400

DEC 1 7 1953

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 2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma Mine
Tuolumne County, California

Dear Mr. Miller:

This will acknowledge receipt of your letter of December 9, 1953, enclosing a letter of September 23, 1953, from the U. S. Forest Service, requesting a copy of the DMEA Field Team's report on the subject project. You request that the report be supplied to the Forest Service if our policy permits.

Instead, we suggest that you notify Mr. Clare W. Hendee, Regional Forrester, U. S. Department of Agriculture, Sansome Street, San Francisco 11, California, that your copy will be available for his inspection or for inspection by members of his staff at any time found to be mutually convenient. There would be no objection if the Forest Service representatives took such notes on the report as were required, provided the data so obtained were not released to anyone other than U. S. Government employees.

There are sound reasons, however, for distributing only within the Department of the Interior reports prepared for the DMEA by Geological Survey and Bureau of Mines personnel. We trust, therefore, that you will be able to reach some arrangement with Mr. Hendee that will satisfy the Forest Service's need for the report.

Mr. Alice F. Miller's letter is attached for your files.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosure

APPROVED:

J. H. Hedges
Member, Bureau of Mines

D. M. Larrabee
Member, Geological Survey

WSMartin/ls 12/16/53

cc: Adm. Read. File
R. W. Geehan, USBM
F. P. Thayer, USGS

cc: Docket
FT-Reg. 3
Code 400
Oper. Comm.

C O P Y

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
STANISLAUS NATIONAL FOREST

Address Reply to:
FOREST SUPERVISOR
and refer to

U
USES - Stanisluas
Toiyabe Tuolumne
Tungsten Mining Co.
Road 4/13/53

SONORA, CALIFORNIA

September 23, 1953

Mr. Edgar H. Bailey
Supervising Geologist
Geological Survey
102 Old Mint Building
San Francisco 3, California

Dear Mr. Bailey:

Reference is made to the last paragraph of your letter of June 4, 1953. (DMEA 2860)

We would appreciate very much having you make arrangements to obtain a copy of your report from the Defense Minerals Exploration program for our use. It is assumed that they now have the report; if not, we would like to have one at such time as it may be available.

Very truly yours,

Signed: Allen F. Miller

ALLEN F. MILLER, Forest Supervisor

DEC 9 - 1953

402

Mr. James I. Hines, President
Tuolumne Tungsten Mining Company
200 Davis Street
Room 208
San Francisco 11, California

Re: Docket No. DMEA 2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma Mine
Tuolumne County, California

Dear Mr. Hines:

Your application for exploration assistance and other data available to us in Washington concerning the subject property have been carefully reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that although your work has exposed a fair tonnage of ore of acceptable grade, the possibilities of increasing this tonnage to any great extent are limited by geologic conditions, and the probability of disclosing significantly larger reserves is not sufficiently promising to justify Government participation. Under these circumstances, we regret to inform you that your application for exploration assistance is denied.

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

Sincerely yours,

E. O. Mittendorf

Administrator

CC: Docket
FT, Reg. 3
~~Code 100~~ Op. Com.
Adm. Read. File

T. P. Thayer, USGS
R. J. Geehan, USBM

Reviewed by
DMEA OPERATING COMMITTEE
12-9-53
(date)

T. Chapman/la
12/2/53

DEC 9 - 1953

MEMORANDUM

To: Director, Materials Division
Emergency Procurement Service, GSA

Attention: James V. O'Dwyer
Contracts Branch, Room 5014

From: Administrator, Defense Minerals Exploration Administration

Subject: Denial of Tuolumne Tungsten Mining Company's application for exploration assistance

The Tuolumne Tungsten Mining Company applied for exploration assistance under the Defense Minerals Exploration Program on January 26, 1953, our docket No. DMEA 2860. Funds for an access road were included in the application. After review by the Iron and Ferro-Alloys Division, DMEA, the subject application was referred to the Executive Officer, DMEA Field Team, Region III, on March 6, 1953, for a field examination of the property.

Since the applicant requested that the field examination be delayed until the property was more accessible, the examination was not made until September 2[illegible], 1953. By this time, an access road, suitable for jeeps or "4-speed" vehicles, had been constructed by the applicant to within 1½ miles of the property.

The field team examination indicates that the chances of finding significant amounts of scheelite on the property by any method of exploration are poor. The referenced application, therefore, has been denied.

C. O. Mittendorf

C. O. Mittendorf

cc: Docket
Adm. Read. File
Code 400

400

December 2, 1953

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $25,000.00
Docket No. DMEA 2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma Mine
Tuolumne County, California

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

(1) The applicant applied for a loan of $25,000.00, of which $5,000.00 was to be expended for road building. The road has already been completed in a form which allows access, but not ore hauling.

(2) Work on the property consists of a 112-foot adit, with a 20-foot drift and several shallow winzes, plus 5 shallow pits within a radius of 150 feet from the portal of the adit.

(3) The Montezuma mine is underlain to a shallow depth by metamorphic rocks, chiefly hornfels, marble, schist, and tactite, remaining as a roof pendant in grano-diorite. The tactite contains coarse grained scheelite, with minor amounts of copper and molybdenum bearing minerals at and near the contacts.

(4) No definite plan of exploration has been submitted.

(5) The Field Team in 1951 estimated ore reserves of 9,000 tons averaging 0.61 percent WO_3 and 0.10 percent Mo. The 1953 Field Team, however, estimates reserves of not more than 1,000 tons of indicated ore and 3,000 tons of inferred ore containing about 0.60 percent WO_3. Indications are that additional exploration work would add only an insignificant tonnage of ore to the quantity that could probably be found in the ordinary course of mining the ore presently exposed.

(6) The examining field team concludes that the discovery of a significant tungsten ore body is improbable and recommends denial.

(7) The Field Team concurs in the denial.

(8) The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the denial.

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

cc: DOCKET
FT. REG. III
CODE 400
OPER. COMM.
ADM. READ. FILE
T. P. THAYER, USGS
R. W. GEHMAN, USBM

TLChapman/ls
12/1/53

400

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

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

December 9, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA, Interior Bldg., Washington, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Field Report
DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Company
Montezuma Mine, Tuolumne County, Calif.

Relative to the above subject, enclosed is a letter from the U.S. Department of Agriculture (Forest Service), dated September 23, 1953, to Mr. E. H. Bailey, of the U.S. Geological Survey. If your policy in regard to such reports permits, we would be pleased if you could forward to the Forest Service a copy of the field report on this project by Harold K. Stager and Donald C. Ross, Geologists, dated November 17, 1953.

S. Ricker

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

Attachment

Copy to: E. H. Bailey, USGS

Your number 400

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

Department of the Interior
Defense Minerals Administration
RECEIVED
NOV 24 1953

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

November 20, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Interior Building, Washington, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma Mine, Tuolumne County, California

On September 15, 1953, Mr. S. Ricker sent you a memorandum in reply to your inquiry of September 11, in which memorandum he stated that a field examination of the subject property was scheduled for September 17.

Arrangements were finally made with the operators for geologists of the Geological Survey to examine the property on September 28.

Attached are four copies of a report of examination of the Montezuma Mine, entitled "DMEA-2860, Montezuma Mine, Tuolumne County, California, (Tungsten)," by Harold K. Stager and Donald C. Ross, geologists, U. S. Geological Survey, dated November 17, 1953.

Although no plan of exploration has as yet been submitted by the applicants, the conclusion is reached that the chances of finding significant amounts of scheelite on the property by any method of exploration are poor. It is felt that financial assistance under the DMEA program is not warranted.

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

Attachment

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

Reviewed by
DMEA OPERATING COMMITTEE
11-30-53
(date)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 24 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
SECRETARY OF THE INTERIOR, D. McKAY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2860, Montezuma Mine

Tuolumne County, California

(Tungsten)

Harold K. Stager, Geologist
Donald C. Ross, Geologist

U. S. Geological Survey

November 17, 1953

Reviewed by
DMEA OPERATING COMMITTEE
11-30-53
(date)

[illegible]-2860, Montezuma Mine

Tuolumne County, California

(Tungsten)

INTRODUCTION

The Montezuma tungsten mine was examined on September 28, 1953 by [illegible] C. Rose and [illegible] K. [illegible]aper of the U. S. Geological Survey in the company of the general manager, Frank H. Swanson, and was mapped and sampled on September 29, 1953, in connection with [illegible] Docket No. 2860. The operators of the property, James J. Glass, Frank H. Swanson, Robert Ioschilo, and Arthur [illegible]. Coultney, representing the Tuolumne Tungsten Mining Co., requested Government aid in the amount of $2[illegible],000, but no plan of exploration accompanied the application.

The Montezuma mine is on the [illegible] Lavoir, in sec. 21, T. [illegible] S., R. 21 [illegible]., Stanislaus National Forest, about 1 mile north of the north boundary of the Yosemite National Park, Tuolumne Co., California. An access road to the mine, suitable for jeeps or "4 speed" vehicles, was under construction at the time of the examination and had reached a point about 1½ miles from the property. This access road leaves State Highway 108 about 3.7 miles west of Ellis Miles's ranch station and extends north, via numerous switch-backs and steep grades, up Harvitt Creek to Harvitt Lake, along the Tuna-Tuolumne County boundary to Lulipert Meadow, past Grizzly Lookout down to a meadow on the headwaters of Cherry Creek and will end at Hay Lake about 1 mile west of Herd Pass, a distance of about 17 miles.

The Montezuma claim was located in 1942 by L. L. Osborn, who now owns it jointly with W. H. Heitman. On July 11, 1950 it was leased to James Hines and Frank Swanser. Two adjoining mining claims, the Montezuma No. 2 and the Mal De Mer, were staked by Hines and Swanser during 1951.

Most of the development work was done in 1951 and 1952 by the present operators and consists of a 112-foot adit with a 20-foot drift and several shallow winzes, plus 6 shallow pits or open-cuts within a radius of 150 feet from the portal of the adit. About 200 tons of scheelite-bearing tactite has been mined and is presently in the dump awaiting completion of the access road. About 12 tons of selected material, assaying from 1.6 to 2.7 percent WO_3, was packed out by mule train during 1951. Half of this ore was milled at the Alpine mill at Gardnerville, Nevada and half was sold to Richard Segerstrom, Sonora, California.

GEOLOGY

The area of the Montezuma mine is underlain to a shallow depth by metamorphic rocks, chiefly plagioclase-pyroxene hornfels, marble, mica-quartz schist, and tactite, in the remains of a roof-pendant in granodiorite. Banding in the calcareous rocks and foliation in the schist strike northwest and dip steeply northeast.

Epidote-garnet tactite, containing fine- to coarse-grained scheelite with minor amounts of copper- and molybdenum-bearing minerals, occurs at and near the contact between calcareous rocks and granodiorite. The largest body of tactite is exposed in the mine adit for a distance of about 70 feet. Scheelite-bearing tactite is also exposed in two small

pits about 20 feet above the adit, and in two short open-cuts 100 feet north and 100 feet south of the portal of the adit. One- to 5-foot pods of tactite are exposed in the granodiorite and in plagioclase-pyroxene hornfels from 100 to 200 feet north of the main workings. Some of the scheelite is concentrated in layers parallel to the metamorphic banding but most of the ore that has been mined has been of the disseminated type.

SAMPLING

Five chip samples of approximately five pounds each were cut in the scheelite-bearing tactite in the adit and in the nearby pits and open-cuts. Two vertical chip samples were cut in the adit; one was six feet and the other was seven feet long (Figure 2). Two chip samples were cut in the south open-cut; one was six feet and the other was seven feet long. One 15-foot long horizontal chip sample was cut around the face of the north open-cut. The locations and assay results of these samples are shown on the geologic map (See Figures 1 & 2).

EXAMINATION

At the time of the examination the applicants had proposed no definite plan of exploration. Immediate plans were for completion of the access road, shipment of the ore already mined and in the dump, and a limited amount of open-pitting above the adit. Some consideration was being given to the possibility of open-cutting or diamond-drilling to determine the presence of ore between the adit and the south open-cut. The mine manager, Frank Swanser, was urged by the examining geologists to formulate a plan of exploration and to present it to the

Executive Officer, DMEA Field Team, Region III, in San Francisco at the earliest possible date.

ORE RESERVES

Mining engineers of the U. S. Bureau of Mines, R. R. Trengove and F. J. Niebelt, estimated ore reserves of about 9,000 tons averaging 0.61 percent WO_3 and 0.10 percent Mo. / Estimates based on the results of several test holes put down by the operators into the granodiorite below the floor of the adit, geologic mapping, and five additional samples taken by the examining geologists show a maximum of 1,000 tons of indicated ore containing about 0.60 percent WO_3, and a maximum of 3,000 tons of inferred ore containing about 0.60 percent WO_3. The indicated reserves are in a block measuring about 45 feet in length, 20 feet in height, and 10 feet thick, on the east side of the adit (800 tons) and in 2 blocks, each containing about 100 tons, exposed at the north and south open-cuts. The 3,000 tons of inferred ore is between the adit and the south open-cut. A few tons of material may be mined from other small pits and pods exposed in the vicinity of the mine but the tonnage produced from these sources would probably be insignificant.

CONCLUSIONS

Inasmuch as no exploration program has been officially proposed to date by the applicants, a geologic appraisal of the soundness of such a

---

/ Russell R. Trengove and Frank J. Niebelt, Access Road, Montezuma Tungsten Property, Tuolumne County, Calif., November 2, 1951.

---

program is not possible. The merits and possibilities of several suggested plans of exploration were discussed with the operators by the examining geologists and the geologic factors limiting the amount of reserves were explained to them. In view of the probable lack of reserves in excess of about 3,000 tons, and the probability that these reserves will be found and mined in the course of routine mining of the proven reserves by the operators, it is recommended that Government aid be denied.

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

NOV. 25 1953

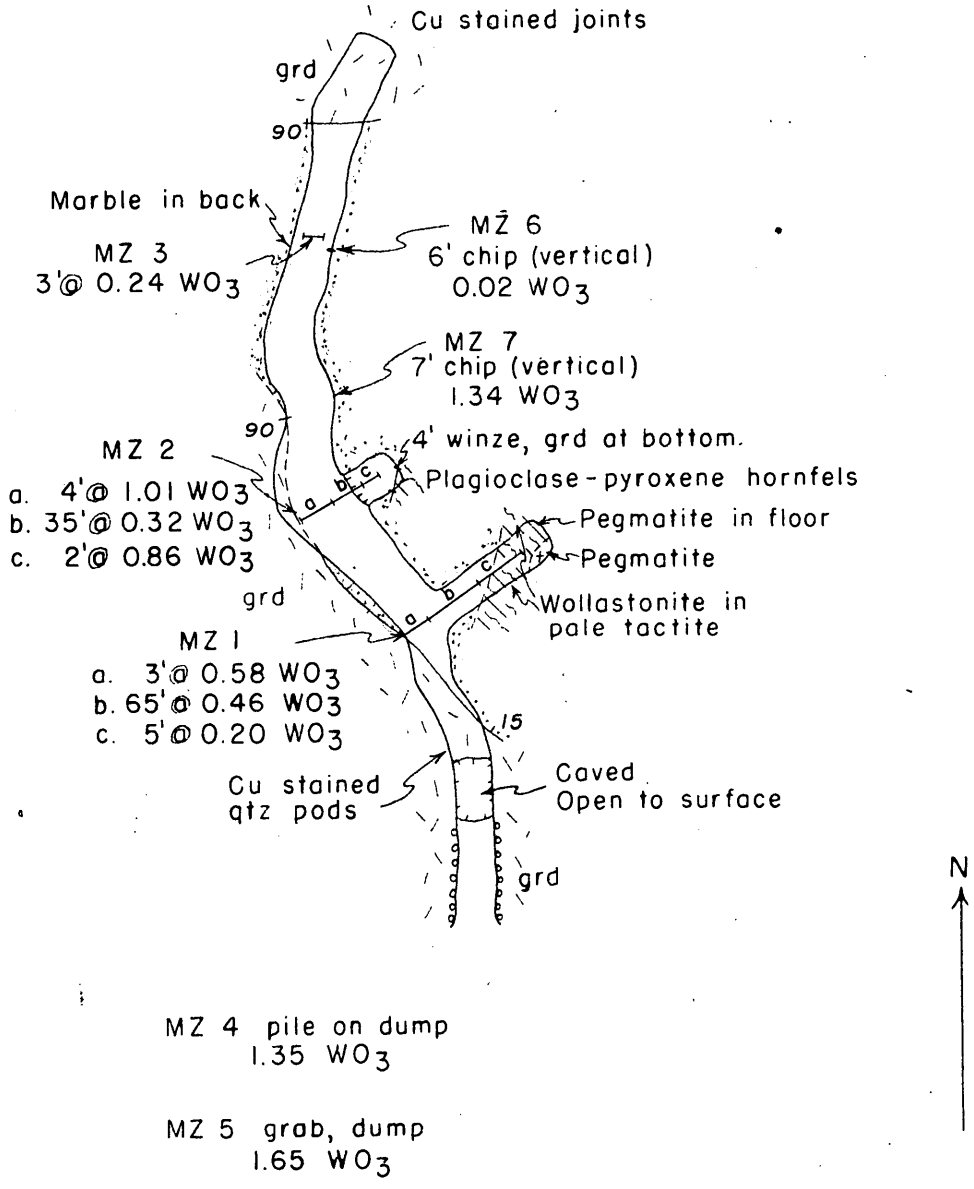
Memorandum to all Employees

I am glad to report that through your generosity we are now almost over the top in the Department's Red Feather Drive and that only an additional $4,200 is needed to give the Interior Department a 100 percent rating in this worthwhile community effort.

Since another small contribution from each employee would enable us to reach our goal, I am suggesting that each one of us who possibly can contribute another $1.00 so that we can report that the Department's FAIR SHARE has been met.

We have done a splendid job so far, and I am asking that your keyman call on you on December 3, your next pay-day, in the hope that through our combined efforts we shall have the satisfaction of knowing that we have done our FAIR SHARE in meeting our quota and in investing in our community's future.

Ralph R. Roberts
Under Secretary



Note: MZ 1-5 Bureau of Mines samples.
MZ 6-8 Geological Survey samples

MONTEZUMA MINE ADIT, TUOLUMNE COUNTY, CALIFORNIA

0 20 40 60 FEET

Figure 2

400

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

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

Sept. 15, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma Mine, Tuolumne County, Calif.

Answering your inquiry of September 11, 1953, from the information obtainable here we believe the road to this property is being constructed by Tuolumne Tungsten Mining Company. We contacted the Bureau of Public Roads, who advise that they do not have a project at subject location.

A field examination of this project is scheduled for September 17, at which time it will be possible to ascertain who financed the construction of this road.

RICKER

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

Copy to: E. H. Bailey, USGS

Copy retained 400

COPY

400.

TUOLUMNE TUNGSTEN
P.O.BOX 1538
Sonora, California

Sonora, California
September 7, 1953

U. S. Department of the Interior
Defense Minerals Exploration Adm.
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, California

Att: Mr. H. C. Miller

Dear Mr. Miller:

With reference to your letter of August 25th addressed to Mr. Hines, in his absence I am authorized to reply in his stead.

I advised Mr. H. K. Stager at Mammoth Lakes that we were quite busy getting out road into the mine this summer and that it would be more convenient for everbody if he waited until we had it completed, before he came in to make his examination.

We can set the date of September 17th as a definite time for Mr. Stager to come up. However our road is still pretty rought and I would advise the use of a jeep or a 4 speed pick-up truck weighted in the rear. In the event that Mr. Stager cannot obtain suitable transportation, if he will make arrangements to be at a designated spot such as Allie Robinson's pack station or at the highway where our road begins, we can plan to pick him up in our jeep or truck.

Our road is just 4 miles down from Sonora Pass on the eastern side and approximately 2-1/2 miles up from Allie Robinson's pack station. It is the only road in the vicinity taking off from highway 108 in that area. It is approximately the same trail as the old jeep route to Leavitt Lake.

Thanking you for your kind attention and cooperation, we are,

Very truly yours,

Tuolumne Tungsten Mining Co.

/s/ L. H. Cooper
L. H. Cooper
Secretary-Treasurer

cc: H. K. Stager
Box 1093 Mammoth Lakes, Calif.

Copy of this letter in Design Book

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

400

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

September 8, 1953

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Company
Montezuma Mine, Tuolumne County, California

With reference to our letter of August 25, 1953, to Mr. James I. Hines, President of the Tuolumne Tungsten Mining Co., a copy of which was sent to your office, we are today in receipt of the attached reply, dated September 7, 1953, from Mr. L. H. Cooper, Secretary-Treasurer of Tuolumne Tungsten, which is self-explanatory.

S. RICKER

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

Attachment

Copy to: E. H. Bailey, USGS
A. C. Johnson, Reno

Copy Received 400

TUOLUMNE TUNGSTEN
P. O. Box 1538
Sonora, California

Sonora, California
September 7, 1953

U. S. Department of the Interior
Defense Minerals Exploration Adm.
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, California

Att: Mr. H. C. Miller

Dear Mr. Miller:

With reference to your letter of August 25th addressed to Mr. Hines, in his absence I am authorized toreply in his stead.

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Thanking you for your kind attention and cooperation, we are,

Very truly yours,

Tuolumne Tungsten Mining Co.

/s/ L. H. Cooper
L. H. Cooper
Secretary-Treasurer

cc: H. K. Stager
Box 1093 Mammoth Lakes, Calif.

C O P Y

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 2860 - Tungsten
Tuolumne Tungsten Mining Company
Montezuma mine
Tuolumne County, California

Dear Mr. Miller:

Reference is made to the subject docket and to your letter dated August 25, 1953, to Mr. James I. Hines, President, Tuolumne Tungsten Mining Company.

It would be appreciated if you would clarify your statement in the second paragraph that you were advised to postpone the examination until the property is accessible by road. Please inform us whether a road is being constructed to the property and, if so, what individual, or public agency, is financing such construction.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

Copy to: Docket
Field Team, Reg. 3
Adm. Read. File
Code 400
Operating Committee
Mary Miller, USGS
R. W. Geehan, USBM

FARutledge/ls
9/9/53

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

402

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

August 25, 1953

Mr. James I. Hines, President
Tuolumne Tungsten Mining Co.
200 Davis Street
Room 208
San Francisco 11, California

Re: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, California

Dear Mr. Hines:

Reference is made to your application for Government financial assistance for exploratory work at your Montezuma Mine.

I have been informed by geologists of the Geological Survey, who have been requested to examine the Tuolumne Tungsten property, that they were advised by some one in charge of the mine to postpone the examination until the property is accessible by road.

In order that we can schedule our examination, in view of the shortness of the season at high altitudes, kindly advise this office when you expect the road to be completed so that the property may be examined.

Sincerely yours,

H. C. MILLER

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

Copy to: DMEA, Washington, D. C.
E. H. Bailey, USGS
A. C. Johnson, Reno

FAR:

Did you see George Roll about this? We should avoid any action that suggests we are whipsawing the operator between DMPA & DMEA. At the same time we don't want the operator to play one Agency against the other.

WSM
9/9/53

400

Office of
Executive Officer
DMEA Field Team
Region III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 31 1953

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

March 27, 1953

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Company
Montezuma Mine, Tuolumne County, Calif.

Reference is made to my letter of March 20, 1953, to Mr. James I. Hines, President, Tuolumne Tungsten Mining Company, of which a copy was sent to you, concerning accessibility of the Montezuma Mine for a field examination.

By letter dated March 26, Mr. Frank H. Swanser, General Manager, Tuolumne Tungsten, informs me that it is hoped that entry to the mine may be made on horseback during May.

H. C. MILLER

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

Copy to: H. H. Bailey, USGS
A. C. Johnson, Reno

Retained 400

400

Office of
Executive Officer
DMEA Field Team
Region III

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 23 1953

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

March 18, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2860 (Tungsten)
Tuolumne Tungsten Mining Company, Montezuma Mine,
Tuolumne County, California

Reference is made to your subject letter, dated March 6, 1953, and especially to the third paragraph of the letter stating that Mr. Geehan on February 3, 1953, wrote me for a copy of the Bureau of Mines report on the property, dated October 1951, and that no report had been received.

Ever since Mr. Geehan's request was received in this office an effort has been made to locate the report in our files. We had no record in our DMEA files of ever having made an examination of the subject property, and it was not until we had corresponded, as a last resort, with Mr. A. C. Johnson at Reno that we learned the report in question was made in connection with an application for an access road. With that clue, we found copies of the report in our access road files which are maintained by Mr. Spangler Ricker, who has had charge of all access road work.

Attached is a copy of the Trengove-Wiebelt report on the Montezuma property, Tuolumne County, California dated November 2, 1951. A copy was sent to Mr. Stanley N. Walker in the DMPA office in Washington on November 7, 1951.

As requested, the subject property will now be examined from the viewpoint of an exploration loan. This will be a joint Bureau of Mines-Geological Survey examination and will be made shortly.

R. C. MILLER
R. C. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: R. H. Bailey, USGS
A. C. Johnson, Reno

Copy retained 4[illegible]

400

Office of
Executive Officer
DMEA Field Team
Region III

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

March 20, 1953

Mr. James I. Hines, President
Tuolumne Tungsten Mining Company
200 Davis Street, Room 204
San Francisco 11, California

Re: Docket DMEA-2880 (Tungsten)
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, Calif.

Dear Mr. Hines:

Your application for Government financial assistance for exploratory work at your Montezuma Mine has been referred by the Washington Office of the Defense Minerals Exploration Administration to this office for a field examination.

Will you kindly let us know when the property will be accessible for a joint Bureau of Mines-Geological Survey examination, including the preparation of a geologic map and sampling. We are under the impression that due to the altitude of the mine it will still be sometime before our engineers and geologists can reach the property.

Sincerely yours,

N. C. MILLER

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

Copy to: DMEA, Washington, D. C.
E. H. Bailey, USGS
A. C. Johnson, Reno

Mr. James I. Hines, President
Tuolumne Tungsten Mining Co.
200 Davis Street, Room 208
San Francisco 11, California

MAR 6 1953

Re: Docket No. DMEA 2060 - Tungsten
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, California

Dear Mr. Hines:

Your application for assistance in exploring tungsten occurrences on the referenced property has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and has been referred to Mr. R. 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 with regard to an examination of your property. Any assistance that you can render the members of the field team during the examination will be appreciated.

During the review of the subject application, it was noted that the application and the letter submitting it were signed by James I. Hines, while a James J. Hines is shown in the typewritten answer to question No. 1 on the application form as one of the four partners forming the Tuolumne Tungsten Mining Co. Please state which is correct, if as we assume, both are one and the same person.

Sincerely yours,

C. O. Mittendorf

Administrator

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

FAHutledge/hhb
3/3/53

400

400

MAR 6 1953

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 2860 - Tungsten
Tuolumne Tungsten Mining Co.
Montezuma Mine
Tuolumne County, California

FARutledge/hbb
3/3/53

Dear Mr. Miller:

Reference is made to the subject application for exploration assistance which is being referred to your office for a field examination.

The application was poorly prepared and does not contain much of the essential information needed to evaluate the proposed program. A schedule of the labor and supervision costs was among these items not included. A tool shed costing $1,600.00 was requested and appears high for such an installation. The Operator should be advised that use of their equipment would be on a monthly depreciation basis at 1/60 of the present value.

The applicant states that an engineer of the U. S. Bureau of Mines examined the property in October 1951. This statement was called to the attention of Mr. R. W. Gesham, U. S. Bureau of Mines, who, on February 3, 1953, notified the Regional Director of Region III accordingly and requested a copy of the examination report. No such report has been received.

The examining field team should obtain all of the data necessary for the preparation of Exhibit "A" of a contract, prepare a geologic map, and take representative samples during the examination.

A memorandum from D. M. Lemmon, U. S. Geological Survey, is enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Operating Committee
R. W. Gesham, USBM
D. M. Lemmon, USGS

Enclosure

Approved:

C. H. Johnson

Member, Bureau of Mines

D. M. Lemmon

Member, Geological Survey

CC: Docket
Field Team, Region 3
400
Admn. Read. File

400
IN REPLY REFER TO:
C-MD-CF

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

February 2, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 4 1953

Memorandum

To: W. S. Martin, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration Application, DMEA-2860, Tungsten
Tuolumne Tungsten Mining Company
(James J. Hines, Frank H. Swanser,
Robert Loasching and Arthur E. Poultney)
200 Davis Street, Room 203
San Francisco 11, California

Property:

Montezuma mining claim held by lease from W. H. Heitman and L. W. Osborn, located about 1 mile west of Bonds Pass, 2 miles south of Grizzly Peak, and ½ mile east of Snow Lake. Approximately sec. 30, T. 4 N., R. 21 E., Dardanelles Quadrangle, Tuolumne County, California, at the north edge of Yosemite National Park. The prospect is at an altitude of about 9,500 feet, 12 miles by trail from the nearest road on the east side of Sonora Pass.

Proposal:

It is proposed to spend $25,000 to build a road and to explore the deposit. The road cost is estimated at $5,000, a sum that is probably far too little. No exploration plan is presented and no usable maps showing geology or assays are submitted.

The Geological Survey has no recent information about the property, although the area was examined briefly in 1942 by Lemmon and Bateman before any underground work was done. The applicant states that an engineer of the U. S. Bureau of Mines visited the property in October 1951.

Recommendation:

It is recommended that this application be referred to the San Francisco Field Team for additional information. The information submitted suggests that the deposit is not sufficiently large or of good enough grade to warrant the proposed road work.

D. M. Lemmon

DMEA 2860

(Please address all letters to
200 Davis Street - Room 208
San Francisco 11, Calif.)

January 26, 1953

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

In presenting this application it is our hope that we may be extended aid to the extent of $25,000.00 (twenty-five thousand dollars).

Five thousand dollars we plan to allocate to road construction to make our mine easily accessible. The cabin in which we live will need some four hundred dollars of additional work and a tool shed should be constructed to cost in the neighborhood of $1,600.00

The balance we need to hold in reserve for labor costs, supplies, rentals of necessary equipment, etc.

We feel this is a conservative request as we have six thousand dollars in cash to contribute ourselves this year, plus sixteen thousand dollars in equipment. This more than fulfills our ratio of contributions under this exploration program.

Furthermore in view of the 9,000 tons of ore already in sight(assay.04%) we feel the sum of $25,000.00 is not excessive to request for further exploration of the possiblities of our claim.

Thanking you for your kind attention, we remain,

Very truly yours,

Tuolumne Tungsten

James I. Hines

James I. Hines - President

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 27 1953

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 2860
Metal or Mineral
Date Received 1-27-53
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: Tuolumne Tungsten Mining Co.(Partners) James J. Hines
200 Davis Street - Room 208 Frank H. Swanser
San Francisco 11, Calif. Robt. Loasching
Arthur E. Poultney

(*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 Claim is located in rock bearing Tungsten and other minerals, at a point about one mile west of Bonds Pass and 1/2 mile east of snow lake, two miles south of grizzly peak, and is known as the Montezuma.

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

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

(*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. Lease in quadruplicate attached.

(*e*) If you own the land, describe any liens or encumbrances on it ----------

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

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 .....

.....

(*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 ..... days and be completed within ..... 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?

☐ 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 ....., ..., 195...

.....
(Applicant)

By James D. Harris

.....

.....

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

Supplementary Information

Tuolumne Tungsten Mining Company Ref. Form MF-103

4. (a) Adit 112 feet across deposit. At a distance of 18 feet, drifted to the right for 20 feet. Sunk 4 feet at two points. At 42 feet, drifted 8 feet to the right and sunk 4 feet. At 47 feet sunk 4 feet in floor of adit. Various outcroppings on claim - sunk 16 feet on one. Mine accessible by pack train only now.

(b) 15 tons scheelite for assay purposes. Various assays from 1.6% to 2.73%. Reserves undetermined, estimated 9,000 tons readily available.

(c) Mine is in tactite with some wollastonite quartz and a granite contact. The deposit is apparently a lens dipping approximately 10 degrees and striking N.N.E. and S.S.W. The area around the Montezuma shows numerous low grade outcroppings. The value of these have not been determined. The U.S. Bureau of Mines sent an engineer to the property in October 1951. Reported approximately 9000 tons of .64% ore now in sight. We wish to open cut the property to determine the extent of the deposit. (Ref. Sketch #1)

(d) We have made arrangements for the construction of a private road to be started June 1953. The distance will be approximately 12 miles from the mine to the east side of Sonora Pass on California state highway 108. Shipping point is Bishop, at a distance of 90 miles over state and federal highways. Our supply point is Sonora, a distance of 75 miles. Residence point is Sonora.

(e) Manpower, equipment, materials, supplies, water, all readily available. No electric power available at present, however need is not imperative. Site is ideally suited for hydroelectric power development if plans should be made in this direction.

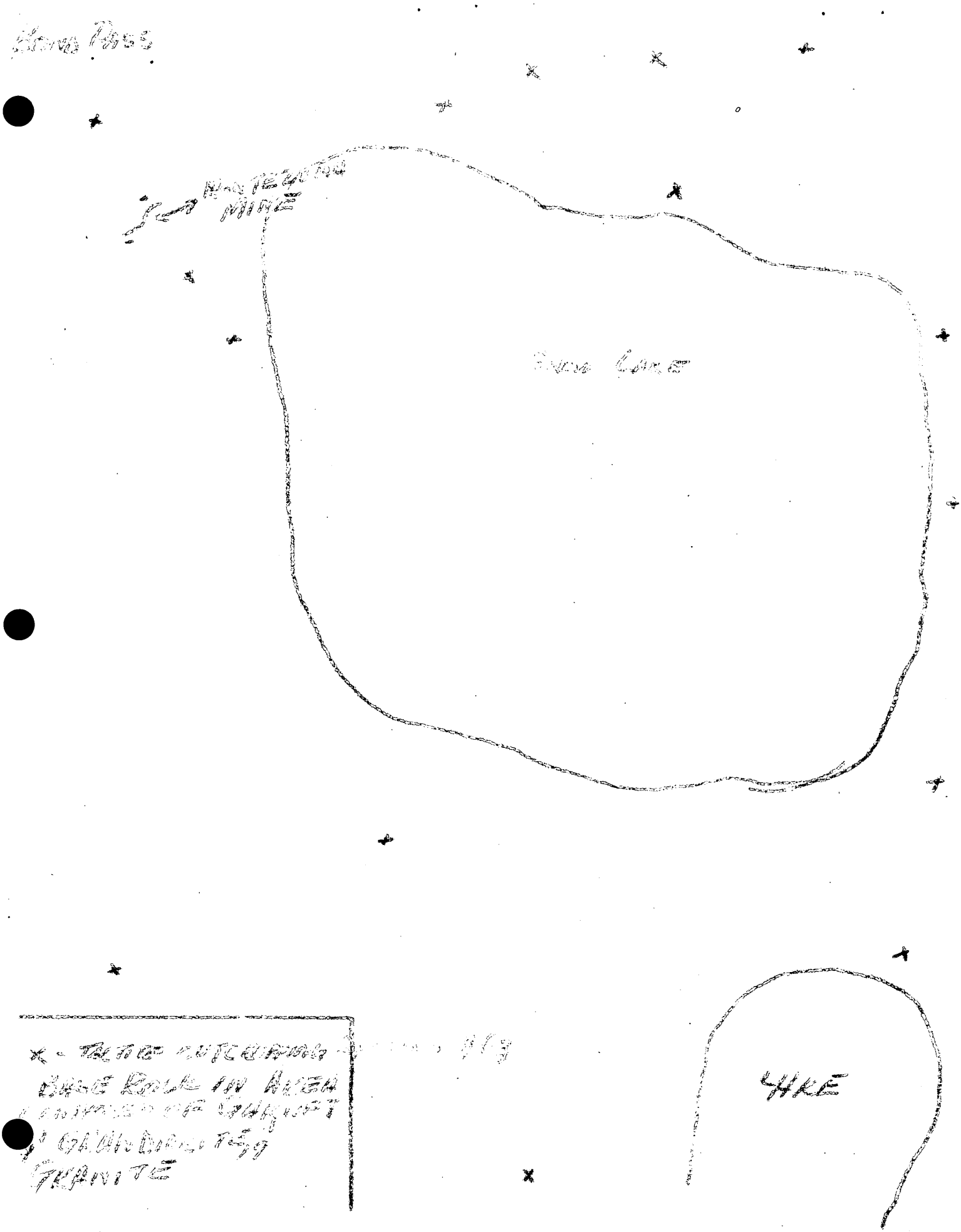
5. (a) Tungsten

(b) At present we have an adit of 112 feet with two drifts on the lens of 8 feet and 20 feet. We plan to remove the overburden and open cut across the lens. REF. SKETCH #2

(c) The work will start within 10 days and be completed within 18 months from the date of an exploration project contract.

(d) Frank Swanser has had extensive experience mining in the Feather River area and in the Sierras and has a collegiate background in Mining and Minerology. James Hines has had considerable mining experience in the Sierras and in New Mexico and has an academic background in Mining. Robert Loasching and Arthur Poultney have limited experience in mining but are experienced in construction work and the handling of men.

QUES. 4. (a) SKETCH #1



Supplementary Information (Sheet No. two)

Tuolumne Tungsten Mining Company Ref. Form MF-103

6. (a) The only independent contract we propose to let concerns the building of our private acess road at an estimated maximum cost of $5,000.00

(b) We propose to do all our own work on a share basis.

(c)

10 cases of dynamite, caps and fuses	$100.00
Gasoline	400.00
Drill Steel	25.00
Drill bits	20.00
Oil and Grease	15.00

(d)

	Rental and, or, use allowance	Purchase Price
Ford Pickup 1/2 ton	$ 5.00/day	$1,000.00
RD8 Cat. Bulldozer	10.00 "	15,000.00
Worthington Air Compressor	4.00 "	Rented
Ford Dump Truck	10.00 "	Rented

(e) Floor and Roof in Cabin $ 400.00

(f) Tool Shed $1,600.00

(g)

Pick-up Truck	$30.00	per month
Bulldozer	30.00	"
Compressor	10.00	"
Miscellaneous	10.00	"
Assay reports	30.000	"

We are qualified to do our own accounting and as we are working on shares on a partnership basis we do not contend with payroll taxes or workmen's compensation or liability insurance.

(h) We would allow $50.00 per month for unforseen contingencies.

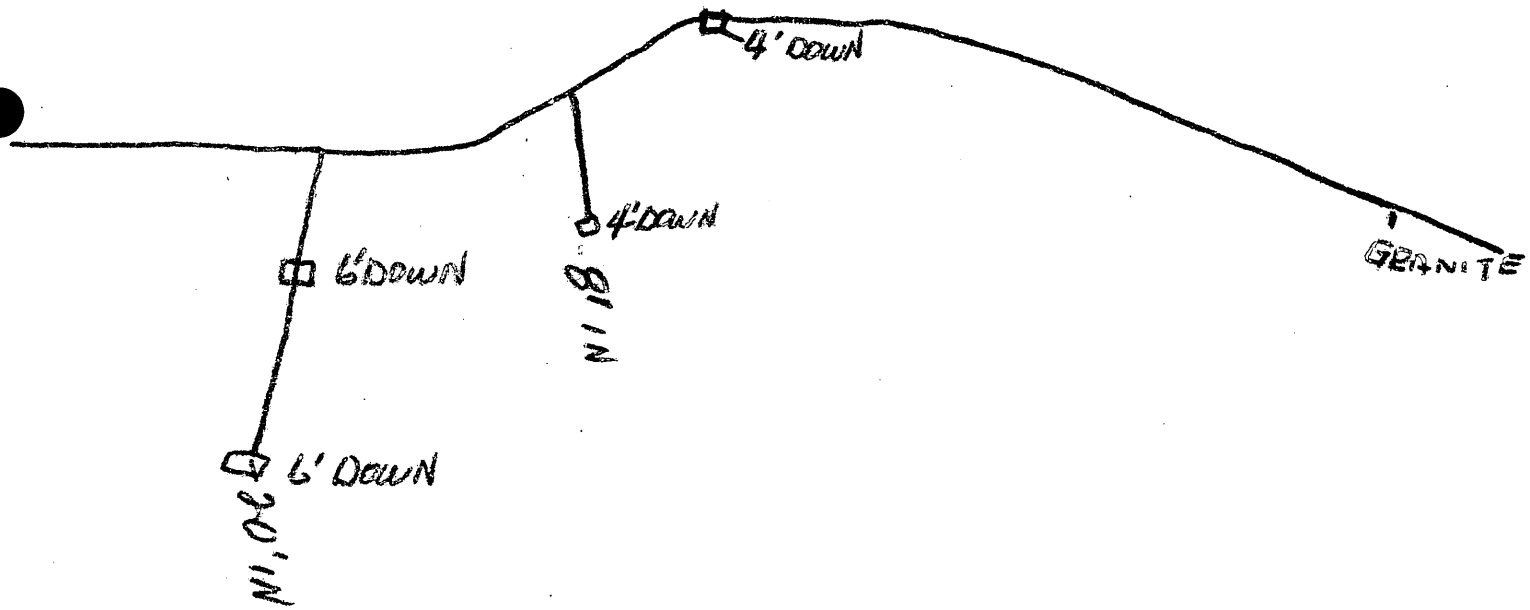
7. (a) Yes

(b) Money $6,000.00
Equipment $16,000.00 (Pick up truck and RD8 Cat. Bulldozer)
All necessary labor on a share basis by partners.

QUES. 5 (b) SKETCH #2

MONTEZUMA MINE.

#1 1½' ADIT IN TACTITE & FOUND GRANITE HANGING WALL AT 10R'
#1 DRIFT IN TACTITE & WOLLASTONITE
#2 DRIFT IN TACTITE
60' OVERBURDEN AT END OF ADIT.
10' OVERBURDEN AT MOUTH



COPY

LEASE OF MINING CLAIM

THIS LEASE, made this 11th day of July, 1950, between W. H. Heitman of Reno, Nevada, and L. A. Osborn of Yerington, Nevada, Lessors, and Frank Swanser of Stockton, California, and James Hines of Stockton, California, Lessees,

W I T N E S S E T H:

That the said lessors, for and in consideration of the rents, royalties, covenants, and agreements hereinafter reserved, and by the said lessees to be paid, kept, and performed, have let, and by these presents do let, unto the said lessees, all of the following described mine and mining property, situated in an unnamed or unknown mining district, in the county of Tuolumne, State of California, to-wit:

> That certain claim located in the name of the lessors on August 24th, 1942, which said claim is located in rock bearing tungsten and other minerals at a point about one mile west of Bonds Pass, and one-half mile east of Snow Lake. Two miles south of Grizzly Peak, and known as the Montezuma.

Said notice of location having been recorded on October 25, 1942, in Volume 19 Quartz at page 354, Records of Tuolumne County, State of California; together with appurtenances.

To have and to hold unto the said lessees for the term of five (5) years from date hereof, expiring on the 11th day of July, 1955. With the right for an additional extension of said lease for a period of five years, under the same terms and conditions, except with those changes which will hereinafter be indicated.

In the event that the above-mentioned option is exercised at the end of said five (5) years, the lessees agree to pay the sum of Five Thousand ($5,000.00) to the lessors, said sum to apply as credit against total purchase cost of claim.

And in consideration of said lease the said lessees do covenant and agree with the said lessors as follows, to-wit:

To enter upon said mine or premises and work the same in a manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the safety, development and preservation of the said premises as a workable mine. To allow said lessors and their agents to enter upon and into all parts of said mine for the purpose of inspection.

To perform no less than the equivalent of fifty feet of development work during each of the first three years of this lease, and not less than one hundred feet during the fourth year of this lease, and not less than one hundred and fifty feet during the fifth year of this lease, and not less than one hundred and fifty feet during each and every year that said lessees should occupy said claim under the provisions for a five year extension hereof. Said development work may be shaft or tunnel.

To keep books of account showing the amount of ores extracted from said mine. The amount of ore shipped, sold, or treated, and the amount of money received from the sale of said ores or the values extracted therefrom. To deliver the said ore to the nearest railroad, or in case other means of transportation can be shown to be more economical, to permit hauling by truck from any point which will not make transportation to the nearest stock pile more expensive than by rail if delivered to the nearest railroad. Lessees agree to pay to the lessors 10% of all profits obtained on said ore after deducting only all costs arising after delivery to said railroad or other transportation facilities as aforesaid. Such deductions to include, in addition to the expense of transportation as above mentioned, the expenses of milling and such other expenses as may arise after the aforesaid delivery.

The said lessors agree, that should the lessees or their assigns pay to the said lessors at any time during the term of this lease the full sum of Thirty Thousand ($30,000.00) Dollars, by way of royalty payments or otherwise, to make and deliver unto the said lessees, or to their assigns, a good and sufficient deed conveying to the said lessees or to their assigns, free and clear from all incumbrances, all their right, title and interest, estate

claim, and demand, both in law and equity, as well in possession as in expectancy, in, or to the above described mining property.

In the event lessees should exercise their option for a five year extension of this lease, lessors agree to comply with the provisions set out in the paragraph above. However, the amount which lessees must pay to lessors shall be the sum of Forty Thousand ($40,000.00) Dollars, instead of $30,000.00.

Ten per cent (10%) royalty payments to be made within fifteen days after mill receipts of any particular shipment of ores have been returned.

All permanent buildings or structures hereinafter erected on the property herein described to be left on the property and to be retained by lessors, and shall be deemed and shall remain the property of lessors.

All machinery, mining tools and mining equipment placed in or upon said premises by the lessees, or used by them in working said premises under the terms of this lease, shall be deemed and shall remain the personal property of said lessees, and they shall have the right to remove the same from said premises at any time during the life of this lease, or any extension thereof, or at the termination of this lease.

It is further agreed that the lessors or their representatives shall have access at all reasonable times to inspect the books of the said lessees, to be kept as aforesaid.

Lessees to deliver up to the said lessors the said premises, with the appurtenances and all improvements, in good order and condition, with all shafts and tunnels and other passages thoroughly clear of rubbish and drained, and the mine in all points ready for immediate continued working, accidents not arising from negligence alone excusing, without demand or further notice, on said 11 day of July, 1955, at noon, unless option for extension is exercised, or at any previous time, upon demand for forfeiture.

Lessors reserve the right to post said property with sufficient notices of non responsibility.

And finally, upon the violation by the said lessees, or any other person or persons under them, of any covenant hereinbefore reserved, the term of this lease shall, at the option of said lessors, expire, and the same and said premises, with the appurtenances, shall become forfeited to said lessors, and said lessors or their agents may thereupon, after demand of possession, enter upon said premises and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of said lessors, or in any other manner.

Each and every clause and covenant of this lease, where the context requires it, shall extent to and include the heirs and assigns of the lessors, and the executors, administrators, and assigns of the lessees.

IN WITNESS WHEREOF, we have hereunto set our hands this 11th day of July, 1950.

(signed) W. H. Heitman

(signed) L. W. Osborn

Lessors

(signed) James Hines

(signed) Frank Swanser

Lessees

STATE OF CALIFORNIA)
SS
COUNTY OF SAN JOAQUIN)

On this 11th day of July, 1950, before me, Doris Deicke, a Notary Public in and for said County and State, personally appeared James Hines and Frank Swanser, 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 above written.

(signed) Doris Deicke
Notary Public in and for the County of San Joaquin, State of California

(SEAL)

STATE OF NEVADA)
SS
COUNTY OF LYON)

On this 14th day of July A.D. one thousand nine hundred and fifty personally appeared before me F. H. Koehler, a Notary Public in and for said County of Lyon, W. H. Heitman and L. W. Osborn known (or proved) to me to be the persons described in and who executed the annexed instrument, who acknowledged to me that they executed the same, freely and voluntarily, and for the uses and purposes therein mentioned.

(SEAL)

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

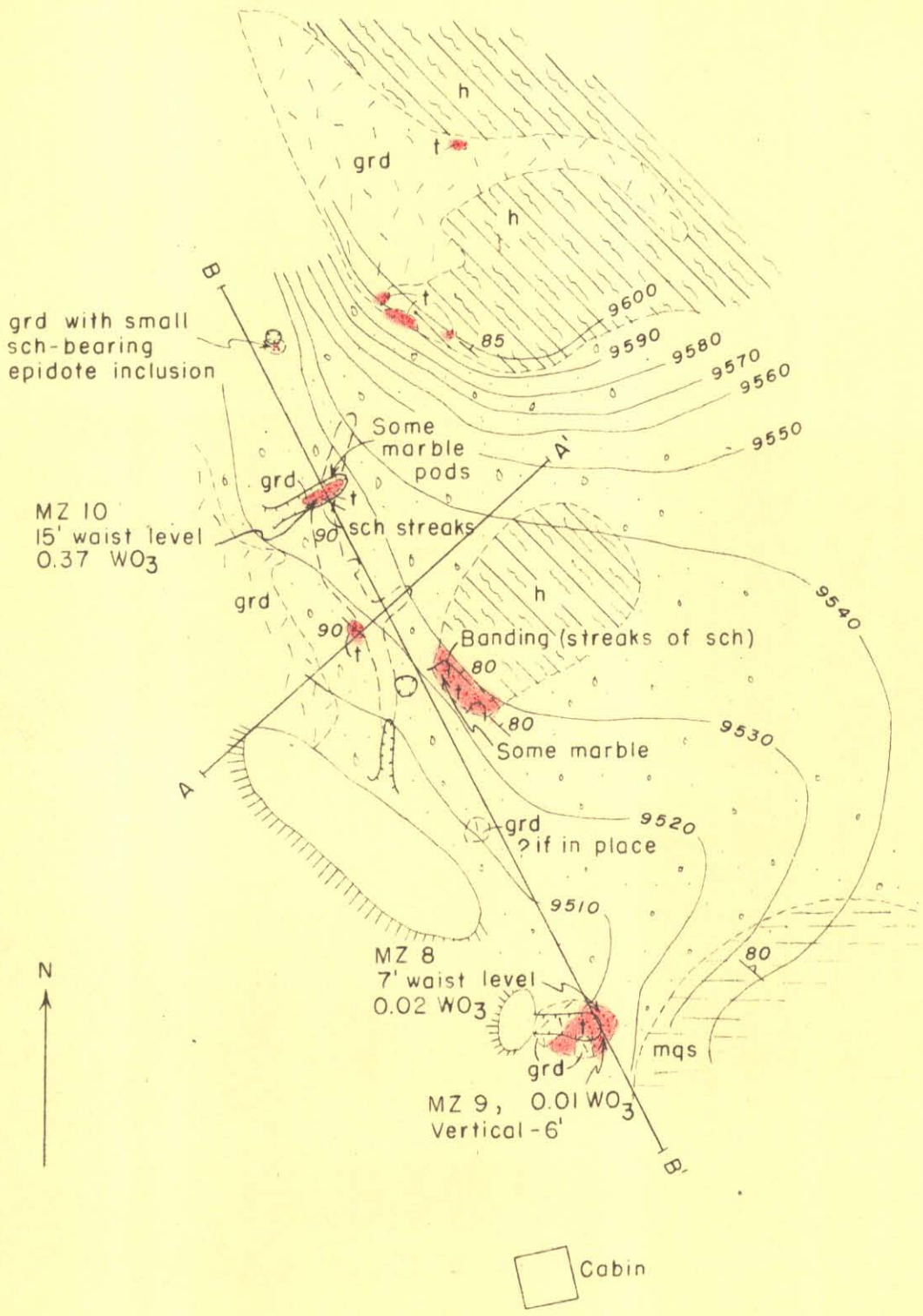
(signed) F. H. Koehler

Notary Public in and for the County of Lyon, State of Nevada.

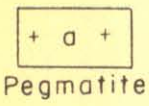
My commission expires January 15, 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

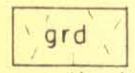
DMEA 2860
(TUNGSTEN)



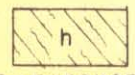
EXPLANATION



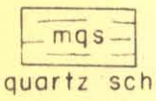
Pegmatite



Granodiorite

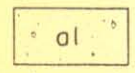


Plagioclase-pyroxene hornfels
Includes some mica-quartz schist and light colored garnet tactite



Mica-quartz schist

Tactite



Alluvium - talus

Contact
Dashed where inferred

80
Strike and dip of beds

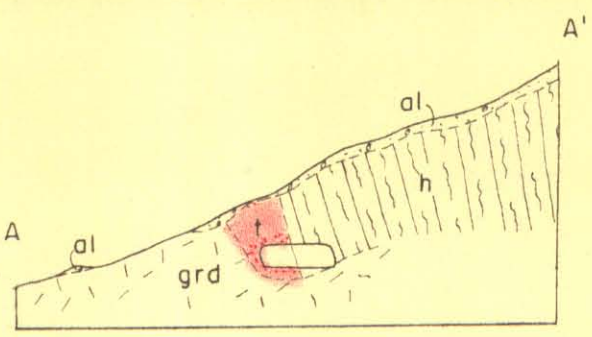
80
Strike and dip of foliation

Mine workings
Dashed where underground

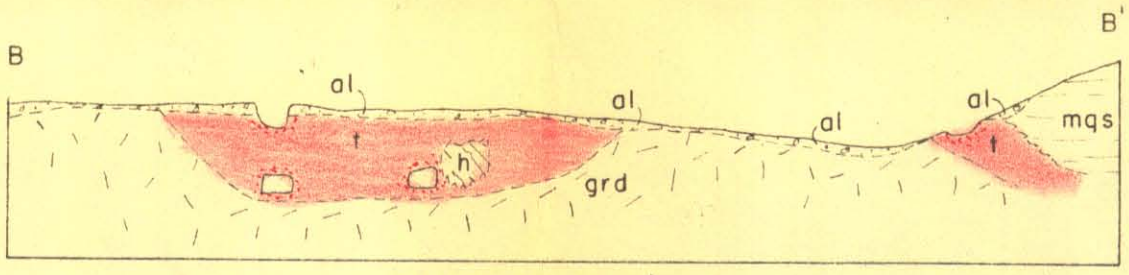
Open-cut or pit

Dump

Scheelite



SECTION A-A'



SECTION B-B'

Mapped by D. Ross and H. Stager, September 1953

MONTEZUMA MINE, TUOLUMNE COUNTY, CALIFORNIA

0 50 100 150 FEET

Figure 1