DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMA Docket No. DMEA-3176

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1 cy to Reg. USBM, ~~USGS, Docket~~

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MAR 3 1954

3176

Mr. P. I. Haddan, Jr., General Partner
P. I. Hadden, Jr., Ltd.
831 North Eucalyptus Avenue
Inglewood, California

Re: Docket No. DMEA 3176 - Tungsten
Dyke Valley Mine
San Diego County, California

Dear Mr. Haddan:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced property have been 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, although noting the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

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

Sincerely yours,

C. C. Mitterdorf

Administrator

CC: Docket
Code 400
Adm. Read. File
PT, Reg. 3
R. W. Geehan, USBM
T. P. Thayer, USGS
Open Com

JHopkins/ls

400

February 26, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $20,000.00
Docket No. DMEA 3176 - Tungsten
P. I. Maddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

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

(1) The applicant requested exploration assistance in the sum of $20,000.00 to explore for tungsten in the Dyke Valley Mine, San Diego County, California.

(2) There were practically no mine workings accessible at the time the property was examined by members of the DMEA field team. Open cut trenches and a circular shaft, open but untimbered to a depth of 52 feet, were accessible. All workings below this elevation were flooded or caved.

(3) The Dyke Valley Mine is located in an area underlain by early Upper Cretaceous crystalline rocks of the batholith of Southern California, containing a few pendants of Paleozoic and Triassic sediments. A tabular pendant of metamorphosed sediments has been exposed in two trenches that is composed of varying amounts of garnet, calcite, quartz, tremolite, and epidote, with traces of phlogopite, scheelite, and marmatite.

(4) The Dyke Valley Mine has produced tungsten from the tactite-talc-silicate pendant. The only scheelite-bearing tactite of ore grade was uncovered in the main trench, where it was exposed over a horizontal distance of 20 feet and a vertical distance of 10 feet. Assays of samples cut across the 3½-foot thickness of tactite averaged less than 0.20 percent WO_3. Traces of scheelite were seen at the 55-foot level of the circular shaft but the rock was not worth sampling.

(5) The measured ore reserves in the main trench indicate not more than 70 tons of tactite averaging 0.19 percent WO_3 and containing 13.3 units of WO_3. An additional 10 tons of ore averaging 0.16 percent WO_3 has been mined and dumped near the mill.

(6) The mine was examined in 1943 prior to the main production by a geologist of the U. S. Geological Survey. The ore body was described as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. Ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered.

(7) The deposit was leased by the Nevada-Massachusetts Company in 1943-44, which mined and shipped about 250 tons of ore averaging about 15 percent WO_3. This amount of ore, it is reliably reported, constituted the entire available ore reserves.

(8) The DMEA geologist and engineer recommend denial of the application for the following reasons:

(a) The limited exposure and amount of ore in the trench cannot be projected beyond the trench.

(b) Previous operators have probably removed most of the commercial ore.

(c) The geologic setting suggests that the mineralized rock is of limited extent.

(d) The amount of tungsten produced is not likely to appreciably add to the domestic reserves of tungsten.

(9) The Commodity Division of the U. S. Geological Survey and the Bureau of Mines concur with the recommendation.

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

cc: DOCKET
CODE 400
OPER. COMM.
ADM. READ. FILE
MR. HOPKINS

JHopkins/ls 2/26/54

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.

February 10, 1954

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 No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Reference is made to your letter of January 28, 1954, requesting to be advised if the Field Team obtained from the Nevada-Massachusetts Company any information regarding operations by that company at the subject property during 1943-44.

For your information there is attached a memorandum dated February 8, 1954, from A. C. Johnson in response to my request for the wanted information.

In addition to what Mr. Johnson wrote, Roscoe Smith told me yesterday that no information from the Nevada-Massachusetts Company was included in the Sheahan-Pampeyan report because in a reply to a letter written to that company, they stated they had no information.

Copy retained 402

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

Attachment

Copy to: Roscoe Smith, USGS (With copy of memorandum)
A. C. Johnson, Reno

400

Memorandum February 8, 1954

To: M. C. Miller, Executive Officer, DMEA Field Team Region III

From: Chief, Mining Division, Region III

Subject: Docket No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine, San Diego County, California

In reference to your memorandum of February 1 relative to obtaining information or maps from the Nevada-Massachusetts Company in regard to their work on the Dyke Valley Mine in 1943 and 1944:

Under date of February 2, 1954, I called John Heiser, who more or less had charge of the work at the Dyke Valley Mine when it was under option to the Nevada-Massachusetts Company. He informed me that he would endeavor to obtain the maps that had been requested, however, to date, I have not received the maps from Mr. Heiser, and it may be possible that he was unable to find them in his files. He informed me that the Nevada-Massachusetts had mined out available reserves in the mine.

I note in your memorandum that the Survey had described the ore body as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered." This more or less confirms the information that was given to me by Mr. Heiser and he also stated that they mined approximately 250 or 300 tons of ore that averaged better than 1.0 percent WO_3 from the deposit. In the event that Mr. Heiser furnishes me with additional information I will forward it to your office.

I did not endeavor to obtain the information from the Nevada-Massachusetts Company, as in a letter to me from Mr. Bailey, he stated: "We are following Tom Thayer's suggestion that we get old maps from the Nevada-Massachusetts Company so you need not bother with this item."

A. C. Johnson

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

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

February 1, 1954

Memorandum

To: A. C. Johnson, Bureau of Mines, Reno, Nevada

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine, San Diego County, California

Reference is made to the subject docket and the report on the Dyke Valley Mine by Sheahan and Pampeyan, dated December 29, 1953.

When the subject application was reviewed initially in the Washington office, Mr. T. P. Thayer, of the Geological Survey, prepared a memorandum stating: "The deposit was leased by the Nevada-Massachusetts Company in 1943-44, who mined and shipped about 250 tons of ore averaging about 1.5 percent WO_3. The ore body was described by a Survey geologist as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered."

In that memorandum (dated September 28, 1953) Mr. Thayer suggested that "an effort should be made to get copies of maps of the underground workings from Nevada-Massachusetts, or any information the company may have."

This memorandum was attached to the application and should have come to the attention of the examining engineer and geologist.

There is nothing in the Sheahan-Pampeyan report to indicate that the Nevada-Massachusetts Company had been interviewed and any information obtained from that source.

I now have a letter dated January 28, 1954, from George C. Selfridge, requesting to be advised if the Field Team obtained any information from that company on its operations of the Dyke Valley Mine during 1943-44. As your answer undoubtedly will be in the negative, I suggest that immediate efforts be made to get any and all available information from the Nevada-Massachusetts Company and let me have it an an early date.

H. C. MILLER

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

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS

40

JAN 28 1954

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 3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Dear Mr. Miller:

Reference is made to the subject docket and the memorandum by T. P. Thayer, U. S. Geological Survey, transmitted with our letter of October 7, 1953.

It would be appreciated if you would advise us if the Field Team obtained from the Nevada-Massachusetts Company any information regarding operations by that company during 1943-44 at the referenced property.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Approved:

J. H. Hedges
Member, Bureau of Mines

s/ Philip W. Guild
Member, Geological Survey

Copy to: Docket
Code 400
FT, Reg. 3
Adm. Read. File
Oper. Comm.
R. W. Geehan, USBM
T. P. Thayer, USGS

FARutledge/ls
1/25/54

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

400

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1954

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

January 12, 1954

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 No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Reference is made to your letter dated October 7, 1953, requesting a field examination of the subject property.

Attached are four copies of a report entitled "DMEA-3176, Dyke Valley Mine, San Diego County, California (Tungsten)," by Benjamin H. Sheahan, Mining Engineer, U. S. Bureau of Mines, and Earl H. Pampeyan, Geologist, U. S. Geological Survey, dated December 29, 1953.

Mr. Roscoe Smith, who has taken Edgar Bailey's place as the Geological Survey representative on the Region III Field Team, and I concur with the conclusions and recommendations of the examining engineer and geologist.

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

Attachment

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

Reviewed by
DMEA OPERATING COMMITTEE
1-22-54
(date)

Defense Minerals Administration

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

EXAMINATION REPORT

DMEA-3176, Dyke Valley Mine

San Diego County, Calif.

(Tungsten)

Benjamin H. Sheahan, Mining Engineer
U. S. Bureau of Mines

Earl H. Pampeyan, Geologist
U. S. Geological Survey

December 29, 1953

Reviewed by
DMEA OPERATING COMMITTEE
1-22-54
(date)

EXAMINATION REPORT

Docket No.: DMEA-3176 (Tungsten)

Name and address of applicant: P. I. Haddan, Jr., Ltd.,
831 N. Eucalyptus Ave.,
Inglewood, California.

Name and location of property: Dyke Valley Mine, San Diego County, Calif.

SUMMARY

The Dyke Valley Mine, San Diego County, California, was examined jointly by an engineer of the Bureau of Mines and a geologist of the Geological Survey on Nov. 4 and 5, 1953. Mr. P. I. Haddan, Jr., Ltd., accompanied the examiners.

The deposit was explored in 1943-44 and 250 tons of scheelite bearing tactite containing 1.5% WO_3 was produced. Because of insufficient ore reserves and high production costs, the property was closed down. The main shaft was filled to the surface and workings caved.

In 1951, Mr. F. E. Hopkins, limited partner, leased the property from the Mendenhall Ranch and an unsuccessful attempt was made to exploit the mine.

Mr. P. I. Haddan, Jr., applicant for the exploration loan, excavated an open cut through to the collar of the original shaft. His proposal to sink a new incline shaft would have practically no exploration value, since the ground has been previously explored.

CONCLUSIONS AND RECOMMENDATIONS

The exploration plan suggested by the applicant does not have much merit. It would be difficult and costly to sink an inclined shaft through old and backfilled workings. The information gained by a 130-foot inclined shaft could be obtained by a small amount of underground work from the circular shaft. It also seems unlikely that the previous operators would have left much ore in the area under consideration.

It is the geologist's and engineer's recommendation that the applicant's request for Government participation in a DMEA loan be denied for the following reasons:

1. The limited exposure and amount of ore in the trench cannot be projected beyond the trench.

2. Previous operators have probably removed most of the commercial ore.

3. The geologic setting suggests that the mineralized rock is of limited extent.

4. The amount of tungsten produced is not likely to appreciably add to the domestic reserves of tungsten.

INTRODUCTION

The Dyke Valley Mine was examined by an engineer of the Bureau of Mines and a geologist of the Geological Survey on Nov. 4 and 5, 1953. Mr. P. I. Haddan, Jr., the applicant for an exploration loan, accompanied the examiners. Mr. F. E. Hopkins, limited partner, and his father Mr. Frank C. Hopkins described past operations at the property with the examiners on Nov. 5, 1953.

NAME AND LOCATION OF PROPERTY

The Dyke Valley Mine, San Diego County, Calif., is located in the N. E. 1/4 of the S. E. 1/4 of sec. 19, T. 10 S., R. 2 E., S. B. B. &M. The property is situated on the southwest slope of Palomar Mountain and at an altitude of 4,480 feet in the Cleveland National Forest. The distance by road to Escondido, California is 40.9 miles. The road is paved and the property is accessible all year.

COMPETENCY OF APPLICANT

Mr. P. I. Haddan, Jr., Ltd., general partner, is an excavating and grading contractor of Inglewood, Calif. By working part time at the property he has attempted to assemble a mill and has excavated an open cut through filled mine. workings. The applicant's proposal for exploration work lacked both a logical plan or a definite objective. The applicant has had very little mining experience.

The financial responsibility of the applicant depends upon his income from his contracting business. The applicant and his partner indicated that they would have difficulty in providing their share of money required to match an exploration loan.

APPLICANT'S PROPERTY RIGHTS

The property is a part of the Mendenhall Ranch which is owned by Mr. E. T. Mendenhall and son. F. E. Hopkins, limited partner, has leased mineral rights on a portion of the N. E. 1/4 of the S. E. 1/4 of

sec. 19, from Mr. Mendenhall. Mr. P. I. Haddan, Jr., Ltd., general partner and Mr. F. E. Hopkins, limited partner, are required by the terms of the lease to pay 10% royalty from any mineral production.

Mr. P. I. Haddan, Jr., the applicant, has provided equipment and labor in his attempt to construct a mill, and develop an open cut type mine operation. For this work he was made a general partner in the lease.

DESCRIPTION OF PROPERTY

Surface facilities include a camp consisting of two small sheds 8 feet by 12 feet suitable for two workmen.

Equipment at the property is as follows:

Item	Condition
1 Water tank, 800 gallon capacity	Fair
1 Water tank, 1200 gallon capacity	Fair
1 Sump pump, I.R. No. 35 (2-inch)	Fair
1 Primary jaw crusher, 10-by 22-inch	Poor
1 Grizzley, 4-by 6-foot	Poor
1 Labratory jaw crusher, 4-by 6-inch	Poor
1 Ball mill, 2-foot diameter by 6-foot length (Constructed from an air receiver tank)	Poor
1 Concentrating table (Plato 5-by 14-foot)	Fair
1 Caterpillar tractor, D-2 power unit	Poor
1 Truck, 2-ton, dump body	Poor

Mining and construction equipment:

1 Tugger hoist, air drive, single drum with 5/8-inch cable	Fair
1 Hoist, 10-horsepower, gasoline engine drive	Poor
1 Concrete mixer, 1/2 cubic yard	Fair
1 Wagon drill, Gardner-Denver	Poor
1 Bulldozer, D-6 Caterpillar	Fair
1 Air compressor, 210 c.f.m.	Poor
1 Fordson tractor skip loader, 1/4 yard	Fair
Miscellaneous tools, air and water pipe	Fair

There are practically no mine workings accessible. When operations were discontinued in 1945 the main shaft was filled to the surface with dump material. Open cut trenches and a circular shaft, open but untimbered to a depth of 52 feet, was accessible. All workings below this elevation were flooded or caved (see fig. 2).

SAMPLING

The following samples were taken at the property at locations indicated on figure 2:

Sample No.	%, WO_3	Width/feet
S-245	0.41	1.5
S-246	*0.01	1.5
S-247	0.06	2.0
S-248	0.26	3.0
S-249	0.16	(10 tons on dump)

*=less than.

LABOR AND SUPPLIES

Skilled mine labor is scarce in this vicinity. The current wage scale is $2.00 per hour. Material and supplies are available at Escondido and at San Diego, Calif.

Water for domestic use is hauled to the camp from a spring located one mile to the southeast. Water pumped from the mine was sufficient for past mining operations.

Electric power is not available. Gasoline and Diesel fuel oil can be obtained from Escondido for power generation.

GEOLOGY

The Dyke Valley mine, in San Diego County, California, is in an area underlain by early Upper Cretaceous crystalline rocks of the batholith of Southern California containing a few pendants of Paleozoic and Triassic sediments.

The country rock in the mine area is a medium-grained quartz diorite, named "Bonsall tonalite" by Hurlbut[1/]. It varies in color from light to dark gray depending upon the amount of mafic minerals present, and is characterized by streaked-out inclusions of gabbro.

A tabular pendant of metamorphosed calcareous and siliceous sediments, striking north and dipping steeply to the west, has been exposed in two trenches and presumably extends between the two. The most northerly and main trench exposes a 10-foot thick band of tactite and calc-silicate rock, derived from contact metamorphism of limestone. These rocks are composed of varying amounts of garnet, calcite, quartz, tremolite, and epidote with traces of phlogopite, scheelite, and marmatite.

In the main trench a 3-foot band of biotite-quartz schist separates the quartz diorite from the tactite. Some schist, along with a small amount of calc-silicate rock also occurs in the trench just south of the Mt. Palomar road (see fig. 2).

/1/ Hurlbut, C. S., Jr., Dark inclusions in a tonalite of Southern California: Am. Min., v. 20, no. 9, p. 611, 1935.

The tactite could not be traced between or beyond the two trenches because of the soil cover. Mr. F. E. Hopkins, the limited partner, reported that a few small bodies of tactite had been prospected about one mile north along the strike of this pendant. These other bodies, though similar, were very small; the largest of these had a vertical dimension of 20 feet.

ORE DEPOSITS

The Dyke Valley (Palomar Scheelite) mine has produced tungsten from the tactite-calc-silicate pendant in quartz diorite. A trench, dug along the strike of the tabular-shaped pendant, has exposed recrystallized rock for 20 feet. Scheelite was seen along the west edge of the trench in a 3-1/2-foot thick band of tactite and also in the face of the cut above the old stope. Although a few scheelite-bearing boulders were seen in the trench south of the road, no scheelite was seen in place in that cut.

The only scheelite-bearing tactite of ore grade was uncovered in the main trench north of the Mt. Palomar road, where it was exposed over a horizontal distance of 20 feet and a vertical distance of 10 feet. Assays of samples cut across the 3-1/2-foot thickness of tactite averaged less than 0.20% WO_3. Traces of scheelite were seen at the 55-foot level of the circular shaft, but the rock was not worth sampling.

ORE RESERVES

Because of the limited exposures of scheelite-bearing rock and the production history of the mine, it is difficult to make an estimate of

the reserves of this property. Measured reserves in the main trench indicate not more than 70 tons of tactite averaging 0.19% WO_3 and containing 13.3 units of WO_3. An additional 10 tons of ore, averaging 0.16% WO_3 and equalling approximately 1.6 units of WO_3, has been mined and dumped near the mill. There are no indicated or inferred reserves because old workings extend upwards into the bottom of the trench.

PROPOSED EXPLORATION

The applicant did not have a definite exploration program outlined other than to sink a 30° inclined shaft from a point near the north end of the main trench (see fig. 2). Mr. P. I. Haddan, the applicant, said the incline would be extended until "we run out of money or ore." According to the limited partner, F. E. Hopkins, a 100-foot shaft was sunk in 1943-44 (fig. 2) and was in ore for about 64 feet. Some drifting was done on the 55-foot level and extended mainly to the south. During this work, when the ore above this level was mined, Hopkins found evidence that the ore rakes southward 30°. The applicant's proposal is based upon this information, the belief that much high-grade ore remains in this area, and the proximity of the shaft collar to the mill.

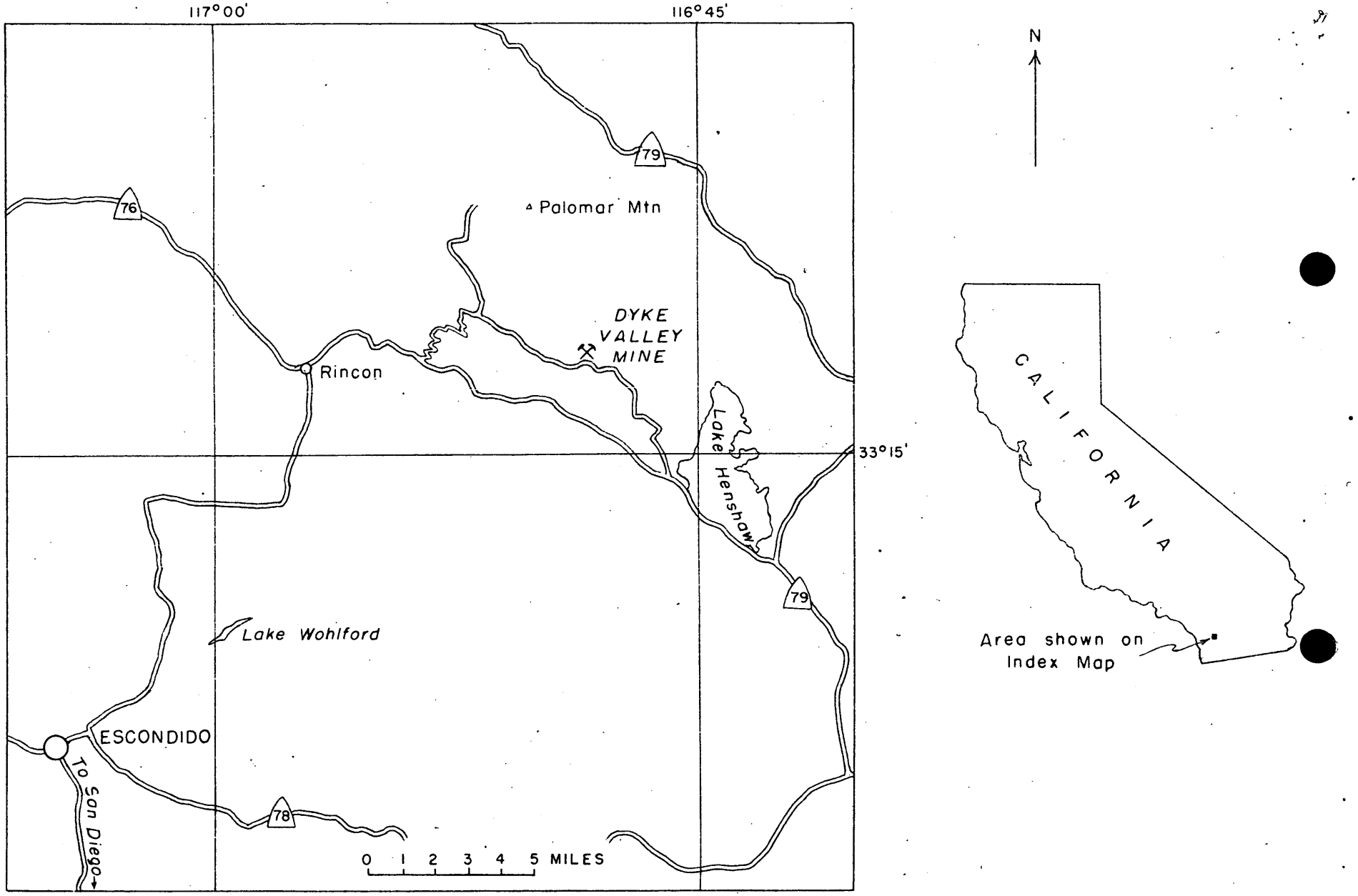
The applicant's proposal appeared reasonable, but after the examination it was evident that this proposal would only result in wasted effort and funds. The suggested incline would pass through some known (and unknown ?) workings and would pass within 15 feet of the circular shaft (see fig. 2). Some ore might exist under the incline, but it seems un-

likely that much ore would be found above the incline.

A more economical method of exploring the property would be to (1) pump out and restore the circular shaft, (2) determine the extent of the old workings, and (3) do a small amount of drifting from the bottom of the shaft. Surface diamond drilling could be done to determine the extent of scheelite-bearing tactite, but an adequate drilling program would cost as much as a small amount of underground work from the circular shaft. The potential production of this property, however, would not justify either method of exploration.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 3176
(TUNGSTEN)



INDEX MAP SHOWING LOCATION OF DYKE VALLEY MINE
SAN DIEGO COUNTY, CALIFORNIA

Figure 1

400

OCT - 7 1953

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

Re: Docket No. DMEA 3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley mine
San Diego County, California

Dear Mr. Miller:

Reference is made to the above-referenced application for exploration assistance, which is being referred to your office for a field examination of the property.

A memorandum by T. P. Thayer, Geological Survey, has been prepared and is enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosure

APPROVED:

J. H. Hedges
Member, Bureau of Mines

T. P. Thayer
Member, Geological Survey

cc: Docket
FT, Reg. 3
Adm. Read. File
Code 400
Oper. Committee
R. W. Geehan, USBM
Mary Miller, USGS

FARutledge/ls
10/5/53

400

OCT - 7 1953

Mr. P. I. Hadden, Jr., General Partner
P. I. Hadden, Jr., Ltd.
831 North Eucalyptus Avenue
Inglewood, California

Re: Docket No. DMEA 3176 - Tungsten
Dyke Valley mine
San Diego County, California

Dear Mr. Hadden:

Reference is made to the above-docketed application for exploration assistance which has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. M. G. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination of the property.

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.

Because the applicant does not own the property to be explored, it will be necessary for you to submit four copies of the document by which P. I. Hadden, Jr., Ltd., has control. Six copies of the enclosed Owner's Consent to Lien also must be executed and returned.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosure

cc: Docket
Field Team, Region 3
Admr. Reading File
Code 400
R. W. Geehan, USBM
Mary Miller, USGS

FARutledge/ls
10/5/53

IN REPLY REFER TO:

402

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

Defense Minerals Administration
SEP 22 1953

September 28, 1953

Memorandum

To: W. S. Martin, DMEA

From: T. P. Thayer, USGS

Subject: DMEA-3176, Tungsten
P. I. Haddan, Jr., Ltd.
831 No. Eucalyptus Avenue
Inglewood, California

The deposit was leased by the Nevada-Massachusetts Company in 1943-44, who mined and shipped about 250 tons of ore averaging about 1.5 percent WO_3. The ore body was described by a Survey geologist as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered.

The application will have to be referred to the field for evaluation. Before going to the field, an effort should be made to get copies of maps of the underground workings from Nevada-Massachusetts, or any information the company may have. The Field Team will have to define the exploration objective and plan. The past production justifies a look.

T. P. Thayer

Copy retained

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1953

Not To Be Filled in by Applicant

Docket No. DMEA-3126
Metal or Mineral
Date Received 9-24-53
Amount $
Participation (Government %)

P. I. Haddan, Jr., Ltd.
831 No. Eucalyptus Ave.
Inglewood, California

Name and address of applicant

Date Feb. 10th, 1952

If you have already filed MF-100, give date filed with this application Type of assistance requested Exploration

DMA Docket Number (if available)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

Dyke Valley, Palomar Mountain, San Diego Co., Calif.

(*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

(*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

Straight 10% royalty for 20 years, no minimums or any kind attached
Dyke Valley as noted above.

NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

(2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? Tungsten

(*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

Well defined granite walls with limestone intrusion; end of ore body now open and plainly visible; about 30 ft. of overburden to be removed for an unknown distance

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

R. J. Haddan, Jr. Ltd. (Name of company)

By R. J. Haddan (Signature of authorized official)

Feb 10, 1957 (Date)

Gen Partner (Title)

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.

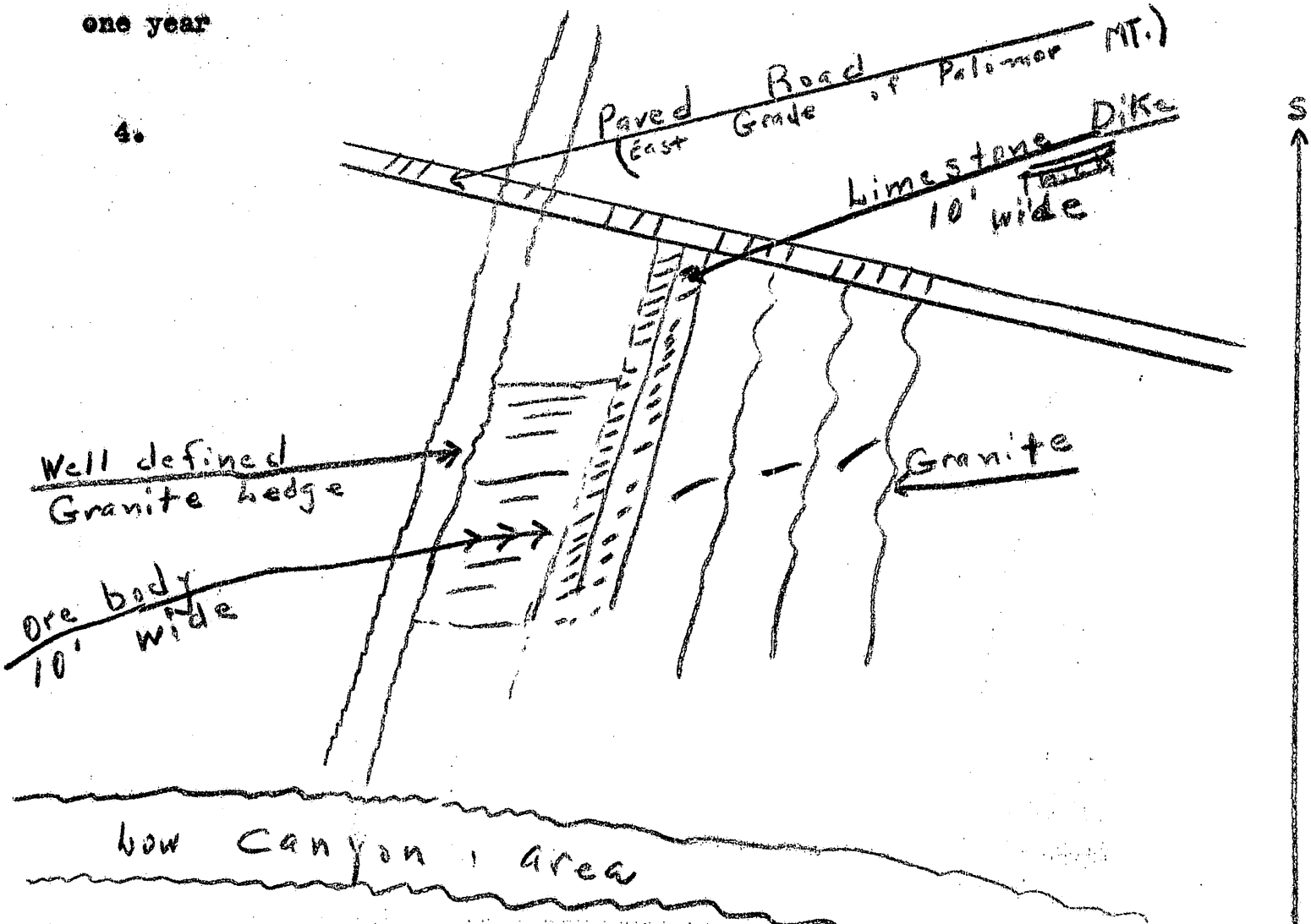
U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

P. I. Haddan, Jr., Ltd.

3. (a) It is proposed to drive an inclined drift along the floor of the ore body. The currently exposed ore body apparently dips about five degrees westward and is in an inclined plane about thirty degrees below the horizontal. Timbering will be required. Project is to cost $20,000

3.(b) Project could start within 10 days and could be completed within one year

4.



There are underground workings at about the 60 foot level; they are full of water and no known maps exist; F. E. Hopkins the Limited Partner can describe them. He is the street superintendant of Redonde Beach, Calif.

P. I. Haddan, Jr., Ltd.

5. Cook shack, two sleeping rooms. Piped with water from gravity tanks, 7000 gallons capacity. Butane gas supplies heat for cooking and water heating and is delivered at the mine for 15 cents per gallon. $250 will be required to provide toilet facilities and to provide for repairs to the sleeping rooms

6. $250 will be required to surface the road into the camp and mine from the paved road. 500 yards of gravelling to make the road an all weather road is needed. Gravel is available about 5 miles downd grade from the mine on the paved road

7. (a) none

7. (b) ore car and track $750; chain saw $250

7. (c)

1.Le-Roi Air Compressor ,210 C.f.m., together with wagon drill, hand drill, Ingersoll No. 35 sump pump and air tugger; $300 per month

2. American hoist powered with 25 horse Wisconsin motor; $50 per month

3. Ford tractor with skip leader; D 6 Caterpillar with bulldozer will be kept at the site. $100 monthly for skip leader and $400 monthly for bulldozer as needed. No depreciation on any items

One Studebaker dump truck as needed $200 monthly

8. 1 foreman $400 monthly

2 miners $350 monthly

1 mucker $300 monthly

9. Powder and fuse $750; fuel$750 ; engineering $1000; assaying $200

10. (a) $4000

10. (b) Yes

11. This property is in a well timbered area and timbers can bemcut for mining operations

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1953

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-3176

Date received 9-24-53

P. I. Haddan, Jr., Ltd.
831 No.. Eucalyptus Ave.
Inglewood, California

Name and address of applicant

Date Feb. 10th, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? Tungsten; no byproducts
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts:
   (*b*) Linear feet of drifts and crosscuts. Property being opened by bulldozing off overburden
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity. No
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point. 35 miles to Escondido, Calif
   (*b*) Mining district.
   (*c*) Township, Section, Range. Property is located in Dyke Valley on the east
   (*d*) County, State. grade of Palomar Mountain, San Diego County, California
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. Not operating
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production Old workings were operated in 1944 but were closed up
   If not in production or operation, estimated date when production will begin Property could operate in few days
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. Excavating and grading contractor
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. 7 car loads, 1944-- price drop stopped pper.
   (*b*) State briefly the known history and production of adjoining and neighboring properties. None near
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
   None known; orebody has been exposed by bulldozing

16—63792-2

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
P. I. Haddan, Jr.	Gen. Partner	None	$50,000				
851 No. Eucalyptus Ave							
Inglewood, California							
F. E. Hopkins	Limited Partner		$20,000				
206 Knobb Hill Ave.							
Redondo Beach, California							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Not in production				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

16—63792-1

Ore body lies between 2 well defined granite walls

(*b*) If deposit is other than [illegible]er:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	5000	1%	$60	$60	$15
Indicated (probable)	Uknown				

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, even or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

Property located on paved highway at 4000' elevation; small community 4 mi.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

Normal times; plenty of water

15. Power:

State amount of power used, rate per hour, and source thereof.

Power would have to be diesel engine

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

2 miners and one bulldozer operator

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

RD6 Caterpillar, dump truck, air compressor, skip loader bunk house

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

P. I. Haddan, Jr., Ltd.
(Name of company)

By [signature]
(Signature of authorized official)

Feb. 10, 1952
(Date)

Gen Partner
(Title)

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—63792-1

400

Hopkins
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Johnson

MAR 3 1954

Mr. P. I. Haddan, Jr., General Partner
P. I. Haddan, Jr., Ltd.
831 North Eucalyptus Avenue
Inglewood, California

Re: Docket No. DMEA 3176 - Tungsten
Dyke Valley Mine
San Diego County, California

Dear Mr. Haddan:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced property have been 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, although noting the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

CC: Docket
Code 400
Adm. Read. File
FT, Reg. 3
R. W. Geehan, USBM
T. P. Thayer, USGS
Open Com

JHopkins/ls

P.C.J. 3-4-54

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

February 26, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $20,000.00
Docket No. DMEA 3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

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

(1) The applicant requested exploration assistance in the sum of $20,000.00 to explore for tungsten in the Dyke Valley Mine, San Diego County, California.

(2) There were practically no mine workings accessible at the time the property was examined by members of the DMEA field team. Open cut trenches and a circular shaft, open but untimbered to a depth of 52 feet, were accessible. All workings below this elevation were flooded or caved.

(3) The Dyke Valley Mine is located in an area underlain by early Upper Cretaceous crystalline rocks of the batholith of Southern California, containing a few pendants of Paleozoic and Triassic sediments. A tabular pendant of metamorphosed sediments has been exposed in two trenches that is composed of varying amounts of garnet, calcite, quartz, tremolite, and epidote, with traces of phlogopite, scheelite, and marmatite.

(4) The Dyke Valley Mine has produced tungsten from the tactite-talc-silicate pendant. The only scheelite-bearing tactite of ore grade was uncovered in the main trench, where it was exposed over a horizontal distance of 20 feet and a vertical distance of 10 feet. Assays of samples cut across the $3\frac{1}{2}$-foot thickness of tactite averaged less than 0.20 percent WO_3. Traces of scheelite were seen at the 55-foot level of the circular shaft but the rock was not worth sampling.

(5) The measured ore reserves in the main trench indicate not more than 70 tons of tactite averaging 0.19 percent WO_3 and containing 13.3 units of WO_3. An additional 10 tons of ore averaging 0.16 percent WO_3 has been mined and dumped near the mill.

(6) The mine was examined in 1943 prior to the main production by a geologist of the U. S. Geological Survey. The ore body was described as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. Ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered.

(7) The deposit was leased by the Nevada-Massachusetts Company in 1943-44, which mined and shipped about 250 tons of ore averaging about 1.5 percent WO_3. This amount of ore, it is reliably reported, constituted the entire available ore reserves.

(8) The DMEA geologist and engineer recommend denial of the application for the following reasons:

(a) The limited exposure and amount of ore in the trench cannot be projected beyond the trench.

(b) Previous operators have probably removed most of the commercial ore.

(c) The geologic setting suggests that the mineralized rock is of limited extent.

(d) The amount of tungsten produced is not likely to appreciably add to the domestic reserves of tungsten.

(9) The Commodity Division of the U. S. Geological Survey and the Bureau of Mines concur with the recommendation.

W S Martin

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

DOCKET

Hopkins
Negrelin
Guild
Barhan

February 26, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $20,000.00
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(9) The Commodity Division of the U. S. Geological Survey and the Bureau of Mines concur with the recommendation.

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

cc: DOCKET
CODE 400
OPER. COMM.
ADM. READ. FILE
MR. HOPKINS

JHopkins/ls 2/26/54

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

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

February 10, 1954

Memorandum

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

WSM

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Reference is made to your letter of January 28, 1954, requesting to be advised if the Field Team obtained from the Nevada-Massachusetts Company any information regarding operations by that company at the subject property during 1943-44.

For your information there is attached a memorandum dated February 8, 1954, from A. C. Johnson in response to my request for the wanted information.

In addition to what Mr. Johnson wrote, Roscoe Smith told me yesterday that no information from the Nevada-Massachusetts Company was included in the Sheahan-Pampeyan report because in a reply to a letter written to that company, they stated they had no information.

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

Copy retained by W. S. Martin

Attachment

Copy to: Roscoe Smith, USGS (With copy of memorandum)
A. C. Johnson, Reno

Memorandum February 8, 1954

To: M. C. Miller, Executive Officer, DMEA Field Team Region III

From: Chief, Mining Division, Region III

Subject: Docket No. DMEA-3176 - Tungsten
F. I. Haddan, Jr., Ltd.
Dyke Valley Mine, San Diego County, California

In reference to your memorandum of February 1 relative to obtaining information or maps from the Nevada-Massachusetts Company in regard to their work on the Dyke Valley Mine in 1943 and 1944:

Under date of February 2, 1954, I called John Heiser, who more or less had charge of the work at the Dyke Valley Mine when it was under option to the Nevada-Massachusetts Company. He informed me that he would endeavor to obtain the maps that had been requested, however, to date, I have not received the maps from Mr. Heiser, and it may be possible that he was unable to find them in his files. He informed me that the Nevada-Massachusetts had mined out available reserves in the mine.

I note in your memorandum that the Survey had described the ore body as a "thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered." This more or less confirms the information that was given to me by Mr. Heiser and he also stated that they mined approximately 250 or 300 tons of ore that averaged better than 1.0 percent WO_3 from the deposit. In the event that Mr. Heiser furnishes me with additional information I will forward it to your office.

I did not endeavor to obtain the information from the Nevada-Massachusetts Company, as in a letter to me from Mr. Bailey, he stated: "We are following Tom Thayer's suggestion that we get old maps from the Nevada-Massachusetts Company so you need not bother with this item."

A. C. Johnson

Docket

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

RECEIVED
FEB 3 1954

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

February 1, 1954

Memorandum

To: A. C. Johnson, Bureau of Mines, Reno, Nevada

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3176 - Tungsten
F. I. Haddan, Jr., Ltd.
Dyke Valley Mine, San Diego County, California

Reference is made to the subject docket and the report on the Dyke Valley Mine by Sheahan and Pampeyan, dated December 29, 1953.

When the subject application was reviewed initially in the Washington office, Mr. T. P. Thayer, of the Geological Survey, prepared a memorandum stating: "The deposit was leased by the Nevada-Massachusetts Company in 1943-44, who mined and shipped about 250 tons of ore averaging about 1.5 percent WO_3. The ore body was described by a Survey geologist as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered."

In that memorandum (dated September 28, 1953) Mr. Thayer suggested that "an effort should be made to get copies of maps of the underground workings from Nevada-Massachusetts, or any information the company may have."

This memorandum was attached to the application and should have come to the attention of the examining engineer and geologist.

There is nothing in the Sheahan-Pampeyan report to indicate that the Nevada-Massachusetts Company had been interviewed and any information obtained from that source.

Copy retained 400

I now have a letter dated January 28, 1954, from George C. Selfridge, requesting to be advised if the Field Team obtained any information from that company on its operations of the Dyke Valley Mine during 1943-44. As your answer undoubtedly will be in the negative, I suggest that immediate efforts be made to get any and all available information from the Nevada-Massachusetts Company and let me have it an an early date.

H. C. MILLER

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

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS

400

Rutledge
Martin
Selfridge
Thayer
Weatherby

JAN 28 1954

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 3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Dear Mr. Miller:

Reference is made to the subject docket and the memorandum by T. P. Thayer, U. S. Geological Survey, transmitted with our letter of October 7, 1953.

It would be appreciated if you would advise us if the Field Team obtained from the Nevada-Massachusetts Company any information regarding operations by that company during 1943-44 at the referenced property.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHG)

Approved:

J. H. Hedges

Member, Bureau of Mines (JHG)

s/ Philip W. Guild

Member, Geological Survey (JHG)

FARutledge/ls
1/25/54

Copy to: Docket
Code 400
FT, Reg. 3
Adm. Read. File
Oper. Comm.
R. W. Geehan, USBM
T. P. Thayer, USGS

R.C.S. 1-28-54

Docket C

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1954

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

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

January 12, 1954

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

WSM

Subject: Docket No. DMEA-3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley Mine
San Diego County, California

Reference is made to your letter dated October 7, 1953, requesting a field examination of the subject property.

Attached are four copies of a report entitled "DMEA-3176, Dyke Valley Mine, San Diego County, California (Tungsten)," by Benjamin H. Sheahan, Mining Engineer, U. S. Bureau of Mines, and Earl H. Pampeyan, Geologist, U. S. Geological Survey, dated December 29, 1953.

Mr. Roscoe Smith, who has taken Edgar Bailey's place as the Geological Survey representative on the Region III Field Team, and I concur with the conclusions and recommendations of the examining engineer and geologist.

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

Attachment

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

1/19

Thru OC
1-22-54

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 18 1954

1/26/54

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

EXAMINATION REPORT

DMEA-3176, Dyke Valley Mine

San Diego County, Calif.

(Tungsten)

Benjamin H. Sheahan, Mining Engineer
U. S. Bureau of Mines

Earl H. Pampeyan, Geologist
U. S. Geological Survey

December 29, 1953

Reviewed by
DMEA OPERATING COMMITTEE
1-22-54
(date)

EXAMINATION REPORT

Docket No.: DMEA-3176 (Tungsten)

Name and address of applicant: P. I. Haddan, Jr., Ltd.,
831 N. Eucalyptus Ave.,
Inglewood, California.

Name and location of property: Dyke Valley Mine, San Diego County, Calif.

SUMMARY

The Dyke Valley Mine, San Diego County, California, was examined jointly by an engineer of the Bureau of Mines and a geologist of the Geological Survey on Nov. 4 and 5, 1953. Mr. P. I. Haddan, Jr., Ltd., accompanied the examiners.

The deposit was explored in 1943-44 and 250 tons of scheelite bearing tactite containing 1.5% WO_3 was produced. Because of insufficient ore reserves and high production costs, the property was closed down. The main shaft was filled to the surface and workings caved.

In 1951, Mr. F. E. Hopkins, limited partner, leased the property from the Mendenhall Ranch and an unsuccessful attempt was made to exploit the mine.

Mr. P. I. Haddan, Jr., applicant for the exploration loan, excavated an open cut through to the collar of the original shaft. His proposal to sink a new incline shaft would have practically no exploration value, since the ground has been previously explored.

CONCLUSIONS AND RECOMMENDATIONS

The exploration plan suggested by the applicant does not have much merit. It would be difficult and costly to sink an inclined shaft through old and backfilled workings. The information gained by a 130-foot inclined shaft could be obtained by a small amount of underground work from the circular shaft. It also seems unlikely that the previous operators would have left much ore in the area under consideration.

It is the geologist's and engineer's recommendation that the applicant's request for Government participation in a DMEA loan be denied for the following reasons:

1. The limited exposure and amount of ore in the trench cannot be projected beyond the trench.

2. Previous operators have probably removed most of the commercial ore.

3. The geologic setting suggests that the mineralized rock is of limited extent.

4. The amount of tungsten produced is not likely to appreciably add to the domestic reserves of tungsten.

INTRODUCTION

The Dyke Valley Mine was examined by an engineer of the Bureau of Mines and a geologist of the Geological Survey on Nov. 4 and 5, 1953. Mr. P. I, Haddan, Jr., the applicant for an exploration loan, accompanied the examiners. Mr. F. E. Hopkins, limited partner, and his father Mr. Frank C. Hopkins described past operations at the property with the examiners on Nov. 5, 1953.

NAME AND LOCATION OF PROPERTY

The Dyke Valley Mine, San Diego County, Calif., is located in the N. E. 1/4 of the S. E. 1/4 of sec. 19, T. 10 S., R. 2 E., S. B. B. &M. The property is situated on the southwest slope of Palomar Mountain and at an altitude of 4,400 feet in the Cleveland National Forest. The distance by road to Escondido, California is 40.9 miles. The road is paved and the property is accessible all year.

COMPETENCY OF APPLICANT

Mr. P. I. Haddan, Jr., Ltd., general partner, is an excavating and grading contractor of Inglewood, Calif. By working part time at the property he has attempted to assemble a mill and has excavated an open cut through filled mine. workings. The applicant's proposal for exploration work lacked both a logical plan or a definite objective. The applicant has had very little mining experience.

The financial responsibility of the applicant depends upon his income from his contracting business. The applicant and his partner indicated that they would have difficulty in providing their share of money required to match an exploration loan.

APPLICANT'S PROPERTY RIGHTS

The property is a part of the Mendenhall Ranch which is owned by Mr. E. T. Mendenhall and son. F. E. Hopkins, limited partner, has leased mineral rights on a portion of the N. E. 1/4 of the S. E. 1/4 of

sec. 19, from Mr. Mendenhall. Mr. P. I. Haddan, Jr., Ltd., general partner and Mr. F. E. Hopkins, limited partner, are required by the terms of the lease to pay 10% royalty from any mineral production.

Mr. P. I. Haddan, Jr., the applicant, has provided equipment and labor in his attempt to construct a mill, and develop an open cut type mine operation. For this work he was made a general partner in the lease.

DESCRIPTION OF PROPERTY

Surface facilities include a camp consisting of two small sheds 8 feet by 12 feet suitable for two workmen.

Equipment at the property is as follows:

Item	Condition
1 Water tank, 800 gallon capacity	Fair
1 Water tank, 1200 gallon capacity	Fair
1 Sump pump, I.R. No. 35 (2-inch)	Fair
1 Primary jaw crusher, 10-by 22-inch	Poor
1 Grizzley, 4-by 6-foot	Poor
1 Labratory jaw crusher, 4-by 6-inch	Poor
1 Ball mill, 2-foot diameter by 6-foot length (Constructed from an air receiver tank)	Poor
1 Concentrating table (Plato 5-by 14-foot)	Fair
1 Caterpillar tractor, D-2 power unit	Poor
1 Truck, 2-ton, dump body	Poor

Mining and construction equipment:

1 Tugger hoist, air drive, single drum with 5/8-inch cable	Fair
1 Hoist, 10-horsepower, gasoline engine drive	Poor
1 Concrete mixer, 1/2 cubic yard	Fair
1 Wagon drill, Gardner-Denver	Poor
1 Bulldozer, D-6 Caterpillar	Fair
1 Air compressor, 210 c.f.m.	Poor
1 Fordson tractor skip loader, 1/4 yard	Fair
Miscellaneous tools, air and water pipe	Fair

There are practically no mine workings accessible. When operations were discontinued in 1945 the main shaft was filled to the surface with dump material. Open cut trenches and a circular shaft, open but untimbered to a depth of 52 feet, was accessible. All workings below this elevation were flooded or caved (see fig. 2).

SAMPLING

The following samples were taken at the property at locations indicated on figure 2:

Sample No.	%, WO_3	Width/feet
S-245	0.41	1.5
S-246	*0.01	1.5
S-247	0.06	2.0
S-248	0.26	3.0
S-249	0.16	(10 tons on dump)

3.5' 0.21

*=less than.

LABOR AND SUPPLIES

Skilled mine labor is scarce in this vicinity. The current wage scale is $2.00 per hour. Material and supplies are available at Escondido and at San Diego, Calif.

Water for domestic use is hauled to the camp from a spring located one mile to the southeast. Water pumped from the mine was sufficient for past mining operations.

Electric power is not available. Gasoline and Diesel fuel oil can be obtained from Escondido for power generation.

GEOLOGY

The Dyke Valley mine, in San Diego County, California, is in an area underlain by early Upper Cretaceous crystalline rocks of the batholith of Southern California containing a few pendants of Paleozoic and Triassic sediments.

The country rock in the mine area is a medium-grained quartz diorite, named "Bonsall tonalite" by Hurlbut[1/]. It varies in color from light to dark gray depending upon the amount of mafic minerals present, and is characterized by streaked-out inclusions of gabbro.

A tabular pendant of metamorphosed calcareous and siliceous sediments, striking north and dipping steeply to the west, has been exposed in two trenches and presumably extends between the two. The most northerly and main trench exposes a 10-foot thick band of tactite and calc-silicate rock, derived from contact metamorphism of limestone. These rocks are composed of varying amounts of garnet, calcite, quartz, tremolite, and epidote with traces of phlogopite, scheelite, and marmatite.

In the main trench a 3-foot band of biotite-quartz schist separates the quartz diorite from the tactite. Some schist, along with a small amount of calc-silicate rock also occurs in the trench just south of the Mt. Palomar road (see fig. 2).

/1/ Hurlbut, C. S., Jr., Dark inclusions in a tonalite of Southern California: Am. Min., v. 20, no. 9, p. 611, 1935.

The tactite could not be traced between or beyond the two trenches because of the soil cover. Mr. F. E. Hopkins, the limited partner, reported that a few small bodies of tactite had been prospected about one mile north along the strike of this pendant. These other bodies, though similar, were very small; the largest of these had a vertical dimension of 20 feet.

ORE DEPOSITS

The Dyke Valley (Palomar Scheelite) mine has produced tungsten from the tactite-calc-silicate pendant in quartz diorite. A trench, dug along the strike of the tabular-shaped pendant, has exposed recrystallized rock for 20 feet. Scheelite was seen along the west edge of the trench in a 3-1/2-foot thick band of tactite and also in the face of the cut above the old stope. Although a few scheelite-bearing boulders were seen in the trench south of the road, no scheelite was seen in place in that cut.

The only scheelite-bearing tactite of ore grade was uncovered in the main trench north of the Mt. Palomar road, where it was exposed over a horizontal distance of 20 feet and a vertical distance of 10 feet. Assays of samples cut across the 3-1/2-foot thickness of tactite averaged less than 0.20% WO_3. Traces of scheelite were seen at the 55-foot level of the circular shaft, but the rock was not worth sampling.

ORE RESERVES

Because of the limited exposures of scheelite-bearing rock and the production history of the mine, it is difficult to make an estimate of

the reserves of this property. Measured reserves in the main trench indicate not more than 70 tons of tactite averaging 0.19% WO_3 and containing 13.3 units of WO_3. An additional 10 tons of ore, averaging 0.16% WO_3 and equalling approximately 1.6 units of WO_3, has been mined and dumped near the mill. There are no indicated or inferred reserves because old workings extend upwards into the bottom of the trench.

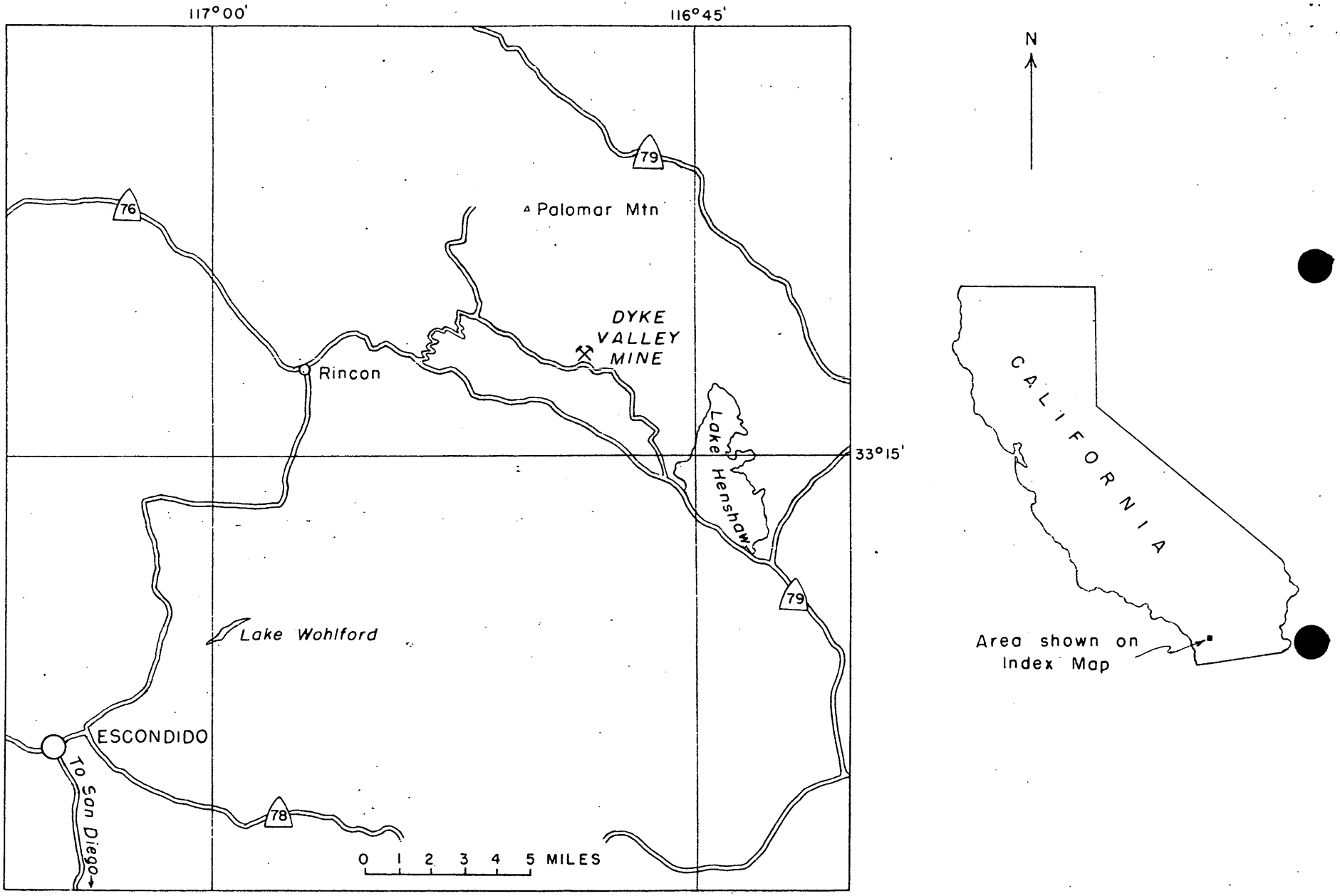
PROPOSED EXPLORATION

The applicant did not have a definite exploration program outlined other than to sink a 30° inclined shaft from a point near the north end of the main trench (see fig. 2). Mr. P. I. Haddan, the applicant, said the incline would be extended until "we run out of money or ore." According to the limited partner, F. E. Hopkins, a 100-foot shaft was sunk in 1943-44 (fig. 2) and was in ore for about 64 feet. Some drifting was done on the 55-foot level and extended mainly to the south. During this work, when the ore above this level was mined, Hopkins found evidence that the ore rakes southward 30°. The applicant's proposal is based upon this information, the belief that much high-grade ore remains in this area, and the proximity of the shaft collar to the mill.

The applicant's proposal appeared reasonable, but after the examination it was evident that this proposal would only result in wasted effort and funds. The suggested incline would pass through some known (and unknown ?) workings and would pass within 15 feet of the circular shaft (see fig. 2). Some ore might exist under the incline, but it seems un-

likely that much ore would be found above the incline.

A more economical method of exploring the property would be to (1) pump out and restore the circular shaft, (2) determine the extent of the old workings, and (3) do a small amount of drifting from the bottom of the shaft. Surface diamond drilling could be done to determine the extent of scheelite-bearing tactite, but an adequate drilling program would cost as much as a small amount of underground work from the circular shaft. The potential production of this property, however, would not justify either method of exploration.



INDEX MAP SHOWING LOCATION OF DYKE VALLEY MINE
SAN DIEGO COUNTY, CALIFORNIA

Figure 1

400

FILE COPY
SURNAME:

Rutledge
Martin
Miller
Hedges
Smith
Selfridge
Johnson

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

OCT - 7 1953

Mr. P. I. Haddan, Jr., General Partner
P. I. Haddan, Jr., Ltd.
831 North Eucalyptus Avenue
Inglewood, California

Re: Docket No. DMEA 3176 - ~~Tungsten~~
Dyke Valley mine
San Diego County, California

Dear Mr. Haddan:

Reference is made to the above-docketed application for exploration assistance which has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and 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 of the property.

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.

Because the applicant does not own the property to be explored, it will be necessary for you to submit four copies of the document by which P. I. Haddan, Jr., Ltd., has control. Six copies of the enclosed Owner's Consent to Lien also must be executed and returned.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

Enclosure

cc: Docket
Field Team, Region 3
Admr. Reading File
Code 400
R. W. Geehan, USBM
Mary Miller, USGS

FARutledge/ls
10/5/53

HHP
10-8-53

400 FILE COPY
SURNAME:

Rutledge
Martin
Neufeld
Selfridge
Kobanoff

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

OCT - 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 3176 - Tungsten
P. I. Haddan, Jr., Ltd.
Dyke Valley mine
San Diego County, California

Dear Mr. Miller:

Reference is made to the above-referenced application for exploration assistance, which is being referred to your office for a field examination of the property.

A memorandum by T. P. Thayer, Geological Survey, has been prepared and is enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosure

APPROVED:

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

T. P. Thayer
Member, Geological Survey (TPT)

cc: Docket
FT, Reg. 3
Adm. Read. File
Code 400
Oper. Committee
R. W. Geehan, USBM
Mary Miller, USGS

FARutledge/ls
10/5/53

HHH
10-7-53

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 29 1953

September 28, 1953

WSM

Memorandum

To: W. S. Martin, DMEA

From: T. P. Thayer, USGS

Subject: DMEA-3176, Tungsten
P. I. Haddan, Jr., Ltd.
831 No. Eucalyptus Avenue
Inglewood, California

The deposit was leased by the Nevada-Massachusetts Company in 1943-44, who mined and shipped about 250 tons of ore averaging about 1.5 percent WO_3. The ore body was described by a Survey geologist as a thin bed of tactite interbedded with steeply dipping platy hornfels and schist within a few feet of a granite contact. When examined in 1943, prior to the main production, ore was reported to extend to a depth of about 50 feet, widening in depth from about 3 feet at the collar of the shaft to 6 feet at a depth of 40 feet. Exposures were poor and scattered.

The application will have to be referred to the field for evaluation. Before going to the field, an effort should be made to get copies of maps of the underground workings from Nevada-Massachusetts, or any information the company may have. The Field Team will have to define the exploration objective and plan. The past production justifies a look.

T. P. Thayer

T. P. Thayer

Copy retained 400

P. I. Haddan, Jr., Ltd.
831 No. Eucalyptus Avenue
Inglewood, California

September 24, 1953

Subject: DMEA-3176
Re: Exploration Assistance

Dear Mr. Haddan:

The receipt of your application dated February 10, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3176 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-3176 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operations Control
and Statistics Division

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1953

Not To Be Filled in by Applicant

Docket No. DMA-3176
Metal or Mineral
Date Received 9-24-53
Amount $
Participation (Government %)

P. I. Haddan, Jr., Ltd.
831 No. Eucalyptus Ave.
Inglewood, California

Name and address of applicant

Date Feb. 10th, 1952

If you have already filed MF-100, give date filed with this application, type of assistance requested Exploration,

DMA Docket Number (if available)

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. Dyke Valley, Palomar Mountain, San Diego Co., Calif.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   Straight 10% royalty for 20 years; no minimums of any kind attached

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. Dyke Valley as noted above.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find? Tungsten

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

16—64067-2

Well defined granite walls with limestone intrusion; end of ore body now open and plainly visible; about 30 ft. of overburden to be removed for an unknown distance

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

P J Madelan Jr Ltd. (Name of company) By P J Madelan Jr (Signature of authorized official)

Feb 10, 1952 (Date) Gen Partner (Title)

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.

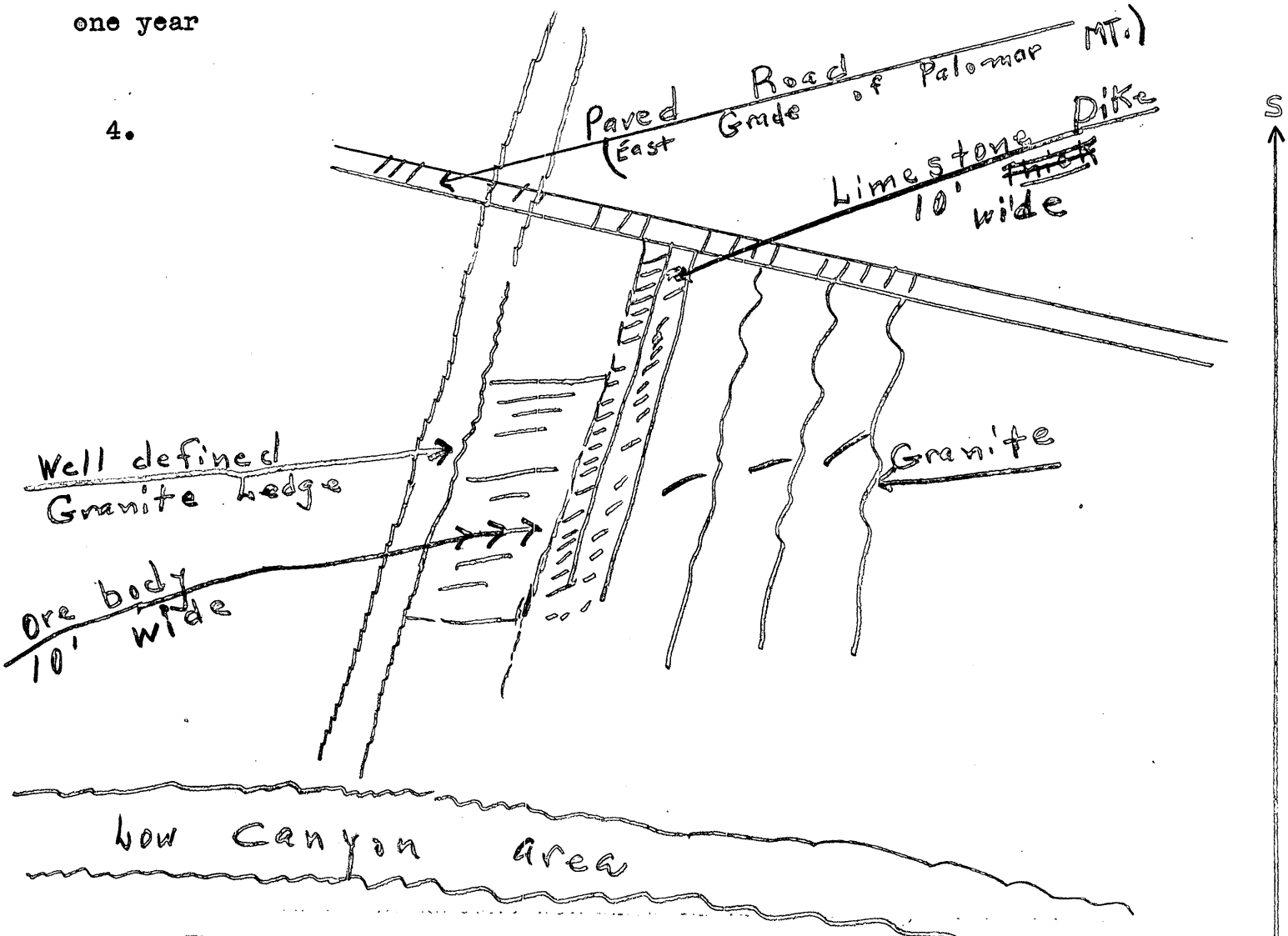
U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

P. I. Haddan, Jr., Ltd.

3. (a) It is proposed to drive an inclined drift along the floor of the ore body. The currently exposed ore body apparently dips about five degrees westward and is in an inclined plane about thirty degrees below the horizontal. Timbering will be required. Project is to cost $20,000

3.(b) Project could start within 10 days and could be completed within one year

4.



There are underground workings at about the 60 foot level; they are full of water and no known maps exist; F. E. Hopkins the Limited Partner can describe them. He is the street superintendant of Redondo Beach, Calif.

P. I. Haddan, Jr., Ltd.

5. Cook shack, two sleeping rooms. Piped with water from gravity tanks, 7000 gallons capacity. Butane gas supplies heat for cooking and water heating and is delivered at the mine for 15 cents per gallon. $250 will be required to provide toilet facilities and to provide for repairs to the sleeping rooms

6. $250 will be required to surface the road into the camp and mine from the paved road. 500 yards of gravelling to make the road an all weather roard is needed. Gravel is available about 5 miles downd grade from the mine on the paved road

7. (a) none

7. (b) ore car and track $750; chain saw $250

7. (c)

1. Le-Roi Air Compressor ,210 C.f.m., together with wagon drill, hand drill, Ingersoll No. 35 sump pump and air tugger; $300 per month

2. American hoist powered with 25 horse Wisconsin motor; $50 per month

3. Ford tractor with skip loader; D 6 Caterpillar with bulldozer will be kept at the site. $100 monthly for skip loader and $400 monthly for bulldozer as needed. No depreciation on any items

One Studebaker dump truck as needed $200 monthly

8. 1 foreman $400 monthly

2 miners $350 monthly

1 mucker $300 monthly

9. Powder and fuse $750; fuel$750 ; engineering $1000; assaying $200

10. (a) $4000

10. (b) Yes

11. This property is in a well timbered area and timbers can bemcut for mining operations

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1953

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-3176

Date received 9-24-53

P. I. Haddan, Jr., Ltd.
831 No.. Eucalyptus Ave.
Inglewood, California

Name and address of applicant

Date Feb. 10th, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? Tungsten; no byproducts
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts. Property being opened by bulldozing off overburden
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity. No
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point. 35 miles to Escondido, Calif
   (*b*) Mining district.
   (*c*) Township, Section, Range. Property is located in Dyke Valley on the east
   (*d*) County, State. grade of Palomar Mountain, San Diego County, California
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated. Not operating
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production Old workings were operated in 1944 but were closed up
   If not in production or operation, estimated date when production will begin Property could operate in few days
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. Excavating and grading contractor
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation. 7 car loads, 1944-- price drop stopped per.
   (*b*) State briefly the known history and production of adjoining and neighboring properties. None near
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
   None known; orebody has been exposed by bulldozing

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8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
P. I. Haddan, Jr.	Gen. Partner	None	$50,000				
831 No. Eucalyptus Ave							
Inglewood, California							
F. E. Hopkins	Limited Partner		$20,000				
206 Knobb Hill Ave.							
Redondo Beach, California							
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Not in production				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves. Ore body lies between 2 well defined granite walls

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	5000	1%	$60	$60	$15
Indicated (probable)	Uknown				

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

Property located on paved highway at 4000' elevation; small community 4 mi.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

Normal times; plenty of water

15. Power:

State amount of power used, rate per hour, and source thereof.

Power would have to be diesel engine

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

2 miners and one bulldozer operator

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

RD6 Caterpillar, dump truck, air compressor, skip loader bunk house

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

P. I. Haddan, Jr., Ltd.
(Name of company)

By P. I. Haddan
(Signature of authorized official)

Feb. 10, 1952
(Date)

Gen Partner
(Title)

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—63792-1

This application is dated February 10, 1952

DMEA received it September 24, 1953

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P. I. Haddan, Jr., Lt.
831 No. Eucalyptus Ave.
Inglewood, California

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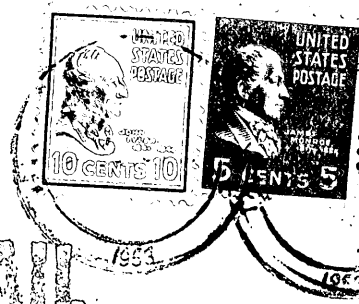

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Defense Minerals Exploration Administration

Department of the Interior

Washington, 25, D. C.

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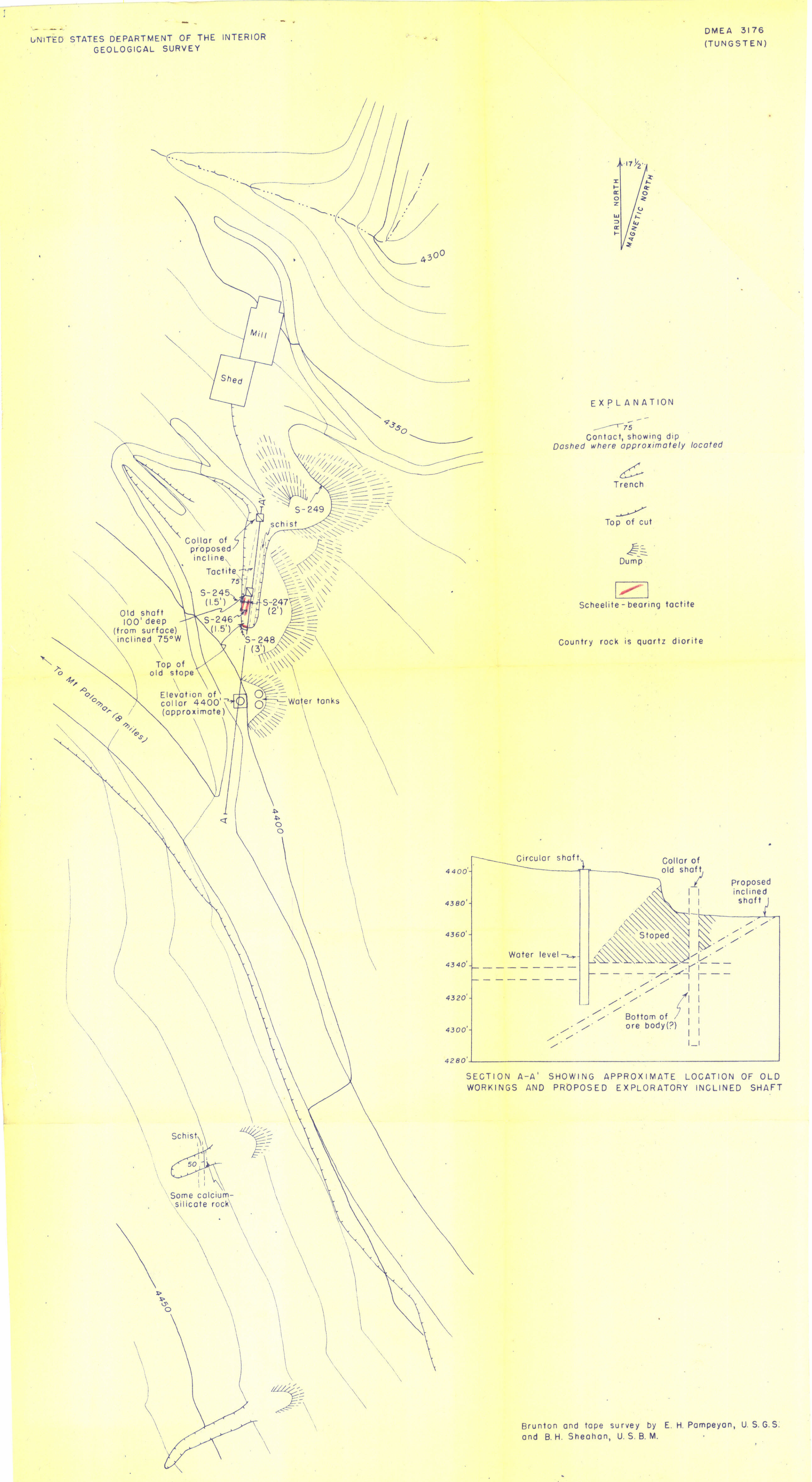

SECTION A-A' SHOWING APPROXIMATE LOCATION OF OLD WORKINGS AND PROPOSED EXPLORATORY INCLINED SHAFT

Brunton and tape survey by E. H. Pampeyan, U. S. G. S. and B. H. Sheahan, U. S. B. M.

DYKE VALLEY MINE, SAN DIEGO COUNTY, CALIFORNIA

0 40 80 120 FEET

Figure 2