California ran:

Top	0.47% WO_3
Center	2.83% WO_3
Shaft	0.68% WO_3.

These individual samples with one exception ran considerably higher than the "representative" sample I asked Mr. Russill to send to our Reno laboratories for preliminary concentrating tests. That sample ran 0.35% WO_3.

Mr. Russill called me on the phone some weeks ago, expressing dissatisfaction with the examination made of his property, so on September 22 I wrote him that I would gladly discuss the work with him if he would call at the office. To date he has not called, so rather than hold the report any longer, I sending it on to you.

The docket is being returned herewith.

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to A. C. Johnson, Reno, Nevada
E. H. Bailey, USGS (with copy of report)

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION
REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2600 (Tungsten) Diamond R. Mining Co.
(San Joaquin Mine)

Madera County, Calif.

Frank J. Wiebelt, Mining Engineer
U. S. Bureau of Mines

September 4, 1952

Reviewed by
DMEA OPERATING COMMITTEE

10-24-52
(date)

DIAMOND R. MINING CO.
(San Joaquin Mine)
Madera County, Calif.

Docket No. DMEA-2600 (tungsten)

Name and address of applicant: Diamond R. Mining Co. (Nevada Corporation), 16th & North B Street, Sacramento, California.
P. O. Box 409.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The property was examined on July 28 and 29, 1952. The examiner sampled the outcrops involved in the project and also some of the other main outcrops. Lamping with ultra-violet lamp preceded the sampling operations. The underground workings, with the exception of one 31-foot inclined shaft were caved and inaccessible for sampling. In the areas A and B involved in the proposed project, only one sample contained more than 0.30% WO_3. The exposures are poor and continuity between outcrops is conjecturable.

Conclusions: The analyses of samples taken from the various outcrops suggest that the proposed work will not result in developing sufficient ore of commercial WO_3 content to make economic operation of the property feasible. The exploration program is much too pretentious for the expected target and the cost estimates for supervision are top heavy.

Recommendations: It is recommended that the application for exploration work aid be denied.

TIME SPENT ON PROPERTY AND NAMES OF PERSONS ACCOMPANYING EXAMINER

The examiner spent from the evening of July 28 through 9:30 A.M. of July 30, 1952 on the property.

Mr. G. R. Carothers, one of the lessors of the property and Mr. Harvey Terbush representing the lessee, accompanied the examiner. Mr. E. L. Reeves, Sec'y & Treasurer of the Diamond R. Mining Co. was at the property but on account of illness was not able to accompany the examiner and remained in bed.

NAME AND LOCATION OF PROPERTY

The name of the mine is the San Joaquin mine.

A. Distance by road to nearest town: 18.5 miles easterly of North Fork, Calif.

B. County and State: Madera County, Calif.

C. Mining District, and Township, Range and Section, if Surveyed: The property covers portions of sections 3, 4, 9, 10, and 15 of T. 8 S., R. 24 E., M.D.B.&M.

CONDITION AND SEASONAL ACCESSIBILITY OF ROAD TO PROPERTY

The road from North Fork to the property is in good condition and except during periods of heavy snowfall, is accessible throughout most of the year. The nearest railroad shipping point is at Friant, Calif., 45 miles by surfaced road from the mine.

COMPETENCY OF APPLICANT AND OPERATING PERSONNEL

The examiner is not in a position to state qualifications of applicant and operating personnel.

APPLICANT'S PROPERTY RIGHTS

The applicant holds the property under a lease. A copy of this lease accompanies the applicant's application for aid. The examiner was told by G. R. Carothers, one of the owners of the property, that the applicant already has the owner's consent to lien. The application also contains Book and Page numbers of record of location notices.

DESCRIPTION OF PROPERTY

a. Surface and surface facilities:

There are no surface facilities such as mine buildings on the property. Also no mine equipment.

b. Mine workings and underground facilities:

According to a memorandum dated July 3, 1952 from D. M. Lemmon, U.S.G.S. to George C. Selfridge, DMEA, Subject DMEA 2600 Diamond R. Mining Co., the workings include a 45-foot inclined shaft, an 18-foot vertical shaft, 3 small open pits, 4 adits (105 feet, 38 feet, and 6 feet long), and many small pits, trenches, and bulldozer cuts.

The examiner was unable to inspect the above underground workings as they are now caved. However, a new 31-foot inclined shaft, in close proximity to the above inclined shaft was open and two samples were taken from this shaft.

c. Existing development:

The claim map of the property furnished by the applicant is shown in figure 2. This map also shows the areas containing scheelite-bearing tactite outcrops.

A plan of the workings in areas A and B of the above map are shown in detail in figure 3. This plan was prepared by the U. S. Geological Survey. The only underground workings that are now accessible in Area A, the area in which most of the project work was to be done, was the new 31-foot inclined shaft in that area.

The following samples were taken by the examiner, and their analyses are as follows:

Sample No. 1 - 0.60% WO_3. This is a grab sample of ore dump material taken from small outcrop, now caved and filled in by surface debris, in Area C in fig. 2.

Sample No. 2 - 0.10% WO_3. This sample is a combination of grab from ore dump material and some of exposed outcrop from tactite in Area D in fig. 2.

Sample No. 3 - 0.12% WO_3. Area A in fig. 2. This sample was 4.7 feet in length and was taken from a point 10 feet down and 6 feet to the right of the new 31-foot inclined shaft.

Sample No. 4 - Less than 0.01% WO_3. Area A in fig. 2. This sample, 6 feet in length, was taken from the north side of the new 31-foot incline, 23.5 feet below the collar of shaft.

Sample No. 5 - 0.12% WO_3. Area A in fig. 2. This sample, 7.5 feet in length, was taken 41 feet N 30° E from the south side of collar of new 31-foot incline.

Sample No. 6 - Less than 0.01% WO_3. Area A. This sample represents the upper 6 feet of tactite beds northeast of collar of 31-foot incline.

Sample No. 7 - 0.14% WO_3. Same tactite bed as sample No. 6. Sample represents width of 4.5 feet in middle of tactite bed.

Sample No. 8 - 0.32% WO_3. Lower 7 feet of same tactite bed as samples No. 6 and No. 7.

Sample No. 9 - 0.03% WO_3. Sample taken from tactite outcrop on Crystal A claim.

Sample No. 10 - 0.26% WO_3. Grab sample of greenish (decomposed epidote?) material found above granitic rocks in some of the bulldozer cuts. No large tonnage involved. The owner, Mr. Carothers stated that sometimes small highgrade pockets of scheelite were found in this greenish decomposed material. The main object of taking the sample was to test for uranium but geiger counter denoted no uranium.

Samples 3, 4, 5, 6, 7 and 8 were taken from Area A in which area most of the project work was contemplated.

A sample of ore presumably from this area was sent by E. L. Reeves and J. L. Russill of the Diamond R. Mining Co. for a preliminary metallurgical test to the Hydrometallurgical & Ore Dressing Branch, J. B. Zadra, Chief, Bureau of Mines, Reno, Nev. The following items were abstracted from the report of this test: Heads 0.35 %

"A flotation test with standard reagents was run on several charges of ore, stage-ground to minus 100-mesh. The rougher concentrates from each charge were combined and cleaned once. The cleaner concentrates contained 6.57 percent WO_3, representing 66.2 percent recovery of scheelite. The cleaner tailings carried 0.16 percent WO_3 and the rougher tailings 0.11 percent WO_3.

"The flotation test demonstrated two things:

(1). That about 30 percent of the total scheelite was probably very fine-grained and not liberated by the 100-mesh grind in the test procedure, so that unless higher grade ore was mined, recovery after combined gravity and flotation treatment might not be economical.

(2). The presence of considerable micaceous mineral in the ore as a result of the garnet, might cause difficulty in producing a satisfactory grade of flotation concentrates. This factor, however, might be eliminated by further flotation investigations if the project is continued.

"As far as gravity concentration results could be estimated by the examination made of crushed and sized portions of the ore, it is probable that about 50 percent recovery could be made by this method alone, and that an additional 15 percent could then be recovered by flotation of slimes and reground middlings. The low tungsten content of the ore does not offer much encouragement for further action on this project."

No samples were taken from Area B, in which a few holes were to be drilled according to the proposed work, because the material was not in place or possibly buried.

Areas A and B were lamped with the ultra-violet lamp prior to sampling operations. The assays of samples agree with results of lamping operations.

GEOLOGY AND ORE RESERVES

The following was abstracted from a U. S. Geological Survey report on the areas A and B in which the project work was contemplated:

"The workings are in a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite. The general strike of the metamorphic rocks is north to northwest and dips range from 30 to 70 degrees West. Granodiorite appears to cut off the beds on the southeast and probably underlies them at shallow depths. The tactite beds change to marble and lime hornfels along the strike. Rich ore occurs locally near granodiorite contacts and in small pods elsewhere, but the average grade of ore is much lower.

"In the tactite beds at the west side of the mine area (see fig. 3) surface exposures show 0.3 - 1% ore. The 105-foot adit below the road cuts only a little low-grade tactite, hence probably is near the bottom of this orebody. In the three closely-spaced beds 200 feet east, patches

of 1 - 1.5% ore remain; distribution of the ore appears to be erratic except that the richest ore was found in the inclined shaft (Note: Examiner found this shaft caved) along the granodiorite contact. Workings in the tactite beds at the east side of the mine area have caved, bulldozer cuts just above the workings show that the tactite ends abruptly northward.

"The U.S.G.S. estimates that the entire mine area (see fig. 3) totals 1300 tons (or 1150 units) of indicated ore reserves and 12,200 tons (or 520 units) of inferred ore reserves."

The examiner's samples indicate that in the three closely spaced tactite beds 200 feet east mentioned above, the upper 6 feet carried less than 0.01% WO_3, the middle 4.5 feet contained 0.14% WO_3 and the lower 7 feet contained 0.32% WO_3. Two samples taken from the new 31-foot inclined shaft contained 0.12% and less than 0.01% WO_3 respectively. A sample between the above samples and the inclined shaft contained 0.12% WO_3. These samples indicate that only very small patches of 0.3% WO_3 ore exist in area A where most of the project work was contemplated. The probable grade of ore is too low grade to be of commercial value. As only one sample (sample No. 8) was found to carry sufficient scheelite values (0.32%) of economic importance, no estimate of ore reserves is made by the examiner. The examiner believes that most of the higher grade pockets mentioned in the above U.S.G.S. report has been removed.

PAST OPERATION

The following information was obtained from a U. S. Geological Survey report on the property, in 1945 by K. B. Krauskopf.

A small mill on the property produced concentrates from May to December 1942; in 1943 the mine was leased to the Budd-Wheeler Company and some additional ore was milled; mine and mill were idle in May 1944 and probably has been idle since.

AVAILABILITY OF MANPOWER, MATERIALS, ETC.

Labor is available in the vicinity of North Fork. Supplies and equipment may be obtained from North Fork, Fresno, Madera and Sacramento. Water supply is available from water rights to 3 second-feet on Fish Creek and from four springs on the property. The Southern California Edison Company has an electric power house three miles southeast of the property.

STATEMENT OF APPLICANT'S PROPOSAL, SUGGESTED ALTERNATIVE OR PREFERRED EXPLORATION METHODS, IF ANY, AND FEASIBILITY.

The applicant's proposal is to explore two scheelite-bearing tactite areas A and B on their property by means of 16 to 18 diamond drill holes aggregating 4,430 feet; the holes would vary in depth from 100 feet to 500 feet. The estimated cost of this drilling program, including necessary road work to the drill sites and some surface trenching amounts to approximately $40,000.00

No discussions between the applicant and the examiner were held.

The funds requested are considerably more than the small size of the geologic targets warrant.

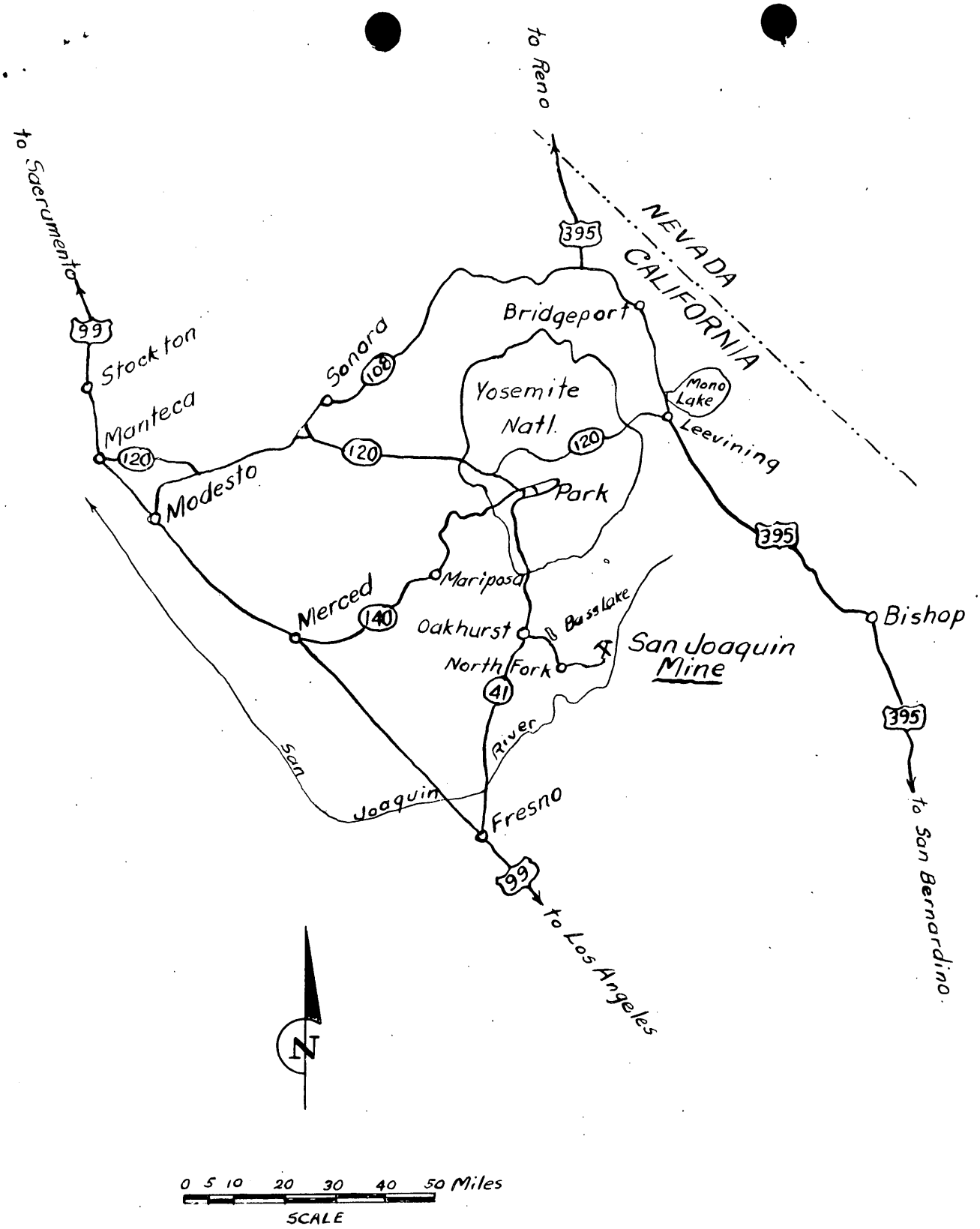

Fig. 1. - Location map, San Joaquin tungsten mine, Madera County, California.

FILE COPY
SURNAME:

Selfridge.

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

JUL 28 1952

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
Carruthers Mine (San Joaquin Mine)
Madera County, California

Dear Mr. Miller:

In accordance with the last paragraph of the letter of July 14, 1952, sent you by the Operating Committee, there is transmitted herewith one copy of the Wyant and Erickson map of the Carruthers Mine.

Sincerely yours,

cc 7/28

George C. Selfridge
G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

Enclosure

GCSelfridge:ls
7/28/52

cc: Docket
Admn. Read. File
Field Team, Reg. 3
G. C. Selfridge
D. M. Lemmon, USGS
R. W. Geehan, USBM

400

FILE COPY
SURNAME:

Selfridge
Lemmon
F. Johnson

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

JUL 1 4 1952

Mr. N. C. Miller, Executive Officer
DMEA Field Team, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R Mining Company
San Joaquin Tungsten Mine
Madera County, California

Dear Mr. Miller:

This is to acknowledge receipt of the subject application forwarded with your letter of June 27, 1952, and to request that you please arrange for a field examination of the subject property.

As noted by Mr. Lemmon in his memorandum attached herete, the exploration program appears quite ambitious. It would appear that the property warrants more sampling especially, and trenching followed by further work if warranted. If the labor is to be used for road work in part, the amount and estimated cost should be mentioned. The work of a consultant should apply solely to the exploration project and not to further examination and report writing on the various claims.

We are attempting to secure a copy of the Wyant and Erickson map. If we can secure it within the next week or 10 days, we shall send it to you immediately.

Sincerely yours,

7-14

George C. Selfridge (JHB)

ACTING Chairman, Operating Committee
Defense Minerals Exploration Administration

Approved:

J. H. Hedges (JHB)

Member, Bureau of Mines

T. P. Thayer (JHB)

Member, Geological Survey

GCSelfridge:ls 7/7/52

CC: Docket
Admn. Reading File
G. C. Selfridge
Field Team, Reg. 3
D. M. Lemmon, USGS
R. W. Geehan, USBM
Operating Committee

FILE COPY
SURNAME:

Selfridge
Guyton
Thayer
Johnson

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

JUL 14 1952

Mr. J. L. Russill, President
Diamond R Mining Company
P. O. Box 409
16th and North B Streets
Sacramento, California

Re: Docket No. DMEA 2600 - Tungsten
Diamond R. Mining Company
San Joaquin Tungsten Mine
Madera County, California

Dear Mr. Russill:

Your application for assistance in exploring the San Joaquin Tungsten Mine in Madera County, California, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination. Any assistance that you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

7-14

(signed) FRANK E. JOHNSON

Acting Administrator
Defense Minerals Exploration
Administration

GCSelfridge:ls
7/7/52
CC: Docket
Admn. Reading File
Field Team, Region 3
G. C. Selfridge
D. M. Lemmon, USGS
R. W. Geehan, USBM
Operating Committee

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

July 10, 1952

Memorandum

To: G. C. Selfridge

From: R. W. Geehan

Subject: Diamond R. Mining Company
Madera County, California
16th & North B Street
Sacramento, California

DMEA-2600

The applicant proposes a diamond drilling project estimated to cost $39,997.23.

The costs listed will require clarification. The drilling and bulldozer work is to be contracted. The need for a foreman, miner, and laborer in addition to the engineer; and the requirement for 2,000 gallons of gasoline and a 310 cu. ft. air compressor are not explained. It seems probable that surface sampling and road work are proposed in addition to the drilling.

Actual samples of the outcrops are needed to check the examination. The only sample listed in the docket is a composite.

It is recommended that this application be referred to the Field Team.

Robert W. Geehan

R. W. Geehan

IN REPLY REFER TO:

G-MD-DML

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

Memorandum July 3, 1952

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application $39,997.23 DMEA 2600 - Tungsten
Diamond R. Mining Company
Sacramento, California

Property: San Joaquin tungsten mine, also known as Carothers property. Consists of 31 unpatented claims known as the Garnet, Tungsten and Crystal groups. Secs. 3, 4, 9, 10 and 15, T. 8 S., R. 24 E., Madera County, California, 17 miles by road east from North Fork.

Past Production: About 550 units of WO_3 was produced in 1942-43.

Geology: The property was examined for the Geological Survey in 1942 by D. G. Wyant and M. P. Erickson, in 1944 by K. B. Krauskopf. In a manuscript report describing tungsten deposits of Madera, Fresno and Tulare Counties (1945), Krauskopf gives the following information:

"The Carothers mine is west of the San Joaquin River, about 10 miles airline east of North Fork. The property has been known at different times as the Carothers-Root mine, Madera Tungsten, Inc., and San Joaquin mine. A small mill on the property produced concentrates from May to December 1942; in 1943 the mine was leased to the Budd-Wheeler Company and some additional ore was milled; mine and mill were idle in May 1944 and probably have been idle since. The property was mapped by Wyant and Erickson late in 1942 and was revisited by Krauskopf in May 1944.

"Workings include a 45-foot inclined shaft, an 18-foot vertical shaft (now caved), 3 small open pits, 4 adits (105 feet, 38 feet, 28 feet and 6 feet long) and many small pits, trenches and bull-dozer cuts. The workings are in a series of tactite beds in a belt of schist and quartzite, intruded by tongues and dikes of granodiorite. The general strike of the metamorphic rocks is north to northwest and dips range from 30 to 70° W. Granodiorite appears to cut off the beds on the southeast and probably underlies them at shallow depths. The tactite beds change to marble and lime hornfels along the strike. Rich ore (2-20% WO_3) occurs locally

Copy retained 400

near granodiorite contacts and in small pods elsewhere, but the average grade of ore is much lower (0.5-1.0% WO_3).

"In the tactite bed at the west side of the mine area surface exposures show 0.3-1% ore. The 105-foot adit below the road cuts only a little low-grade tactite, hence probably is near the bottom of this ore body. In the three closely-spaced beds 200 feet east patches of 1-1.5% ore remain; distribution of the ore appears to be erratic except that the richest ore was found in the inclined shaft along the granodiorite contact. Workings in the tactite beds at the east side of the mine area have caved; bull-dozer cuts just above the workings show that the tactite ends abruptly northward. The grade of ore in these eastern beds ranges from 0.3 to 0.8% WO_3.

"Several other claims owned by Mr. Carothers are undeveloped. Scheelite is visible in surface exposures of tactite on some of the claims."

In his notes of May 1944, Krauskopf gives some additional information as follows:

"The Carothers mine, together with several other Madera County properties, was leased during 1943 by the Budd-Wheeler Mining Company. Local opinion of the company is uniformly bad. Budd, according to report, is a promoter with grand ideas, who spent Wheeler's money trying to make a big operation out of one deposit after another. Some ore was milled, but Budd apparently failed to tell any of the mine owners how much tungsten was produced. Having exhausted Wheeler's resources, he disappeared early last fall, leaving behind him some new roads, some extensive bulldozer cuts, some beautiful new orebins, and a sheaf of unpaid bills.

"Budd renamed the Carothers property "San Joaquin Mine", but the name never came into local use. Since he left the mine has been idle, but Mr. Carothers says that John Elam plans to reopen it shortly. Another lessee who toyed with the mine briefly before Budd's appearance was John E. Winters ("North Fork Mining Company").

"Budd's development work makes necessary a downward revision in Wyant and Erickson's estimate of reserves. Underground workings at the <u>east bed</u> (Wyant and Erickson's nomenclature) have caved; the only new work consists of bulldozer excavations above the old cut, which show that tactite is not continuous above the cut as indicated by Wyant and Erickson's map. This fact suggests a slight lowering of inferred ore to 2000 tons or 1000 units. Workings at the <u>central bed</u> are unchanged except for enlargement of the upper open cut, which probably furnished all of the ore which Budd milled

at this property -- on the order of 300 tons. Sufficient low-grade ore is exposed by the new excavation to warrant a slight increase in inferred reserves, to 200 tons or 200 units. At the west bed the principal changes are a 40-foot trench along the tactite at the top of the hill and a 105-foot adit from a point 40 feet below the road which follows the strike of the tactite. The entrance of the adit is in granite; tactite appears about 50 feet from the mouth and attains a maximum thickness of four feet; toward the end of the adit it changes to quartz-garnet rock and fingers out into schist and granite. The tactite has a few small spots of good ore, but over 40 feet a one-foot width would hardly average 0.4% WO_3. The small amount of tactite in the adit and its low grade suggest that this level is the bottom of the ore body, which would reduce the amount of inferred reserves to 10,000 tons or 4000 units. The revised totals for the entire mine are: indicated, 1300 tons or 1150 units; inferred, 12,200 tons or 5200 units."

Comment: Available information suggests that the chances are slim of finding sufficient ore to make a commercial operation of the property. The exposures are apparently poor and continuity between outcrops is still speculative. The outcrops are not adequately sampled.

The exploration program is far too ambitious for the expected target. Apparently some mining is planned inasmuch as a miner, laborer, compressor and blasting supplies are listed, but no statement is made about their utilization.

Although one competent geologist at $600 to $700 per month could handle the project easily, the applicant includes a consulting geologist, an engineer-manager, and a foreman at a total cost of $1,515 per month. The map and geological report attached to the application do not support the assumption that the consulting geologist is worth $75 daily.

The property possibly warrants sampling, more trenching, followed, if successful, by a small amount of drilling. It is improbable that any of the mineralized beds extend 300 feet down the dip (figure 4 of application), and such deep drilling should not be considered.

Recommendation: I suggest that the Field Team, Region III, be asked to examine the property and comment on the exploration proposal. Mineralized exposures should be adequately sampled as part of the field examination.

Dwight M. Lemmon

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

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 applicant

Docket No. DMEA-2600
Metal or Mineral
Date Received 7-1-52
Estimated Cost
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. Diamond R Mining Co.(Nevada Corporation) 16th & North B St. Sacramento, Calif. P.O.Box 409. J. L. Russill,Pres.,16th & North B St. Sacramento, Calif. R. C. Beach, 215 San Antonio Way, Sacramento, Calif. E. L. Reeves, Secy & Treasurer, Raymond, California.

(*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

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

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

(*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 not applicable

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

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.

5. *The exploration project.*—State the mineral or minerals for which you wish 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 30 days and be completed within 4 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)?

(*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 June 27, 1952

Diamond R Mining Co.
(Applicant)

By J. L. Russell Pres.
E. L. Parmer Secty

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

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

3. Applicant's property rights.-- (a) 31 unpatented mining claims to wit: Garnet No.1, 2, 3, 4, 5, Tungsten, A, B, C, D, E, E, G, H, I, J, K, CA, 1, 2, 3, Crystal, A, B, 1, 2, 3, 4, 5, 6. Also 3 additional claims recently filed located in sections 3, 4, 9, 10 and 15, Twp.8S, R 24 E, M. D. M. , Madera County, California.

(b) San Joaquin Tungsten Mine.

(d) Lease submitted.

(f) Above claims are recorded in the office of County Recorder, Madera County, California in the book and page as listed hereunder:

		Book	Page
Garnet	1	293	75
"	2	293	76
"	3	293	62
"	4	293	63
"	5	293	64
"	6	127	458
Tungsten		293	83
"	A	127	450
"	B	127	451
"	C	127	452
"	D	127	453
"	E	127	454
"	F	127	455
"	G	293	59
"	H	293	58
"	I	293	77
"	J	293	61
"	K	293	78
"	CA	293	84
"	1	127	435
"	2	127	439
"	3	127	440

		Book	Page
Crystal		293	71
"	A	293	86
"	B	293	85
"	1	293	72
"	2	293	65
"	3	293	66
"	4	293	67
"	5	293	73
"	6	293	74

4. See Humphrey report.

(b) Approximately 2000 tons 2% ore. No present production.

(c) See Humphrey report.

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

4. Continued.

(d) Oiled road from North Fork, California through property distance 17 miles. 45 miles oiled road to railroad at Friant, California. Residences and local supplies North Fork.

(e) Man power available in vicinity. Materials and supplies available North Fork, Fresno, Madera. 4 large Springs on property also water rights to 3 second feet on Fish Creek with property, Power house #8 of So. Calif. Edison Co. 3 miles distance to Southeast.

5. (a) Tungsten

(b) See Humphrey report.

(d) Fred L. Humphrey, Professor of Mining and Dean designate, School of Mineral Sciences Stanford University. Consulting engineer.

E. L. Reeves, Mechanical engineer, Graduate training mining engineering and metallurgy. 44 years experience beginning at Cinco, Estrella mine in Pinos, Zacetecas, Mexico 1908. More recently Superintendent of Poverty Hill Mine, Sierra County, California, 1935 to 1939. Superintendent Western Maganese Mines, Crescent Mills, California, 1941 to 1944. Superintendent Pioneer Lilyama Mines, Eldorado County, California, 1944 to 1948. Assistant manager Alhambra Mine, Eldorado County, California, 1948 to 1950. Private work since 1950. Engineer and manager.

6. Estimate of cost. (a) Independent contracts:

4430 feet diamond drill hole Areas A+B @ 6.00 per foot		$26,580.00
100 hours D 7 Bulldozer, operator, fuel and maintenance @ 11.00 per hour (necessary road work to be properly done drill site need some surface leveling)		1,100.00
		$27,680.00

(b) Labor, supervision, consultants:

1 Foreman @ 350.00 per month	$1,050.00	
1 Engineer-mgr. @ 500.00 per month	1,500.00	
1 Consulting geologist and engineer @ 75.00 per day	2,000.00	
1 Miner @ 16.00 per day	1,040.00	
1 Laborer (5 day week) @ 15. per day	975.00	6,565.00

(c) Operating materials and supplies:

1 GMC 3/4 ton pick-up 1952 model	$1,997.00	= depending equipment to be furnished when
1/2 ton dynamite @ 28.35 per cwt.	283.50	
500 elect. exploders @ 18.00 per h.	90.00	
500 feet 2 inch black pipe @ .41 per ft	205.00	
2000 gal. gasoline @ .28 per gal.	560.00	
50 gal. of lubricating oil	50.00	3,185.50

(d) Operating equipment. None. See note → when

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

6. Estimate of cost-continued:

(e) Rehabilitation and repairs.

General overhaul of Ingersoll-Rand gasoline driven portable compressor 310 cubic feet. ×		150.00

(f) New buildings, improvements, installations. None.

(g) Miscellaneous:

Analitical work	500.00	
Accounting	300.00	
Workmans Compensation	125.00	
Employers' Liability Insurance	100.00	
Payroll Taxes	191.73	1,216.73

(h) Contingencies 1,200.00

7. (a) Yes.

(b) With money.

Total 39,997.23

× Jackhammers, hose, steel, bits, etc to be furnished by operator at no cost to the project. WEM

J. L. RUSSILL CO.

DIAMOND BRAND

Fruits and Vegetables

BROKERS - DEALERS - CAR LOT DISTRIBUTORS

16th and NORTH B STREET PRODUCE TERMINAL

P. O. BOX 409 TELEPHONE 2-8313

SACRAMENTO, CALIFORNIA

Refer to	Notes	Date
	WELL	8/22
Answer at		

August 21, 1952

Mr. H. C. Miller, Regional Director,
U. S. Bureau of Mines,
Flood Bldg., 870 Market St.,
San Francisco, Calif.

Dear Sir:

Inclosed find the map that goes with Humphrey's last report. Hope that this will be of some benefit to you.

Yours truly,

J. L. Russill

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1982 AUG 12 AM 8:31

SAN FRANCISCO, CALIFORNIA

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

LEASE OF MINING CLAIMS

THIS LEASE, MADE AND ENTERED INTO THE 22 DAY OF May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS, and ART JONES and PHYLLIS JONES, hereinafter called LESSORS, and J. L. RUSSILL, hereinafter called LESSEE:

W I T N E S S E T H

That Lessors do hereby lease to Lessee all that certain mining property and mining claims now located on the following described property, to wit;

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD & M, Madera County, California:

Garnet No.1, 2, 3, 4, 5.
Crystal No.A, B, 1, 2, 3, 4, 5, 6.
Tungsten No.A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed.

Lessee shall go into possession of said leased premises and within 90 days from date of this lease start the development and exploration work necessary to determine wheather or not there is sufficient tungsten ore present in above described property to make it economically feasible to conduct further mining operations on the said property. If it is determined, in the sole and exclusive judgment of Lessee, that such further mining operations is economically feasible, Lessee shall conduct or cause to be conducted, within a reasonable time after such determination, mining operations on the said property and claims. At the end of said 90 day period, Lessee shall pay as advanced royalty $300.00 per month until such time as the mine is in operation, or a quit claim or notice given to Lessors to cease operations. The $300.00 per month , or the total sum advanced shall be deducted from the first money due Lessors from their share of the proceeds of the sale of tungsten taken from the mine.

Lessors hereby reserve as a royalty 5 per cent up to and including 1% tungsten per ton 10% per ton for all tungsten over 1%, of all minerals saved and sold from the said leased premises, whether in the form of ore or in the form of concentrates, and title to said 5 or 10 per cent is hereby reserved in Lessors &c

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16th & North B Street,
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but Lessors do hereby authorize Lessee to sell their 5 or 10 per cent of said minerals with Lessee's part; but Lessee must, upon making sale thereof, make provision for the payment direct to Lessors of their 5 or 10 per cent of the proceeds of said minerals. Lessors shall have the option, if they so elect, to have their 5 or 10 per cent delivered to them in kind. Title to Lessors' royalty and proceeds thereof shall at all times remain in Lessors, except the advanced royalty paid by Lessee, which shall be deducted from the first moneys due Lessors.

Lessee agrees to conduct all mining operations on said leased premises in a good and minerlike manner, such as is the custom of good miners of the neighborhood and all operations shall be conducted in accordance with all State and Federal rules and regulations and/or any other governing bodies.

Lessee does hereby agree and must keep all labor and material bills and all other expenses incurred at said mine paid at maturity, and Lessee agrees to pay all taxes levied for all improvements to said mine.

Lessors shall post a Notice of Non-Liability upon said real property, and upon being so posted, Lessee agrees to maintain said Notice of Non-Liability thereon.

Lessee hereby agrees to keep all gates leading into said mine closed or open as Lessors may require, and if cattle guards are necessary, they must be built and maintained by Lessee in locations mutually agreeable by the parties hereto. Lessee agrees to use care in safeguarding against fire hazards present at such mining operations, and to make reasonable safeguards against the spreading of any such fire on to parts of the property of the Lessors surrounding the part upon which mining operations are being conducted.

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It is agreed that Lessee shall have the use of all natural spring water now on said land, and may develop additional water, except that Lessors do hereby reserve for their own use and adequate and complete supply of water from any springs on said premises for their personal use and for their cattle and livestock. Lessors, Carothers and Jones, do hereby specifically reserve the surface on all leased premises, except that actually being used for mining purposes, and all grazing and surface rights are reserved by the Lessors, also the cabins occupied by Carothers and Jones.

Lessee shall have the use of any existing roadways to said property, and to construct and maintain any additional road ways necessary for the conduct of these mining operations at locations mutually agreeable to the parties hereto, also the use of all mining equipment or buildings, except the two occupied by Carothers and Jones.

It is specifically agreed and understood that the Lessee may prospect for tungsten or other minerals on any part of the land owned by Lessors, and if any are discovered, may mine and process such minerals under the terms and conditions of this lease.

Lessors reserve the right at all times to go upon and through said premises and through said mine and observe all mining machinery and equipment for the purpose of seeing that this lease is being complied with, and Lessee agrees to keep accurate records of all minerals saved and sold at the mine and keep accurate records of all underground work, with copies at the mine subject to inspection by Lessors and all such records shall be subject to inspection by Lessors at reasonable times.

It is expressly agreed that Lessee shall not assign or sublet any property covered by this lease to anyone until Lessee shall have first obtained the written consent of Lessors thereto, but Lessors agree that they will give their written consent to any competent party having adequate means to perform the terms

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P O Box 409, Sacramento, Calif.

of this lease, providing that such party assume all obligations of Lessee hereunder. Upon such assignment being made by Lessee and the assumption of the terms of this lease hereunder, Lessee shall be relieved from all further responsibility under this lease, save and except obligations incurred and/or owing by Lessee to Lessors prior to the date of such assignment and assumption.

It is further agreed that Lessee may have 60 days in which to remove all personal property and equipment which Lessee may have placed upon said real property or upon the property of this claim after the termination and/or surrender of this lease.

Lessors agree that Lessee may at any time hereunder abandon operations under this lease upon giving Lessors 10 day's notice in writing, of such intention to abandon, and executing and delivering to Lessors a quit claim transferring all of Lessee's interest under this lease and upon so doing Lessee shall be relieved from all further responsibility hereunder, excepting as to obligations incurred at the time of such abandonment.

It is specifically provided that should Lessee be prevented by Act of God, war, any ruling of any governmental agency, strikes, lock-outs, or other cause beyond the control of Lessee, that for the period during the existence of such cause which prevented operations hereunder, the provisions for development and exploration of this property or claim shall be suspended, and advance payments stopped, for such time as such cause or causes are actually operating to prevent such performance.

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Should Lessee fail, refuse or neglect to make any of the payments herein required to be made, as the same mature, or refuse to perform any of the terms, covenants or conditions of this lease on the part of the Lessee to be performed, then Lessors shall give to Lessee 30 days notice, in writing, calling attention of Lessee to the matters wherein Lessee is in default and requiring the curing of said default or defaults within said 30 day period, then Lessors may terminate this lease by giving written notice of the final termination thereof; and upon final termination of this lease, all rights of Lessee in and to said leased premises shall cease and terminate and Lessee agrees to execute a quit claim deed transferring all rights of Lessee under this lease to Lessors, save only and except Lessee's right to remove all personal property therefrom within 30 days from date of such final termination.

Any notice desired or required to be served on Lessee by Lessors may be served by Lessors placing said notice in an envelope, postage prepaid, addressed to Lessee at P O Box 409, Sacramento, California, and placing the same in the United States Post Office; and start any notice desired or required to be served by Lessee on Lessors may be served by placing the same in an envelope, postage prepaid, addressed to Lessors at North Fork, Madera County, California.

IN WITNESS WHEREOF, the parties hereto set their hands in this year, on this day, in this instrument first above written.

A R Carothers

Carrie Carothers

[illegible]

Phyllis Jones

LESSORS

E L Russell

LESSEE

1-4 5-D 6-18-52

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

KNOW ALL MEN BY THESE PRESENTS:

For and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration, the undersigned does hereby transfer, assign and set over to the DIAMOND R MINING COMPANY, a corporation, all his right, title and interest, as lessee, in and to that certain lease of mining claim, dated the 22nd day of May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS and ART JONES and PHYLLIS JONES, lessors, and the undersigned as lessee, together with all leasehold and other interests thereby created.

DATED: June 18th, 1952.

J. L. Russell
J. L. Russell

The undersigned does hereby accept the above and foregoing assignment and does hereby consent and agree to perform all the terms, covenants and conditions therein set forth, to be performed by such lessee.

DATED: June 18th, 1952.

DIAMOND R MINING COMPANY,
a corporation,

By J. L. Russell
Box 409

We, and each of us, do hereby consent to the above and foregoing assignment.

DATED: June 23, 1952.

G. R. Carothers
G. R. Carothers

Carrie Carothers
Carrie Carothers

Art Jones
Art Jones

Phyllis Jones
Phyllis Jones

VLIN,
NBROCK
/ULFF
DENTS
NTO, CALIF.

STATE OF CALIFORNIA,
COUNTY OF SACRAMENTO

On this 18th *day of* June *in the year one thousand nine hundred and* fifty-two

before me MARION FRITZ *a Notary Public in and for the County of Sacramento, personally appeared* J. L. RUSSILL

known to me to be the person whose name is *subscribed to the within instrument, and* he *duly acknowledged to me that* he *executed the same.*

In WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

Marion Fritz
Notary Public in and for the County of Sacramento, State of California

My Commission Expires Jan. 21 1955

SLEEPER 1015

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 23 day of June, A.D., 1952, before me, Louis T. Busch a Notary Public in and for said County and State, personally appeared Art Jones and Phyllis Jones, known to me, to be the person s whose name are subscribed to the within Instrument, and acknowledged to me that t he y executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

My Commission Expires Apr[illegible]

Louis T. Busch
Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232 52025

STATE OF CALIFORNIA
County of Madera } ss.

On this 26th *day of* May *in the year of our Lord one thousand nine hundred and* fifty-two

before me [redacted] *a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared* J[redacted] Spencer G. R. Carothers and Carrie Carothers

*known to me to be the person*s *described in whose name*s *are subscribed to and who executed the within instrument, and* they *acknowledged to me that* t y *he executed the same.*

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My Commission Expires: January 5, 1933.

STATE OF CALIFORNIA,
County of Los Angeles } *ss.*

ON THIS 28th *day of* MAY, *A.D., 19*52, *before me,* S. CARL DENEEN *a Notary Public in and for said County and State, personally appeared* ART JONES AND PHYLLIS JONES, *known to me, to be the person*S *whose name*S ARE *subscribed to the within Instrument, and acknowledged to me that* THEY *executed the same.*

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.*

S. Carl Deneen

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

My Commission Expires June 18, 1954

52025

STATE OF CALIFORNIA }
County of Sacramento } ss.

On this 22nd day of May in the year one thousand nine hundred and Fifty-two before me, Chas. L. Gilmore, a Notary Public in and for the County of Sacramento, State of California, residing therein, duly commissioned and sworn, personally appeared J. L. Russill

known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the county of Sacramento the day and year in this certificate first above written.

Notary Public in and for the County of Sacramento
State of California.
My Commission Expires Oct. 26, 1952

Cowdery's Form No. 32—Acknowledgment—General.
(C. C. Sec. 1189)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DMEA-2600

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 applicant

Docket No. .....
Metal or Mineral .....
Date Received .....
Estimated Cost .....
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: Diamond R Mining Co.(Nevada Corporation) 16th & North B St. Sacramento, Calif. P.O.Box 409. J. L. Russill,Pres.,16th & North B St. Sacramento, Calif. R. C. Beach, 215 San Antonio Way, Sacramento, Calif. E. L. Reeves, Secy & Treasurer, Raymond, California.

(*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 .....

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

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

(*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 not applicable

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

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.

5. *The exploration project.*—State the mineral or minerals for which you wish 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 30 days and be completed within 4 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)?

(*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 June 27, 1952

Diamond R Mining Co.
(Applicant)

By J. L. Rumsey Pres
E. L. Rumsey, Secty

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

Diamond R Mining Co.,
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Sacramento, California.

3. Applicant's property rights.-- (a) 31 unpatented mining claims to wit: Garnet No.1, 2, 3, 4, 5, Tungsten, A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3, Crystal, A, B, 1, 2, 3, 4, 5, 6. Also 3 additional claims recently filed located in sections 3, 4, 9, 10 and 15, Twp.8S, R 24 E, M. D. M. , Madera County, California.

(b) San Joaquin Tungsten Mine.

(d) Lease submitted.

(f) Above claims are recorded in the office of County Recorder, Madera County, California in the book and page as listed hereunder:

		Book	Page
Garnet	1	293	75
"	2	293	76
"	3	293	62
"	4	293	63
"	5	293	64
"	6	127	458
Tungsten		293	83
"	A	127	450
"	B	127	451
"	C	127	452
"	D	127	453
"	E	127	454
"	F	127	455
"	G	293	59
"	H	293	58
"	I	293	77
"	J	293	61
"	K	293	78
"	CA	293	84
"	1	127	435
"	2	127	439
"	3	127	440

		Book	Page
Crystal		293	71
"	A	293	86
"	B	293	85
"	1	293	72
"	2	293	65
"	3	293	66
"	4	293	67
"	5	293	73
"	6	293	74

4. See Humphrey report.

(b) Approximately 2000 tons 2% ore. No present production.

(c) See Humphrey report.

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Sacramento, California.

4. Continued.

(d) Oiled road from North Fork, California through property distance 17 miles. 45 miles oiled road to railroad at Friant, California. Residences and local supplies North Fork.

(e) Man power available in vicinity. Materials and supplies available North Fork, Fresno, Madera. 4 large Springs on property also water rights to 3 second feet on Fish Creek with property, Power house #8 of So. Calif. Edison Co. 3 miles distance to Southeast.

5. (a) Tungsten

(b) See Humphrey report.

(d) Fred L. Humphrey, Professor of Mining and Dean designate, School of Mineral Sciences Stanford University. Consulting engineer.

E. L. Reeves, Mechanical engineer, Graduate training mining engineering and metallurgy. 44 years experience beginning at Cinco, Estrella mine in Pinos, Zacetecas, Mexico 1908. More recently Superintendent of Poverty Hill Mine, Sierra County, California, 1935 to 1939. Superintendent Western Maganese Mines, Crescent Mills, California, 1941 to 1944. Superintendent Pioneer Lilyama Mines, Eldorado County, California, 1944 to 1948. Assistant manager Alhambra Mine, Eldorado County, California, 1948 to 1950. Private work since 1950. Engineer and manager.

6. Estimate of cost. (a) Independent contracts:

4430 feet diamond drill hole Areas A & B @ 6.00 per foot		$26,580.00
100 hours D 7 Bulldozer, operator, fuel and maintenance @ 11.00 per hour (necessary road work to properly and drill sites and remove surface debris) HCM		1,100.00
		$27,680.00

(b) Labor, supervision, consultants:

1 Foreman @ 350.00 per month	$1,050.00	
1 Engineer-mgr. @ 500.00 per month	1,500.00	
1 Consulting geologist and engineer @ 75.00 per day	2,000.00	
1 Miner @ 16.00 per day	1,040.00	
1 Laborer (5 day week) @ 15. per day	975.00	6,565.00

(c) Operating materials and supplies:

1 GMC 3/4 ton pick-up 1952 model	$1,997.00 = depending equipment to be purchased HCM	
1/2 ton dynamite @ 28.35 per cwt.	283.50	
500 elect. exploders @ 18.00 per h.	90.00	
500 feet 2 inch black pipe @ .41 per ft	205.00	
2000 gal. gasoline @ .28 per gal.	560.00	
50 gal. of lubricating oil	50.00	3,185.50

(d) Operating equipment. None. See note 7 HCM

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6. Estimate of cost-continued:

(e) Rehabilitation and repairs.

General overhaul of Ingersoll-Rand gasoline driven portable compressor 310 cubic feet. x		150.00

(f) New buildings, improvements, installations. None.

(g) Miscellaneous:

Analitical work	500.00	
Accounting	300.00	
Workmans Compensation	125.00	
Employers' Liability Insurance	100.00	
Payroll Taxes	191.73	1,216.73

(h) Contingencies	1,200.00
Total	39,997.23

7. (a) Yes.

(b) With money.

x Jackhammers, hoses, steel, bits, etc to be furnished by Operator at no cost to the project. NEW

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PRELIMINARY REPORT ON THE E. L. REEVES SCHEELITE PROPERTY

Introduction

The E. L. Reeves scheelite property is situated in Eastern Madera County, California, about 17 miles east of North Fork on the north slope of the San Joaquin River. There are about 27 claims that cover portions of sections 3, 4, 9, 10 and 15 of T. 8 S. R. 24 E. M.D.M.

I visited this property between June 16th and 20th, 1952, at the request of Mr. Reeves, for the purpose of determining if the geological conditions warranted the undertaking of an exploration program, and if so, how and where it should be started.

I examined at least five areas within the claims, during my visit, that give promising indications of containing reasonable tonnages of scheelite ore. One in particular, on the Tungsten B claim, has possibilities of providing a large tonnage of ore. In addition to these areas shown on Figures 1 and 2 there are several other known outcrops of scheelite-bearing hornfels that will be mapped in the near future.

Two roads extend part way through the claims and will save considerable expense in moving exploration drilling equipment. There are at least four springs that will furnish water for drilling.

Recommendations

I propose that a diamond drilling program be started to explore the extent and value of the areas that are shown on the maps. The first work should be done on Area A, on the Tungsten B claim, where the geological conditions appear favorable for a very large tonnage of possible scheelite ore. When the drilling is completed on this area the program should be expanded to

explore other known areas which may not contain such a large possible tonnage but show promise of containing several thousand tons of good ore.

A complete drilling program for the property may require in excess of 100 holes varying in depth from 100 feet to 400 or 500 feet. However, in this preliminary report I shall only outline a program for Areas A and B, which will require probably 17 or 18 holes. Expansion of the program will depend in part on the results obtained by this first phase of the drilling. Such a program should not be rigidly stipulated in advance but should be open to change, as the information that is progressively obtained might dictate.

Geology

The principal country rock is a granitic type igneous rock ranging from granodiorite to graphic granite in mineralogical composition. It has intruded and metamorphosed older marine sedimentary rocks. The latter were dominantly shale with subordinate amounts of limestone and sandstone. The metamorphic rocks resulting from these sediments are mica schist, garnet-epidote hornfels and quartzite. The scheelite occurs in the garnet-epidote hornfels.

The outcrops of the metamorphic rocks are irregular in shape but commonly [illegible] elongated north-south trend parallel to the general strike of the beds. [illegible] the metamorphic lenses or "roof pendants" are as much as one-half mile [illegible] are generally cut in many places by small, irregular granite masses [illegible]. [illegible] metamorphic rocks occur all the way from the top of the ridge [illegible] about 5000 feet, down the slope to the river at an elevation [illegible] there is reason to believe that many of the "roof pendants" [illegible] down into the granite.

[illegible] inches up to as much as [illegible] carry at least a trace of scheelite,

and near the igneous rocks they often contain in excess of one percent scheelite.

The thickest hornfels beds occur in the Tungsten B claim where there are three beds about 15 feet thick and separated from each other by about six feet of schist. In the other areas that were examined the hornfels beds vary from two feet to about seven feet in width.

The five areas that have been examined and appear to have some promise will be described as follows:

Area A. This area is near the center of the Tungsten B claim and contains the three hornfels beds mentioned above. These beds appear to promise production of a large tonnage of possible scheelite ore. Where they are exposed, near the road, they have been explored by cuts and a 25-foot incline shaft. All three of the beds contain scheelite as determined by ultraviolet light examination, and near the granite contacts portions of them will probably assay variably from one-half to five percent scheelite.

The beds strike about N 15° W and dip approximately 30° to the west. They are cut off on the south side near the road by a pre-granite fault. This fault has apparently dropped the rocks down on the south side and thus the beds may continue southward, underneath the exposed shale. I was told that an incline shaft, now caved, was sunk about 30 feet south of the fault to a depth of approximately 40 feet along the contact of a hornfels bed and a granite dike. "Good" ore was said to have occurred in the hornfels down to the bottom of the shaft. While this hornfels is now covered, it may be the faulted extension of the upper of the three beds.

Another incline shaft about 25 feet deep is still open and exposes very good scheelite ore in the middle bed along the fault. Surface cuts have been made in these beds from 50 to 100 feet north of the fault and these have also exposed favorable scheelite-bearing rock.

Since beds of this thickness would not ordinarily be expected to lens out immediately, it is reasonable to assume that they will extend both laterally and down the dip for at least several hundred feet unless cut off by the granite. A large body of granite outcrops about 350 feet west of the hornfels outcrops and the hornfels may extend in depth to the contact with this granite. Other small granite dikes and lenses are exposed at the surface and will undoubtedly cut out portions of the beds, but actually they present a favorable condition since it is in their proximity that the best scheelite mineralization occurs. Thus there is a very good possibility of these beds producing a sizable tonnage of ore. There are a few thin hornfels beds in the schist overlying the 15-foot beds and at least one of them, which is about three feet thick where exposed, contains scheelite.

Area B. This is a small scheelite-bearing area about 20 feet wide and 100 feet long. It occurs in the northeast corner of the Tungsten B claim and in the south end of the Tungsten D claim. It differs from the other scheelite bodies in that it appears to be a decomposed mass of intermixed granite and schist. The original shale apparently contained small lenses of calcareous shale that have produced small hornfels lenses which are now also partly decomposed. The soil and fine decomposition products at the surface contain a considerable amount of scheelite; possibly as much as three or four percent. I believe this concentration in the surface soil results from a mechanical secondary enrichment from decomposed rock that has been removed by erosion; the heavy scheelite tending to remain behind as the other material was eroded. The thorough decomposition of this rock is probably a result of hydrothermal alteration rather than weathering and may occur for some distance below the surface.

Area C. This area, shown on Figure 2, is at the end of the road on the Crystal 4 claim. There are two hornfels beds in the schist, about 100 feet

apart, both striking in a northerly direction. The western bed is approximately two feet thick dipping to the west, and the eastern bed is about six feet thick dipping steeply to the east. Samples from both of these beds contained scheelite, and those from the eastern bed contained from one to two percent. This bed is exposed for about 50 feet and hornfels float can be found for close to 200 feet further north, and it is probable that the bed extends at least that far.

Area D. This area is about 600 feet east of Area C. A six to eight foot hornfels bed is exposed for a distance of about 40 feet in contact with a granite dike. Hornfels float can be found for at least 100 feet to the south along the granite outcrop. A sample from this area appeared to contain in excess of one percent scheelite.

Area E. This area is about 1200 feet south of Area C. Another hornfels outcrop is exposed here, but no samples were taken to determine the scheelite content. The bed is cut off on the north by the granite although it may extend southward in the schist.

Since these areas that have been examined are said to be only a portion of the exposed scheelite-bearing zones, it is important that further geological work be done to outline other possible ore beds. I expect to continue this work in the near future. In view of the fact that these beds contain sufficient scheelite, as determined by ultraviolet lamping, to warrant further exploration, I did not take time to attempt to cut representative samples for assay during my first visit. In order to obtain representative samples at the surface, cuts will have to be made, either by a tractor or by hand work.

Proposed Exploration

The first exploration work should be done on the Tungsten B claim to investigate Area A. One vertical hole should be drilled about 75 feet west of the outcrop of the beds to check their continuity and average dip. This hole

is shown on Figure 1 as No. 1 hole. Then a series of holes should be drilled at intervals of about 100 feet on a line parallel to the strike of the hornfels beds and approximately 200 feet west of their outcrop. After, and if, the vertical extension of the beds to the depth of these holes has been proved and the longitudinal extent has been determined, a second parallel row of holes should be drilled about 150 feet west of the first row. It would probably be best to space these holes at 100 foot intervals between the positions of the holes in the first row. At least one hole should be drilled south of the fault, as shown, to attempt to locate the extension of the beds on that side of the fault. Figure [illegible] is a cross section through hole No. 1 and shows the probable projected position of the beds and the approximate depth of holes.

These drill holes should not necessarily be stopped if granite is encountered since there are many dikes and granite seams some distance from the large granite masses.

Following are the data on the proposed holes in Areas A and B. After these holes are completed it may be desirable to drill others, particularly in Area [illegible] to further outline any promising ore bodies that may have been [illegible].

[illegible]

[illegible] No. 1. [illegible] 40° E, 430 feet from center end line stake of the [illegible]. [illegible] 70° east. Depth, 150 feet.

[illegible] No. 2. This is the beginning of a line of holes parallel to [illegible] the beds. Portion: S 33° E, 450 feet from center end line of [illegible]. [illegible] 70° from horizontal. Bearing 15° north of east. [illegible]: approximately [illegible] feet.

Holes 3, 4, 5, and 6 on a line bearing N 16° W from hole No. 2 at 100 foot intervals, and at same inclination and bearing as hole No. 2. Depth: approximately 250 to 300 feet.

Hole No. 7. S 12° E, 390 feet from center end line stake of Tungsten J. Inclination: 70°. Bearing: 15° north of east. Depth: 300 to 400 feet.

Holes No. 8, 9, 10, and 11 on a line bearing N 16° W from hole No. 7 at 100 foot intervals and at same inclination and bearing as hole No. 7. Depth: approximately 300 to 400 feet.

Hole No. 12. S 43° E, 515 feet from center end line stake of Tungsten J. Inclination: vertical. Depth: 100 to 200 feet.

With the information obtained from these holes it will be possible to determine if other holes are needed. It is very probable that at least another eight to ten holes will prove desirable.

Area B.

To explore Area B four holes are proposed and shown on Figure 3.

Hole No. 1. N 83° W, 75 feet from the southwest corner of the Tungsten C claim. Inclination: 45°. Bearing: N 40° E. Depth: 130 feet.

Hole No. 2. N 85° E, 100 feet from southwest corner of the Tungsten C claim. Inclimation: 35°. Bearing: N 65° W. Depth: 200 feet.

Hole No. 3. 150 feet north (up the gulch) from hole No. 1. Inclination: 40°. Bearing: East. Depth: 200 feet.

Hole No. 4. N 12° W, 110 feet from southwest corner of Tungsten C claim. Inclination: vertical. Depth: 100 feet.

Areas C, D, and E are on a steep slope and will require a certain amount of road work before a drill could be located in a favorable position to crosscut the hornfels beds. Such road building will call for a reconnaissance survey to

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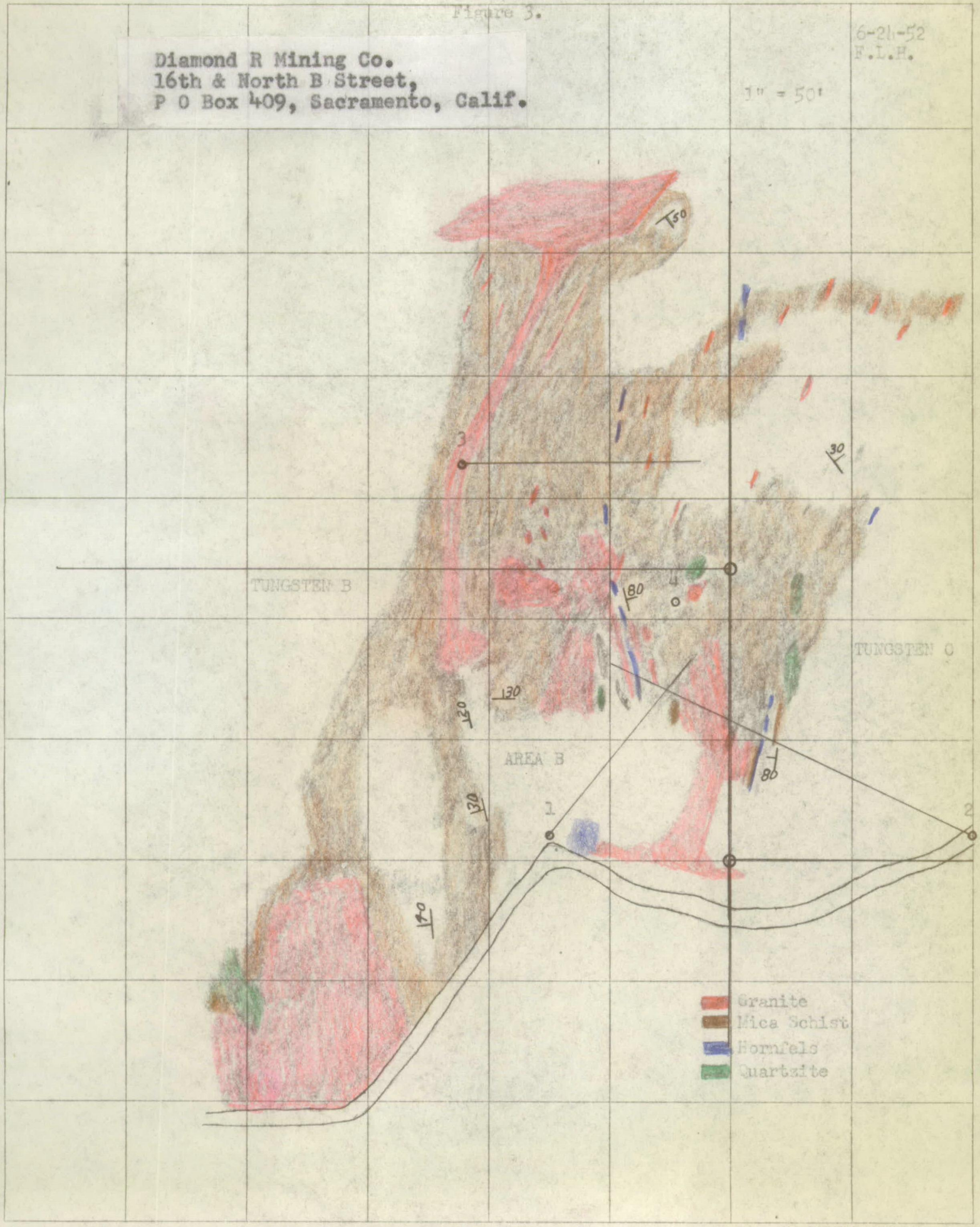
determine the most logical route and the approximate cost. It may be that further geological mapping will locate other hornfels beds that would warrant prior drilling.

Fred L. Humphrey

Fred L. Humphrey

June 24, 1952.

REEVES SCHEELITE PROPERTY
Figure 3.



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REEVES SCHEELITE PROPERTY
Figure 4

East-west cross section through hole No. 1, Area A
Looking North

1" = 50'

6-24-52
F.L.H.

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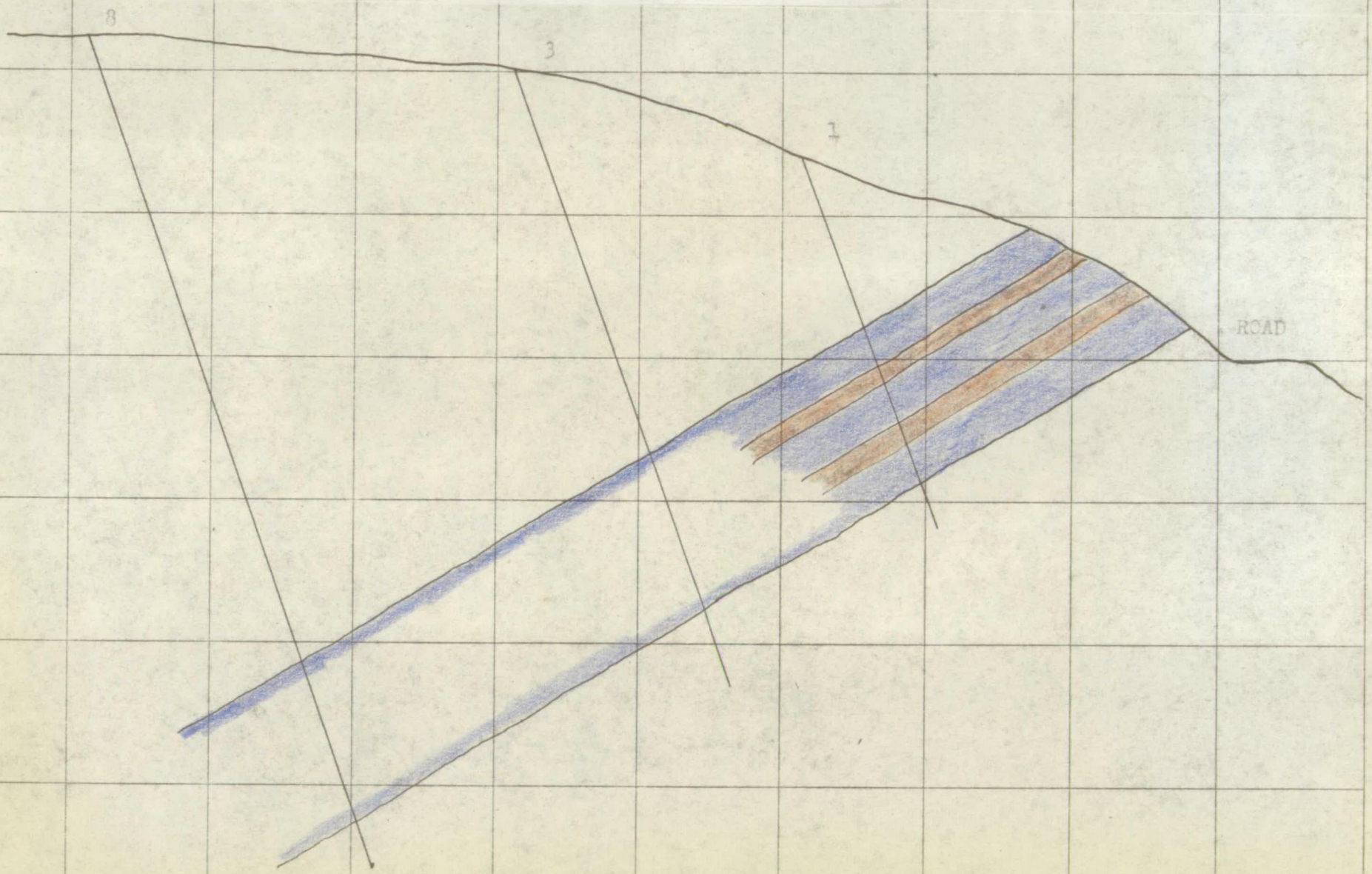

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REEVES SCHEELITE PROPERTY
Figure 2.

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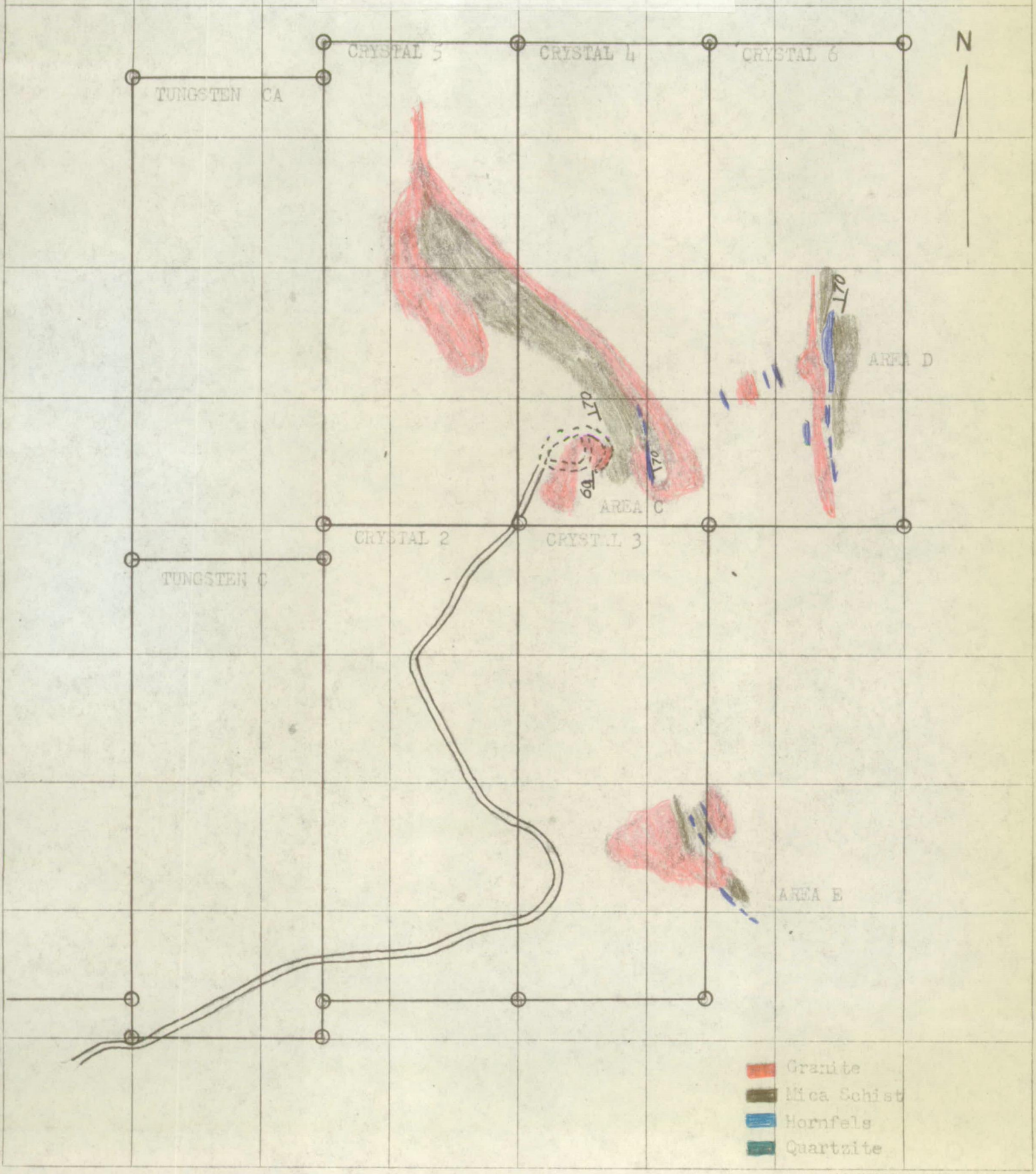
6-24-52
F.L.H.

1" = 400'



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REEVES SCHEELITE PROPERTY
Figure 11.

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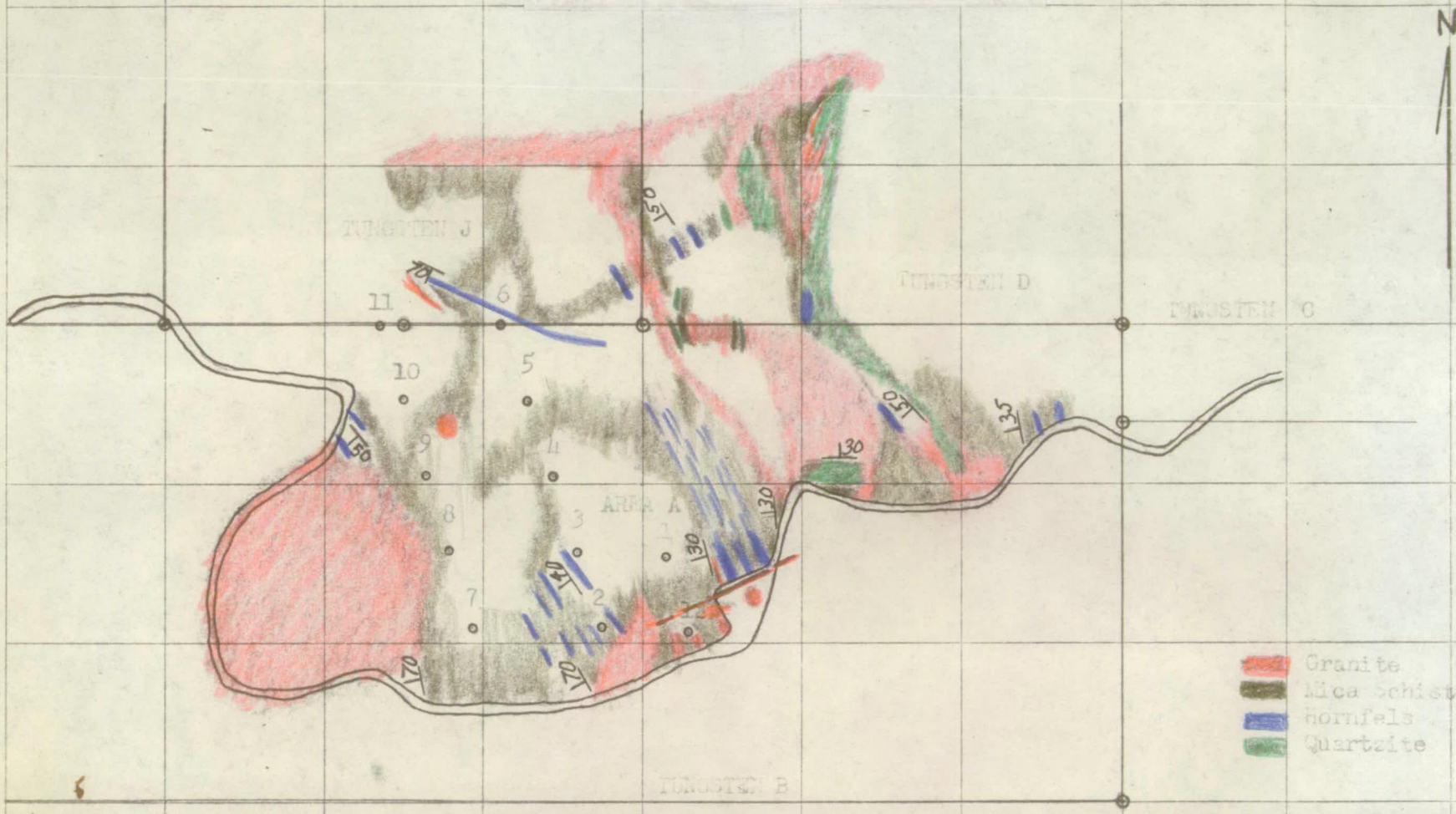
P O Box 409, Sacramento, Calif.

6-21-52
F.L.H.

1" = 200'



"ALBANENE" NO. 100M K&E CO., N.Y. REG. U.S. PAT. OFF.

MORSE LABORATORIES

ANALYTICAL AND RESEARCH CHEMISTS

AGRICULTURE : BACTERIOLOGY : MINING

REGISTERED PROFESSIONAL CHEMICAL ENGINEERS
316 SIXTEENTH STREET
SACRAMENTO 14, CALIFORNIA
GILBERT 3-6348

ANALYSIS OF
DAIRY AND FOOD PRODUCTS
FEED
FERTILIZER
SOIL AND WATER

WASTE PRODUCTS UTILIZATION
ORE DRESSING
CYANIDE TESTS
ORE ANALYSIS
ASSAYING

May 20, 1952

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

Mr. J. L. Russill
P. O. Box 409
Sacramento, Calif.

Chemical Analysis

Ore

Tungsten - - - - - - - - - - 1.42 % WO_3

Signed

G. H. Morse

G. H. Morse

MEMBER OF: NATIONAL SOCIETY PROFESSIONAL ENGINEERS
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
ASSOCIATION OF CONSULTING CHEMISTS AND CHEMICAL ENGINEERS, INC.

Diamond R Mining Co.
16th & North B Street,
P. O. Box 409, Sacramento, Calif.

LEASE OF MINING CLAIMS

THIS LEASE, MADE AND ENTERED INTO THE 22 DAY OF May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS, and ART JONES and PHYLLIS JONES, hereinafter called LESSORS, and J. L. RUSSILL, hereinafter called LESSEE:

W I T N E S S E T H

That Lessors do hereby lease to Lessee all that certain mining property and mining claims now located on the following described property, to wit;

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD & M, Madera County, California:

Garnet No.1, 2, 3, 4, 5.
Crystal No.A, B, 1, 2, 3, 4, 5, 6.
Tungsten No.A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed.

Lessee shall go into possession of said leased premises and within 90 days from date of this lease start the development and exploration work necessary to determine wheather or not there is sufficient tungsten ore present in above described property to make it economically feasible to conduct further mining operations on the said property. If it is determined, in the sole and exclusive judgment of Lessee, that such further mining operations is economically feasible, Lessee shall conduct or cause to be conducted, within a reasonable time after such determination, mining operations on the said property and claims. At the end of said 90 day period, Lessee shall pay as advanced royalty $300.00 per month until such time as the mine is in operation, or a quit claim or notice given to Lessors to cease operations. The $300.00 per month , or the total sum advanced shall be deducted from the first money due Lessors from their share of the proceeds of the sale of tungsten taken from the mine.

Lessors hereby reserve as a royalty 5 per cent up to and including 1% tungsten per ton 10% per ton for all tungsten over 1%, of all minerals saved and sold from the said leased premises, whether in the form of ore or in the form of concentrates, and title to said 5 or 10 per cent is hereby reserved in Lessors &c

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but Lessors do hereby authorize Lessee to sell their 5 or 10 per cent of said minerals with Lessee's part; but Lessee must, upon making sale thereof, make provision for the payment direct to Lessors of their 5 or 10 per cent of the proceeds of said minerals. Lessors shall have the option, if they so elect, to have their 5 or 10 per cent delivered to them in kind. Title to Lessors' royalty and proceeds thereof shall at all times remain in Lessors, except the advanced royalty paid by Lessee, which shall be deducted from the first moneys due Lessors.

Lessee agrees to conduct all mining operations on said leased premises in a good and minerlike manner, such as is the custom of good miners of the neighborhood and all operations shall be conducted in accordance with all State and Federal rules and regulations and/or any other governing bodies.

Lessee does hereby agree and must keep all labor and material bills and all other expenses incurred at said mine paid at maturity, and Lessee agrees to pay all taxes levied for all improvements to said mine.

Lessors shall post a Notice of Non-Liability upon said real property, and upon being so posted, Lessee agrees to maintain said Notice of Non-Liability thereon.

Lessee hereby agrees to keep all gates leading into said mine closed or open as Lessors may require, and if cattle guards are necessary, they must be built and maintained by Lessee in locations mutually agreeable by the parties hereto. Lessee agrees to use care in safeguarding against fire hazards present at such mining operations, and to make reasonable safeguards against the spreading of any such fire on to parts of the property of the Lessors surrounding the part upon which mining operations are being conducted.

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It is agreed that Lessee shall have the use of all natural spring water now on said land, and may develop additional water, except that Lessors do hereby reserve for their own use and adequate and complete supply of water from any springs on said premises for their personal use and for their cattle and livestock. Lessors, Carothers and Jones, do hereby specifically reserve the surface on all leased premises, except that actually being used for mining purposes, and all grazing and surface rights are reserved by the Lessors, also the cabins occupied by Carothers and Jones.

Lessee shall have the use of any existing roadways to said property, and to construct and maintain any additional road ways necessary for the conduct of these mining operations at locations mutually agreeable to the parties hereto, also the use of all mining equipment or buildings, except the two occupied by Carothers and Jones.

It is specifically agreed and understood that the Lessee may prospect for tungsten or other minerals on any part of the land owned by Lessors, and if any are discovered, may mine and process such minerals under the terms and conditions of this lease.

Lessors reserve the right at all times to go upon and through said premises and through said mine and observe all mining machinery and equipment for the purpose of seeing that this lease is being complied with, and Lessee agrees to keep accurate records of all minerals saved and sold at the mine and keep accurate records of all underground work, with copies at the mine subject to inspection by Lessors and all such records shall be subject to inspection by Lessors at reasonable times.

It is expressly agreed that Lessee shall not assign or sublet any property covered by this lease to anyone until Lessee shall have first obtained the written consent of Lessors thereto, but Lessors agree that they will give their written consent to any competent party having adequate means to perform the terms

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of this lease, providing that such party assume all obligations of Lessee hereunder. Upon such assignment being made by Lessee and the assumption of the terms of this lease hereunder, Lessee shall be relieved from all further responsibility under this lease, save and except obligations incurred and/or owing by Lessee to Lessors prior to the date of such assignment and assumption.

It is further agreed that Lessee may have 60 days in which to remove all personal property and equipment which Lessee may have placed upon said real property or upon the property of this claim after the termination and/or surrender of this lease.

Lessors agree that Lessee may at any time hereunder abandon operations under this lease upon giving Lessors 10 day's notice in writing, of such intention to abandon, and executing and delivering to Lessors a quit claim transferring all of Lessee's interest under this lease and upon so doing Lessee shall be relieved from all further responsibility hereunder, excepting as to obligations incurred at the time of such abandonment.

It is specifically provided that should Lessee be prevented by Act of God, war, any ruling of any governmental agency, strikes, lock-outs, or other cause beyond the control of Lessee, that for the period during the existence of such cause which prevented operations hereunder, the provisions for development and exploration of this property or claim shall be suspended, and advance payments stopped, for such time as such cause or causes are actually operating to prevent such performance.

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 28th day of MAY, A.D., 1952, before me, S. CARL DENEEN a Notary Public in and for said County and State, personally appeared ART JONES AND PHYLLIS JONES, known to me, to be the person S whose names ARE subscribed to the within Instrument, and acknowledged to me that THEY executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

S. Carl Deneen
Notary Public in and for said County and State.

My Commission Expires June 18, 1954

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232 52025

STATE OF CALIFORNIA
County of Madera } ss.

On this 26th day of May in the year of our Lord one thousand nine hundred and fifty-two

before me, James R. Spencer, a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared G. R. Carothers and Carrie Carothers

known to me to be the persons described in whose names are subscribed to and who executed the within instrument, and they acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James R. Spencer
Notary Public in and for the County of Madera, State of California.

My Commission Expires: January 5, 1955.

STATE OF CALIFORNIA
County of Sacramento } ss.

On this 22nd day of May in the year one thousand nine hundred and Fifty-two before me, Chas. L. Gilmore, a Notary Public in and for the County of Sacramento, State of California, residing therein, duly commissioned and sworn, personally appeared J. L. Russill

known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the county of Sacramento the day and year in this certificate first above written.

Notary Public in and for the County of Sacramento
State of California.
My Commission Expires Oct. 26, 1952

Cowdery's Form No. 32—Acknowledgment—General.
(C. C. Sec. 1189)

Diamond R Mining Co.
16th & North Street,
P O Box 409, Sacramento, Calif.

Should Lessee fail, refuse or neglect to make any of the payments herein required to be made, as the same mature, or refuse to perform any of the terms, covenants or conditions of this lease on the part of the Lessee to be performed, then Lessors shall give to Lessee 30 days notice, in writing, calling attention of Lessee to the matters wherein Lessee is in default and requiring the curing of said default or defaults within said 30 day period, then Lessors may terminate this lease by giving written notice of the final termination thereof; and upon final termination of this lease, all rights of Lessee in and to said leased premises shall cease and terminate and Lessee agrees to execute a quit claim deed transferring all rights of Lessee under this lease to Lessors, save only and except Lessee's right to remove all personal property therefrom within 30 days from date of such final termination.

Any notice desired or required to be served on Lessee by Lessors may be served by Lessors placing said notice in an envelope, postage prepaid, addressed to Lessee at P O Box 409, Sacramento, California, and placing the same in the United States Post Office; and start any notice desired or required to be served by Lessee on Lessors may be served by placing the same in an envelope, postage prepaid, addressed to Lessors at North Fork, Madera County, California.

IN WITNESS WHEREOF, the parties hereto set their hands in this year, on this day, in this instrument first above written.

A R Carothers

Carrie Carothers

[illegible]

Phyllis Jones

LESSORS

J L Russell

LESSEE

STATE OF CALIFORNIA,

COUNTY OF SACRAMENTO

On this 18th *day of* June *in the year one thousand nine hundred and* fifty-two

before me MARION FRITZ *a Notary Public in and for the County of Sacramento, personally*

appeared J. L. RUSSILL

known to me to be the person... whose name is *subscribed to the within instrument, and* he *duly acknowledged to me that ...he... executed the same.*

In WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

Marion Fritz

Notary Public in and for the County of Sacramento, State of California

My Commission Expires Jan. 21 19 55

SLEEPER 1015

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 23 day of June, A.D., 1952, before me, Louis T. Busch a Notary Public in and for said County and State, personally appeared Art Jones and Phyllis Jones, known to me, to be the person s whose name are subscribed to the within Instrument, and acknowledged to me that the y executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Louis T. Busch

My Commission Expires April [illegible]

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

52025

1-4 5-D 6-18-52

Diamond R Mining Co.
16th & North B Street,
P. O. Box 429, Sacramento, Calif

KNOW ALL MEN BY THESE PRESENTS:

For and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration, the undersigned does hereby transfer, assign and set over to the DIAMOND R MINING COMPANY, a corporation, all his right, title and interest, as lessee, in and to that certain lease of mining claim, dated the 22nd day of May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS and ART JONES and PHYLLIS JONES, lessors, and the undersigned as lessee, together with all leasehold and other interests thereby created.

DATED: June 18th, 1952.

J. L. Russell
J. L. Russell

The undersigned does hereby accept the above and foregoing assignment and does hereby consent and agree to perform all the terms, covenants and conditions therein set forth, to be performed by such lessee.

DATED: June 18th, 1952.

DIAMOND R MINING COMPANY,
a corporation,

By J. L. Russell
Box 429

We, and each of us, do hereby consent to the above and foregoing assignment.

DATED: June 23, 1952.

G R Carothers
G. R. Carothers

Carrie Carothers
Carrie Carothers

Art Jones
Art Jones

Phyllis Jones
Phyllis Jones

VLIN,
NBROCK
ULIF
ORNEYS
NTO, CALIF

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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 applicant

Docket No. DMEA-2600
Metal or Mineral
Date Received 7-1-52
Estimated Cost
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: Diamond R Mining Co.(Nevada Corporation) 16th & North B St. Sacramento, Calif. P.O.Box 409. J. L. Russill,Pres.,16th & North B St. Sacramento, Calif. R. C. Beach, 215 San Antonio Way, Sacramento, Calif. E. L. Reeves, Secy & Treasurer, Raymond, California.

(*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

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

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

(*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 not applicable

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

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.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will 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 30 days and be completed within 4 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)?

(*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 June 27, 1952

Diamond R Mining Co.
(Applicant)

By J. L. Russell Pres
E. K. Ramm Secy.

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

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

3. Applicant's property rights.-- (a) 31 unpatented mining claims to wit: Garnet No.1, 2, 3, 4, 5, Tungsten, A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3, Crystal, A, B, 1, 2, 3, 4, 5, 6. Also 3 additional claims recently filed located in sections 3, 4, 9, 10 and 15, Twp.8S, R 24 E, M. D. M. , Madera County, California.

(b) San Joaquin Tungsten Mine.

(d) Lease submitted.

(f) Above claims are recorded in the office of County Recorder, Madera County, California in the book and page as listed hereunder:

		Book	Page
Garnet	1	293	75
"	2	293	76
"	3	293	62
"	4	293	63
"	5	293	64
"	6	127	458
Tungsten		293	83
"	A	127	450
"	B	127	451
"	C	127	452
"	D	127	453
"	E	127	454
"	F	127	455
"	G	293	59
"	H	293	58
"	I	293	77
"	J	293	61
"	K	293	78
"	CA	293	84
"	1	127	435
"	2	127	439
"	3	127	440

		Book	Page
Crystal		293	71
"	A	293	86
"	B	293	85
"	1	293	72
"	2	293	65
"	3	293	66
"	4	293	67
"	5	293	73
"	6	293	74

4. See Humphrey report.

(b) Approximately 2000 tons 2% ore. No present production.

(c) See Humphrey report.

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4. Continued.

(d) Oiled road from North Fork, California through property distance 17 miles. 45 miles oiled road to railroad at Friant, California. Residences and local supplies North Fork.

(e) Man power available in vicinity. Materials and supplies available North Fork, Fresno, Madera. 4 large Springs on property also water rights to 3 second feet on Fish Creek with property, Power house #8 of So. Calif. Edison Co. 3 miles distance to Southeast.

5. (a) Tungsten

(b) See Humphrey report.

(d) Fred L. Humphrey, Professor of Mining and Dean designate, School of Mineral Sciences Stanford University. Consulting engineer.

E. L. Reeves, Mechanical engineer, Graduate training mining engineering and metallurgy. 44 years experience beginning at Cinco, Estrella mine in Pinos, Zacetecas, Mexico 1908. More recently Superintendent of Poverty Hill Mine, Sierra County, California, 1935 to 1939. Superintendent Western Maganese Mines, Crescent Mills, California, 1941 to 1944. Superintendent Pioneer Lilyama Mines, Eldorado County, California, 1944 to 1948. Assistant manager Alhambra Mine, Eldorado County, California, 1948 to 1950. Private work since 1950. Engineer and manager.

6. Estimate of cost. (a) Independent contracts:

4430 feet diamond drill hole Across A+B	@ 6.00 per foot	$26,580.00
100 hours D 7 Bulldozer, operator, fuel and maintenance	@ 11.00 per hour (necessary road work to be properly and deliver to road surface trenching)	1,100.00
		$27,680.00

(b) Labor, supervision, consultants:

1 Foreman	@ 350.00 per month	$1,050.00
1 Engineer-mgr.	@ 500.00per month	1,500.00
1 Consulting geologist and engineer	@ 75.00 per day	2,000.00
1 Miner	@ 16.00 per day	1,040.00
1 Laborer (5 day week)	@ 15. per day	975.00
		6,565.00

(c) Operating materials and supplies:

1 GMC 3/4 ton pick-up 1952 model	$1,997.00	operating equipment to be purchased new
1/2 ton dynamite	@ 28.35 per cwt.	283.50
500 elect. exploders	@ 18.00 per h.	90.00
500 feet 2 inch black pipe	@ .41 per ft	205.00
2000 gal. gasoline	@ .28 per gal.	560.00
50 gal. of lubricating oil		50.00
		3,185.50

(d) Operating equipment. None. See note above

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6. Estimate of cost-continued:

(e) Rehabilitation and repairs.

General overhaul of Ingersoll-Rand gasoline driven portable compressor 310 cubic feet. x	150.00

(f) New buildings, improvements, installations. None.

(g) Miscellaneous:

Analitical work	500.00	
Accounting	300.00	
Workmans Compensation	125.00	
Employers' Liability Insurance	100.00	
Payroll Taxes	191.73	1,216.73

(h) Contingencies 1,200.00

7. (a) Yes.

(b) With money.

Total	39,997.23

x Jackhammers, hoses, steel, bits, etc to be furnished by operator at no cost to the project NCM

D[illegible]ond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

PRELIMINARY REPORT ON THE E. L. REEVES SCHEELITE PROPERTY

Introduction

The E. L. Reeves scheelite property is situated in Eastern Madera County, California, about 17 miles east of North Fork on the north slope of the San Joaquin River. There are about 27 claims that cover portions of sections 3, 4, 9, 10 and 15 of T. 8 S. R. 24 E. M.D.M.

I visited this property between June 16th and 20th, 1952, at the request of Mr. Reeves, for the purpose of determining if the geological conditions warranted the undertaking of an exploration program, and if so, how and where it should be started.

I examined at least five areas within the claims, during my visit, that give promising indications of containing reasonable tonnages of scheelite ore. One in particular, on the Tungsten B claim, has possibilities of providing a large tonnage of ore. In addition to these areas shown on Figures 1 and 2 there are several other known outcrops of scheelite-bearing hornfels that will be mapped in the near future.

Two roads extend part way through the claims and will save considerable expense in moving exploration drilling equipment. There are at least four springs that will furnish water for drilling.

Recommendations

I propose that a diamond drilling program be started to explore the extent and value of the areas that are shown on the maps. The first work should be done on Area A, on the Tungsten B claim, where the geological conditions appear favorable for a very large tonnage of possible scheelite ore. When the drilling is completed on this area the program should be expanded to

explore other known areas which may not contain such a large possible tonnage but show promise of containing several thousand tons of good ore.

A complete drilling program for the property may require in excess of 100 holes varying in depth from 100 feet to 400 or 500 feet. However, in this preliminary report I shall only outline a program for Areas A and B, which will require probably 17 or 18 holes. Expansion of the program will depend in part on the results obtained by this first phase of the drilling. Such a program should not be rigidly stipulated in advance but should be open to change, as the information that is progressively obtained might dictate.

Geology

The principal country rock is a granitic type igneous rock ranging from granodiorite to graphic granite in mineralogical composition. It has intruded and metamorphosed older marine sedimentary rocks. The latter were dominantly shale with subordinate amounts of limestone and sandstone. The metamorphic rocks resulting from these sediments are mica schist, garnet-epidote hornfels and quartzite. The scheelite occurs in the garnet-epidote hornfels.

The outcrops of the metamorphic rocks are irregular in shape but commonly have an elongated north-south trend parallel to the general strike of the beds. Some of the metamorphic lenses or "roof pendants" are as much as one-half mile [illegible] but are generally cut in many places by small, irregular granite masses [illegible]. Some metamorphic rocks occur all the way from the top of the ridge [illegible] elevation of about 5000 feet, down the slope to the river at an elevation [illegible] feet, where is reason to believe that many of the "roof pendants" [illegible] for a considerable depth down into the granite.

[illegible] hornfels beds vary in thickness from a few inches up to as much as [illegible] feet. Wherever found they invariably carry at least a trace of scheelite;

and near the igneous rocks they often contain in excess of one percent scheelite.

The thickest hornfels beds occur in the Tungsten B claim where there are three beds about 15 feet thick and separated from each other by about six feet of schist. In the other areas that were examined the hornfels beds vary from two feet to about seven feet in width.

The five areas that have been examined and appear to have some promise will be described as follows:

Area A. This area is near the center of the Tungsten B claim and contains the three hornfels beds mentioned above. These beds appear to promise production of a large tonnage of possible scheelite ore. Where they are exposed, near the road, they have been explored by cuts and a 25-foot incline shaft. All three of the beds contain scheelite as determined by ultraviolet light examination, and near the granite contacts portions of them will probably assay variably from one-half to five percent scheelite.

The beds strike about N 15° W and dip approximately 30° to the west. They are cut off on the south side near the road by a pre-granite fault. This fault has apparently dropped the rocks down on the south side and thus the beds may continue southward, underneath the exposed shale. I was told that an incline shaft, now caved, was sunk about 30 feet south of the fault to a depth of approximately 40 feet along the contact of a hornfels bed and a granite dike. "Good" ore was said to have occurred in the hornfels down to the bottom of the shaft. While this hornfels is now covered, it may be the faulted extension of the upper of the three beds.

Another incline shaft about 25 feet deep is still open and exposes very good scheelite ore in the middle bed along the fault. Surface cuts have been made in these beds from 50 to 100 feet north of the fault and these have also exposed favorable scheelite-bearing rock.

Since beds of this thickness would not ordinarily be expected to lens out immediately, it is reasonable to assume that they will extend both laterally and down the dip for at least several hundred feet unless cut off by the granite. A large body of granite outcrops about 350 feet west of the hornfels outcrops and the hornfels may extend in depth to the contact with this granite. Other small granite dikes and lenses are exposed at the surface and will undoubtedly cut out portions of the beds, but actually they present a favorable condition since it is in their proximity that the best scheelite mineralization occurs. Thus there is a very good possibility of these beds producing a sizable tonnage of ore. There are a few thin hornfels beds in the schist overlying the 15-foot beds and at least one of them, which is about three feet thick where exposed, contains scheelite.

Area B. This is a small scheelite-bearing area about 20 feet wide and 100 feet long. It occurs in the northeast corner of the Tungsten B claim and in the south end of the Tungsten D claim. It differs from the other scheelite bodies in that it appears to be a decomposed mass of intermixed granite and schist. The original shale apparently contained small lenses of calcareous shale that have produced small hornfels lenses which are now also partly decomposed. The soil and fine decomposition products at the surface contain a considerable amount of scheelite; possibly as much as three or four percent. I believe this concentration in the surface soil results from a mechanical secondary enrichment from decomposed rock that has been removed by erosion; the heavy scheelite tending to remain behind as the other material was eroded. The thorough decomposition of this rock is probably a result of hydrothermal alteration rather than weathering and may occur for some distance below the surface.

Area C. This area, shown on Figure 2, is at the end of the road on the Crystal 4 claim. There are two hornfels beds in the schist, about 100 feet

apart, both striking in a northerly direction. The western bed is approximately two feet thick dipping to the west, and the eastern bed is about six feet thick dipping steeply to the east. Samples from both of these beds contained scheelite, and those from the eastern bed contained from one to two percent. This bed is exposed for about 50 feet and hornfels float can be found for close to 200 feet further north, and it is probable that the bed extends at least that far.

Area D. This area is about 600 feet east of Area C. A six to eight foot hornfels bed is exposed for a distance of about 40 feet in contact with a granite dike. Hornfels float can be found for at least 100 feet to the south along the granite outcrop. A sample from this area appeared to contain in excess of one percent scheelite.

Area E. This area is about 1200 feet south of Area C. Another hornfels outcrop is exposed here, but no samples were taken to determine the scheelite content. The bed is cut off on the north by the granite although it may extend southward in the schist.

Since these areas that have been examined are said to be only a portion of the exposed scheelite-bearing zones, it is important that further geological work be done to outline other possible ore beds. I expect to continue this work in the near future. In view of the fact that these beds contain sufficient scheelite, as determined by ultraviolet lamping, to warrant further exploration, I did not take time to attempt to cut representative samples for assay during my first visit. In order to obtain representative samples at the surface, cuts will have to be made, either by a tractor or by hand work.

Proposed Exploration

The first exploration work should be done on the Tungsten B claim to investigate Area A. One vertical hole should be drilled about 75 feet west of the outcrop of the beds to check their continuity and average dip. This hole

is shown on Figure 1 as No. 1 hole. Then a series of holes should be drilled at intervals of about 100 feet on a line parallel to the strike of the hornfels beds and approximately 200 feet west of their outcrop. After, and if, the vertical extension of the beds to the depth of these holes has been proved and the longitudinal extent has been determined, a second parallel row of holes should be drilled about 150 feet west of the first row. It would probably be best to space these holes at 100 foot intervals between the positions of the holes in the first row. At least one hole should be drilled south of the fault, as shown, to attempt to locate the extension of the beds on that side of the fault. Figure [illegible] is a cross section through hole No. 1 and shows the probable projected position of the beds and the approximate depth of holes.

These drill holes should not necessarily be stopped if granite is encountered since there are many dikes and granite seams some distance from the large granite masses.

Following are the data on the proposed holes in Areas A and B. After these holes are completed it may be desirable to drill others, particularly in Area A, to further outline any promising ore bodies that may have been [illegible].

[illegible]

[illegible] 130 feet from center end line stake of the [illegible] east. Depth, 110 feet.

[illegible] the beginning of a line of holes parallel to [illegible] center end line of [illegible] north of east. [illegible] feet.

Holes 3, 4, 5, and 6 on a line bearing N 16° W from hole No. 2 at 100 foot intervals, and at same inclination and bearing as hole No. 2. Depth: approximately 250 to 300 feet.

Hole No. 7. S 12° E, 390 feet from center end line stake of Tungsten J. Inclination: 70°. Bearing: 15° north of east. Depth: 300 to 400 feet.

Holes No. 8, 9, 10, and 11 on a line bearing N 16° W from hole No. 7 at 100 foot intervals and at same inclination and bearing as hole No. 7. Depth: approximately 300 to 400 feet.

Hole No. 12. S 43° E, 515 feet from center end line stake of Tungsten J. Inclination: vertical. Depth: 100 to 200 feet.

With the information obtained from these holes it will be possible to determine if other holes are needed. It is very probable that at least another eight to ten holes will prove desirable.

Area B.

To explore Area B four holes are proposed and shown on Figure 3.

Hole No. 1. N 83° W, 75 feet from the southwest corner of the Tungsten C claim. Inclination: 45°. Bearing: N 40° E. Depth: 130 feet.

Hole No. 2. N 85° E, 100 feet from southwest corner of the Tungsten C claim. Inclimation: 35°. Bearing: N 65° W. Depth: 200 feet.

Hole No. 3. 150 feet north (up the gulch) from hole No. 1. Inclination: 40°. Bearing: East. Depth: 200 feet.

Hole No. 4. N 12° W, 110 feet from southwest corner of Tungsten C claim. Inclination: vertical. Depth: 100 feet.

Areas C, D, and E are on a steep slope and will require a certain amount of road work before a drill could be located in a favorable position to crosscut the hornfels beds. Such road building will call for a reconnaissance survey to

determine the most logical route and the approximate cost. It may be that further geological mapping will locate other hornfels beds that would warrant prior drilling.

Fred L. Humphrey

Fred L. Humphrey

June 24, 1952.

REEVES SCHEELITE PROPERTY

Figure 3.

Diamond R Mining Co.
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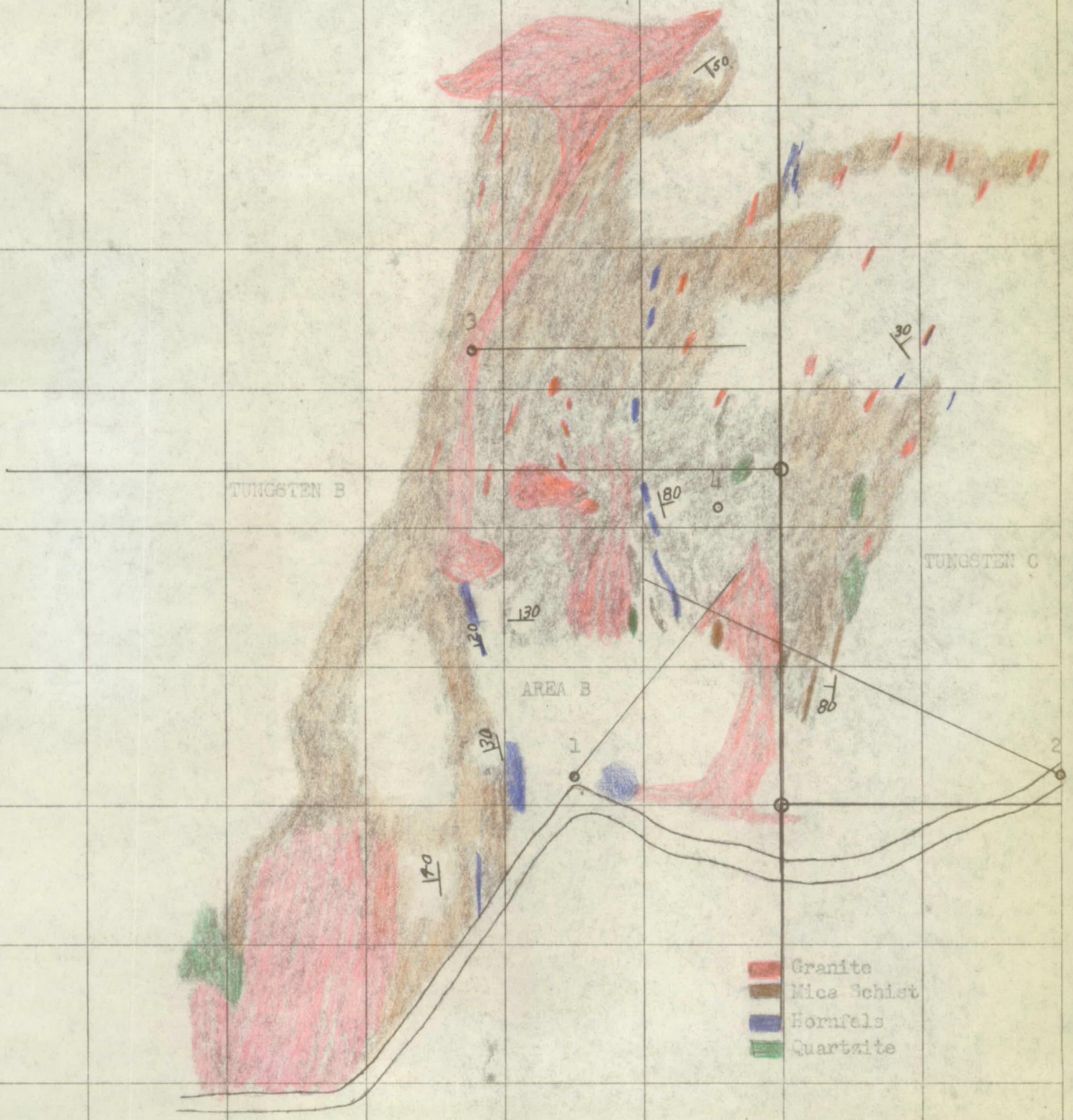
P O Box 409, Sacramento, Calif.

6-21-52
F.L.H.

1" = 50'



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REG. U.S. PAT. OFF.

REEVES SCHEELITE PROPERTY

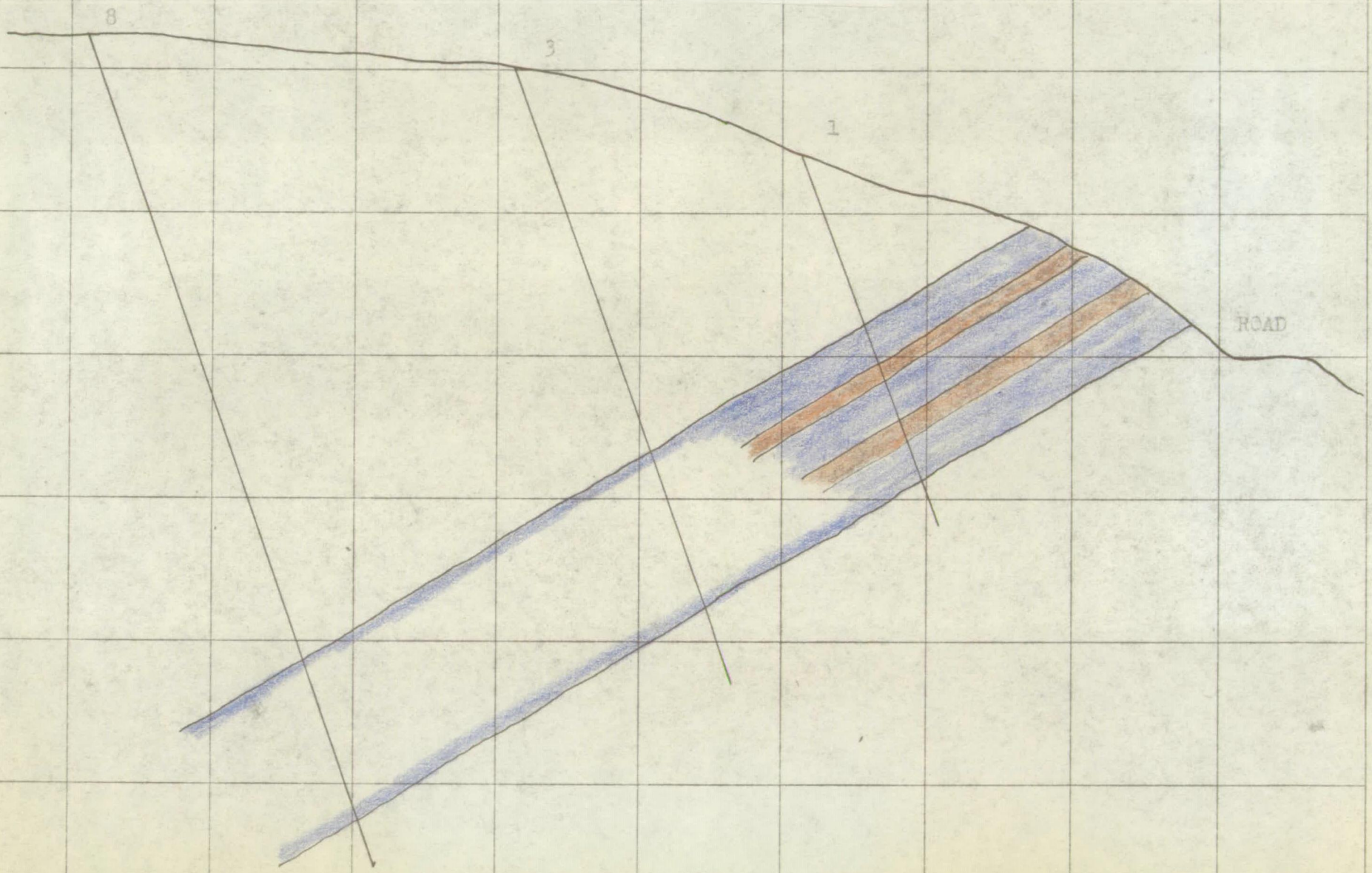
Figure 4

East-west cross section through hole No. 1, Area A
Looking North

1" = 50'

6-24-52
F.L.M.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.



"ALBANENE" NO. 1868M K&E CO., N.Y.
REG. U.S. PAT. OFF.

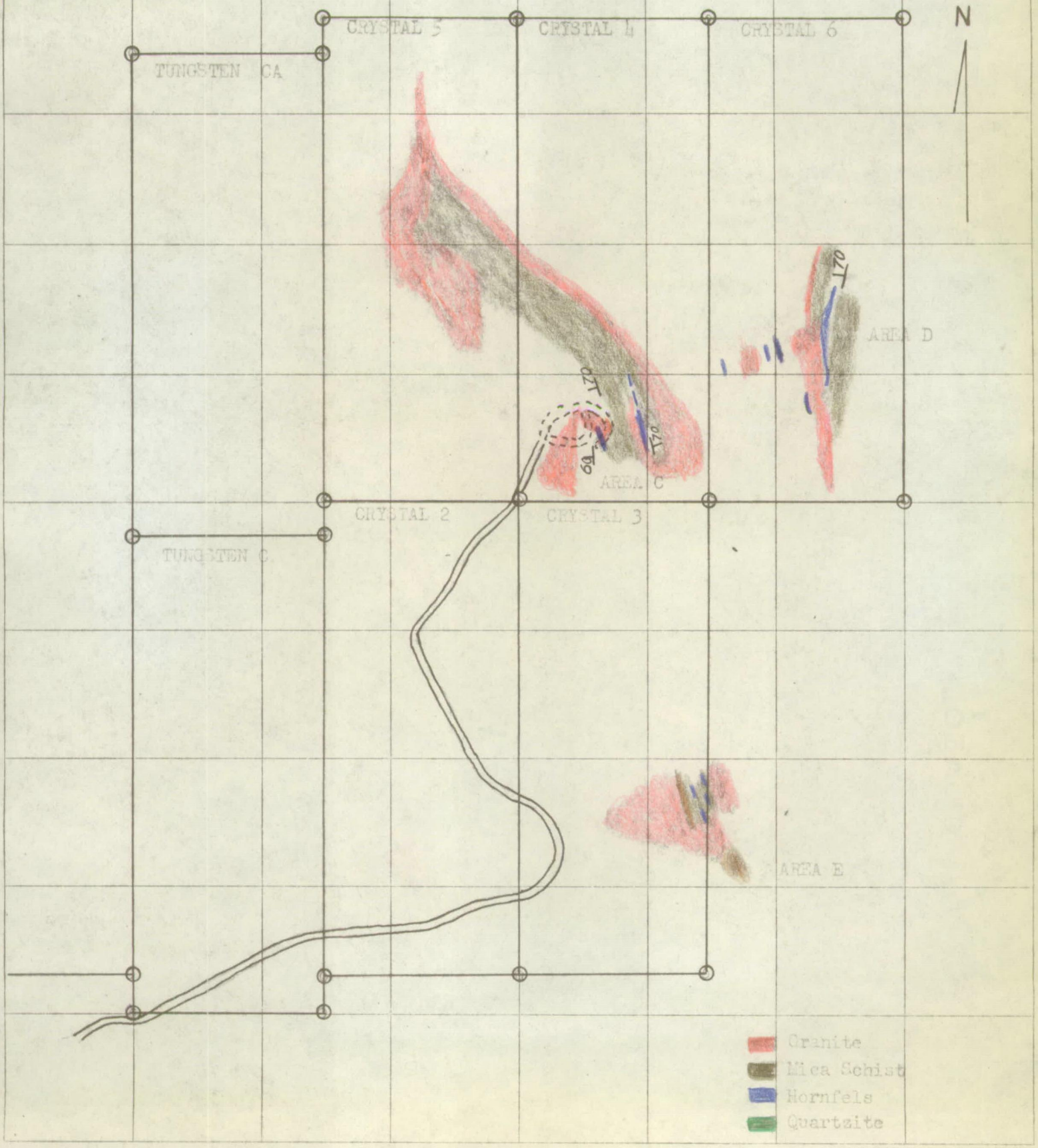
REEVES SCHEELITE PROPERTY

Figure 2.

6-24-52
F.L.H.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

1" = 400'



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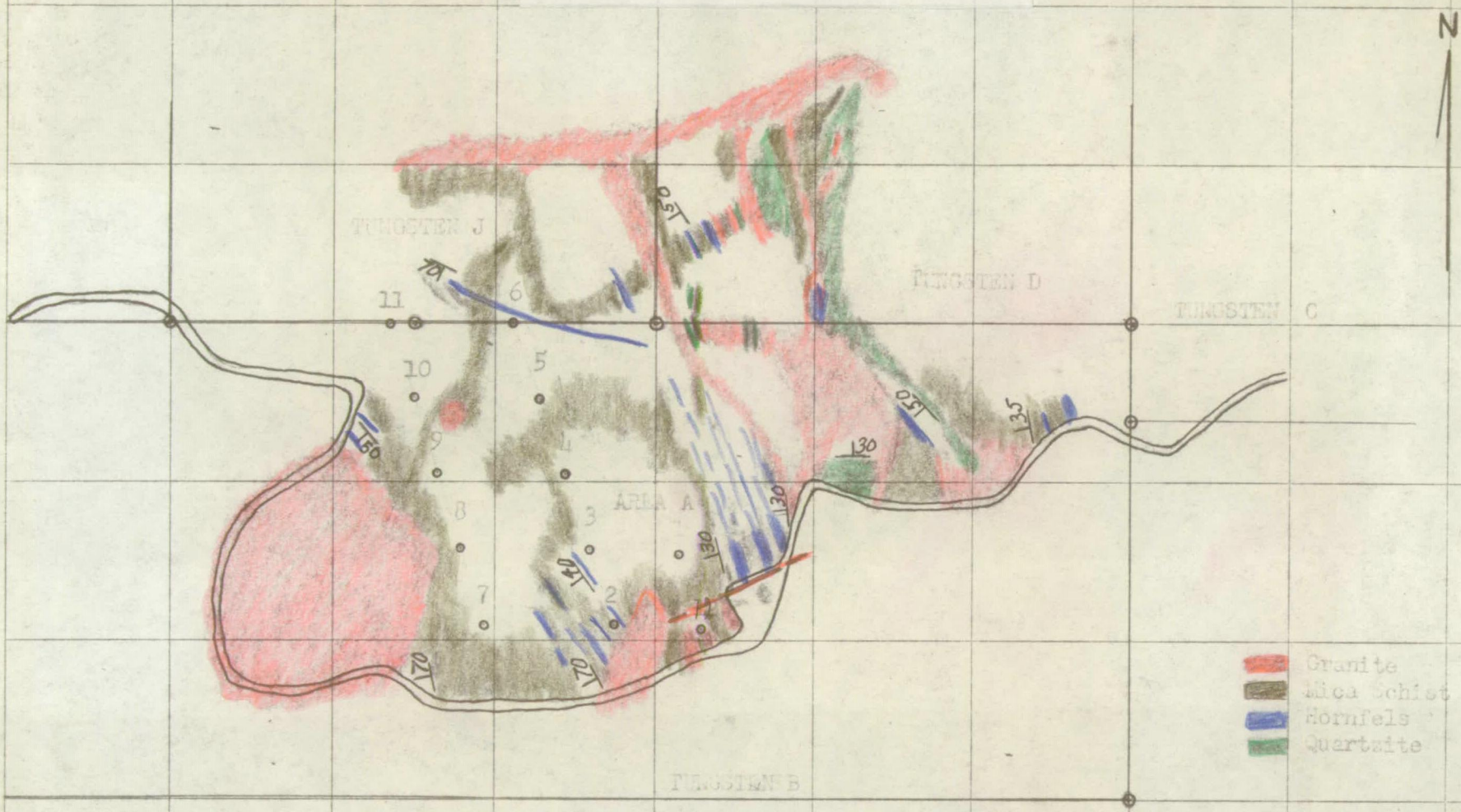
REEVES SCHEELITE PROPERTY

Figure 1.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

6-24-52
F.L.H.

1" = 200'



"ALBANENE" No. 196M K&E CO., N.Y. REG. U.S. PAT. OFF.

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WASTE PRODUCTS UTILIZATION
ORE DRESSING
CYANIDE TESTS
ORE ANALYSIS
ASSAYING

May 20, 1952

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

Mr. J. L. Russill
P. O. Box 409
Sacramento, Calif.

Chemical Analysis

Ore

Tungsten - - - - - - - - - - 1.42 % WO_3

Signed

G. H. Morse

MEMBER OF: NATIONAL SOCIETY PROFESSIONAL ENGINEERS
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
ASSOCIATION OF CONSULTING CHEMISTS AND CHEMICAL ENGINEERS, INC.

Diamo[illegible]R Mining Co.
16th [illegible]orth R Street,
P[illegible] Box 409, Sacramento, Calif.

LEASE OF MINING CLAIM

THIS LEASE, MADE AND ENTERED INTO THE 22 DAY OF May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS, and ART JONES and PHYLLIS JONES, hereinafter called LESSORS, and J. L. RUSSILL, hereinafter called LESSEE:

W I T N E S S E T H

That Lessors do hereby lease to Lessee all that certain mining property and mining claims now located on the following described property, to wit;

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD & M, Madera County, California:

Garnet No.1, 2, 3, 4, 5.
Crystal No.A, B, 1, 2, 3, 4, 5, 6.
Tungsten No.A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed.

Lessee shall go into possession of said leased premises and within 90 days from date of this lease start the development and exploration work necessary to determine wheather or not there is sufficient tungsten ore present in above described property to make it economically feasible to conduct further mining operations on the said property. If it is determined, in the sole and exclusive judgment of Lessee, that such further mining operations is economically feasible, Lessee shall conduct or cause to be conducted, within a reasonable time after such determination, mining operations on the said property and claims. At the end of said 90 day period, Lessee shall pay as advanced royalty $300.00 per month until such time as the mine is in operation, or a quit claim or notice given to Lessors to cease operations. The $300.00 per month , or the total sum advanced shall be deducted from the first money due Lessors from their share of the proceeds of the sale of tungsten taken from the mine.

Lessors hereby reserve as a royalty 5 per cent up to and including 1% tungsten per ton 10% per ton for all tungsten over 1%, of all minerals saved and sold from the said leased premises, whether in the form of ore or in the form of concentrates, and title to said 5 or 10 per cent is hereby reserved in Lessors A,

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

but Lessors do hereby authorize Lessee to sell their 5 or 10 per cent of said minerals with Lessee's part; but Lessee must, upon making sale thereof, make provision for the payment direct to Lessors of their 5 or 10 per cent of the proceeds of said minerals. Lessors shall have the option, if they so elect, to have their 5 or 10 per cent delivered to them in kind. Title to Lessors' royalty and proceeds thereof shall at all times remain in Lessors, except the advanced royalty paid by Lessee, which shall be deducted from the first moneys due Lessors.

Lessee agrees to conduct all mining operations on said leased premises in a good and minerlike manner, such as is the custom of good miners of the neighborhood and all operations shall be conducted in accordance with all State and Federal rules and regulations and/or any other governing bodies.

Lessee does hereby agree and must keep all labor and material bills and all other expenses incurred at said mine paid at maturity, and Lessee agrees to pay all taxes levied for all improvements to said mine.

Lessors shall post a Notice of Non-Liability upon said real property, and upon being so posted, Lessee agrees to maintain said Notice of Non-Liability thereon.

Lessee hereby agrees to keep all gates leading into said mine closed or open as Lessors may require, and if cattle guards are necessary, they must be built and maintained by Lessee in locations mutually agreeable by the parties hereto. Lessee agrees to use care in safeguarding against fire hazards present at such mining operations, and to make reasonable safeguards against the spreading of any such fire on to parts of the property of the Lessors surrounding the part upon which mining operations are being conducted.

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It is agreed that Lessee shall have the use of all natural spring water now on said land, and may develop additional water, except that Lessors do hereby reserve for their own use and adequate and complete supply of water from any springs on said premises for their personal use and for their cattle and livestock. Lessors, Carothers and Jones, do hereby specifically reserve the surface on all leased premises, except that actually being used for mining purposes, and all grazing and surface rights are reserved by the Lessors, also the cabins occupied by Carothers and Jones.

Lessee shall have the use of any existing roadways to said property, and to construct and maintain any additional road ways necessary for the conduct of these mining operations at locations mutually agreeable to the parties hereto, also the use of all mining equipment or buildings, except the two occupied by Carothers and Jones.

It is specifically agreed and understood that the Lessee may prospect for tungsten or other minerals on any part of the land owned by Lessors, and if any are discovered, may mine and process such minerals under the terms and conditions of this lease.

Lessors reserve the right at all times to go upon and through said premises and through said mine and observe all mining machinery and equipment for the purpose of seeing that this lease is being complied with, and Lessee agrees to keep accurate records of all minerals saved and sold at the mine and keep accurate records of all underground work, with copies at the mine subject to inspection by Lessors and all such records shall be subject to inspection by Lessors at reasonable times.

It is expressly agreed that Lessee shall not assign or sublet any property covered by this lease to anyone until Lessee shall have first obtained the written consent of Lessors thereto, but Lessors agree that they will give their written consent to any competent party having adequate means to perform the terms

Diamond R[illegible]ining Co.
16th & No[illegible]h B Street,
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of this lease, providing that such party assume all obligations of Lessee hereunder. Upon such assignment being made by Lessee and the assumption of the terms of this lease hereunder, Lessee shall be relieved from all further responsibility under this lease, save and except obligations incurred and/or owing by Lessee to Lessors prior to the date of such assignment and assumption.

It is further agreed that Lessee may have 60 days in which to remove all personal property and equipment which Lessee may have placed upon said real property or upon the property of this claim after the termination and/or surrender of this lease.

Lessors agree that Lessee may at any time hereunder abandon operations under this lease upon giving Lessors 10 day's notice in writing, of such intention to abandon, and executing and delivering to Lessors a quit claim transferring all of Lessee's interest under this lease and upon so doing Lessee shall be relieved from all further responsibility hereunder, excepting as to obligations incurred at the time of such abandonment.

It is specifically provided that should Lessee be prevented by Act of God, war, any ruling of any governmental agency, strikes, lock-outs, or other cause beyond the control of Lessee, that for the period during the existence of such cause which prevented operations hereunder, the provisions for development and exploration of this property or claim shall be suspended, and advance payments stopped, for such time as such cause or causes are actually operating to prevent such performance.

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 28th day of MAY, A.D., 1952, before me, S. CARL DENEEN a Notary Public in and for said County and State, personally appeared ART JONES AND PHYLLIS JONES, known to me, to be the persons whose names ARE subscribed to the within Instrument, and acknowledged to me that They executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

S. Carl Deneen

Notary Public in and for said County and State.

My Commission Expires June 18, 1954

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

32025

STATE OF CALIFORNIA
County of Madera } ss.

On this 26th day of May in the year of our Lord one thousand nine hundred and fifty-two

before me, [redacted] a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared

J[redacted] Spencer G. R. Carothers and Carrie Carothers

known to me to be the person s described in whose name s are subscribed to and who executed the within instrument, and they acknowledged to me that t y he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My Commission Expires: January 5, 1955.

STATE OF CALIFORNIA
County of Sacramento } ss.

On this 22nd day of May in the year one thousand nine hundred and Fifty-two before me, Chas. L. Gilmore, a Notary Public in and for the County of Sacramento, State of California, residing therein, duly commissioned and sworn, personally appeared J. L. Russill

known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the county of Sacramento the day and year in this certificate first above written.

Notary Public in and for the County of Sacramento
State of California.
My Commission Expires Oct. 26, 1952

Cowdery's Form No. 32—Acknowledgment—General.
(C. C. Sec. 1189)

Diamond R Mining Co.
16th & North Street,
P O Box 409, Sacramento, Calif.

Should Lessee fail, refuse or neglect to make any of the payments herein required to be made, as the same mature, or refuse to perform any of the terms, covenants or conditions of this lease on the part of the Lessee to be performed, then Lessors shall give to Lessee 30 days notice, in writing, calling attention of Lessee to the matters wherein Lessee is in default and requiring the curing of said default or defaults within said 30 day period, then Lessors may terminate this lease by giving written notice of the final termination thereof; and upon final termination of this lease, all rights of Lessee in and to said leased premises shall cease and terminate and Lessee agrees to execute a quit claim deed transferring all rights of Lessee under this lease to Lessors, save only and except Lessee's right to remove all personal property therefrom within 30 days from date of such final termination.

Any notice desired or required to be served on Lessee by Lessors may be served by Lessors placing said notice in an envelope, postage prepaid, addressed to Lessee at P O Box 409, Sacramento, California, and placing the same in the United States Post Office; and start any notice desired or required to be served by Lessee on Lessors may be served by placing the same in an envelope, postage prepaid, addressed to Lessors at North Fork, Madera County, California.

IN WITNESS WHEREOF, the parties hereto set their hands in this year, on this day, in this instrument first above written.

H Carothers

Carrie Carothers

Ed Jones

Phyllis Jones
LESSORS

J. L. Russell
LESSEE

STATE OF CALIFORNIA,

COUNTY OF SACRAMENTO

On this 18th *day of* June *in the year one thousand nine hundred and* fifty-two

before me MARION FRITZ *a Notary Public in and for the County of Sacramento, personally appeared* J. L. RUSSILL

known to me to be the person whose name is *subscribed to the within instrument, and* he *duly acknowledged to me that* he *executed the same.*

In WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

Marion Fritz

Notary Public in and for the County of Sacramento, State of California

My Commission Expires Jan. 21 1955

SLEEPER 1015

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 23 day of June, A.D., 1952, before me, Louis T. Busch a Notary Public in and for said County and State, personally appeared Art Jones and Phyllis Jones, known to me, to be the person s whose name are subscribed to the within Instrument, and acknowledged to me that the y executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

LOUIS T. BUSCH
My Commission Expires April 6 1955

Louis T. Busch
Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232 52025

1-4 5-D 6-18-52

Diamond R Mining Co.
16th & North B Street,
P. O. Box 409, Sacramento, Calif.

KNOW ALL MEN BY THESE PRESENTS:

For and in consideration of the sum of One Dollar ($1.00) and other good and valuable consideration, the undersigned does hereby transfer, assign and set over to the DIAMOND R MINING COMPANY, a corporation, all his right, title and interest, as lessee, in and to that certain lease of mining claim, dated the 22nd day of May, 1952, by and between G. R. CAROTHERS and CARRIE CAROTHERS and ART JONES and PHYLLIS JONES, lessors, and the undersigned as lessee, together with all leasehold and other interests thereby created.

DATED: June 18th, 1952.

J. L. Russell
J. L. Russell

The undersigned does hereby accept the above and foregoing assignment and does hereby consent and agree to perform all the terms, covenants and conditions therein set forth, to be performed by such lessee.

DATED: June 18th, 1952.

DIAMOND R MINING COMPANY,
a corporation,

By J. L. Russell
Box 409

We, and each of us, do hereby consent to the above and foregoing assignment.

DATED: June 23, 1952.

G. R. Carothers
G. R. Carothers

Carrie Carothers
Carrie Carothers

Art Jones
Art Jones

Phyllis Jones
Phyllis Jones

YLIN,
NBROCK
/ULFF
ORNEYS
NTO, CALIF

EXPLORATION

Subject: DMEA-2600
Re: Exploration Loan
San Joaquin Tungsten Mine
July 2, 1952

Mr. J. L. Russell
Diamond R Mining Co.
P. O. Box 409
16th and North B Streets
Sacramento, California

My dear Mr. Russell:

This will acknowledge receipt of your application dated June 27, 1952, for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2600 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2600 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Administrative Officer

7862

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

JUL 1 1952

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

June 27, 1952

Memorandum

To: Defense Minerals Exploration Administration,
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for an Exploration Loan (Tungsten),
Diamond R Mining Co., J. L. Russill, Pres.,
16th & North B St., Sacramento, Calif.
San Joaquin Tungsten Mine, Madera County, Calif.

Attached are three of the four copies of an application for aid in the exploration of subject property, received in this office today. The fourth copy is being retained in this office for the use of our field engineers, in case your office desires us to make a field examination.

Inasmuch as Mr. Fred L. Humphrey, of Stanford University, examined and reported on the property and the fact, I believe, that Dwight Lemmon, of the Geological Survey, has personal information on it, a field examination by our engineers and/or geologists may not be necessary. Mr. Humphrey, in whom we have much confidence, is apparently very favorably impressed with the property and its possibilities.

Six copies of Owner's Consent to Lien also are attached.

H. C. Miller
Executive Officer, DMEA Field Team
Region III

Attachments

Copy to: E.H.Bailey, USGS

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 1 1952

MF-103
(Revised April 1950)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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 applicant

Docket No. DMEA-2600
Metal or Mineral
Date Received 7-1-52
Estimated Cost
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: Diamond R Mining Co.(Nevada Corporation) 16th & North B St. Sacramento, Calif. P.O.Box 409. J. L. Russill,Pres.,16th & North B St. Sacramento, Calif. R. C. Beach, 215 San Antonio Way, Sacramento, Calif. E. L. Reeves, Secy & Treasurer, Raymond, California.

(*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

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

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

(*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 not applicable

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

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.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish 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 30 days and be completed within 4 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)?

(*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 June 27, 1952

Diamond R Mining Co.
(Applicant)

By J. L. Russell Pres
E. L. Pram, Secty

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

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

3. Applicant's property rights.-- (a) 31 unpatented mining claims to wit: Garnet No.1, 2, 3, 4, 5, Tungsten, A, B, C, D, E, E, G, H, I, J, K, CA, 1, 2, 3, Crystal, A, B, 1, 2, 3, 4, 5, 6. Also 3 additional claims recently filed located in sections 3, 4, 9, 10 and 15, Twp.8S, R 24 E, M. D. M. , Madera County, California.

(b) San Joaquin Tungsten Mine.

(d) Lease submitted.

(f) Above claims are recorded in the office of County Recorder, Madera County, California in the book and page as listed hereunder:

		Book	Page
Garnet	1	293	75
"	2	293	76
"	3	293	62
"	4	293	63
"	5	293	64
"	6	127	458
Tungsten		293	83
"	A	127	450
"	B	127	451
"	C	127	452
"	D	127	453
"	E	127	454
"	F	127	455
"	G	293	59
"	H	293	58
"	I	293	77
"	J	293	61
"	K	293	78
"	CA	293	84
"	1	127	435
"	2	127	439
"	3	127	440

		Book	Page
Crystal		293	71
"	A	293	86
"	B	293	85
"	1	293	72
"	2	293	65
"	3	293	66
"	4	293	67
"	5	293	73
"	6	293	74

4. See Humphrey report.

(b) Approximately 2000 tons 2% ore. No present production.

(c) See Humphrey report.

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

4. Continued.

(d) Oiled road from North Fork, California through property distance 17 miles. 45 miles oiled road to railroad at Friant, California. Residences and local supplies North Fork.

(e) Man power available in vicinity. Materials and supplies available North Fork, Fresno, Madera. 4 large Springs on property also water rights to 3 second feet on Fish Creek with property, Power house #8 of So. Calif. Edison Co. 3 miles distance to Southeast.

5. (a) Tungsten

(b) See Humphrey report.

(d) Fred L. Humphrey, Professor of Mining and Dean designate, School of Mineral Sciences Stanford University. Consulting engineer.

E. L. Reeves, Mechanical engineer, Graduate training mining engineering and metallurgy. 44 years experience beginning at Cinco, Estrella mine in Pinos, Zacetecas, Mexico 1908. More recently Superintendent of Poverty Hill Mine, Sierra County, California, 1935 to 1939. Superintendent Western Maganese Mines, Crescent Mills, California, 1941 to 1944. Superintendent Pioneer Lilyama Mines, Eldorado County, California, 1944 to 1948. Assistant manager Alhambra Mine, Eldorado County, California, 1948 to 1950. Private work since 1950. Engineer and manager.

6. Estimate of cost. (a) Independent contracts:

4430 feet diamond drill hole areas A+B. @ 6.00 per foot		$26,580.00
100 hours D 7 Bulldozer, operator, fuel and maintenance @ 11.00 per hour (necessary road work to property and drill sites, and some surface drawing) New		1,100.00
		$27,680.00

(b) Labor, supervision, consultants:

1 Foreman @ 350.00 per month	$1,050.00	
1 Engineer-mgr. @ 500.00per month	1,500.00	
1 Consulting geologist and engineer @ 75.00 per day	2,000.00	
1 Miner @ 16.00 per day	1,040.00	
1 Laborer (5 day week) @ 15. per day	975.00	6,565.00

(c) Operating materials and supplies:

1 GMC 3/4 ton pick-up 1952 model	$1,997.00	= operating equipment to be purchased New.
1/2 ton dynamite @ 28.35 per cwt.	283.50	
500 elect. exploders @ 18.00 per h.	90.00	
500 feet 2 inch black pipe @ .41 per ft	205.00	
2000 gal. gasoline @ .28 per gal.	560.00	
50 gal. of lubricating oil	50.00	3,185.50

(d) Operating equipment. None. See note 8 New

Diamond R Mining Co.,
16th & North B Street, P O Box 409,
Sacramento, California.

6. Estimate of cost-continued:

(e) Rehabilitation and repairs.

General overhaul of Ingersoll-Rand gasoline driven portable compressor 310 cubic feet. x		150.00

(f) New buildings, improvements, installations. None.

(g) Miscellaneous:

Analytical work	500.00	
Accounting	300.00	
Workmans Compensation	125.00	
Employers' Liability Insurance	100.00	
Payroll Taxes	191.73	1,216.73

(h) Contingencies 1,200.00

7. (a) Yes.

(b) With money.

Total	39,997.23

x Such hammers, hoses, steel, bits etc to be furnished by operator at no cost to the project.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th *day of* June *in the year of our Lord one thousand nine hundred and* fifty-two

before me, [redacted] James A. Spencer *a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared*

G. R. Carothers and Carrie Carothers

*known to me to be the person*s *described in whose name* are *subscribed to and who executed the within instrument, and* they *acknowledged to me that* they *executed the same.*

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My Commission Expires January 5, 1955.

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 18th day of June, A.D., 19 52, before me, Louis T. Busch a Notary Public in and for said County and State, personally appeared Arthur A. Jones and Phyllis Jones, known to me, to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

LOUIS T. BUSCH
My Commission Expires April 6, 1955

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

Diamond R Mining Co.
16[illegible] North D Street,
P O Box 409, Sacramento, Calif.

MF-203 OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of California, County of Madera, described as follows:1/

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD & M, Madera County, California.
Garnet, No. 1, 2, 3, 4, 5.
Crystal, No. A, B, 1, 2, 3, 4, 5, 6.
Tungsten, No. A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed. All above claims known as San Joaquin Tungsten Mines.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Diamond R Mining Company

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$30,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 16th day of June, 1952.

G R Carothers [Seal]
Carrie Carothers [Seal]
Albert F. Jones [Seal]
Phyllis Jones [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th *day of* June *in the year of our Lord one thousand nine hundred and* fifty-two

before me, [redacted] *a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared*
Jam[redacted] Spencer

G. R. Carothers and Carrie Carothers

*known to me to be the person*s *described in whose name* are *subscribed to and who executed the within instrument, and* they *acknowledged to me that* they *executed the same.*

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My commission expires January 5, 1955.

STATE OF CALIFORNIA,
County of Los Angeles. } *ss.*

ON THIS 18th *day of* June, *A.D.,* 19 52, *before me,*
Louis T. Busch
a Notary Public in and for said County and State, personally appeared
Arthur A. Jones and
Phyllis Jones, *known to me,*

to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.*

Louis T. Busch

LOUIS T. BUSCH
My Commission Expires April 6, 1955

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

52025

Diamond R Mining Co.
16[illegible] & North D Street,
P O Box 409, Sacramento, Calif.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of California, County of Madera, described as follows:1/

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD B M, Madera County, California.
Garnet, No. 1, 2, 3, 4, 5.
Crystal, No. A, B, 1, 2, 3, 4, 5, 6.
Tungsten, No. A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed. All above claims known as San Joaquin Tungsten Mines.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Diamond R Mining Company

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$30,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 16th day of June, 1952.

G R Carruthers [Seal]

Carrie Carruthers [Seal]

Arthur B. Jones [Seal]

Phyllis Jones [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

Diamond R Mining Co.
16[illegible] & North B Street,
P O Box 409, Sacramento, Calif.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of California, County of Inyo, described as follows:1/

21 claims in Sections 2, 3, 9, 10 and 11, T 18 S, R 8 E, MDB&M, Inyo County, California.
Claims No. 1, 2, 3, 4, [illegible]
[illegible]
[illegible]
[illegible] claims [illegible] County Calif. [illegible] claims [illegible] to [illegible] mining [illegible].

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Diamond R Mining Company

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 20,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 20th day of June, 1952.

G A Carothers [Seal]

Carrie Carothers [Seal]

Arthur A. Jones [Seal]

Phyllis Jones [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th day of June in the year of our Lord one thousand nine hundred and fifty-two before me, James A. Spencer a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared G. R. Carothers and Carrie Carothers

known to me to be the persons described in whose names are subscribed to and who executed the within instrument, and they acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My Commission Expires January 5, 1955.

STATE OF CALIFORNIA,
County of Los Angeles. } *ss.*

ON THIS 18th *day of* June, *A.D., 19*52, *before me,* Louis T. Busch *a Notary Public in and for said County and State, personally appeared* Arthur A. Jones and Phyllis Jones, *known to me,*

to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.*

Louis T. Busch

LOUIS T. BUSCH
My Commission Expires April 6, 1958

Notary Public in and for

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

MF-203

OWNER'S CONSENT TO LIEN

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of California, County of Madera, described as follows:1/

31 claims in Sections 3, 4, 9, 10 and 15, T 8 S, R 24 E, MD B M, Madera County, California.
Garnet, No. 1, 2, 3, 4, 5.
Crystal, No. A, B, 1, 2, 3, 4, 5, 6.
Tungsten, No. A, B, C, D, E, F, G, H, I, J, K, CA, 1, 2, 3.
Also 3 additional claims recently filed. All above claims known as San Joaquin Tungsten Mines.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ Diamond R Mining Company

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned; and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$30,000.00, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 16th day of June, 1952.

G R Carruthers [Seal]

Carrie Carruthers [Seal]

Arthur H. Jones [Seal]

Phyllis Jones [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th day of June in the year of our Lord one thousand nine hundred and fifty-two before me, James Spencer a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared G. R. Carothers and Carrie Carothers

known to me to be the persons described in whose names are subscribed to and who executed the within instrument, and they acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James G. Spencer

STATE OF CALIFORNIA,
County of Los Angeles } ss.

ON THIS 18th day of June, A.D., 19 52, before me, Louis T. Busch a Notary Public in and for said County and State, personally appeared Arthur A. Jones and Phyllis Jones, known to me, to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Louis T. Busch

LOUIS T. BUSCH
My Commission Expires April 6, 1956

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232 52025

Diamond R Mining Co.
[illegible]th & North B Street
P. O. Box 409, Sacramento, Calif.

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of _____, County of _____, described as follows:1/

_____

_____

_____

_____

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/_____

_____

_____

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195___.

G R Carothers [Seal]

Carrie Carothers [Seal]

Arthur A. Jones [Seal]

Phyllis Jones

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

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(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th day of June in the year of our Lord one thousand nine hundred and fifty-two before me, James G. Spencer a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared G. R. Carothers and Carrie Carothers

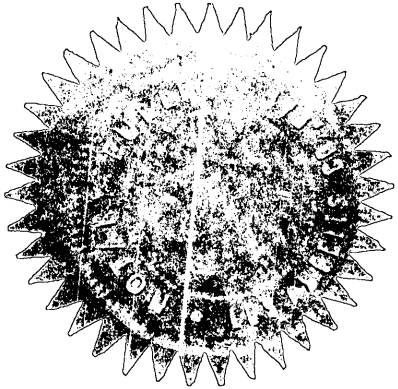
known to me to be the persons described in whose names are subscribed to and who executed the within instrument, and they acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James G. Spencer
Notary Public in and for the County of Madera, State of California.

My Commission Expires January 5, 1955.

STATE OF CALIFORNIA,
County of Los Angeles. } *ss.*



ON THIS 18th *day of* June, *A.D., 19* 52, *before me,*
Louis T. Busch
a Notary Public in and for said County and State, personally appeared
Arthur A. Jones and
Phyllis Jones, *known to me,*

to be the person s *whose name* s are *subscribed to the within Instrument, and acknowledged to me that* they *executed the same.*

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.*

Louis T. Busch
LOUIS T. BUSCH
My Commission Expires April 6, 1955
Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232 52025

MF-203

OWNER'S CONSENT TO LIEN

mond R Mining Co.
th & North B Street
P. O. Box 409, Sacramento, Calif.

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of _____, County of _____, described as follows:1/

_____

_____

_____

_____

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/_____

_____

_____

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

G R Carruthers [Seal]

Carrie Carruthers [Seal]

Nathan R. Jones [Seal]

Phyllis Jones [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land take possession of, and remove and dispose of any such property as above provided.

STATE OF CALIFORNIA
County of Madera } ss.

On this 16th day of June in the year of our Lord one thousand nine hundred and fifty-two

before me, James A. Spencer a Notary Public, in and for said County and State, residing therein, duly commissioned and sworn, personally appeared G. R. Carothers and Carrie Carothers

known to me to be the persons described in whose names are subscribed to and who executed the within instrument, and they acknowledged to me that they executed the same.

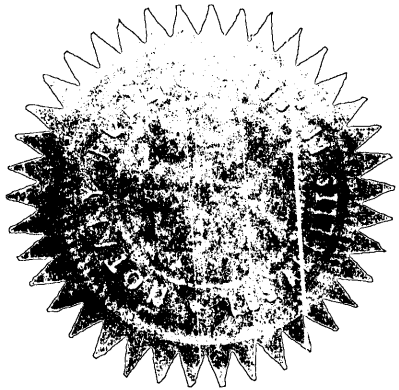
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at my office in the County of Madera, the day and year in this certificate first above written.

James A. Spencer

Notary Public in and for the County of Madera, State of California.

My commission expires January 5, 1955.

STATE OF CALIFORNIA,
County of Los Angeles. } *ss.*



ON THIS 18th *day of* June, *A.D., 19* 52, *before me,* Louis T. Busch *a Notary Public in and for said County and State, personally appeared* Arthur A. Jones and Phyllis Jones, *known to me,*

to be the person s *whose name* s are *subscribed to the within Instrument, and acknowledged to me that* they *executed the same.*

IN WITNESS WHEREOF, *I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.*

Louis T. Busch

LOUIS T. BUSCH
My Commission Expires April 6, 1955

Notary Public in and for said County and State.

ACKNOWLEDGMENT — GENERAL — WOLCOTTS FORM 232

52025

MORSE LABORATORIES

ANALYTICAL AND RESEARCH CHEMISTS

AGRICULTURE : BACTERIOLOGY : MINING

REGISTERED PROFESSIONAL CHEMICAL ENGINEERS
316 SIXTEENTH STREET
SACRAMENTO 14, CALIFORNIA
GILBERT 3-6348

ANALYSIS OF
DAIRY AND FOOD PRODUCTS
FEED
FERTILIZER
SOIL AND WATER

WASTE PRODUCTS UTILIZATION
ORE DRESSING
CYANIDE TESTS
ORE ANALYSIS
ASSAYING

May 20, 1952

Diamond H Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

Mr. J. L. Russill
P. O. Box 409
Sacramento, Calif.

Composite Sample
from Area B.

Chemical Analysis

Ore

Tungsten - - - - - - - - - - 1.42 % WO_3

Signed

G. H. Morse

G. H. Morse

MEMBER OF: NATIONAL SOCIETY PROFESSIONAL ENGINEERS
AMERICAN CHEMICAL SOCIETY
AMERICAN SOCIETY FOR TESTING MATERIALS
ASSOCIATION OF CONSULTING CHEMISTS AND CHEMICAL ENGINEERS, INC.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

PRELIMINARY REPORT ON THE E. L. REEVES SCHEELITE PROPERTY

Introduction

The E. L. Reeves scheelite property is situated in Eastern Madera County, California, about 17 miles east of North Fork on the north slope of the San Joaquin River. There are about 27 claims that cover portions of sections 3, 4, 9, 10 and 15 of T. 8 S. R. 24 E. M.D.M.

I visited this property between June 16th and 20th, 1952, at the request of Mr. Reeves, for the purpose of determining if the geological conditions warranted the undertaking of an exploration program, and if so, how and where it should be started.

I examined at least five areas within the claims, during my visit, that give promising indications of containing reasonable tonnages of scheelite ore. One in particular, on the Tungsten B claim, has possibilities of providing a large tonnage of ore. In addition to these areas shown on Figures 1 and 2 there are several other known outcrops of scheelite-bearing hornfels that will be mapped in the near future.

Two roads extend part way through the claims and will save considerable expense in moving exploration drilling equipment. There are at least four springs that will furnish water for drilling.

Recommendations

I propose that a diamond drilling program be started to explore the extent and value of the areas that are shown on the maps. The first work should be done on Area A, on the Tungsten B claim, where the geological conditions appear favorable for a very large tonnage of possible scheelite ore. When the drilling is completed on this area the program should be expanded to

explore other known areas which may not contain such a large possible tonnage but show promise of containing several thousand tons of good ore.

A complete drilling program for the property may require in excess of 100 holes varying in depth from 100 feet to 400 or 500 feet. However, in this preliminary report I shall only outline a program for Areas A and B, which will require probably 17 or 18 holes. Expansion of the program will depend in part on the results obtained by this first phase of the drilling. Such a program should not be rigidly stipulated in advance but should be open to change, as the information that is progressively obtained might dictate.

Geology

The principal country rock is a granitic type igneous rock ranging from granodiorite to graphic granite in mineralogical composition. It has intruded and metamorphosed older marine sedimentary rocks. The latter were dominantly shale with subordinate amounts of limestone and sandstone. The metamorphic rocks resulting from these sediments are mica schist, garnet-epidote hornfels and quartzite. The scheelite occurs in the garnet-epidote hornfels.

The outcrops of the metamorphic rocks are irregular in shape but commonly have an elongated north-south trend parallel to the general strike of the beds. Some of the metamorphic lenses or "roof pendants" are as much as one-half mile [illegible] but are generally cut in many places by small, irregular granite masses [illegible]. Since metamorphic rocks occur all the way from the top of the ridge [illegible] elevation of about 5000 feet, down the slope to the river at an elevation [illegible] feet, there is reason to believe that many of the "roof pendants" [illegible] a considerable depth down into the granite.

[illegible] beds vary in thickness from a few inches up to as much as [illegible] feet. Wherever [illegible] invariably carry at least a trace of scheelite;

and near the igneous rocks they often contain in excess of one percent scheelite.

The thickest hornfels beds occur in the Tungsten B claim where there are three beds about 15 feet thick and separated from each other by about six feet of schist. In the other areas that were examined the hornfels beds vary from two feet to about seven feet in width.

The five areas that have been examined and appear to have some promise will be described as follows:

Area A. This area is near the center of the Tungsten B claim and contains the three hornfels beds mentioned above. These beds appear to promise production of a large tonnage of possible scheelite ore. Where they are exposed, near the road, they have been explored by cuts and a 25-foot incline shaft. All three of the beds contain scheelite as determined by ultraviolet light examination, and near the granite contacts portions of them will probably assay variably from one-half to five percent scheelite.

The beds strike about N 15° W and dip approximately 30° to the west. They are cut off on the south side near the road by a pre-granite fault. This fault has apparently dropped the rocks down on the south side and thus the beds may continue southward, underneath the exposed shale. I was told that an incline shaft, now caved, was sunk about 30 feet south of the fault to a depth of approximately 40 feet along the contact of a hornfels bed and a granite dike. "Good" ore was said to have occurred in the hornfels down to the bottom of the shaft. While this hornfels is now covered, it may be the faulted extension of the upper of the three beds.

Another incline shaft about 25 feet deep is still open and exposes very good scheelite ore in the middle bed along the fault. Surface cuts have been made in these beds from 50 to 100 feet north of the fault and these have also exposed favorable scheelite-bearing rock.

Since beds of this thickness would not ordinarily be expected to lens out immediately, it is reasonable to assume that they will extend both laterally and down the dip for at least several hundred feet unless cut off by the granite. A large body of granite outcrops about 350 feet west of the hornfels outcrops and the hornfels may extend in depth to the contact with this granite. Other small granite dikes and lenses are exposed at the surface and will undoubtedly cut out portions of the beds, but actually they present a favorable condition since it is in their proximity that the best scheelite mineralization occurs. Thus there is a very good possibility of these beds producing a sizable tonnage of ore. There are a few thin hornfels beds in the schist overlying the 15-foot beds and at least one of them, which is about three feet thick where exposed, contains scheelite.

Area B. This is a small scheelite-bearing area about 20 feet wide and 100 feet long. It occurs in the northeast corner of the Tungsten B claim and in the south end of the Tungsten D claim. It differs from the other scheelite bodies in that it appears to be a decomposed mass of intermixed granite and schist. The original shale apparently contained small lenses of calcareous shale that have produced small hornfels lenses which are now also partly decomposed. The soil and fine decomposition products at the surface contain a considerable amount of scheelite; possibly as much as three or four percent. I believe this concentration in the surface soil results from a mechanical secondary enrichment from decomposed rock that has been removed by erosion; the heavy scheelite tending to remain behind as the other material was eroded. The thorough decomposition of this rock is probably a result of hydrothermal alteration rather than weathering and may occur for some distance below the surface.

Area C. This area, shown on Figure 2, is at the end of the road on the Crystal 4 claim. There are two hornfels beds in the schist, about 100 feet

apart, both striking in a northerly direction. The western bed is approximately two feet thick dipping to the west, and the eastern bed is about six feet thick dipping steeply to the east. Samples from both of these beds contained scheelite, and those from the eastern bed contained from one to two percent. This bed is exposed for about 50 feet and hornfels float can be found for close to 200 feet further north, and it is probable that the bed extends at least that far.

Area D. This area is about 600 feet east of Area C. A six to eight foot hornfels bed is exposed for a distance of about 40 feet in contact with a granite dike. Hornfels float can be found for at least 100 feet to the south along the granite outcrop. A sample from this area appeared to contain in excess of one percent scheelite.

Area E. This area is about 1200 feet south of Area C. Another hornfels outcrop is exposed here, but no samples were taken to determine the scheelite content. The bed is cut off on the north by the granite although it may extend southward in the schist.

Since these areas that have been examined are said to be only a portion of the exposed scheelite-bearing zones, it is important that further geological work be done to outline other possible ore beds. I expect to continue this work in the near future. In view of the fact that these beds contain sufficient scheelite, as determined by ultraviolet lamping, to warrant further exploration, I did not take time to attempt to cut representative samples for assay during my first visit. In order to obtain representative samples at the surface, cuts will have to be made, either by a tractor or by hand work.

Proposed Exploration

The first exploration work should be done on the Tungsten B claim to investigate Area A. One vertical hole should be drilled about 75 feet west of the outcrop of the beds to check their continuity and average dip. This hole

is shown on Figure 1 as No. 1 hole. Then a series of holes should be drilled at intervals of about 100 feet on a line parallel to the strike of the hornfels beds and approximately 200 feet west of their outcrop. After, and if, the vertical extension of the beds to the depth of these holes has been proved and the longitudinal extent has been determined, a second parallel row of holes should be drilled about 150 feet west of the first row. It would probably be best to space these holes at 100 foot intervals between the positions of the holes in the first row. At least one hole should be drilled south of the fault, as shown, to attempt to locate the extension of the beds on that side of the fault. Figure [illegible] is a cross section through hole No. 1 and shows the probable projected position of the beds and the approximate depth of holes.

These drill holes should not necessarily be stopped if granite is encountered since there are many dikes and granite seams some distance from the large granite masses.

Following are the data on the proposed holes in Areas A and B. After these holes are completed it may be desirable to drill others, particularly in Area A, to further outline any promising ore bodies that may have been [illegible].

[illegible]

[illegible] No. [illegible] S [illegible]° E, [illegible] feet from center end line stake of the [illegible]. [illegible] 70° east. Depth, 150 feet.

[illegible] No. [illegible] [illegible] the beginning of a line of holes parallel to [illegible]. [illegible]: S 33° E, [illegible] feet from center end line of [illegible], 70° from horizontal. Bearing 15° north of east. [illegible] approximately [illegible] feet.

Mar[illegible]d R Mining Co.
16th & North B Street,
P. O. Box 409, Sacramento, Calif.

Holes 3, 4, 5, and 6 on a line bearing N 16° W from hole No. 2 at 100 foot intervals, and at same inclination and bearing as hole No. 2. Depth: approximately 250 to 300 feet.

Hole No. 7. S 12° E, 390 feet from center end line stake of Tungsten J. Inclination: 70°. Bearing: 15° north of east. Depth: 300 to 400 feet.

Holes No. 8, 9, 10, and 11 on a line bearing N 16° W from hole No. 7 at 100 foot intervals and at same inclination and bearing as hole No. 7. Depth: approximately 300 to 400 feet.

Hole No. 12. S 43° E, 515 feet from center end line stake of Tungsten J. Inclination: vertical. Depth: 100 to 200 feet.

With the information obtained from these holes it will be possible to determine if other holes are needed. It is very probable that at least another eight to ten holes will prove desirable.

Area B.

To explore Area B four holes are proposed and shown on Figure 3.

Hole No. 1. N 83° W, 75 feet from the southwest corner of the Tungsten C claim. Inclination: 45°. Bearing: N 40° E. Depth: 130 feet.

Hole No. 2. N 85° E, 100 feet from southwest corner of the Tungsten C claim. Inclimation: 35°. Bearing: N 65° W. Depth: 200 feet.

Hole No. 3. 150 feet north (up the gulch) from hole No. 1. Inclination: 40°. Bearing: East. Depth: 200 feet.

Hole No. 4. N 12° W, 110 feet from southwest corner of Tungsten C claim. Inclination: vertical. Depth: 100 feet.

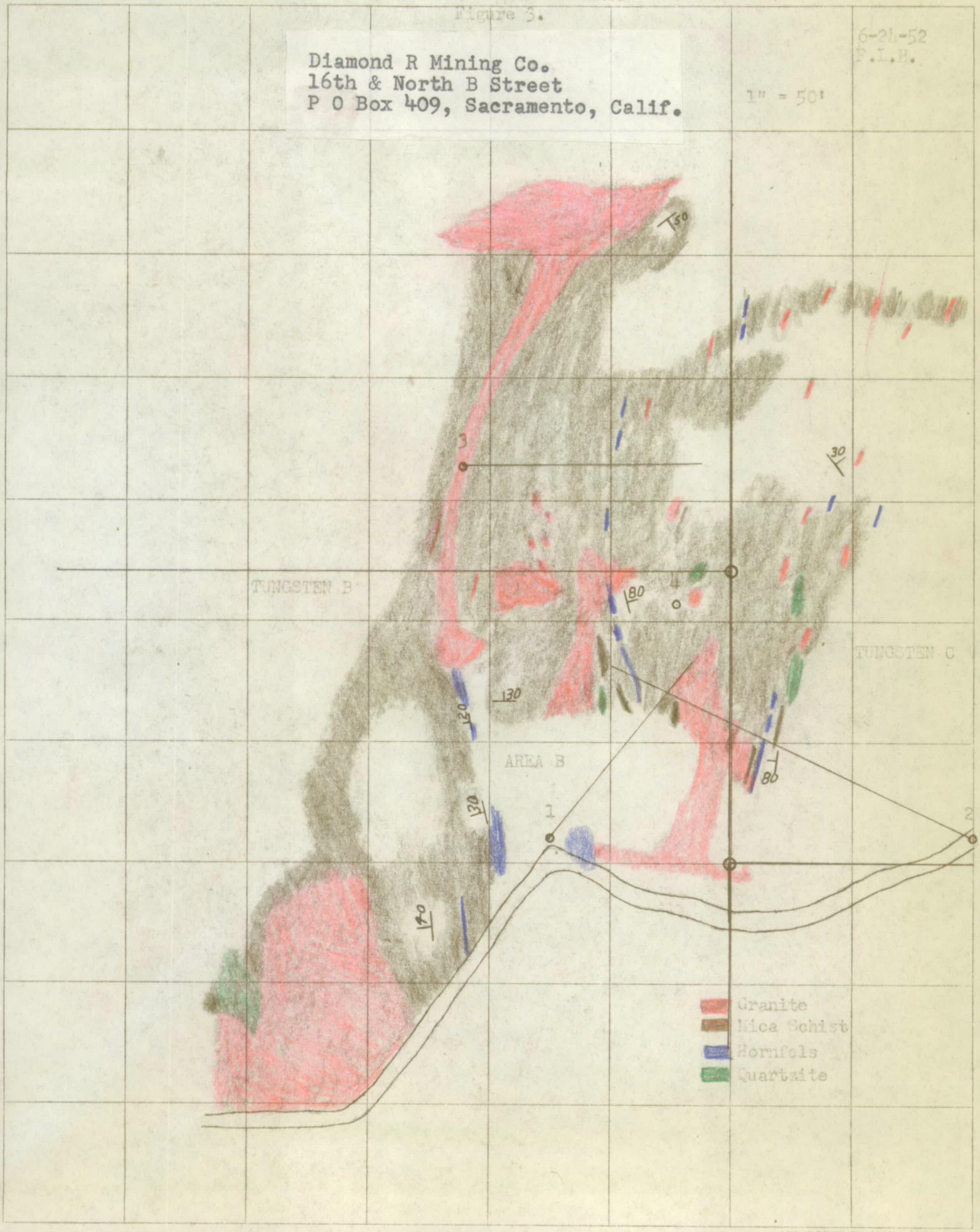
Areas C, D, and E are on a steep slope and will require a certain amount of road work before a drill could be located in a favorable position to crosscut the hornfels beds. Such road building will call for a reconnaissance survey to

determine the most logical route and the approximate cost. It may be that further geological mapping will locate other hornfels beds that would warrant prior drilling.

Fred L. Humphrey
Fred L. Humphrey

June 24, 1952.

REEVES SCHEELITE PROPERTY
Figure 3.



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REG. U.S. PAT. OFF.

REEVES SCHEELITE PROPERTY

Figure 4

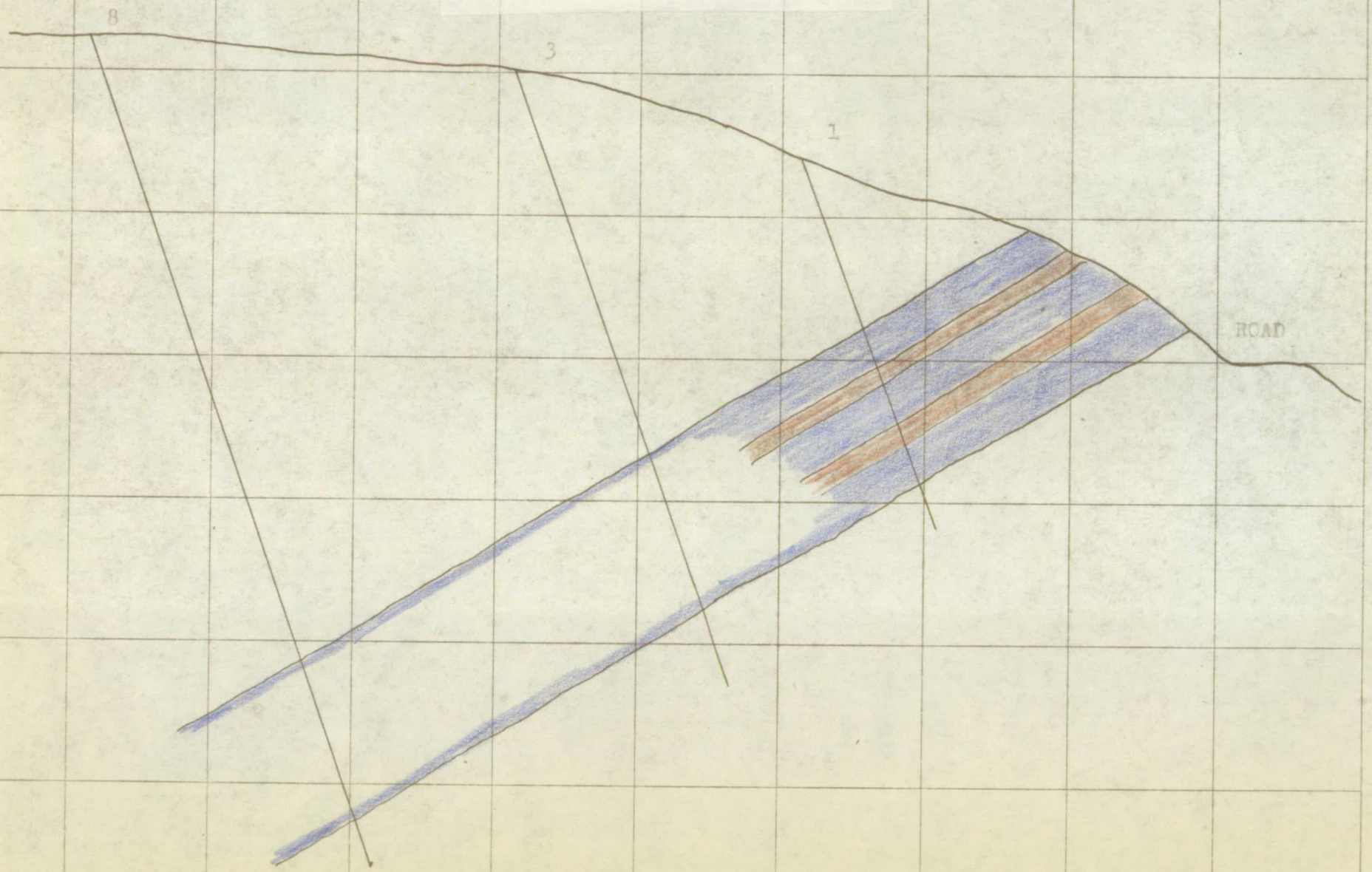
East-west cross section through hole No. 1, Area A

Looking North

1" = 50'

6-24-52
F.L.H.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.



"ALBANENE" NO. 1969M K&E CO., N.Y.
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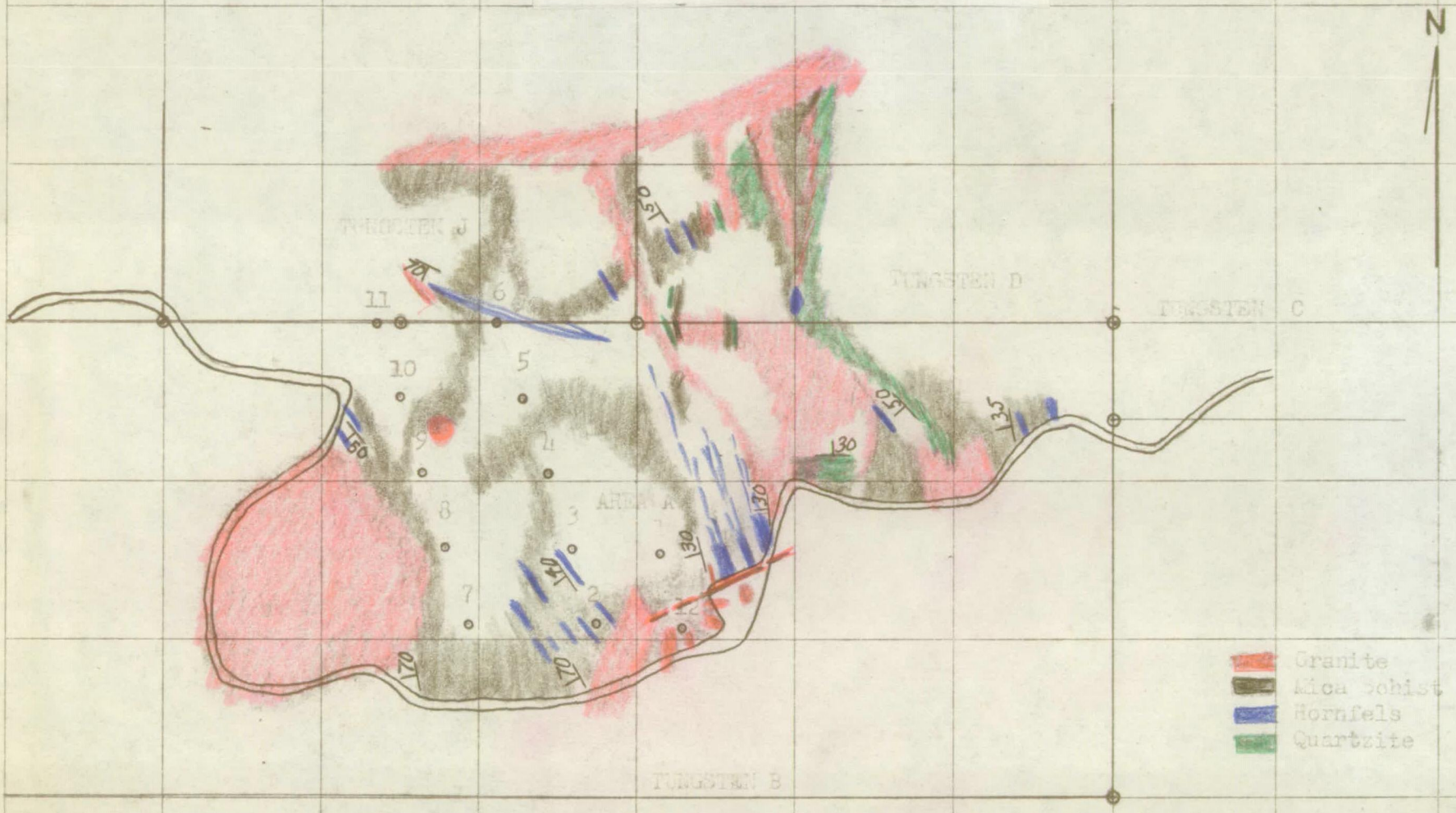
RELVIN SCHEELITE PROPERTY
Figure 1.

Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.

6-24-52
F.L.H.

1" = 200'



"ALBANENE" NO. 105M K&E CO., N.Y.
REG. U.S. PAT. OFF.

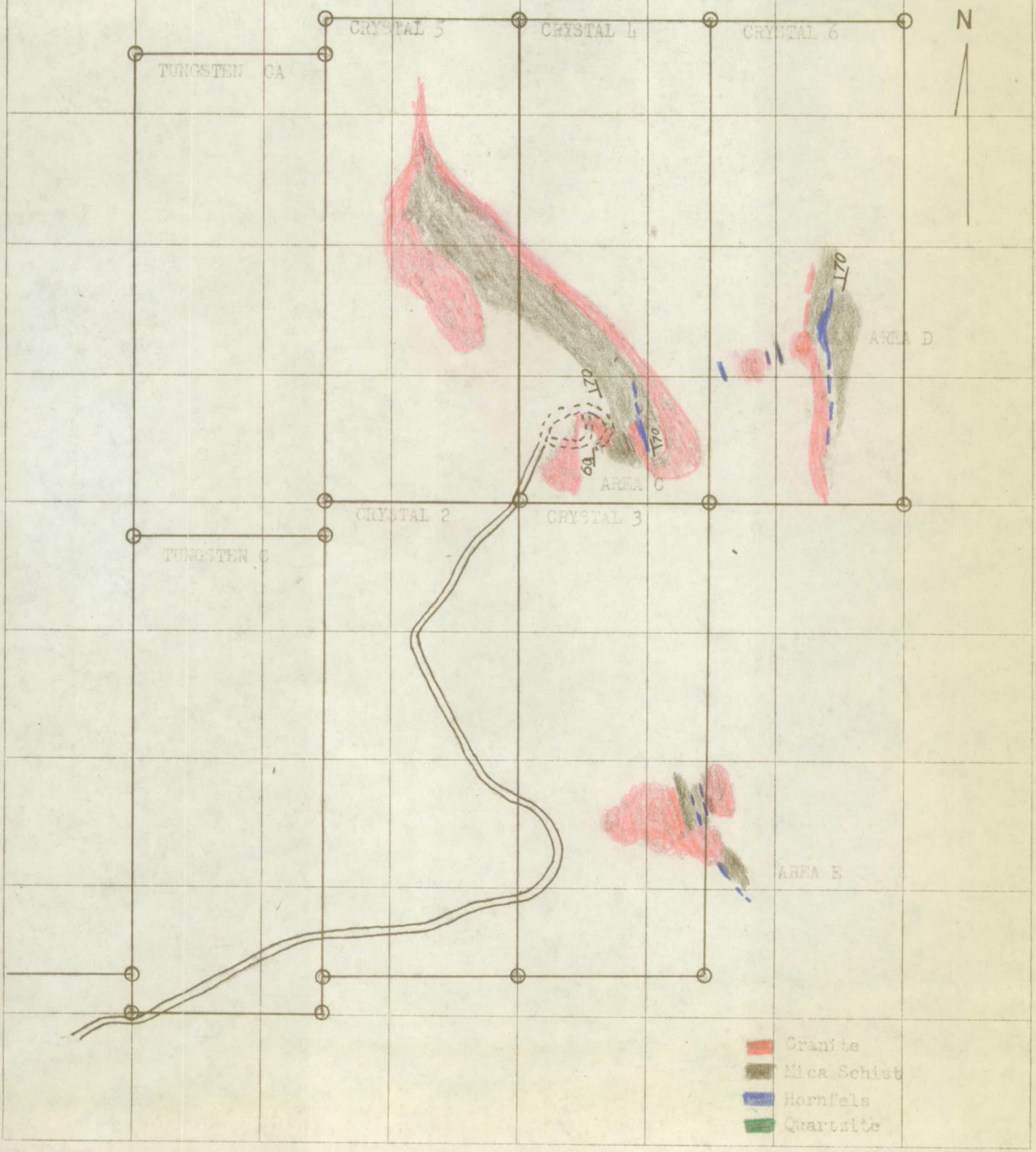
REEVES SCHEELITE PROPERTY

Figure 2.

6-21-52
F.L.H.

Diamond R Mining Co.
16th & North B Street,2
P O Box 409, Sacramento, Calif.

1" = 400'



"ALBANENE" NO. 193M K&E CO., N.Y.
REG. U.S. PAT. OFF.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
E. 157 HOWARD ST.
Spokane 8, Wash.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

SPOKANE
JUN 24
7 PM
1952
WASH.

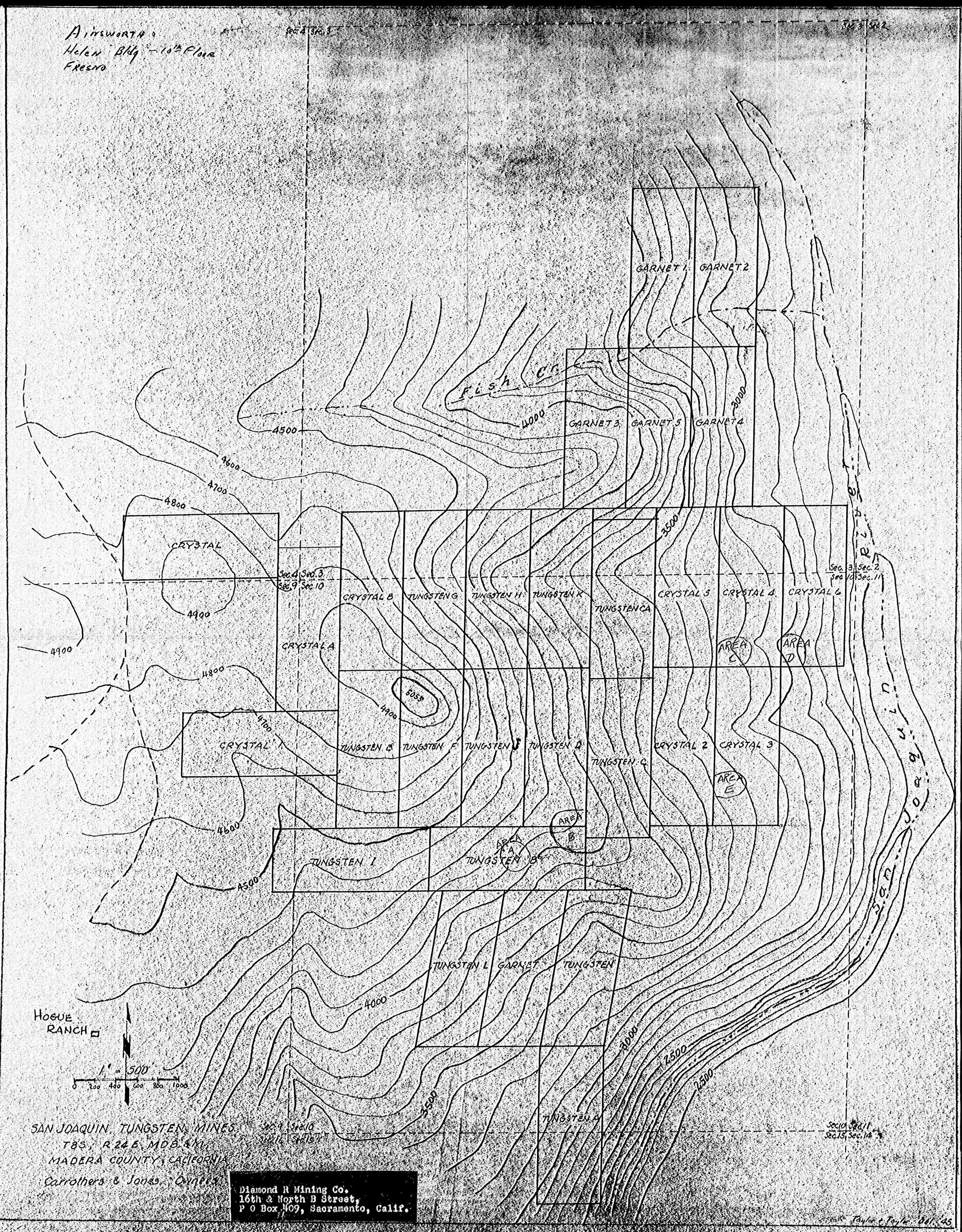
2

Chairman, Operating Committee

Defense Minerals Exploration Administration

Department of the Interior

Washington 25, D. C.


Ainsworth
Helen Bldg – 10th Floor
Fresno
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Sec. 3 Sec. 2
GARNET 1
GARNET 2
GARNET 3
GARNET 5
GARNET 4
Fish Cr.
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CRYSTAL
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TUNGSTEN A
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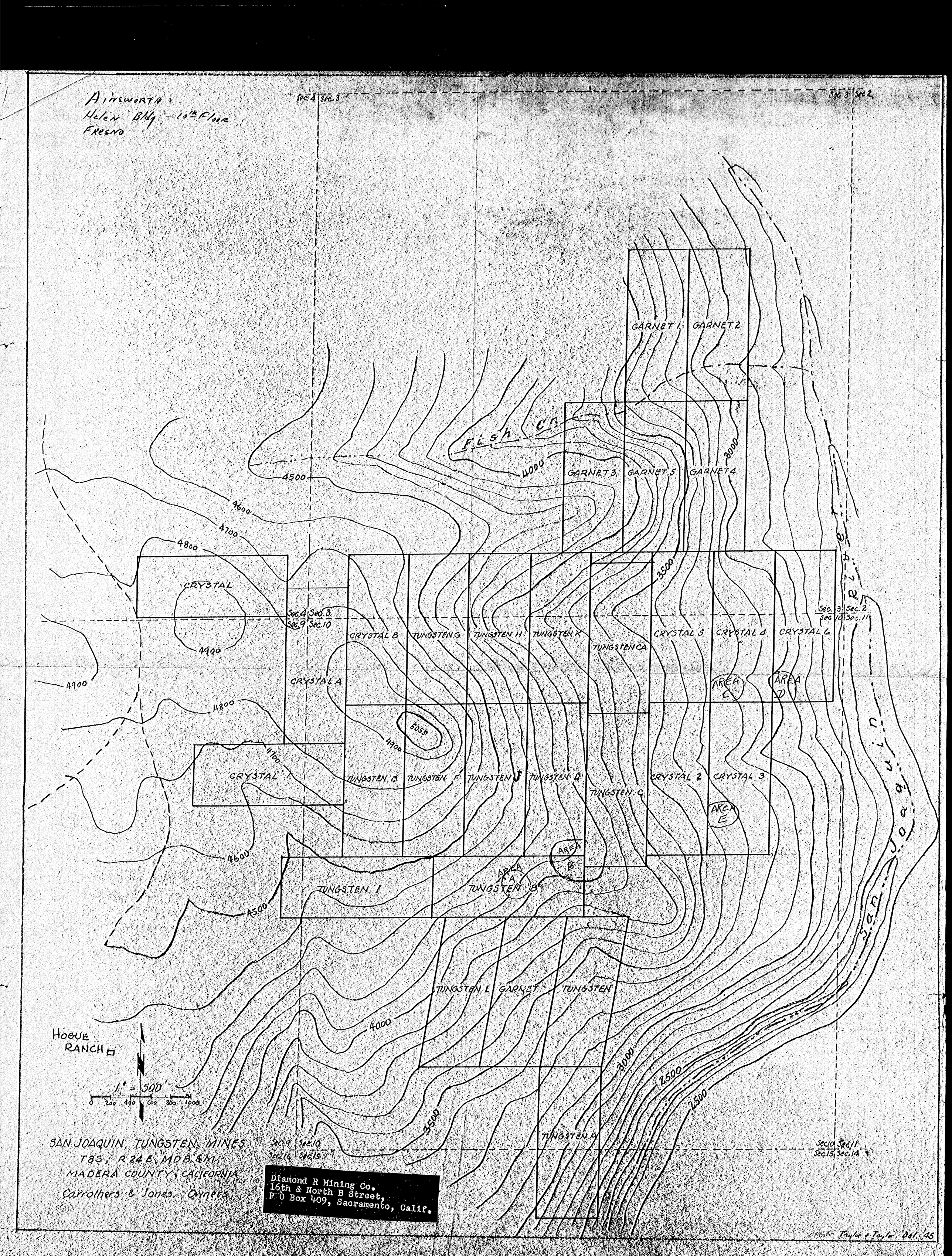
Sec. 11 Sec. 16
Sec. 10 Sec. 11
Sec. 15 Sec. 14
SAN JOAQUIN TUNGSTEN MINES
T8S., R24E., M.D.B.&M.
MADERA COUNTY, CALIFORNIA
Carrothers & Jones, Owners
Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.
Taylor & Taylor Oct. 45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TUNGSTEN H
TUNGSTEN K
TUNGSTEN CA
CRYSTAL 5
CRYSTAL 4
CRYSTAL 6
Sec. 3 Sec. 2
Sec. 10 Sec. 11
CRYSTAL A
AREA C
AREA D
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Joaquin River
HOGUE RANCH
1" = 500'
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Sec. 9 Sec. 10
Sec. 16 Sec. 15
Sec. 10 Sec. 11
Sec. 15 Sec. 14
SAN JOAQUIN TUNGSTEN MINES
T8S, R24E, MDB&M
MADERA COUNTY, CALIFORNIA
Carrothers & Jones, Owners
Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.
Taylor & Taylor, Oct. 45

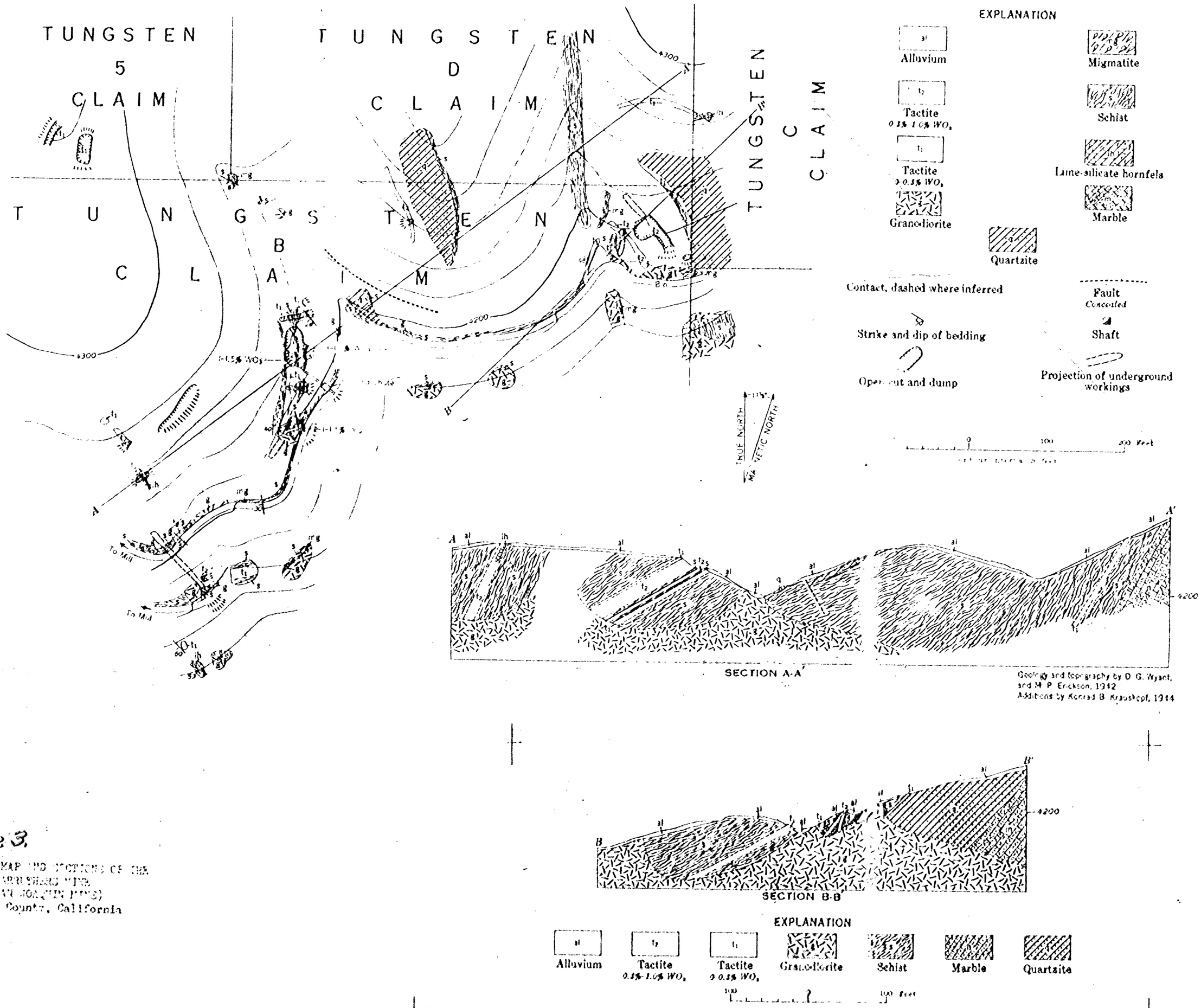
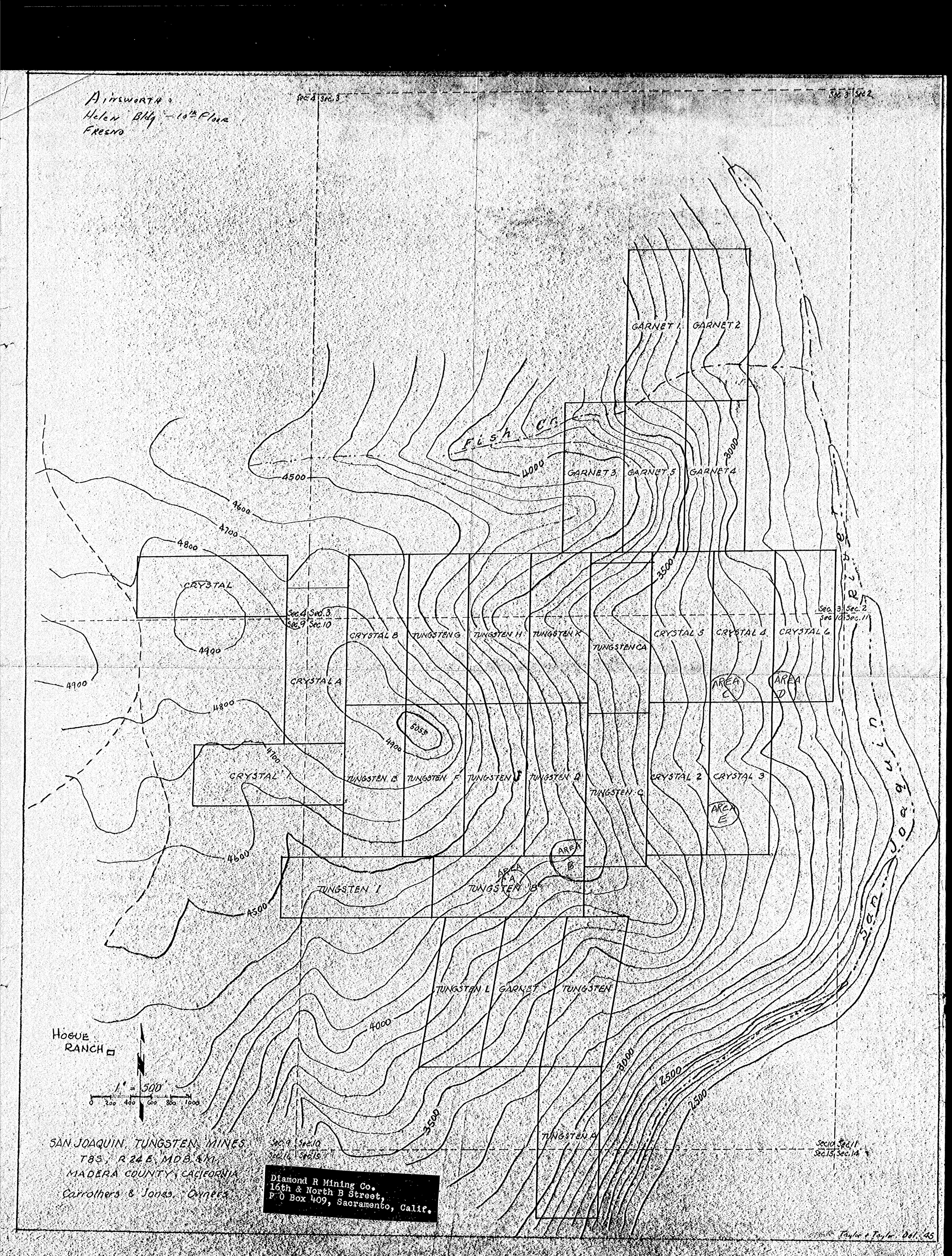


Figure 3.

GEOLOGIC MAP AND SECTIONS OF THE
CARUSHEAG MINE
(SAN JOAQUIN MINE)
Mono County, California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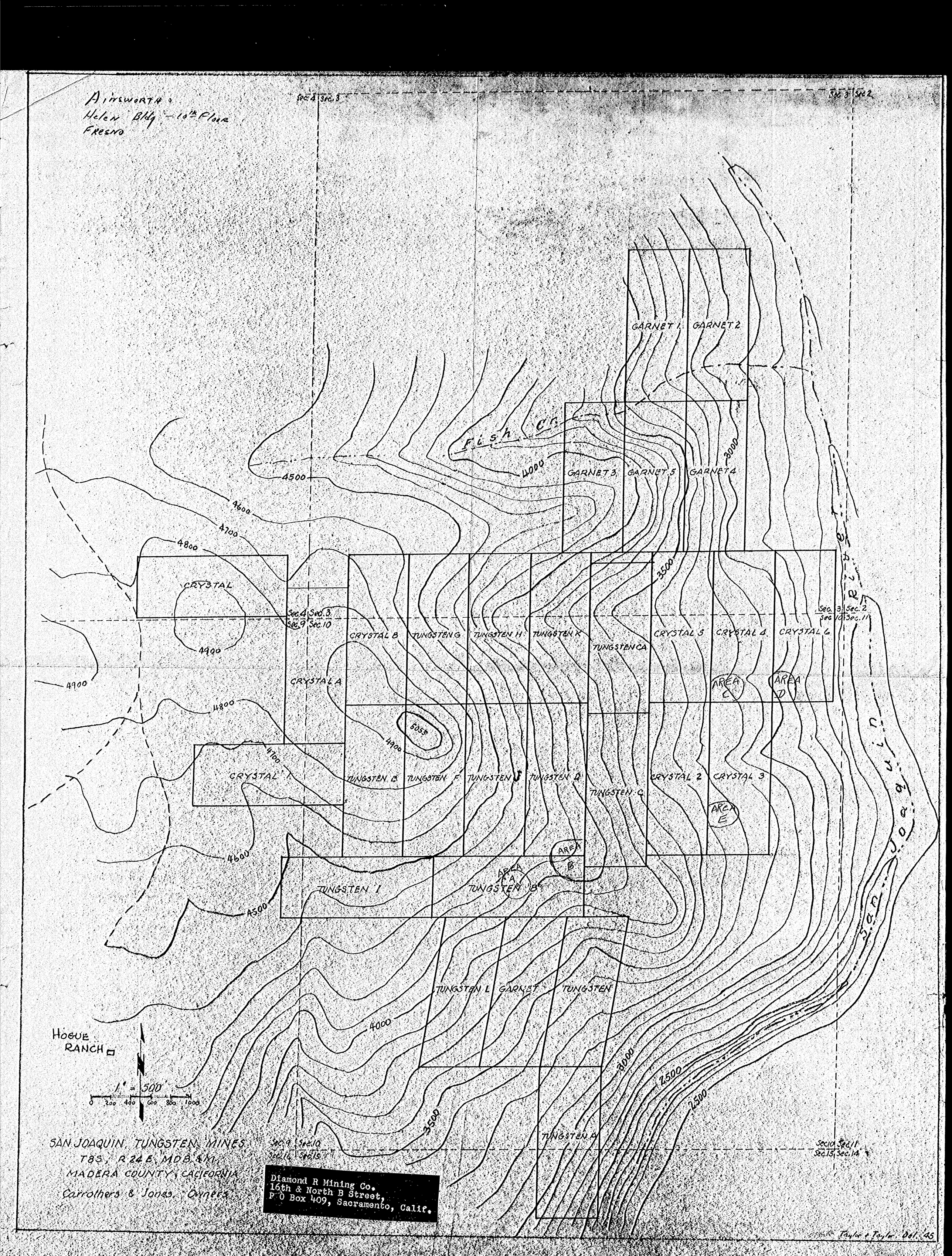
4800
4900
4000
3000
3500
CRYSTAL
Sec. 4 Sec. 3
Sec. 9 Sec. 10
CRYSTAL B
TUNGSTEN G
TUNGSTEN H
TUNGSTEN K
TUNGSTEN CA
CRYSTAL 5
CRYSTAL 4
CRYSTAL 6
Sec. 3 Sec. 2
Sec. 10 Sec. 11
CRYSTAL A
AREA C
AREA D
6055
CRYSTAL 1
TUNGSTEN G
TUNGSTEN F
TUNGSTEN J
TUNGSTEN D
TUNGSTEN C
CRYSTAL 2
CRYSTAL 3
AREA E
AREA B
AREA A
TUNGSTEN I
TUNGSTEN B
TUNGSTEN L
GARNET
TUNGSTEN
TUNGSTEN A
2500
Joaquin River
HOGUE RANCH
1" = 500'
0 200 400 600 800 1000
Sec. 9 Sec. 10
Sec. 16 Sec. 15
Sec. 10 Sec. 11
Sec. 15 Sec. 14
SAN JOAQUIN TUNGSTEN MINES
T8S, R24E, MDB&M
MADERA COUNTY, CALIFORNIA
Carrothers & Jones, Owners
Diamond R Mining Co.
16th & North B Street,
P O Box 409, Sacramento, Calif.
Taylor & Taylor, Oct. 45


Ainsworth
Helen Bldg - 10th Floor
Fresno
Sec. 4 Sec. 3
Sec. 3 Sec. 2
GARNET 1
GARNET 2
GARNET 3
GARNET 5
GARNET 4
Fish Cr.
4500
4600
4700
4800
4900
4000
3000
3500
CRYSTAL
Sec. 4 Sec. 3
Sec. 9 Sec. 10
CRYSTAL B
TUNGSTEN G
TUNGSTEN H
TUNGSTEN K
TUNGSTEN CA
CRYSTAL 5
CRYSTAL 4
CRYSTAL 6
Sec. 3 Sec. 2
Sec. 10 Sec. 11
CRYSTAL A
AREA C
AREA D
6055
CRYSTAL 1
TUNGSTEN G
TUNGSTEN F
TUNGSTEN J
TUNGSTEN D
TUNGSTEN C
CRYSTAL 2
CRYSTAL 3
AREA E
AREA B
AREA A
TUNGSTEN I
TUNGSTEN B
TUNGSTEN L
GARNET
TUNGSTEN
TUNGSTEN A
2500
Joaquin River
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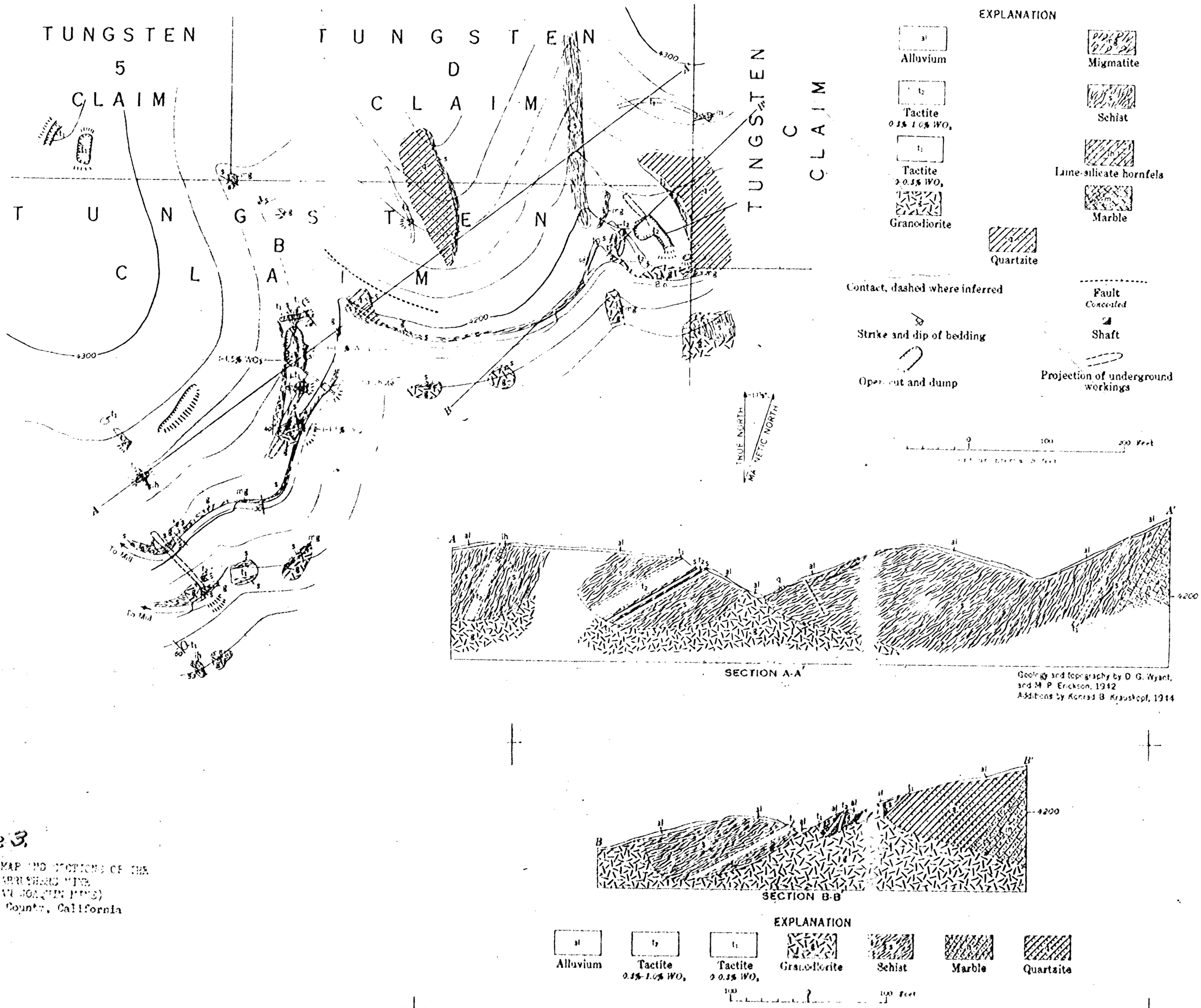

Figure 3.

GEOLOGIC MAP AND SECTIONS OF THE
CARUSHEAG MINE
(SAN JOAQUIN MINE)
Mono County, California