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DEFENSE MINERALS ADMINISTRATION
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DMEA ~~DMA~~ Docket No. 2450

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Denied 4(1)

Acting Administrator, D.M.E.A. August 7, 1952

Iron and Ferro-Alloy Division, D.M.E.A.

Denial of exploration project in the amount of $20,000.00
Docket No. DMEA 2450 - Tungsten
Lime Dyke Claims 1 to 16, inclusive
Kern County, California

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

(1) The deposit is typical of the Weldon district where tungsten occurs as scheelite near contacts between granite and granodiorite or altered sedimentaries. The tactite deposits are developed in altered limestones, interbedded with shale and quartzite, and follow along the strike of the bedding. No significant production or discovery of tungsten has been made to date in the Weldon district.

(2) Six samples (channel, chip, or grab) assaying from 0.01 to 0.19 WO_3 content and a specimen sample assaying 0.52 WO_3 were taken from exposures of tactite. Most of the area is covered with overburden, and the work done is insufficient to determine the attitude of the tactite structures.

(3) The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims. Not enough surface prospecting, trenching and sampling has been done to justify the proposed exploration project. The above samples, on the basis of their tungsten content and width, cannot be classified as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project.

(4) The Field Team concludes that expenditure of Government funds to perform exploration work and to construct roads on the property is not warranted. The U. S. Geological Survey concurs with the recommendation that the application be denied.

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

WSMartin:ls

cc: Docket
Admn. Reading File
G. C. Selfridge
W. S. Martin
Operating Committee

AUG 14 1952

Mr. O. W. Atkin and G. E. Atkin
3343 Otsego Court
San Bernardino, California

Re: Docket No. DMEA 2450 - Tungsten
Lime Dyke Claims 1 to 16 Incl.
Kern County, California

Gentlemen:

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

This information, while noting a small amount of tungsten mineralization on your property, indicates that, geologically, there is little probability of making a significant mineral discovery. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Acting Administrator

WSMartin'lm
8/7/52

cc: Admn. Reading File
Docket
R. W. Geehan, USBM
D. M. Lemmon, USGS
Field Team Reg. III
Operating Committee
O. C. Selfridge
W. S. Martin

IN REPLY REFER TO:

G-MD-CP

400

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

August 7, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Field Report DMEA 2450 - Tungsten
Lime Dyke tungsten deposits
O. W. Atkin and G. E. Atkin
Kern County, California

The property was examined June 4 and 5, 1952 by J. D. Warner, Mining Engineer, Bureau of Mines. His report, dated July 17, recommends denial of the application because (1) the property is not sufficiently prospected to demonstrate exploration possibilities for tungsten, (2) samples assayed were not ore, and (3) the applicants are inexperienced in mining.

I concur with the recommendation that the application be denied.

DMLemmon:gt

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

40

May 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

Subject: DMEA 2450 - Tungsten
O. W. Atkin and O. E. Atkin
San Bernardino, California

It is recommended that this docket be sent to the Field Team as a portion of the proposed work is mining, and part is exploration. A new application will be needed if the Field Team report indicates that ore may be located by an exploration project.

Robert W. Geehan

Attachment

cc. Field Team

Copy retained

400

MAY 12 1952

Mr. D. W. Atkin and C. E. Atkin
3343 Otero Court
San Bernardino, California

Re: Docket No. DMEA 24501 - Tungsten
Lime Dyke Claims 1 to 16 incl.
Kern County, California

Gentlemen:

Your application for assistance in exploring the Lime Dyke Claims 1 to 16 inclusive, in Kern County, California, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 1212 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

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

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

GCSelfridge'lm
5/8/52

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

IN REPLY REFER TO:

G-MD-DML

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

400

April 2, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, U.S.G.S.

Subject: Exploration Application $20,000 DMEA 2450 - Tungsten
O. W. Atkin and G. E. Atkin
3343 Otono Court
San Bernardino, Calif.

Property: Lime Dyke group of 16 claims
Secs. 13, 14, 23 and 24
T. 27 S., R. 34 E.
Kern County, California
(7 miles S. from Weldon)

Proposal: No acceptable exploration plan is outlined by the applicant. He states that he intends to build 2 miles of road across the claims to expose known and unknown ore veins and to mine the exposed veins by surface and underground methods.

Geology: These claims are in an area of metamorphic rocks invaded by granite. Numerous occurrences of scheelite have been reported from nearby areas, and scheelite probably is present on the Lime Dyke claims. Despite considerable exploration in this region, and the presence of a custom mill at Weldon during World War II, no significant production or discovery of tungsten was made.

Conclusion: The applicant has not done sufficient surface prospecting, trenching, and sampling to justify the expenditures proposed. Two assays of 0.91 and 2.65 percent WO_3 are reported from claim 16, suggesting that some ore may be present.

The proposed road construction is premature.

Recommendation: Unless the Bureau of Mines has additional information on this property, I suggest that the application be referred to the Field Team for field examination. If the property has any merit, and the applicants any competence, then a satisfactory exploration proposal should be prepared.

Don Lemmon

DMLemmon:gt

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

Office of
Executive Officer
DMEA Field Team
Region III

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

July 29, 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 2450 (Tungsten), Lime Dyke Tungsten Deposits, Kern County, California, O. W. Atkin and G. E. Atkin, $20,000

Reference is made to subject "Review of Application for Exploration Assistance," dated May 12, 1952, requesting further information on the subject property.

Attached are four copies of a report - DMEA-2450 (Tungsten) O. W. Atkin and G. E. Atkin, Lime Dyke Tungsten Deposits, Kern County, Calif. by John D. Warne, Mining Engineer, U. S. Bureau of Mines, dated July 17, 1952.

According to the examining engineer, the contact-metamorphic scheelite tungsten deposits within the Weldon district occur near the contact between granite and granodiorite on the east and altered sedimentary rocks on the west. The tactite deposits are developed in altered limestones which are interbedded with shales and quartzite. They follow along the strike of the bedding in a general northerly direction. No significant production or discovery of tungsten has been made to date in the Weldon district.

Seven samples averaging from a trace to 0.52% WO_3 content were taken from exposures of tactite on the property where insufficient prospecting has been done to determine the attitude of the mineralized tactite structures.

The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims. Insufficient surface prospecting, trenching, and sampling has been done to justify the proposed exploration project.

Samples taken of mineralized tactite formations indicate that their tungsten content and width are insufficient to classify as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project. Expenditure of Government funds to perform exploration work and to construct roads on the property is not warranted.

The docket is being returned herewith.

H. C. MILLER

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

Attachments

Copy to E. H. Bailey, USGS

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2450 (Tungsten) - O. W. Atkin and G. E. Atkin

Lime Dike Tungsten Deposits
Kern County, Calif.

John D. Warne, Mining Engineer
U. S. Bureau of Mines

July 17, 1952

DMEA-2480 (Tungsten) - O. W. Atkin and G. E. Atkin

Lime Dike Tungsten Deposits
Kern County, Calif.

SUMMARY

An engineer of the Bureau of Mines examined the Lime Dike tungsten deposits on June 4 and 5, 1952. Examination was made pursuant to an application for an exploration project, DMEA-2480, by O. W. Atkin and G. E. Atkin to cost $20,000.00.

The deposit is located on the east side of the Piute Mountains, within the boundaries of Sequoia National Forest, about 7 miles south of Weldon, Kern County, Calif. (figs. 1, and 2). The area is extremely mountainous and the deposits are accessible only with difficulty.

The contact-metamorphic scheelite tungsten deposits within the Weldon district occur near the contact between granite and granodiorite on the east and altered sedimentary rocks on the west. The tactite deposits are developed in altered limestones which are interbedded with shales and quartzite. They follow along the strike of the bedding in a general northerly direction. No significant production or discovery of tungsten has been made to date in the Weldon district.

Seven samples averaging from a trace to 0.52 percent tungsten content were taken from exposures of tactite on the property (fig. 3), where insufficient prospecting has been done to determine the attitude of the mineralized tactite structures.

The property consists of 21 unpatented claims recorded with G. E. Atkin as owner, however, it is actually controlled by a co-partnership.

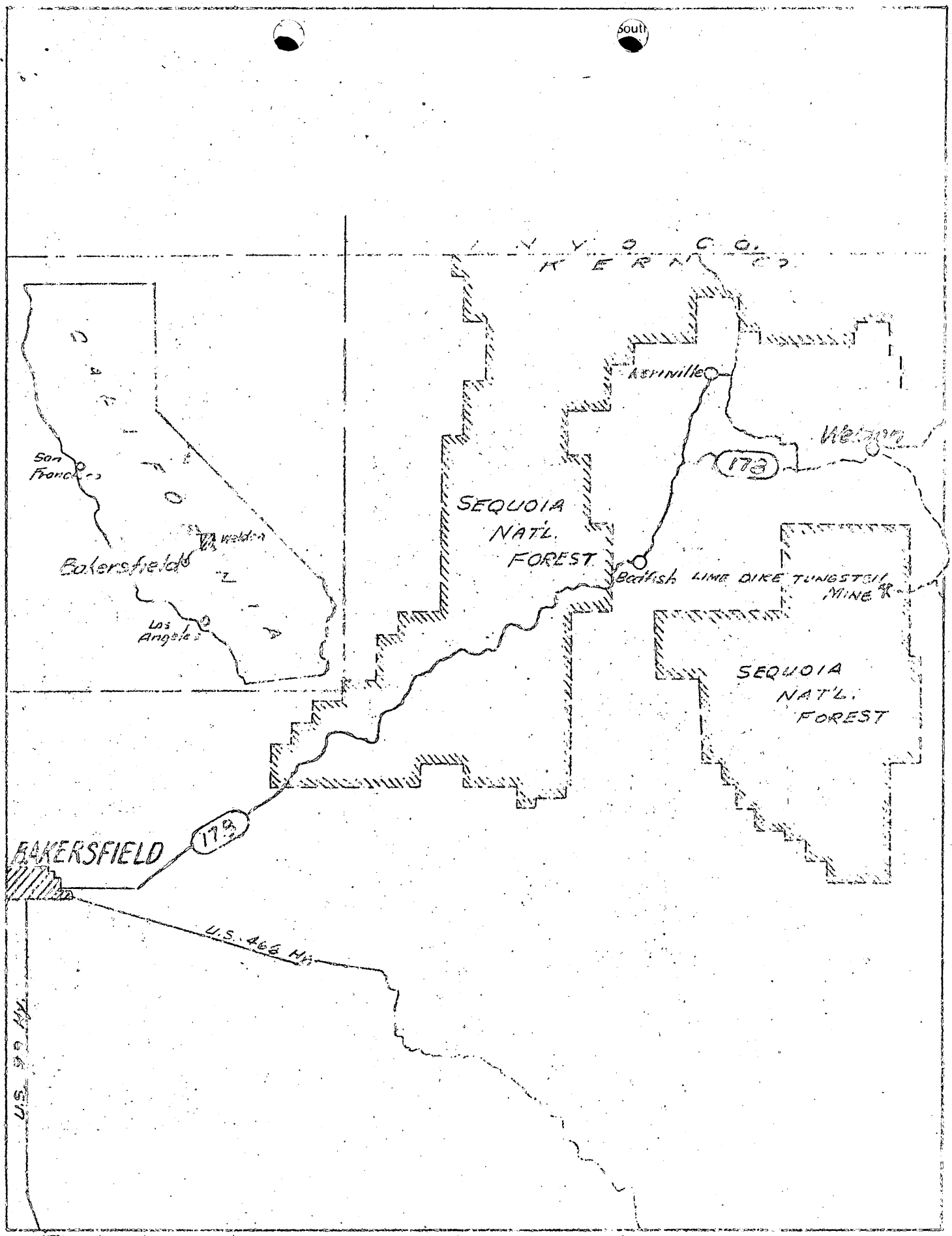
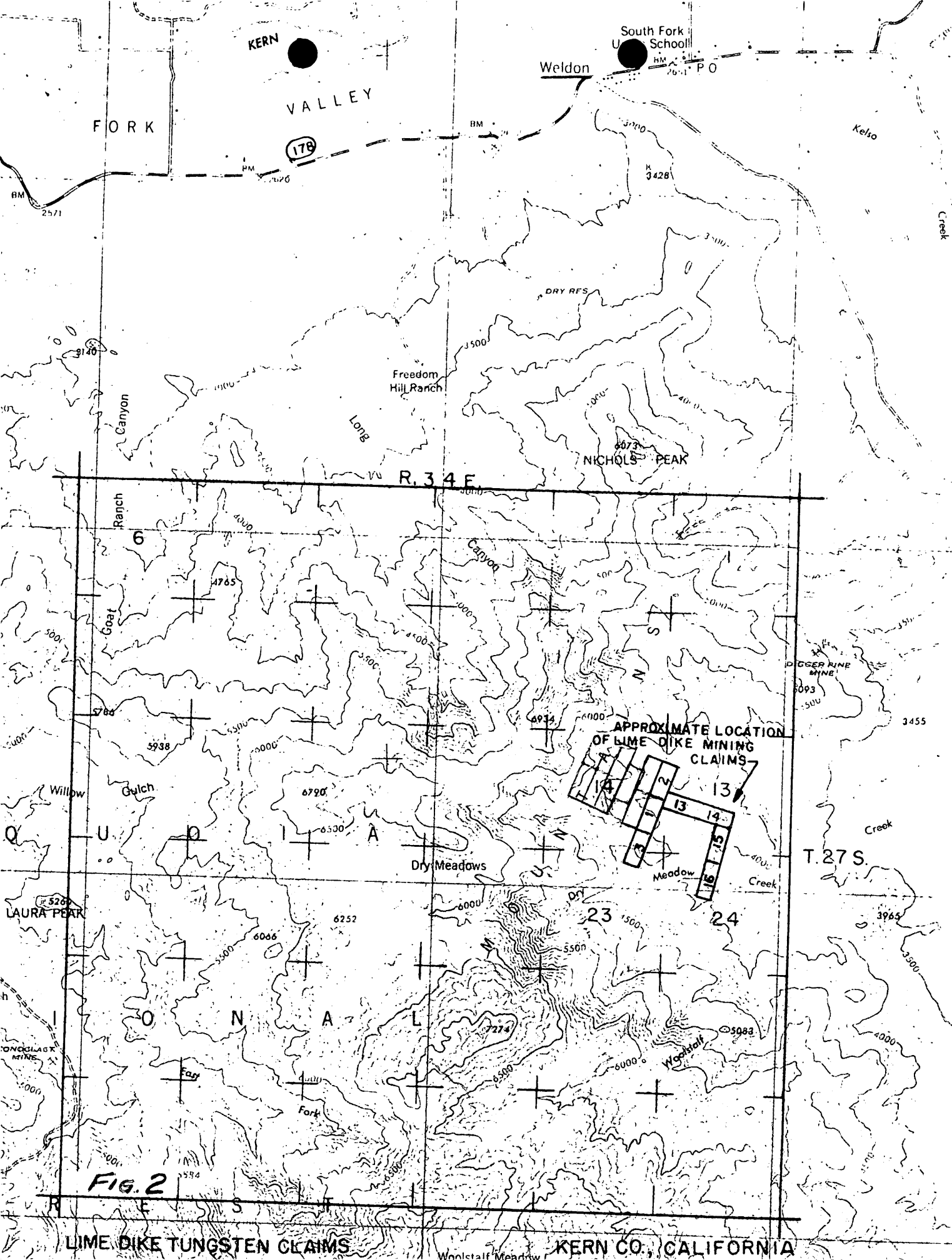


Fig. 1 Location Map - Lime Dike Tungsten Mine


KERN
VALLEY
FORK
South Fork
School
Weldon
P O
178
BM
Kelso
Creek
DRY RFS
Freedom
Hill Ranch
Long
Canyon
NICHOLS PEAK
R. 34 E.
Ranch
6
Canyon
Goat
DIGGER MINE MINE
APPROXIMATE LOCATION
OF LIME DIKE MINING
CLAIMS
13
14
15
16
Willow
Gulch
Q U O I A
Dry Meadows
Meadow
Creek
T. 27 S.
LAURA PEAK
23
24
I O N A L
Woolstaff
East
Fork
FIG. 2
R E S T
LIME DIKE TUNGSTEN CLAIMS
Woolstaff Meadow
KERN CO., CALIFORNIA

The only work done to date on the claims consists of a 400-feet bulldozer trail and several shallow prospect holes on three of the claims.

Insufficient surface prospecting, trenching, and sampling has been done to justify the proposed exploration project. Samples taken of mineralized tactite formations indicate that their tungsten content and width are insufficient to classify as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project. Expenditure of Government funds to perform exploration work and to construct roads on the property is not recommended.

INTRODUCTION

The purpose of the examination was to evaluate the grade and quantity of scheelite tungsten ores in the Lime Dike deposits as justification for granting a Government loan to perform exploration work, under application DMEA-2480, at a total cost of $20,000.00.

The proposal included trenching with a D-6 bulldozer to expose and sample the tactite zones, and the construction of approximately two miles of road on the property. The proposed work was not definitely planned or described by the applicant.

Insufficient prospecting work has been done to expose the mineralized zones for sampling. Considerable expense would be required to construct the proposed road to allow transportation of equipment to the sites of proposed work.

LOCATION AND PHYSICAL FEATURES

The Lime Dike Group of tungsten claims are situated on the east slope of the Piute Mountains, within the boundaries of the Sequoia

National Forest in the Weldon Mining District of Kern County, Calif.

The camp site is accessible by 7.5 miles of improved road leading south from Weldon, Calif., along Kelso Creek; thence 5 miles of unimproved dirt road westward along Dry Meadow Creek.

The mine is 67 miles northeast of Bakersfield, Calif., via state highway No. 178 - this is the nearest source of supplies.

Most of the 21 mining claims are located within secs. 13, 14, 23, and 24, T. 27 S., R. 34 E., M.D.B.&M., about 7 miles south of Weldon. Altitudes range from below 4000 feet to nearly 6000 feet above sea level (fig. 2).

The area is extremely mountainous and the deposits are accessible only with difficulty. In the winter the mountains are covered with snow, and the deposits at the higher elevations would be inaccessible. In summer the weather is warm and pleasant.

Limited milling facilities are reported to be available at Weldon.

DESCRIPTION OF THE DEPOSIT

An adequate description of the general geology pertaining to the contact-metamorphic tungsten deposits located in the Weldon district is given in a report by the California Division of Mines[1/]: "These prospects are near the contact of a large body of granite and granodiorite on the east, and altered sedimentary rocks on the west. The contact follows along the strike of the bedding in a general northerly direction. The deposits are in small patches of sedimentary rocks entirely surrounded by the granitic intrusive, and are developed in

1/ Tungsten Resources of California, California Division of Mines, Vol. 37, p. 384, April 1941.

altered limestones which are interbedded with shales and quartzite. The ore occurs in a tactite around the margin of the limestone inclusion ..." No significant production or discovery of tungsten has previously been made in the Weldon district.

SAMPLING

The samples taken from the Lime Dike contact-metamorphic deposits are more or less character samples as insufficient exposures were available to determine the average grade or widths of the tactite zones. Several shallow prospect holes generally less than two feet in depth are the extent of work done on the deposits. In general, insufficient work has been done to determine the attitude of the tactite structures, and most of the area is covered with overburden. The approximate locations of samples taken are shown in fig. 3.

Description and analyses*/ of seven samples taken by the examining engineer are as follows:

Sample No.	%, WO_3	%, Mo	Description
1	0.01	0.01	0-3 foot channel from weathered tactite face exposed by bulldozer cut. Lime Dike Claim No. 16.
2	0.01	0.01	3-5 feet Do
3	0.19	0.01	Chip sample across 18 inch width of tactite, Lime Dike Claim No. 18.
4.	0.18	0.01	Grab sample of tactite from prospect hole (1-foot deep), Lime Dike Claim No. 18.
5	0.04	0.01	Chip samples from two parallel tactite ribs (1 to 1.5 feet wide - 20 feet apart) Lime Dike Claim No. 18.
6	0.09	0.01	Tactite float, Lime Dike Claim No. 17.
7	0.52	0.01	Specimen sample, Lime Dike Claim No. 1.

*/ Hydrometallurgical and Ore Dressing Branch, Reno, Nev.

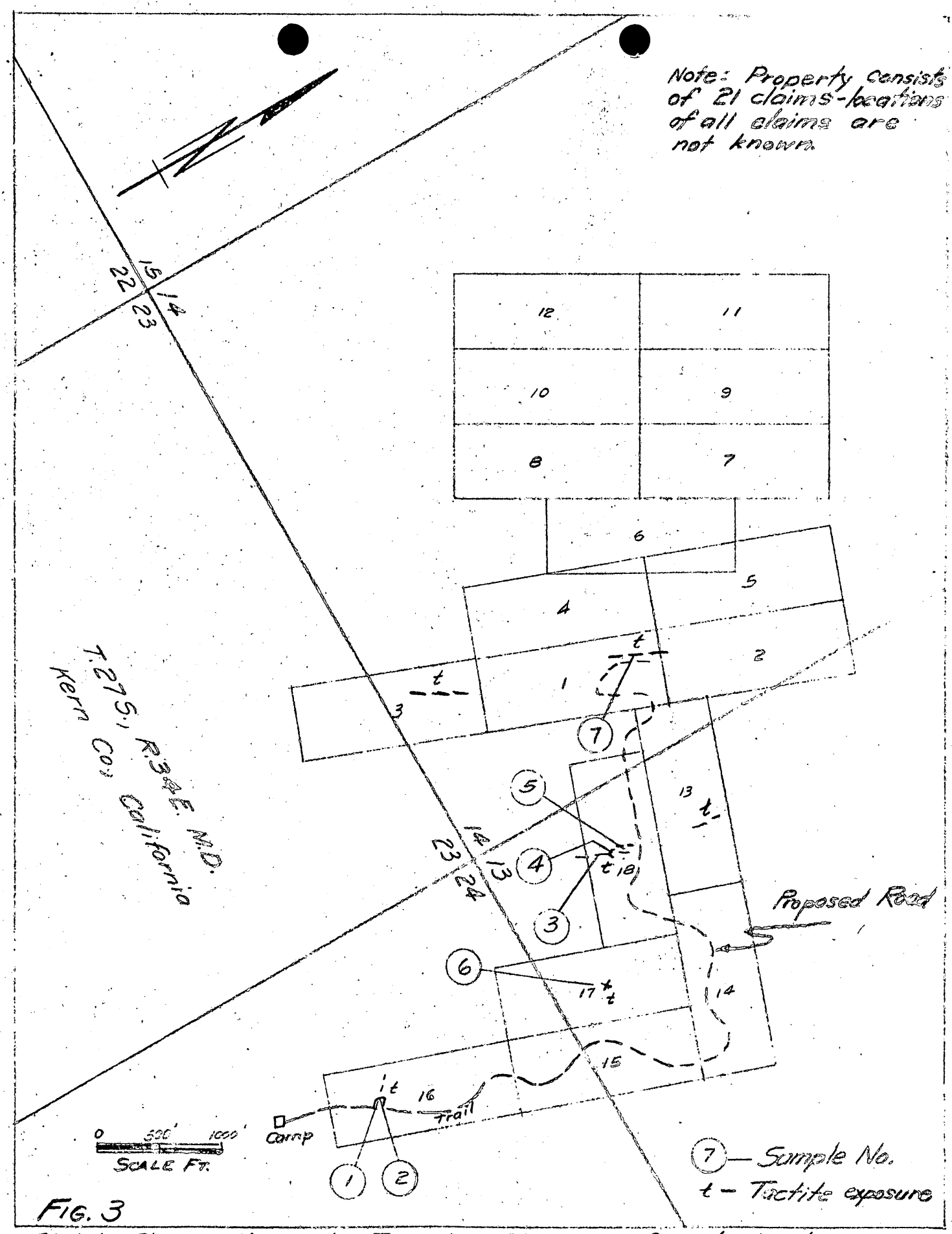


FIG. 3

Sketch Showing Lime Dike Tungsten Claims & Sample Locations

PROPERTY AND OWNERSHIP

The property consists of 21 unpatented mining claims called the Lime Dike Groups Nos. 1 to 21 inclusive. A group of partners holding various interests in the property consist of O. W. Atkin, G. E. Atkin, V. F. DiGiorgio, J. A. DiGorgio, and W. N. Frazee of San Bernardino, Calif.; and R. C. Warmer of Weldon, Calif. All of the claims are recorded in the name of G. E. Atkin.

Most of the claims have had no work done on them, and apparently no significant or valid discovery has been made on most of them.

MINE WORKINGS AND EQUIPMENT

The only work done to date consists of a bulldozer open cut excavation of about 400 feet in length used as a road to claim No. 16, and several shallow prospect holes less than two feet in depth on claims Nos. 16 and 18.

The following items are owned by the operators and being used in connection with present prospecting work:

1 D-6 Caterpillar and dozer
1 Dodge, ½-ton pickup truck
1 Army Dodge, 4-wheel drive
2 House trailers
2 Saddle horses

DISCUSSION

The applicant has not done sufficient surface prospecting, trenching, and sampling to justify the expenditures proposed. Sufficient equipment is on hand to perform this work with the exception of a compressor and other pneumatic tools. Work done to date has consisted merely of laying out numerous mining claims and digging a few shallow prospect holes generally less than two feet in depth. The general

area is covered with several feet of overburden - therefore, insufficient work has been done to determine the width, grade, or general attitude of the mineralized tactite zones. More prospecting work in the area would be required before extensive sampling or mapping is justified.

The owners of the Lime Dike claims plan to do further work to expose the mineralized tactite; and to build trails to reach the deposits located at the higher elevations. Their request for a road is premature; adequate trails could be built by hand and with the D-6 bulldozer at the property.

The partners who control the tungsten claim have had little or no previous mining experience. Their ability to properly conduct the proposed exploratory project is questionable. No definite or reasonable exploration program has been outlined by the applicant.

Application for a road from the campsite to the more favorable tungsten prospects on claims Nos. 1, 13, 18 (see fig. No. 3) is planned to facilitate completion of prospecting work. The applicants were advised that ample ore must be indicated to justify the construction of such a road at Government expense. This proposed road would be about two miles in length and would involve considerable expense due to the extremely rough and steep terrain.

CONCLUSIONS AND RECOMMENDATIONS

1. A Government loan to perform exploration work on the Lime Dike tungsten claims should be denied. Insufficient work has been done to expose a grade or quantity of ore worthy of exploration, or to plan a suitable exploratory project. Samples taken of mineralized tactite formations indicate that their tungsten content and width are insufficient to classify as mineable grade ore. The applicants previous mining experience is considered inadequate to properly conduct the proposed exploration project.

2. A mountain road approximately two miles in length, which would involve a considerable expense to construct, would be required to transport equipment to some of the tactite exposures where exploration is desired. Road construction is not recommended.

C-MS-DML

April 2, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, U.S.G.S.

Subject: Exploration Application $20,000 DMEA 2450 - Tungsten
O. W. Atkin and G. E. Atkin
3343 Otono Court
San Bernardino, Calif.

Property: Lime Dyke group of 16 claims
Secs. 13, 14, 23 and 24
T. 27 S., R. 34 E.
Kern County, California
(7 miles S. from Weldon)

Proposal: No acceptable exploration plan is outlined by the applicant. He states that he intends to build 2 miles of road across the claims to expose known and unknown ore veins and to mine the exposed veins by surface and underground methods.

Geology: These claims are in an area of metamorphic rocks invaded by granite. Numerous occurrences of scheelite have been reported from nearby areas, and scheelite probably is present on the Lime Dyke claims. Despite considerable exploration in this region, and the presence of a custom mill at Weldon during World War II, no significant production or discovery of tungsten was made.

Conclusion: The applicant has not done sufficient surface prospecting, trenching, and sampling to justify the expenditures proposed. Two assays of 0.91 and 2.65 percent WO_3 are reported from claim 16, suggesting that some ore may be present.

The proposed road construction is premature.

Recommendation: Unless the Bureau of Mines has additional information on this property, I suggest that the application be referred to the Field Team for field examination. If the property has any merit, and the applicants any competence, then a satisfactory exploration proposal should be prepared.

D M Lemmon

DMLemmon:gt

FILE COPY
SURNAME:

Martin
Selfridge
Lemmon
Johnson
Johnson

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

AUG 14 1952

Mr. O. W. Atkin and G. N. Atkin
3343 Otsego Court
San Bernardino, California

Re: Docket No. DMEA 2498 - Tungsten
Lime Dyke Claims 1 to 16 Incl.
Kern County, California

Gentlemen:

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

This information, while noting a small amount of tungsten mineralization on your property, indicates that, geologically, there is little probability of making a significant mineral discovery. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf (for) 8-14-52

Acting Administrator

WSMartin'lm
8/7/52

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

FILE COPY
SURNAME:

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

Acting Administrator

August 7, 1952

Martin
Selfridge
Lemmon
Johnson

Iron and Ferro-Alloy Division, D.M.E.A.

Denial of exploration project in the amount of $20,000.00
Docket No. DMEA 2450 - Tungsten
Lime Dyke Claims 1 to 16, inclusive
Kern County, California

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

(1) The deposit is typical of the Weldon district where tungsten occurs as scheelite near contacts between granite and granodiorite or altered sedimentaries. The tactite deposits are developed in altered limestones, interbedded with shale and quartzite, and follow along the strike of the bedding. No significant production or discovery of tungsten has been made to date in the Weldon district.

(2) Six samples (channel, chip, or grab) assaying from 0.01 to 0.19 WO_3 content and a specimen sample assaying 0.52 WO_3 were taken from exposures of tactite. Most of the area is covered with overburden, and the work done is insufficient to determine the attitude of the tactite structures.

(3) The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims. Not enough surface prospecting, trenching and sampling has been done to justify the proposed exploration project. The above samples, on the basis of their tungsten content and width, cannot be classified as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project.

(4) The Field Team concludes that expenditure of Government funds to perform exploration work and to construct roads on the property is not warranted. The U. S. Geological Survey concurs with the recommendation that the application be denied.

George C. Selfridge

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

WSMartin:ls

cc: Docket
Admn. Reading File
G. C. Selfridge
W. S. Martin
Operating Committee

Reviewed by
DMEA OPERATING COMMITTEE
8-13-52
(date)

ANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Acting Administrator, D.M.E.A. DATE: August 7, 1952

FROM : Iron and Ferro-Alloy Division, D.M.E.A.

SUBJECT: Denial of exploration project in the amount of $20,000.00
Docket No. DMEA 2450 - Tungsten
Lime Dyke Claims 1 to 16, inclusive
Kern County, California

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

(1) The deposit is typical of the Weldon district where tungsten occurs as scheelite near contacts between granite and granodiorite or altered sedimentaries. The tactite deposits are developed in altered limestones, interbedded with shale and quartzite, and follow along the strike of the bedding. No significant production or discovery of tungsten has been made to date in the Weldon district.

(2) Six samples (channel, chip, or grab) assaying from 0.01 to 0.19 WO_3 content and a specimen sample assaying 0.52 WO_3 were taken from exposures of tactite. Most of the area is covered with overburden, and the work done is insufficient to determine the attitude of the tactite structures.

(3) The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims. Not enough surface prospecting, trenching and sampling has been done to justify the proposed exploration project. The above samples, on the basis of their tungsten content and width, cannot be classified as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project.

(4) The Field Team concludes that expenditure of Government funds to perform exploration work and to construct roads on the property is not warranted. The U. S. Geological Survey concurs with the recommendation that the application be denied.

G. C. Selfridge

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

IN REPLY REFER TO:

G-MD-CF

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

August 7, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Field Report DMEA 2450 - Tungsten
Lime Dyke tungsten deposits
O. W. Atkin and G. E. Atkin
Kern County, California

The property was examined June 4 and 5, 1952 by J. D. Warne, Mining Engineer, Bureau of Mines. His report, dated July 17, recommends denial of the application because (1) the property is not sufficiently prospected to demonstrate exploration possibilities for tungsten, (2) samples assayed were not ore, and (3) the applicants are inexperienced in mining.

I concur with the recommendation that the application be denied.

D. M. Lemmon

Copy retained 400

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

Office of
Executive Officer
DMEA Field Team
Region III

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

July 29, 1952

DEPARTMENT OF THE INTERIOR
AUG 4 1952

Memorandum

To: Frank E. Johnson, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 2450 (Tungsten), Lime Dyke Tungsten Deposits, Kern County, California, O. W. Atkin and G. E. Atkin, $20,000

Reference is made to subject "Review of Application for Exploration Assistance," dated May 12, 1952, requesting further information on the subject property.

Attached are four copies of a report - DMEA-2450 (Tungsten) O. W. Atkin and G. E. Atkin, Lime Dyke Tungsten Deposits, Kern County, Calif. by John D. Warne, Mining Engineer, U. S. Bureau of Mines, dated July 17, 1952.

According to the examining engineer, the contact-metamorphic scheelite tungsten deposits within the Weldon district occur near the contact between granite and granodiorite on the east and altered sedimentary rocks on the west. The tactite deposits are developed in altered limestones which are interbedded with shales and quartzite. They follow along the strike of the bedding in a general northerly direction. No significant production or discovery of tungsten has been made to date in the Weldon district.

Seven samples averaging from a trace to 0.52% WO_3 content were taken from exposures of tactite on the property where insufficient prospecting has been done to determine the attitude of the mineralized tactite structures.

The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims. Insufficient surface prospecting, trenching, and sampling has been done to justify the proposed exploration project.

Samples taken of mineralized tactite formations indicate that their tungsten content and width are insufficient to classify as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project. Expenditure of Government funds to perform exploration work and to construct roads on the property is not warranted.

The docket is being returned herewith.

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

Attachments

Copy to E. H. Bailey, USGS

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-2450 (Tungsten) - O. W. Atkin and G. E. Atkin

Lime Dike Tungsten Deposits
Kern County, Calif.

John D. Warne, Mining Engineer
U. S. Bureau of Mines

July 17, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
AUG 4 1952

Reviewed by
DMEA OPERATING COMMITTEE
8/8/52
(date)

DMEA-2450 (Tungsten) - O. W. Atkin and G. E. Atkin

Lime Dike Tungsten Deposits
Kern County, Calif.

SUMMARY

An engineer of the Bureau of Mines examined the Lime Dike tungsten deposits on June 4 and 5, 1952. Examination was made pursuant to an application for an exploration project, DMEA-2450, by O. W. Atkin and G. E. Atkin to cost $20,000.00.

The deposit is located on the east side of the Piute Mountains, within the boundaries of Sequoia National Forest, about 7 miles south of Weldon, Kern County, Calif. (figs. 1, and 2). The area is extremely mountainous and the deposits are accessible only with difficulty.

The contact-metamorphic scheelite tungsten deposits within the Weldon district occur near the contact between granite and granodiorite on the east and altered sedimentary rocks on the west. The tactite deposits are developed in altered limestones which are interbedded with shales and quartzite. They follow along the strike of the bedding in a general northerly direction. No significant production or discovery of tungsten has been made to date in the Weldon district.

Seven samples averaging from a trace to 0.52 percent tungsten content were taken from exposures of tactite on the property (fig. 3), where insufficient prospecting has been done to determine the attitude of the mineralized tactite structures.

The property consists of 21 unpatented claims recorded with G. E. Atkin as owner, however, it is actually controlled by a co-partnership.

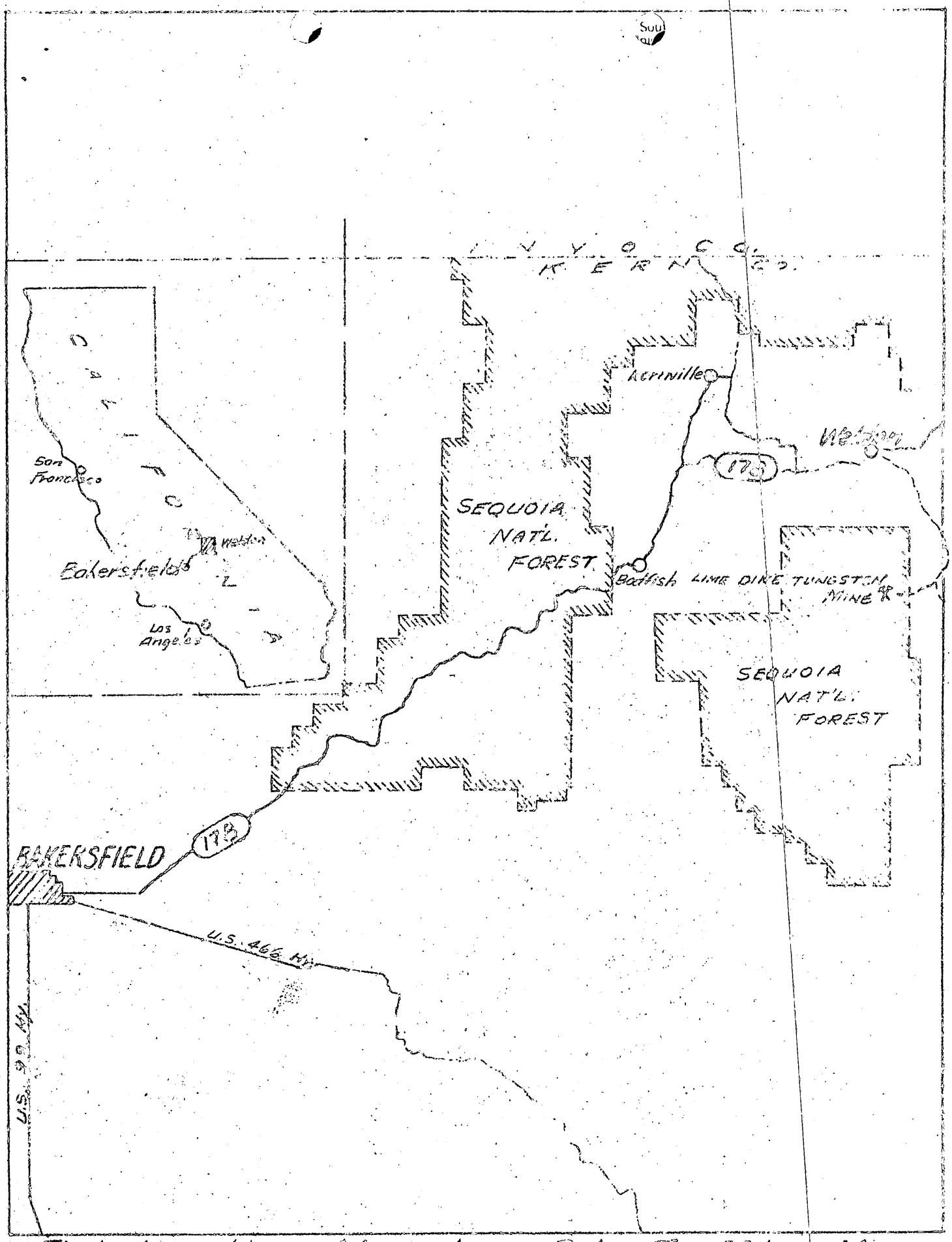
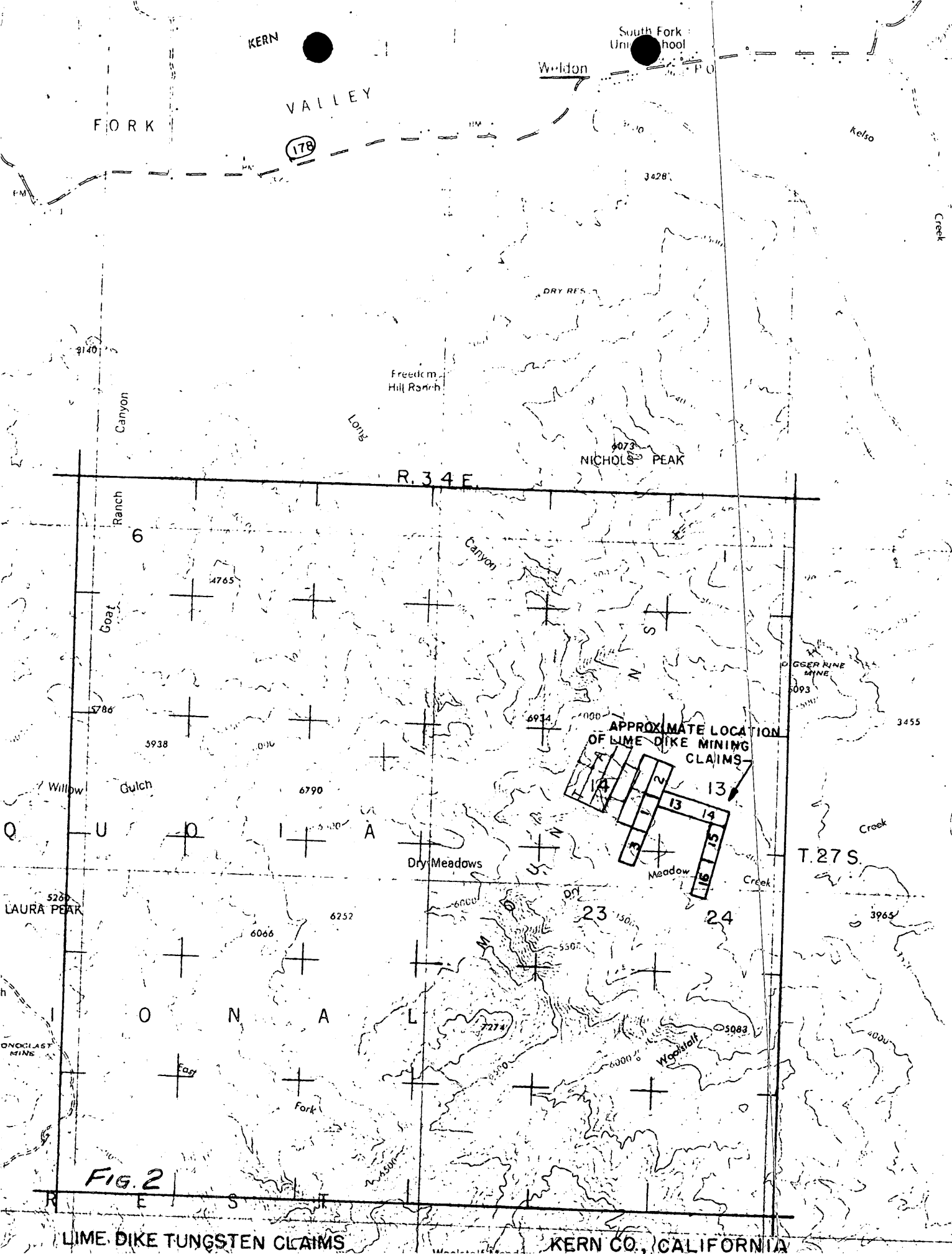


Fig. 1 Location Map - Lime Dike Tungsten Mine.



LIME DIKE TUNGSTEN CLAIMS KERN CO., CALIFORNIA

The only work done to date on the claims consists of a 400-foot bulldozer trail and several shallow prospect holes on three of the claims.

Insufficient surface prospecting, trenching, and sampling has been done to justify the proposed exploration project. Samples taken of mineralized tactite formations indicate that their tungsten content and width are insufficient to classify as ore. The previous mining experience of the applicants would not assure proper conduct of the proposed project. Expenditure of Government funds to perform exploration work and to construct roads on the property is not recommended.

INTRODUCTION

The purpose of the examination was to evaluate the grade and quantity of scheelite tungsten ores in the Lime Dike deposits as justification for granting a Government loan to perform exploration work, under application DMEA-2450, at a total cost of $20,000.00.

The proposal included trenching with a D-6 bulldozer to expose and sample the tactite zones, and the construction of approximately two miles of road on the property. The proposed work was not definitely planned or described by the applicant.

Insufficient prospecting work has been done to expose the mineralized zones for sampling. Considerable expense would be required to construct the proposed road to allow transportation of equipment to the sites of proposed work.

LOCATION AND PHYSICAL FEATURES

The Lime Dike Group of tungsten claims are situated on the east slope of the Piute Mountains, within the boundaries of the Sequoia

National Forest in the Weldon Mining District of Kern County, Calif.

The camp site is accessible by 7.5 miles of improved road leading south from Weldon, Calif., along Kelso Creek; thence 3 miles of unimproved dirt road westward along Dry Meadow Creek.

The mine is 67 miles northeast of Bakersfield, Calif., via state highway No. 178 - this is the nearest source of supplies.

Most of the 21 mining claims are located within secs. 13, 14, 23, and 24, T. 27 S., R. 34 E., M.D.B.&M., about 7 miles south of Weldon. Altitudes range from below 4000 feet to nearly 6000 feet above sea level (fig. 2).

The area is extremely mountainous and the deposits are accessible only with difficulty. In the winter the mountains are covered with snow, and the deposits at the higher elevations would be inaccessible. In summer the weather is warm and pleasant.

Limited milling facilities are reported to be available at Weldon.

DESCRIPTION OF THE DEPOSIT

An adequate description of the general geology pertaining to the contact-metamorphic tungsten deposits located in the Weldon district is given in a report by the California Division of Mines[1/]: "These prospects are near the contact of a large body of granite and granodiorite on the east, and altered sedimentary rocks on the west. The contact follows along the strike of the bedding in a general northerly direction. The deposits are in small patches of sedimentary rocks entirely surrounded by the granitic intrusive, and are developed in

1/ Tungsten Resources of California, California Division of Mines, Vol. 37, p. 304, April 1941.

altered limestones which are interbedded with shales and quartzite. The ore occurs in a tactite around the margin of the limestone inclusion ..." No significant production or discovery of tungsten has previously been made in the Weldon district.

SAMPLING

The samples taken from the Lime Dike contact-metamorphic deposits are more or less character samples as insufficient exposures were available to determine the average grade or widths of the tactite zones. Several shallow prospect holes generally less than two feet in depth are the extent of work done on the deposits. In general, insufficient work has been done to determine the attitude of the tactite structures, and most of the area is covered with overburden. The approximate locations of samples taken are shown in fig. 3.

Description and analyses[2] of seven samples taken by the examining engineer are as follows:

Sample No.	%, WO_3	%, Mo	Description
1	0.01	0.01	0-3 foot channel from weathered tactite face exposed by bulldozer cut. Lime Dike Claim No. 16.
2	0.01	0.01	3-5 feet Do
3	0.19	0.01	Chip sample across 18 inch width of tactite, Lime Dike Claim No. 18.
4.	0.18	0.01	Grab sample of tactite from prospect hole (1-foot deep), Lime Dike Claim No. 18.
5	0.04	0.01	Chip samples from two parallel tactite ribs (1 to 1.5 feet wide - 20 feet apart) Lime Dike Claim No. 18.
6	0.09	0.01	Tactite float, Lime Dike Claim No. 17.
7	0.52	0.01	Specimen sample, Lime Dike Claim No. 1.

2/ Hydrometallurgical and Ore Dressing Branch, Reno, Nev.

FILE COPY
SURNAME:

Selfridge
Lemmon
Hedges
Johnson

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

MAY 12 1952

Mr. O. W. Atkin and G. M. Atkin
3343 Otono Court
San Bernardino, California

Re: Docket No. DMEA 2450X - Tungsten
Lime Dyke Claims 1 to 16 Incl.
Kern County, California

Gentlemen:

Your application for assistance in exploring the Lime Dyke Claims 1 to 16 inclusive, in Kern County, California, has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

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

Sincerely yours,

C. O. Mittendorf (fw)

Acting Administrator
Defense Minerals Exploration
Administration

S.N.
5.12.52

GCSelfridge'lm
5/8/52

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

F.T. off 7/1
exam rescheduled

Docket File

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

George C. Selfridge

MAY 12 1952

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

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant O. V. Atkin and G. E. Atkin

Docket No. DMEA 2450

Commodity Tungsten

Amount $ 20,000.00

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee (HB)
Defense Minerals Exploration
Administration

J.N.
5-12-52

APPROVED:

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

J. M. Lemmon (HB)
Member, Geological Survey

13759

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2450

Commodity Tungsten

Total Amount 20,000

Govt. Participation 75%

1. Name and Address of Applicant O.W. Atkin and G.E. Atkin
5343 Otono Court; San Bernardino, California

2. Location of Property Lime Dyke group of 16 claims
Sections 13, 14, 23 and 24; T 27 S; R 34 E;
Kern County, California

3. Mineral or metal Tungsten Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good as to Claim 1, according to reported assays.

b) Poor

c) None

d) Don't know as to other claims—needs field examination of area where work is to be done

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? —

Does the lease have sufficient time to run to cover a future

productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? —

b) MF-202 —

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower ~~Yes~~ Dont know

b) Equipment and supplies Dont know - check this
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Dont know, apparently needs road.

d) Water (question 13)* Dont know

e) Power (question 13)* Dont know

Is a field check needed on any of these points? Yes, all of them

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Dont know.

~~ple~~ Your analysis of Competence is essential.

Is a field check needed on this point? Yes

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? No

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is?

Is this part a worthwhile exploration project? —

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? Don't know

f) Should more information be requested from applicant? Yes

g) Is a field examination necessary to complete Exhibit A? Yes

11. Exhibit B (question 23-d)*

a) Is it applicable? Yes, to a limited extent

b) If so, are sufficient data furnished? No If so, attach a draft.

c) Is a field check needed? Yes

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? No - should be on a depletion basis, if owned, or at regular rental rates, if otherwise.

d) Is a field check needed? Yes

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? No

b) Is the schedule adequate for the work proposed? Don't know

c) Is the schedule excessive for the work proposed? N

d) Are the proposed wages and salaries reasonable? Yes

e) Is a field check needed? Yes

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data? —

c) Reasonable? —

d) Field check needed? —

15. In your judgment, can the proposed work be done in the proposed time? No, should be 16 weeks

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? Yes. Little is known as to this particular area and a map showing known and inferred tungsten occurrences, the proposed work and other pertinent data should be prepared. The proposed road should be investigated as to width, length, grade + necessity. If the road is to cross U.S. Forestry land a permit may be required. If warranted, an amendment to the application should be made, in company with the applicant, giving data sufficiently detailed to form the basis of a contract.

Reviewed by: J F Brown

Date 4/8

INT.-DUP. SEC., WASH., D.C. 99009

Field Leon

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

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

1952 MAY 13 PM 1:58

Selfridge.

MAY 12 1952

SAN FRANCISCO, CALIFORNIA

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

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant **O. W. Atkin and G. E. Atkin**

Docket No. **DMEA 2450**

Commodity **Tungsten**

Amount $ **20,000.00**

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

Sincerely yours,

Frank E. Johnson
Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

J. W. Hedges
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

13759

5/14

Mr. Miller:

The preliminary copy of this application was referred to Mr. A. C. Johnson with your memo. of May 7.

With their request for a field examination, Washington sent another copy of the application and along with it some additional information which was not included with the preliminary copy, namely, DMEA memos. dated April 2 and May 6, also assay report and sketch. Mr. Johnson does not therefore have this additional information with the preliminary copy of the application.

am

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2450

Commodity Tungsten

Total Amount $20,000

Govt. Participation 75%

1. Name and Address of Applicant O. W. Atkin and G. E. Atkin
3343 Otono Court
San Bernardino, California

2. Location of Property Line Dyke group of 16 claims
Sections 13, 14, 23 and 24; T. 27 S.; R. 34 E.
Kern County, California

3. Mineral or metal tungsten Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good As to Claim 1, according to reported assays

b) Poor

c) None

d) Don't know As to other claims needs field examination of area where work is to be done

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? ----

Does the lease have sufficient time to run to cover a future

productive period? ----

*question numbers are those of MF-103

7. Are subordination agreements necessary? **No**

a) MF-201? ----

b) MF-202? ----

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower **Don't know.**

b) Equipment and supplies **Don't know - check this**
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* **Don't know, apparently needs road.**

d) Water (question 13)* **Don't know**

e) Power (question 13)* **Don't know**

Is a field check needed on any of these points? **Yes, all of them.**

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* **Don't know - Your analysis of competence is essential.**

Is a field check needed on this point? **Yes**

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? **No**

If not, are there sufficient data given so that you can describe the project? **No** If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? **No**

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? **Yes**

If not, what part of it is?

Is this part a worthwhile exploration project? ----

d) Are the cost estimates detailed? **No**

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? **No** If so, attach a draft.

e) Are the cost estimates reasonable? **Don't know**

f) Should more information be requested from applicant? **Yes**

g) Is a field examination necessary to complete Exhibit A? **Yes**

11. Exhibit B (question 23-d)*

a) Is it applicable? **Yes, to a limited extent.**

b) If so, are sufficient data furnished? **No** If so, attach a draft.

c) Is a field check needed? **Yes**

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? **Yes**

b) Sufficient data? **No** If so, attach a draft.

c) Are rents and charges reasonable? **No - Should be on a depletion basis, if owned, or at regular rental rates, if otherwise.**

d) Is a field check needed? **Yes**

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? **No**

b) Is the schedule adequate for the work proposed? **Don't know**

c) Is the schedule excessive for the work proposed?

d) Are the proposed wages and salaries reasonable? **Yes**

e) Is a field check needed? **Yes**

14. Exhibit E (question 23-c)*

a) Is it applicable? **No**

b) Sufficient data?

c) Reasonable?

d) Field check needed?

15. In your judgment, can the proposed work be done in the proposed time? **No, should be 16 weeks**

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? **Yes. Little is known as to this particular area and a map showing known and inferred tungsten occurrences, the proposed work and other pertinent data should be prepared. The proposed road should be investigated as to width, length, grade and necessity. If the road is to cross U. S. Forestry land a permit may be required. If warranted, an amendment to the application should be made, in company with the applicant, giving data sufficiently detailed to form the basis of a contract.**

G. C. Selfridge'lm
5/8/52

Reviewed by: **G. C. Selfridge**
(Q. L. Brewer)

Enclosures:

1 - MF-103
USGS Recommendation by D. M. Lemmon
USBM Recommendation by R. W. Geehan
1 Map with 3 photos and 1 assay attached.

Date **May 8, 1952**

Field Team

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

MAY 12 1952

Selfridge.

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

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant O. W. Atkin and G. E. Atkin

Docket No. DMEA 2450

Commodity Tungsten

Amount $ 20,000.00

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

J. H. Hedges
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

13759

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2450

Commodity Tungsten

Total Amount $20,000

Govt. Participation 75%

1. Name and Address of Applicant O. W. Atkin and G. E. Atkin
3343 Otono Court
San Bernardino, California

2. Location of Property Line Dyke group of 16 claims
Sections 13, 14, 23 and 24; T. 27 S.; R. 34 E.
Kern County, California

3. Mineral or metal tungsten Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery--based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good As to Claim 1, according to reported assays

b) Poor

c) None

d) Don't know—needs field examination As to other claims of area where work is to be done

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? ----

Does the lease have sufficient time to run to cover a future

productive period? ----

*question numbers are those of MF-103

7. Are subordination agreements necessary? **No**

a) MF-201? ----

b) MF-202? ----

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower **Don't know.**

b) Equipment and supplies **Don't know - check this**
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* **Don't know, apparently needs road.**

d) Water (question 13)* **Don't know**

e) Power (question 13)* **Don't know**

Is a field check needed on any of these points? **Yes, all of them.**

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* **Don't know - Your analysis of competence is essential.**

Is a field check needed on this point? **Yes**

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? **No**

If not, are there sufficient data given so that you can describe the project? **No** If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? **No**

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? **Yes**

If not, what part of it is?

Is this part a worthwhile exploration project? ----

d) Are the cost estimates detailed? **No**

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? **No** If so, attach a draft.

e) Are the cost estimates reasonable? **Don't know**

f) Should more information be requested from applicant? **Yes**

g) Is a field examination necessary to complete Exhibit A? **Yes**

11. Exhibit B (question 23-d)*

a) Is it applicable? **Yes, to a limited extent.**

b) If so, are sufficient data furnished? **No** If so, attach a draft.

c) Is a field check needed? **Yes**

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? **Yes**

b) Sufficient data? **No** If so, attach a draft.

c) Are rents and charges reasonable? **No - Should be on a depletion basis, if owned, or at regular rental rates, if otherwise.**

d) Is a field check needed? **Yes**

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? **No**

b) Is the schedule adequate for the work proposed? **Don't know**

c) Is the schedule excessive for the work proposed?

d) Are the proposed wages and salaries reasonable? **Yes**

e) Is a field check needed? **Yes**

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data?

c) Reasonable?

d) Field check needed?

15. In your judgment, can the proposed work be done in the proposed time? No, should be 16 weeks

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? Yes. Little is known as to this particular area and a map showing known and inferred tungsten occurrences, the proposed work and other pertinent data should be prepared. The proposed road should be investigated as to width, length, grade and necessity. If the road is to cross U. S. Forestry land a permit may be required. If warranted, an amendment to the application should be made, in company with the applicant, giving data sufficiently detailed to form the basis of a contract.

G. C. Selfridge'lm
5/8/52

Reviewed by: G. C. Selfridge
(Q. L. Brewer)

Enclosures:

1 - MF-103
USGS Recommendation by D. M. Lemmon
USBM Recommendation by R. W. Geehan
1 Map with 3 photos and 1 assay attached.

Date May 8, 1952

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

May 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

Subject: DMEA 2450 - Tungsten
O. W. Atkin and G. E. Atkin
San Bernardino, California

It is recommended that this docket be sent to the Field Team as a portion of the proposed work is mining, and part is exploration. A new application will be needed if the Field Team report indicates that ore may be located by an exploration project.

Robert W. Geehan
Robert W. Geehan

Attachment

DEPARTMENT OF THE INTERIOR
Defense Materials Administration
RECEIVED
MAY 7 1952

Copy retained 400

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

May 6, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan, Bureau of Mines

Subject: DMEA 2450 - Tungsten
O. W. Atkin and G. E. Atkin
San Bernardino, California

It is recommended that this docket be sent to the Field Team as a portion of the proposed work is mining, and part is exploration. A new application will be needed if the Field Team report indicates that ore may be located by an exploration project.

Robert W. Geehan

Attachment

cc. Field Team

IN REPLY REFER TO:

G-MD-DML

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
APR 3 - 1952

April 2, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, U.S.G.S.

Subject: Exploration Application $20,000 DMEA 2450 - Tungsten
O. W. Atkin and G. E. Atkin
3343 Otono Court
San Bernardino, Calif.

Property: Lime Dyke group of 16 claims
Secs. 13, 14, 23 and 24
T. 27 S., R. 34 E.
Kern County, California
(7 miles S. from Weldon)

Proposal: No acceptable exploration plan is outlined by the applicant. He states that he intends to build 2 miles of road across the claims to expose known and unknown ore veins and to mine the exposed veins by surface and underground methods.

Geology: These claims are in an area of metamorphic rocks invaded by granite. Numerous occurrences of scheelite have been reported from nearby areas, and scheelite probably is present on the Lime Dyke claims. Despite considerable exploration in this region, and the presence of a custom mill at Weldon during World War II, no significant production or discovery of tungsten was made.

Conclusion: The applicant has not done sufficient surface prospecting, trenching, and sampling to justify the expenditures proposed. Two assays of 0.91 and 2.65 percent WO_3 are reported from claim 16, suggesting that some ore may be present.

The proposed road construction is premature.

Recommendation: Unless the Bureau of Mines has additional information on this property, I suggest that the application be referred to the Field Team for field examination. If the property has any merit, and the applicants any competence, then a satisfactory exploration proposal should be prepared.

D M Lemmon

Our copy for your file

IN REPLY REFER TO:

G-MD-DML

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D M Lemmon

DMLemmon:gt

EXPLORATION

Subject: DMEA-2450
Re: Exploration Loan
Lime Dyke Mining Claims
March 27, 1952

Mr. O. W. Atkin
3343 Otono Court
San Bernardino, California

My dear Mr. Atkin:

This will acknowledge receipt of your application dated March 24, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2450 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2450 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

DMEA-2450

3343 Otono Court,
San Bernardino, Calif.,
March 24th, 1952.

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

Gentlemen:

We are enclosing herewith Form MF-103, Application for Aid for an Exploration Project pursuant to Mineral order 5, under the Defense Production act of 1950. Attached to form MF-103 ia supplement describing in detail the nature of the project and containing all pertinent information.

If any further information is desired kindly advise at your earliest convenience, as we are anxious to proceed with the work as soon as possible.

Yours very truly,

G. E. Atkin
O W Atkin

G. E. Atkin
O. W. Atkin

OWA/f

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1952

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

Not To Be Filled in by Applicant

Docket No. DMEA-2450
Metal or Mineral
Date Received 3-27-52
Amount $
Participation (Government %)

O. W. Atkin and G. E. Atkin,
3343 Otono Court,
San Bernardino, Calif.

Name and address of applicant

Date March 24th, 1952

If you have already filed MF-100, give date filed not filed, type of assistance requested see supplement,

DMA Docket Number (if available) none

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.

   (*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.

   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?

   (*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.

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.

Not named or incorporated as yet
(Name of company)

By O. W. Atkin
(Signature of authorized official)

G. E. Atkin

March 24th, 1952
(Date)

Owners
(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

To go to mine go to Freeman on Highway 6 go west on 178 to Walker and see Paul's store for directions to property 9 miles South

SUPPLEMENT TO FORM MF-103

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATOR

LIME DYKE CLAIMS 1 To 16 INCLUSIVE

G. E. ATKIN

1A. Virgin area partially located in sections 13, 14, 23 and 24 of Township 27 South, Range 34 East, M. D. B. & M., Kern County, California, approximately seven miles South of Sheldon Post Office, and within the Sequoia National Forest Reserve.

B O. W. Atkin along with G. E. Atkin, Ray Harmer, V, F. Di Giorgio and J. A. Di Gorgio are claims locators of the described 16 Lime Dyke Claims located as above described. All claims have been quit claimed to G. E. Atkin.

C. Legal descriptions of each of the 16 claims are set forth in Schedule "1" attached hereto.

2 A The metal or mineral expected to be found in said claims is tungsten (WO_3). No prospecting has been made for other metal or minerals as of the application.

B. Geological aspects of the claims consists of ore deposits and veins to approximate point of contact between extensive Lime Dyke and granite formations. Pictures attached to Schedule "1" hereof illustrate Lime Dyke and granite formations and exploration work in connection therewith.

3 A. Proposed work consists of building approximately two miles of road to open deposits — shearing off face of slope to fully expose known and unknown ore veins — and the direct mining of exposed veins to follow the same as good mining practices shall indicate by surface and underground mining. Total costs estimated for such proposed work is $20,000.00.

3 B. Proposed work specified in "3A" above was commenced on or about the 14th day of November, 1951 and approximately 400 feet of open cut which can be converted to portion of road required has been completed. The open cut varies in depth from 2 to 12 feet and approximately 12 feet wide. This work has exposed three veins of ore deposits on claim 16. One of such veins has been mined to about six feet in length following the vein into the mountain side.

Preliminary Copy
from Washington.
Notwithstanding Wrongfulness
of [illegible]
[illegible]

office 871-102
Res. 3-39

TELEPHONE

STATE FARM INSURANCE COMPANIES
LIFE — AUTOMOBILE — FIRE

WM. N. FRAZEE
DISTRICT MANAGER

1360 "E" STREET
SAN BERNARDINO, CALIF.

Copy of assay thereof is attached hereto on Schedule "3". Two other veins on ~~xxxx~~ claim 16 have been exposed and assay on one of said veins runs x .91% according to assay attached hereto, also as part of Schedule "3".

The project can be commenced immediately and the time estimated for completion thereof is 7 to 10 weeks.

4. On rough map attached hereto unbroken blue line indicates proposed course of road from lower to upper claims and broken blue line areas indicate veins exposed by prior prospecting to date hereof. Full prospecting of ore veins has not been possible to date other than veins on claim 16, 1,2,3,6 and 13. In connection with vein indicated on claim 1 assay reports from samples thereof indicate tungsten content of 0.91% to 2.65% as per assay attached hereto as part of Schedule "3".

5A. Two house trailers in good condition are available and at camp site for present living facilities. Other facilities include small light plant and tent for storage.

6. Additional facilities to be attached to the land for proposed operations will be a fair sized cabin for workmen accommodations, larger light plant and tool house and out house. Estimated cost of these items are as follows:

Cabin and connecting facilities - approximately	$1,000.00
Tool House	200.00
Outhouses	100.00
Light plant	500.00

7A.

1. D-6 Caterpillar and dozer --rental cost approximately $50.00 per day
2. 1 Dodge ½ ton pick-up truck -- rental cost $10.00 per day
3. Army Dodge 4 wheel drive — rental ~~xxxx~~ $10.00 per day
4. 2 house trailers - rental $60.00 per house trailer per month
5. 2 saddle horses — rental cost $15.00 per horse per month.

All of these items are owned by individuals and may be rented.

7B. Operating equipment to be purchased composed of the following items:

Items	Cost
Compressor	$2,400.00
2 Jack hammers	350.00
200 feet 1-inch pipe	130.00
100 feet air hose	30.00
Powder, caps and fuses	400.00
2 sets steel	50.00
Miscellaneous bits	300.00
Hand tools	200.00
Dump truck	3200.00
Miscellaneous timber for ore bins	500.00
Miscellaneous small supplies, hardware, etc.,	200.00
Miscellaneous fuel	800.00
Reserve for repairs and miscellaneous expense	700.00

~~8. Operating equipment to be purchased composed of the following items:~~

~~Item~~	~~Cost~~
~~Compressor~~	~~$[illegible]~~
~~2 [illegible]~~	~~[illegible]~~
~~200 [illegible]~~	~~[illegible]~~
~~100 [illegible]~~	~~[illegible]~~
~~Powder [illegible]~~	~~[illegible]~~
	~~400.00~~

8. For estimated eight weeks operation labor costs are estimated as follows:

Personnel	Estimated wages per six day week
2 muckers	$150.00
1 miner	100.00
1 Caterpillar operator	120.00
1 Supervising miner	140.00

9. Expenses for assaying, engineering and other miscellaneous materials during estimated eight week period, approximately $500.00

10. Owners and operators of mining claims and applicants herein are prepared to invest $5,000.00 in addition to investments heretofore made and it is estimated that this additional investment will be sufficient to pay applicant's portion of the overall cost of the project in accordance with regulations on Government participation.

11. As pictures and maps indicate claims appear to cover entire mountain top with connecting ridge, and in addition to veins already discovered there are tungsten surface float indications over large portions of the claim which together with known veins and the Lime Dyke and granite contact formations reasonably indicate existence of highly commercial mining probabilities.

To date there has been three (3) tungsten veins found on claim No. 16; one, two feet in width and one six feet in width, and one eight feet in width. On claim No. 13, one six foot vein of ore exposed twenty feet in length. On claim No. 1 (one), one vein six feet wide, exposed on surface about 250 feet running over on to claim No. 2. On claim No. 3, two veins, four to six feet wide exposed for 50 feet on surface. On claim No. 6, two veins, one about 2 feet wide, one abour 5 feet wide exposed on surface about twenty feet.

G. C. Atkin

SUPPLEMENT TO FORM MF-103

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

D.M.E.A. Docket No. 2450
Amended application

(a)

1. Name of Applicant: Lime Dyke Tungsten Co., (Amining partnership),
Mailing Address: 1239 Esperanza St., San Bernardino, Calif.

(b) - not applicable
(c) - not applicable
(d) - Names and addresses of all partners:

Partner "A" - O. W. Atkin, 3343 Otono Court, San Bernardino, Calif.

Partner "B" - Garrold E. Atkin, 3343 Otono Court, San Bernardino, Calif.

Partner "C" - Ray C. Harmer, Weldon, Calif.

Partner "D" - Wm. N. Frazee, 1239 Esperanza, San Bernardino, Calif.

Partner "E" - Alan E. Guhin, 2780 Ladera Road, San Bernardino, Calif.

Partner "F" - W. R. Frazee, 6724 Lake Circle, Dallas, Texas.

Partner "G" - Carl Lang, 3608 52nd St., Maywood, Calif.

Partner "H" - Josephine Coulter, 1542 "E" Street, San Bernardino, Calif.

Partner "K" - Josephine Snyder, 2856 Patterson Way, San Bernardino, Calif.

Partner "L" - William E. Brandes, 6724 Lake Circle, Dallas, Texas.

Partner "M" - Russell M. Gray, M.D., 1600 "E" Street, San Bernardino, Calif.

Partner "N" - Russell M. Gray, Jr., 1600 "E" Street, San Bernardino, Calif.

Partner "P" - Robert L. Gray, 1600 "E" Street, San Bernardino, Calif.

Partner "Q" - Major Paul Hardy and Ann Hardy, 1600 E Street, San Bernardino.

2. General - DMEA Order 1, "Government Aid in Defense Projects," has been carefully read.

3. Applicants Property Rights.

(a) Legal description of land upon which we wish to explore: Virgin area partially located in Sections 13, 14, 15, 23 and 24 of Township 27 South, Range 34 East, M.D.B. & M., Kern County, California, approximately seven miles South of the town of Weldon, and within the Sequoia National Forest Reserve.

(b) Name by which property is known: Lime Dyke Tungsten Co.

(c) Interest in land: Owner of mineral rights.

(d) See attached "Articles of Partnership"

(e) Liens or encumbrances: None

(f) Unpatented claims, book and page numbers for each recorded location notice: (Continued on page 2)

Lime Dyke Claims notices of location for claims Numbers 1, 2, 3, 4, 5 and 6 are recorded in Book No. 1875, Pages 217 to 224 inclusive, Kern County, Calif.

Claims number 7, 8, 9, 10, 11, and 12 are recorded in Book No. 1881, pages 347 to 352 inclusive, Kern County, Calif.

Claims number 13, 14, 15, 16, are recorded in Book No. 1920, pages 334 to 340 inclusive, Kern County, Calif.

Claims No. 17 and 18 are recorded in Book No. 1947, pages 350 to 352 inclusive, Kern County, Calif.

Claims No. 19, 20, and 21 are recorded in Book No. 1983, pages 209 to 213 inclusive, Kern County, California.

Claims number 1 to 16 inclusive were originally recorded in the names of O. W. Atkin, G. E. Atkin, R. C. Harmer, J. A. Di Giorgio and V. P. Di Giorgio. Quit Claim Deeds signed by J. A. Di Giorgio and V. V. Di Giorgio deeding rights to O. W. Atkin are recorded in Book No. 1923, Page 459, Kern Co., Calif.

Quit Claim deed from O. W . Atkin and R. C. Harmer deeding rights to G. E. Atkin on claims 1 to 16 inclusive are recorded in Book No. 1896, Page 424, Kern County, Calif.

Claims No. 17, 18, 19, 20 and 21 were originally recorded in the name of G. E. Atkin. Quit claim deed signed by G. E. Atkin deeding all right to Lime Dyke Tungsten Co. is now in processed and will be recorded within the next few days.

4. <u>Physical Description:</u>

(a) Up to the present time no actual mining operations have taken place on the property excepting that incidental to exploration and road building. Approximately 15 tons of 1% to 1½% ore has been recovered during this work and placed in a stock pile at the camp site. Production facilities now on the property include the following: One D-6 Dozer, one G.I. Army Truck (weapon carrier), one 1/2 ton Dodge pick-up truck, two house trailers, all owned by O. W. & G. E. Atkin; one 105 cu. ft. air compressor in excellent condition, owned by Wm. N. Frazee; Two 45# jack hammers, belonging to the Lime Dyke Tungsten Co. , and miscellaneous items such as picks, shovels, log chains, galvanized pipe, small electric light plant, 3 violet ray mineral lamps, etc., belonging to various members of the partnership.

4 (a) continued -

All units of proposed project are now readily accessible for examination purposes and most of them can be reached by truck; others by horseback or on foot.

(b) No past or present production except that incidental to exploration.

Ore reserves approximately 15 tons of 1% to 1½% tungsten.

(c) Geologic features of the property:

The following is quoted from a report made by Mr. Russell M. Gray, Jr., graduate geologist from the University of Redlands:

"The Scheelite ore is found in Epidote and Quartzite, associated with granitic material. The veins are hypo-thermal in character. The Epidote and Quartzite appear to grade into impure granular limestone. The limestone, which has been metamorphosed to a large extent, is bounded by garnetiferous schist and granite. The granite and schist are largely decomposed near the surface and there is some evidence of leaching and secondary replacement in the ore bodies near the surface.

"On claims No. 18 and 21 outcrops of Phyllite with a ~~90%~~ 90 degree dip were observed directly above the limestone (part of the Kernville Marbelized Limestone series). This mass of limestone is exposed for approximately one third of a mile, strikes in a general North-South direction. Due to the cristalline structure and the amount of contact m metamorphism, a dip was unattainable at this time.

"The strike of the ore veins appear to be roughly a few degrees East of North. A schistosity dip was taken on the veins, but due to the decomposed material near the surface, it may not be considered accurate. No faulting was observed in the veins under discussion. Veins average two to six feet in width. The geological aspects of the area indicate the presence of extremely favorable conditions for a large amount of tungsten ore.

"The construction of 2 miles of road and the exploration of two veins on claim No. 16; one vein on No. 17, and two veins on No. 18, have already been partially completed. On No. 18 a tunnel has been started, running in below the vein. Drifts will be run off the main tunnel to the ore bodies. The road in the area runs by all the land claimed and the

(continued on page 4)

4(c) (continued from page 3)

"ore bodies as shown on the attached map, with the exception of claims number one and three.

"This map is the Kernville Quadrangle, enlarged 16 times. One inch equals 660 feet."

(d) Access Roads; Distance to Shipping, Supply and Residence Points:

The property is located approximately 1½ miles from an oiled road which extends approximately nine miles to a paved highway which connects with major State and National highways. The one and one half miles of dirt road which runs from the oiled road to the camp site is in fair condition and is passable for heavy trucks. About two or three days work with a dozer, plus a small amount of powder, would put it in very good condition.

The mine is located approximately 170 miles Northwest of San Bernardino, where the active partners reside and where most supplies are purchased. The property may be reached from San Bernardino by car or truck in about 3½ to four hours.

Ore mills are located at Weldon, 9 miles distance; Mojave, 60 miles distance; Bishop 150 miles distance, Randsburg, 65 miles distance; Barstow, 125 miles distance and Kernville 28 miles distance.

Tentative plans include trucking the ore to Weldon, Mojave, Barstow, or Bishop for milling until such time as the erection of a mill on the property is justified.

(e) Availability of Manpower, Materials, Supplies, Equipment, Water & Power

Experienced miners are available in and around the town of Weldon, nine miles distant. Materials, supplies and equipment are available at Bakersfield, 65 miles; Mojave, 60 miles; Inyokern, 45 miles; San Bernardino, 170 miles and Los Angeles, 140 miles. An ample supply of water is available from a stream which runs within 200 yards of Claim No. 16. Three excellent springs are available for domestic water. Electrical power lines are about 3½ miles from the property and can be extended to this property when needed.

5. The Exploration Project

(a) Mineral or metals we wish to explore: Tungsten

(b) Description of proposed work, including map of entire area and sketches of each unit of project showing plans and cross sections, and locations: Map and sketches are attached hereto. In order to execute the work of exploration of the entire project it is suggested that the project be seperated into eight distinct units. It is believed that by so doing the work can be done in a more efficient and expeditious manner and that it will also enable the applicant to proceed with mining operations upon the completion of each unit providing the results of the exploration justify it.

UNIT NO. 1, CLAIM No. 18 , to be referred to as Unit 1-18.

1. Drive a 150 foot tunnel on the ore vein in a Southwesterly direction, commencing at a point about 200 feet Northeast of the location monument and approximately 200 feet from the top of the ridge, which would place the end of the tunnel about 75 feet below the surface.

2. Make two 50 foot cross-cuts in this tunnel; one approximately 100 feet from the portal and one at the end of the tunnel. Each of these cross-cuts would extend 20 feet in a Southeasterly direction and 30 feet in a Northwesterly direction, cutting one vein on the East side of the tunnel and three veins on the west side of the tunnel. Approximate time required for completion of this unit would be 60 days.

UNIT NO. 2, CLAIM No. 18-A, (To be referred to as Unit 2-18-A

Sink a shaft on the vein to a depth of 60 feet; run a drift 80 feet in a Northerly direction and then cross-cut 20 feet on each side at end of drift. Approximate time for completion of this unit would be 50 days.

Unit No. 3, CLAIM NO. 20 (To be referred to as Unit 3-20.

Drive a tunnel into the hill extending about 100 feet into the bed. Then, at a point 50 feet from the portal, cross-cut 15 feet on each side to cross-cut the bed of ore, which is about 30 feet in width. Then at end of tunnel, run another cross-cut 15 feet in each direction. Estimated time required for completion of this project would be 40 days.

UNIT NO. 4, CLAIM NO. 3 (to be referred to as Unit 4-3)

Drive a 100 foot tunnel into side of hill cross-cutting ore bed entire length of tunnel and drift 50 feet in each direction at a point 75 feet from the portal, following the ore bed. Estimated time for completion of this unit would be 50 days.

UNIT NO. 5, CLAIM No. 1 (to be refferred to as Unit 5-1)

Sink a 50 foot shaft near the North end of exposed ore body and drift fifty feet in a Northerly direction and 50 feet in a southerly direction. Then cross-cut 20 feet at each end. Estimated time to complete this unit would be 50 days.

UNIT NO. 6, CLAIM No. 17-North End (known as Unit 6-17NE)

Sink a 80 foot shaft near North end of exposed ore bed which extends up through lime and cross-cut 20 feet on each side at bottom of shaft. Estimated time for completion of this unit would be 30 days.

UNIT NO. 7, Claim No. 17, South End (known as Unit 7-17SE)

Sink an 80 foot shaft on ore bed and cross-cut 20 feet on each side at bottom of shaft. Estimated time for completion of this unit would be 30 days.

UNIT NO. 8, Trail

Build 2400 feet of trail from end of present road to Claim No. 1 and No. 3 sufficient to transport air compressor, men and tools for exploration work. See map for proposed route. Estimated time required for completion of this unit would be 15 days.

(c) The work will start within 10 days and be completed within 5 months from the date of an exploration project contract.

(d) EXPERIENCE AND BACKGROUND OF APPLICANT:

With the exception of O. W. Atkin, G. E. Atkin and Russell M. Gray, Jr., the members of the mining partnership have had practically no experience in the operation of mines. Mr. O. W. Atkin, who has supervised and helped build the access road and who will continue to act as superintendent, has had about 12 years experience in the mining of tungsten and other metals and the operation of equipment. Mr. Russell M. Gray, Jr., is a graduate geologist from the University of Redlands and has had some geological experience in connection with the oil business. The other members of the partnership consist mostly of successful business and professional men and are in a financial condition

(d) Experience and background of applicant. (continued)

to meet all requirements and manage the affairs of the business. A financial statement of each partner will be gladly furnished if requested.

6. ESTIMATE OF COSTS UNIT No. 1-18.

(a) Independent Contracts -- None.

(b) Labor, Supervision, Consultants

1 miner 60 days @ $16.00	$960.00	
1 mucker, 60 days @14.00	840.00	
1 timber man, 15 days @ $20.00	300.00	
1 superintendent (1/3 of time) 60 days @ $6.67	400.20	
1 engineer, 6 days @ $30.00	180.00	
1 geologist, 3 days @ $30.00	90.00	
1 D-6 Dozer operator, 8 hrs. @ $2.50	20.00	$2,790.20

(c) Operating materials and supplies

2 miners picks @ $4.50	$ 9.00	
2 shovels @ $2.50	5.00	
1 5' crowbar	4.50	
10 pieces of 1"x10' galv. pipe @ $5.00 each	50.00	
250 3/4" drill bits @ $ .65	162.50	
12 cases of powder @ $10.75	129.00	
600 caps @ $.16	96.00	
1 detonator	35.00	
600 gallons gasoline for compressor @ $ .23½	141.00	
100 qts. oil for compressor @ $.30	30.00	
2 50' lengths of 3/4" air hose @ $35.00	70.00	
500' of mine track,(10# per ft.) @ 1.00	500.00	
100 pieces of 2"x4"x30" track ties @ $.10	10.00	
1 ore car (1 ton - used)	75.00	
50 sets of mine timber @ $8.00 (600' of 6"x8")	400.00	
2 carbide lights @ $3.50	7.00	
50# carbide @ $ .36	18.00	$1,767.00

UNIT No. 1-18 (continued)

(d) Operating Equipment (to be rented)

* 1 105 cu. ft. air compressor, 60 days @ $6.00	$360.00	
1 Jack hammer, 60 days @ $40.00 per mo.	80.00	
1 Army truck (for transporting men and materials), 60 days @ $1.50	90.00	
1 D-6 Dozer (for preparing face of tunnel) 8 hrs. @ $5.50	44.00	$ 574.00

*air compressor will be used on No.'s 1-18 and No. 2-18A simultaneously.

(e) Rehabilitation and Repairs

Overhaul motor on army truck	$90.00	
1 set of tires for army truck,	168.00	$258.00

(f) NEW Buildings, Installations, Improvements

Construct one powder magazine 6'x10'	$100.00	
Construct one tool house 12'x16'	300.00	
Construct one bunk house 12'x20'	400.00	
Repair & improve present access road	500.00	$1,300.00

(g) Miscellaneous

Maintenace of operating equipment	$200.00	
Analytical work	30.00	
Accounting	50.00	
Workmen's Comp. & Employers Liab. insurance	250.00	
General Liability Insurance	30.00	
Pay Roll Taxes (S.U.I., F.U.TA., & F.I.C.A.)	126.00	$686.00

(h) Contingencies

Not included in costs stated above	$100.00	$100.00

* Total cost of this unit $7,475.20

* Note: This amount includes such items as picks, shovels, crowbar, detonator, is air hose and pipe, buildings, etc., which will be used on two other units of the overall project as soon as this unit is completed.

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UNIT No. 2-18A

(a) Independent Contracts - None

(b) Labor, Supervision, Consultants

1 miner, 50 days @ $16.00	$800.00	
1 mucker, 50 days @ $14.00	700.00	
1 timber man, 8 days @ $20.00	160.00	
1 superintendent (1/3 of time), 50 days @ ~~$20.00~~ $6.67	337.50	
1 engineer, 4 days @ $30.00	120.00	
1 geologist, 2 days @ $30.00	60.00	$2,177.50

(c) Operating material and supplies

2 picks @ $4.50		$ 9.00	
2 shovels @ 2.50		5.00	
1 5' crowbar		4.50	
200 3/4" drill bits @ $ .65		130.00	
1 detonator		35.00	
350 gallons gasoline for compressor @ $.23½		82.25	
50 quarts oil " " @ .30		15.00	
3 50' lengths of 3/4" air hose @ $35.00		105.00	
160' of mine track @ $1.00		160.00	
50 mine ties, 2"x4"x30"		5.00	
1 wheel barrow		35.00	
8 cases powder	10.75	86.00	
240 caps	.16	38.40	

(continued on page 9)

(c) Operating material and supplies (continued

1 set drill steel			
30 sets of mine timber @	8.00	$25.00	
2 carbide lamps @	3.50	7.00	
40# Carbide @	.35	14.00	
1 A-frame for hoist		7.00	
100 feet of 1/2" steel cable for hoist @	.25	25.00	
1 ore bucket (500 lbs.)		30.00	$1,058.15

(d) Operating Equipment (To be Rented)

1 105 cu.ft. air compressor , charged to unit #1-18			
1 jack hammer, 50 days @ $40.00 per mo.		66.67	
1 army truck (for transporting men and material to job) 50 days		75.00	
1 D-6 dozer, 8 hours @	5.50	44.00	
1 air tugger - 50 days @ $40 per mo.		66.67	$ 252.34

(e) Rehabilitation & Repairs - None - all charged to Unit 1-18.

(f) New Buildings, Improvement,etc., -None - all charged to Unit 1-18

(g) Miscellaneous

Repairs and maintenance of operating equipment	$50.00	
Analytical work	30.00	
Accounting	30.00	
Workmen's Comp. & Liability Insurance	170.00	
General liability insurance	10.00	
Pay roll taxes	100.00	$390.00

(h) Contingencies - not included above $ 50.00 $ 50.00

Total cost of this unit $3,927.99

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UNIT NO. 3-20

(a) Independent Contracts - None

(b) Labor, Supervision, Consultants

1 miner - 40 days @	$16.00	$640.00	
1 mucker - 40 days @	14.00	560.00	
1 timber man - 8 days @	20.00	160.00	
1 superintendent (1/3 of time) 40 days @	6.67	266.80	
1 engineer - 3 days @	30.00	90.00	
1 geologist - 2 days @	30.00	60.00	$1,776.80

(c) Operating Material & Supplies

2 Picks @	4.50	9.00	
2 Shovels @	2.25	4.50	
1 5' crowbar		4.50	
200 3/4" drill bits @ $	.65	130.00	
8 cases of powder @	10.75	86.00	
1 set drill steel		25.00	
240 caps @	.16	38.40	
1 detonator		35.00	
300 gallons gasoline for compressor	.23½	70.50	70.50
50 quarts oil for compressor	.30	15.00	15.00
3 50' lengths of 3/4" air hose	35.00 ea	105.00	
1 wheelbarrow		35.00	
30 sets mine timber	8.00	240.00	
2 carbide lamps	3.50	7.00	$ 804.90

(d) Operating Equipment (to be rented)

1 105 cu. ft. air compressor, 40 days @	6.00	240.00	
1 Jack hammer, 40 days @ $40.00 per month		53.33	
1 army truck for hauling men and supplies, 40 days @	1.50	60.00	
1 D-6 Dozer, 8 hrs. @	5.50	44.00	$ 397.33

(e) REHABILITATION & REPAIRS - None - (all charged to Unit 1-18)
(f) NEW BUILDINGS, IMPROVEMENTS, ETC., None - " " " "
(g) MISCELLANEOUS

Repairs and maintenance of operating equipment	$ 50.00	
Analytical work	30.00	
Accounting	30.00	
Workmen's Comp. & Liability Ins.	144.00	
General Liability Insurance	10.00	
Pay Roll Taxes	80.00	$ 344.00
(h) CONTINGENCIES	$ 50.00	$ 50.00

Total cost of this unit $3,373.03

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UNIT NO. 4-3

((a) INDEPENDENT CONTRACTS - None
(b) LABOR, SUPERVISION, CONSULTANTS

1 miner, 50 days @	16.00	$800.00	
1 mucker, 50 days @	14.00	700.00	
1 timber man, 8 days @	20.00	160.00	
* 2 laborers (for laying 1500' of 1" air pipe from claim #18 - 6 days each, 12 da.	14.00	168.00	
1 superintendent (1/3 of time) 50 days @	6.67	337.50	
1 engineer - 3 days @	30.00	90.00	
1 geologist - 2 days @	30.00	60.00	$2,315.50

* This item will not be required if we can secure loan for building trail; see Unit #8-Trail

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(c) OPERATING MATERIAL AND SUPPLIES

200 3/4" drill bits @	.65	130.00	
8 cases of powder @	10.75	86.00	
240 caps @	.16	38.40	
350 gallons of gasoline @	.23½	82.25	
50 quarts of oil @	.30	15.00	
40 sets of mine timber @	8.00	320.00	
60 lengths of 1"x20' galv. pipe @ (to carry air from Claim No. 18)	5.00	300.00	
2 14" pipe wrenches @	3.00	6.00	$977.65

Note: Picks, shovels, crowbar, drill steel, detonator, air hose wheelbarrow, carbide lamps, etc., will be available from other completed units, so are, therefore, not charged on this unit.

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(d) OPERATING EQUIPMENT (To be rented)

1 105 cu.ft. air compressor - 50 days @	6.00	300.00	
1 Jack hammer, 50 days @ $40.00 per month		66.67	
1 army truck for trans. men & material 50 days @	1.50	75.00	
1 D-6 dozer - 8 hours @	5.50	44.00	$485.67

(e) REHABILITATION AND REPAIRS - None - charged to Unit 1-18
(f) NEW BUILDINGS, IMPROVEMENTS, ETC., -None " " " "
(g) MISCELLANEOUS

Repairs & Maintenance of operating eqpt.	50.00	
Analytical work	30.00	
Accounting	30.00	
Workmen's Comp. Liability Insurance	180.00	
General Liability Insurance	10.00	
Pay roll taxes	105.00	$405.00
(h) CONTINGENCIES	50.00	50.00

Total cost of this unit $4,233.82

UNIT NO. 5-1

(a) INDEPENDENT CONTRACTS - None

(b) LABOR, SUPERVISION, CONSULTANTS

1 miner - 50 days @	$ 16.00	$ 800.00	
1 mucker - 50 days @	14.00	700.00	
1 timber man - 10 days @	20.00	200.00	
2 laborers (to lay 1200' of 1" air pipe from Claim #18) 12 man days @	14.00	168.00	
1 superintendent (1/3 of time) 50 days @	6.67	337.50	
1 engineer - 4 days @	30.00	120.00	
1 geologist - 2 days @	30.00	60.00	$2,385.50

(c) OPERATING MATERIAL & SUPPLIES

250 3/4" drill bits @	.65	162.50	
10 cases of powder @	10.75	107.50	
300 caps @	.16	48.00	
350 gallons of gasoline for compressor @	.23½	82.25	
60 quarts of oil @	.30	18.00	
200 feet of mine track @	1.00	200.00	
40 sets of mine timber @	8.00	320.00	
80 2"x4"x30" track tires @	.10	8.00	
50 lbs. of carbide for lamps @	.36	18.00	
* 60 lengths of 1" galv. pipe @	5.00	300.00	1,264.25

* This pipe will not be required if we can secure loan for Unit #8-Trail, which will enable us to transport air compressor to this Unit (5-1).

Other items of equipment and supplies not listed above will be available from other completed units.

(d) OPERATING EQUIPMENT (To be rented)

1 105 cu.ft. air compressor - 50 days @	6.00	300.00	
1 Jack hammer - 50 days @ $40.00 per mo.		66.67	
1 Army truck (to transport men & materials to job) 50 days @	1.50	75.00	441.67

(e) REHABILITATION & REPAIRS - None

(f) NEW BUILDINGS, INSTALLATIONS, IMPROVEMENTS - None

(g) MISCELLANEOUS

Repairs and maintenance of operating eqpt.	100.00	
Analytical work	30.00	
Accounting	30.00	
Workmen's Comp. & Liab. Insurance	200.00	
General Liab. insurance	10.00	
Pay Roll taxes	108.00	478.00

(h) CONTINGENCIES 100.00 100.00

Total cost of this unit $4,669.42

UNIT NO. 6 - CLaim No. 17 N.E.

(a) INDEPENDENT CONTRACTS - None.
(b) LABOR, SUPERVISION, CONSULTANTS

1 miner - 40 days @	$16.00	$640.00	
1 mucker - 4 0 d ays @	14.00	560.00	
1 timber man - 8 days @	20.00	160.00	
1 superintendent, (1/3 of time) 40 days @	6.67	266.80	
1 engineer - 3 days @	30.00	90.00	
1 geologist - 2 days @	30.00	60.00	$1,776.80

(c) OPERATING MATERIAL & SUPPLIES

200 3/4" drill bits @	.65	130.00	
8 cases of powder	10.75	86.00	
240 caps	.16	38.40	
300 gallons of gasoline @ .23½	[illegible]	70.50	
50 quarts oil for compressor @	.30	15.00	
24 sets mine timber @	8.00	192.00	
1 set drill steel		25.00	556.90

Picks, shovels, crowbar, detonater, air hose, wheelbarrow, etc., will be available from other completed projects.

(d) OPERATING EQUIPMENT (To Be Rented)

1 105 cuft. air compressor - 40 days @	6.00	240.00	
1 jack hammer - 40 days @ $40. per mo.		53.33	
1 army truck -to transport men and supplies - 40 days @	1.50	60.00	
1 D-6 Dozer - 8 hrs @ 5.50		44.00	
1 air tugger - 40 days @	6.00	240.00	637.33

(e) REHABILITATION & REPAIRS - None
(f) NEW BUILDINGS, IMPROVEMENTS, INSTALLATION - None
(g) MISCELLANEOUS

Repairs and maintenance of operating equipment	50.00	
Analytical work	30.00	
Workmen's comp. & liability insurance	144.00	
General Liability insurance	10.00	
Pay roll taxes	80.00	344.00

(h) CONTINGENCIES 50.00 50.00

Total cost of this unit $3,365.03

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7-17-S. END

UNIT NO. 7-S.End

(a) None
(b) LABOR, SUPERVISION, CONSULTANTS

1 MINer - 40 days @	16.00	640.00	
1 mucker - 40 days @	14.00	560.00	
1 timber man - 8 days @	20.00	160.00	
1 Supt.(1/3 of time) 40 days @	6.67	266.80	
1 Engineer - 3 days @	30.00	90.00	
1 Geologist - 2 days @	30.00	60.00	$1,776.80

(c) OPERATING MATERIAL & SUPPLIES

200 3/4" drill bits @	.65	130.00	
8 cases powder @	10.75	86.00	
240 caps @	.16	38.40	
300 gallons gasoline for compressor	.23½	70.50	
50 quarts oil for compressor	.30	15.00	
24 sets mine timber	8.00	192.00	
1 set drill steel		25.00	556.90

Picks, shovels, crowbars, detonator, air hose, wheelbarrow, etc., will be available from other completed units.

RICHARD M. ANDERSON
ATTORNEY AT LAW
307 ANDRESON BLDG.
SAN BERNARDINO,
CALIFORNIA
TELEPHONE 841269

(d) OPERATING EQUIPMENT (To be Rented)

1 105 cu. ft. air compressor - 40 days @	6.00	240.00	
1 Jack hammer - 40 days @ $40.00 per month		53.33	
1 Army truck, to trans. men & materials - 40 da. @ 1.50		60.00	
1 D-6 Dozer - 8 hrs. @	5.50	44.00	
1 Air tugger - 40 days @	6.00	240.00	
1 1/2 ton pick-up truck for hauling gas, oil, supplies, repairs, timber, etc. for entire project - 4 months @ $50.00 per mo.		200.00	$837.33

(e) None
(f) None
(g) MISCELLANEOUS

Repairs and maintenance of operating equipment	50.00	
Analytical work	30.00	
Accounting	30.00	
Workment's comp. & Liab. Ins.	144.00	
General Lia. Insurance	10.00	
Pay roll taxes (S.U.I., F.U.T.A., F.I.C.A.)	80.00	344.00

(h) CONTINGENCIES 50.00

Total cost of entire project $3,565.00

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UNIT NO. 8-Trail

(a) None
(b) LABOR, SUPERVISION, CONSULTANTS

1 powder man - 15 days @	14.00	210.00	
1 laborer - 15 days @	12.00	180.00	
1 D-6 Dozer Operator - 15 days @	20.00	300.00	$690.00

(c) OPERATING MATERIAL & SUPPLIES

6 cases powder @	10.75	64.50	
200 caps	.16	32.00	
100 gallons gas for compressor @	.23½	23.50	
20 quarts oil for compressor	..30	6.00	
300 gallons deisel fuel	.16	48.00	
20 gallons deisel oil	1.00	20.00	$194.00

(d) OPERATING EQUIPMENT TO BE RENTED

1 air compressor - 15 days @	6.00	90.00	
1 Jack hammer - 15 days @ $40.00 per month		20.00	
1 Army truck - to rans. men & material, 15 da.	1.50	22.50	
1 D-6 Dozer - 15 days @	40.00	600.00	$732.50

(e) None
(f) None
(g) MISCELLANEOUS

Repairs & Maintenance of operating equipment		20.00	
Accounting		15.00	
Workments comp. & Liab. insurance	(70.00)	20.00	
General Liab. Ins.		5.00	
Pay roll taxes		31.00	$141.00

(h) CONTINGENCIES $25.00 25.00

Total cost of this unit $1,782.50

RICHARD M. ANDERSON
ATTORNEY AT LAW
307 ANDRESON BLDG.
SAN BERNARDINO,
CALIFORNIA
TELEPHONE 841269

SUMMARY OF ESTIMATED COSTS OF PROJECT

Unit No. 1-18	$7,475.20
Unit No. 2-18A	3,927.99
Unit No. 3-20	3,373.03
Unit No. 4-3	4,283.82
Unit No.5-1	4,669.42
Unit No. 6-17 N.E.	3365.03
Unit No. 7-17 S.E.	3,565.03
Unit No. 8-Trail	1,782.50
TOTAL	$ 32,392.02

RECAPITULATION

Unit No.	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1-18	$2,790.20	$1,767.00	$ 574.00	$258.00	$1,300	$ 686.00	$ 100.00
2-18A	2,177.50	1,058.15	252.34	00	00	390.00	50.00
3-20	1,776.80	804.90	397.33	00	00	344.00	50.00
4-3	2,315.50	977.65	485.67	00	00	405.00	50.00
5-1	2,385.50	1,264.25	441.67	00	00	478.00	100.00
6-17NE	1,776.80	556.90	637.33	00	00	344.00	50.00
7-17SE	1,776.80	556.90	837.33	00	00	344.00	50.00
8-Trail	690.00	194.00	732.50	00	00	141.00	25.00
TOTALs	$15,689.10	$7,179.75	$4,358.17	$258.00	$1,300	$3,132.00	$475.00

Included in the above estimates is the sum of $3,811.50 for rental of equipment owned either by the partnership or individual members of the partnership, and this sum may be considered as a portion of our 25% contribution.

7. (a) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation? Yes.

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

1. Money. The members of the partnership are financially able and prepared to supply their 25% share of the cost of the project. As stated above, $3,811.50 will be available from equipment rental, leaving a balance of approximately $4,422.50 to be supplied in cash.
2. Equipment - Rental value to the extent of approx. $3,811.50

RICHARD M. ANDERSON
ATTORNEY AT LAW
307 ANDRESON BLDG.
SAN BERNARDINO,
CALIFORNIA
TELEPHONE 841269

THESE ARTICLES OF PARTNERSHIP, MADE THIS 1st day of September, 1952, at San Bernardino, California, by and between O. W. Atkin, G. E. Atkin, R. C. Harmer, Wm. N. Frazee, Alan E. Guhin, W. R. Frazee, Carl Lang, Josephine Coulter, Josephine Snyder, William R. Brandes, Russell M. Gray, M.D., Russell M. Gray, Jr., Robert L. Gray, and Paul and Ann Hardy, hereinafter referred to as partners A,B,C,D,E,F,G,H,K,L,M,N, and P, respectively; (Paul and Ann Hardy being referred to jointly as partner Q)

WITNESSETH

WHEREAS, it is the desire of the parties hereto to form a mining partnership pursuant to the provisions of Division 2, Chapter 5, of the Public Resources Code of the State of California, and to revise articles of partnership, heretofore executed by some of these parties, to include additional partners;

AND WHEREAS it is the desire and intention of the parties hereto that these revised articles shall supplant and replace any and all articles of partnership heretofore drawn and executed by some of these parties for the LIME DIKE TUNGSTEN CO, a partnership; and that these articles of partnership shall be and are the articles of partnership of the hereinabove named partners henceforth,

AND WHEREAS, it is understood that the mining property of the partnership presently consists of twenty-one (21) certain mining claims in Kern County, California, described as follows: Claims numbered 1 to 16 inclusive, located by O. W. Atkin, G. E. Atkin, R. C. Harmer, V. F. DiGiorgio and J. A. DiGorgio, and five (5) claims, numbered 17, 18, 19, 20 and 21 respectively, located by G. E. Atkin, all of which said claims are located in virgin area laying generally in sections 13, 14, 23, 24, and 25 of Township 27 South, Range 34 East, M.D.B. & M., Kern County, California, being approximately seven miles South of Weldon Post Office and within the Sequoia National Forest Reserve; and whereas there is reason to suppose that upon some or all of these claims there are valuable mineral and metal deposits;

AND WHEREAS the mining claims numbered 1 to 16 inclusive, herein-

above described, have been, for various valuable considerations, transferred and conveyed by various quit claim deeds to G. E. Atkin, who now represents himself to be the legal owner and holder thereof of record; and that he holds said claims for this partnership

AND WHEREAS SAID mining claims numbered 17, 18, 19, 20 and 21 were discovered by and are presently of record in the name of said G. E. Atkin, who represents that he holds the same for this partnership

AND WHEREAS partners D, E, F, G, H, K, L, M, N, P, and Q have contributed various sums for the exploration and development of said mining claims

AND WHEREAS partners A, B, and C have discovered said claims and have contributed time, effort and labor on said mining claims consisting mainly of locating and recording of said claims, erection of monuments, building roads and trails and other improvements upon said property,

NOW THEREFORE, it is hereby agreed and stipulated by the parties hereto as follows:

1. These articles shall be deemed to reflect and determine the interest of each and all of the parties hereto in and to the above described mining claims and properties and in and to any additional mining claims discovered by any of these partners within a one (1) mile radius of the boundaries of the present Lime Dyke Group of Claims, during the existence of this partnership and the interest of said partners in and to the proceeds of the sale of any ore from any of said claims or the products thereof, and the interests of the partners in and to the proceeds of the sale of any or all of said mining claims or fractional interests therein to third parties by said partnership;

2. This partnership shall continue until terminated by mutual consent or by operation of law.

3. Said partnership shall be conducted and carried on under the business name, style and firm of LIME DYKE TUNGSTEN COMPANY.

4. It is stipulated that each of the hereinafter designated

partners shall have and own the interest in and to the assets of the partnership and the profits, if any therefrom, set opposite their respective designating initials:

Partner	Per cent	Partner	Per cent	Partner	Per cent
A	17.	B	9.6	C	18.75
D	20.25	E	7.20	F	3.6
G	.45	H	.45	K	.45
L	2.25	M	10.	N	2.
P	5.5	Q	2.5		

5. No partner shall sell, lease, or otherwise dispose of all or any part of his interest in this partnership and/or said mining claims without giving the other partners or any of them first right to purchase said interest.

6. The following described personal property, which is stipulated to be owned by O. W. Atkin, may be rented by the partnership at a rate to be agreed upon; or, if not so rented, said property may be removed by O. W. Atkin at any time; 1 D-6 Caterpillar Dozer, 1 Small Electric Light Plant, 1 Water pump.

7. That certain 125 cu. ft. Worthington Air Compressor which is presently located on the said partnership property and which is stipulated to be owned by William N. Frazee, may be rented by the partnership at a rate to be agreed upon; or, if not so rented, said compressor may be removed by William N. Frazee at any time.

8. Pursuant to the provisions of Section 2359 of the Public Resources Code of the State of California, partners A, D, and M are hereby expressly given all necessary authority to jointly negotiate and execute any and all agreements for the further exploration and/or development of the mining properties hereinabove described, and to do all acts necessary and incident to securing such agreements, and all acts necessary and incident to the performance of such agreements upon the execution of same.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first above written. P. _____ M. _____

Partner A	Partner B	Partner C
Partner D	Partner E	Partner F
Partner G	Partner H	Partner K
Partner L	Partner M	Partner N

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

Not To Be Filled in by Applicant

Docket No. DMEA-2450
Metal or Mineral
Date Received 3-27-52
Amount $
Participation (Government %)

O. H. Atkin and G. E. Atkin,
3343 Otono Court,
San Bernardino, Calif.

Name and address of applicant

Date March 24th, 1952

If you have already filed MF-100, give date filed not filed, type of assistance requested see supplement,

DMA Docket Number (if available) none

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.

   (*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.

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MAR 2 6 1952

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

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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.

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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—

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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.

Not named or incorporated as yet
(Name of company)

By O. W. Atkins
(Signature of authorized official)

G. E. Atkins

March 24th, 1952
(Date)

Owners
(Title)

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

SUPPLEMENT TO FORM MF-103

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATOR

LIME DYKE CLAIMS 1 To 16 INCLUSIVE

G. E. ATKIN

1A. Virgin area partially located in sections 13, 14, 23 and 24 of Township 27 South, Range 34 East, MM D. B. & M., Kern County, California, approximately seven miles South of Weldon Post Office, and within the Sequoia National Forest Reserve.

B G. W. Atkin along with G. E. Atkin, Ray Harmer, V. F. Di Giorgio and J. A. Di Gorgio are claims locators of the described 16 Lime Dyke Claims located as above described. All claims have been quit claimed to G. E. Atkin.

C. Legal descriptions of each of the 16 claims are set forth in Schedule "1" attached hereto.

2 A The metal or mineral expected to be found in said claims is tungsten (WO_3). No prospecting has been made for other metal or minerals as of the applicatio n.

B. Geological aspects of the claims consists of ore deposits and veins to approximate point of contact betweenmxk extensive Lime Dyke and granite formations. Pictures attached to Schedule "1" hereof illustrate Lime Dyke and granite formations and exploration work in connection therewith.

3 A. Proposed work consists of building approximately two miles of road to open deposits -- shearing off face of slope to fully expose known and unknown ore veins -- and the direct mining of exposed veins to follow the same as good mining practices shall indicate by surface and underground mining. Total costs estimated for such proposed work is $20,000.00.

3 B. Proposed work specified in "3A" above was commenced on or about the 14th day of November, 1951 and approximately 400 feet of open cut which can be converted to portion of road required has been completed. The open cut varies in depth from 2 to 12 feet and approximately 12 feet wide. This work has exposed three veins of ore deposits on claim 16. One of such veins has been mined to about six feet in length following the vein into the mountain side.

Copy of assay thereof is attached hereto on Schedule "3". Two other veins on ~~xxxxx~~ claim 16 have been exposed and assay on one of said veins runs ~~x~~ .91% according to assay attached hereto, also as part of Schedule "3".

The project can be commenced immediately and the time estimated for completion thereof is 7 to 10 weeks.

4. On rough map attached hereto unbroken blue line indicates proposed course of road from lower to upper claims and broken blue line areas indicate veins exposed by prior prospecting to date hereof. Full prospecting of ore veins has not been possible to date other than veins on claim 16, 1,2,3,6 and 13. In connection with vein indicated on claim 1 assay reports from samples thereof indicate tungsten content of 0.91% to 2.65% as per assay attached hereto as part of Schedule "3".

5A. Two house trailers in good condition are available and at camp site for present living facilities. Other facilities include small light plant and tent for storage.

6. Additional facilities to be attached to the land for proposed operations will be a fair sized cabin for workmen accommodations, larger light plant and tool house and out house. Estimated cost of these items are as follows:

Cabin and connecting facilities - approximately	$1,000.00
Tool House	200.00
Outhouses	100.00
Light plant	500.00

7A.

1. D-6 Caterpillar and dozer --rental cost approximately $50.00 per day
2. 1 Dodge ½ ton pick-up truck -- rental cost $10.00 per day
3. Army Dodge 4 wheel drive -- rental cost $10.00 per day
4. 2 house trailers - rental $60.00 per house trailer per month
5. 2 saddle horses -- rental cost $15.00 per horse per month.

All of these items are owned by individuals and may be rented.

7B. Operating equipment to be purchased composed of the following items:

Items	Cost
Compressor	$2,400.00
2 Jack hammers	350.00
200 feet 1-inch pipe	130.00
100 feet air hose	30.00
Powder, caps and fuses	400.00
2 sets steel	50.00
Miscellaneous bits	300.00
Hand tools	200.00
Dump truck	3200.00
Miscellaneous timber for ore bins	500.00
Miscellaneous small supplies, hardware, etc.,	200.00
Miscellaneous fuel	800.00
Reserve for repairs and miscellaneous expense	700.00

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	450.00

8. For estimated eight weeks operation labor costs are estimated as follows:

Personnel	Estimated wages per six day week
2 muckers	$150.00
1 miner	100.00
1 Caterpillar operator	120.00
1 Supervising miner	140.00

9. Expenses for assaying, engineering and other miscellaneous materials during estimated eight week period, approximately $500.00

10. Owners and operators of mining claims and applicants herein are prepared to invest $5,000.00 in addition to investments heretofore made and it is estimated that this additional investment will be sufficient to pay applicant's portion of the overall cost of the project in accordance with regulations on Government participation.

11. As pictures and maps indicate claims appear to cover entire mountain top with connecting ridge, and in addition to veins already discovered there are tungsten surface float indications over large portions of the claim which together with known veins and the Lime Dyke and granite contact formations reasonably indicate existence of highly commercial mining probabilities.

To date there has been three (3) tungsten veins found on claim No. 16; one, two feet in width and one six feet in width, and one eight feet in width. On claim No. 13, one six feet vein of ore exposed twenty feet in length. On claim No. 2 (one), one vein six feet wide, exposed on surface about 250 feet running over on to claim No. 2. On claim No. 3, two veins, four to six feet wide exposed for 50 feet on surface. On claim No. 6, two veins, one about 2 feet wide, one abour 5 feet wide exposed on surface about twenty feet.

G. E. Atkin

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

Not To Be Filled in by Applicant

Docket No. DMEA-2450
Metal or Mineral
Date Received 3-27-52
Amount $
Participation (Government %)

O. W. Atkin and G. E. Atkin,
3343 Otono Court,
San Bernardino, Calif.

Name and address of applicant

Date March 24th, 1952

If you have already filed MF-100, give date filed not filed, type of assistance requested see supplement,

DMA Docket Number (if available) none

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.

   (*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.

   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?

   (*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.

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

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   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.

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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.

Not named or incorporated as yet
(Name of company)

By O-W Atkins
(Signature of authorized official)

G. C. Atkins

March 24th, 1952
(Date)

Owners
(Title)

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

SUPPLEMENT TO FORM MF-103

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATOR

LIME DYKE CLAIMS 1 TO 16 INCLUSIVE
G. E. ATKIN

1A. Virgin area partially located in sections 13, 14, 23 and 24 of Township 27 South, Range 34 East, MM D. B. & M., Kern County, California, approximately seven miles South of Weldon Post Office, and within the Sequoia National Forest Reserve.

B Q. W. Atkin along with G. E. Atkin, Ray Harmer, V, F. Di Giorgio and J. A. Di Gorgio are claims locators of the described 16 Lime Dyke Claims located as above described. All claims have been quit claimed to G. E. Atkin.

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B. Geological aspects of the claims consists of ore deposits and veins to approximate point of contact betweenmxx extensive Lime Dyke and granite formations. Pictures attached to Schedule "1" hereof illustrate Lime Dyke and granite formations and exploration work in connection therewith.

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3 B. Proposed work specified in "3A" above was commenced on or about the 14th day of November, 1951 and approximately 400 feet of open cut which can be converted to portion of road required has been completed. The open cut varies in depth from 2 to 12 feet and approximately 12 feet wide. This work has exposed three veins of ore deposits on claim 16. One of such veins has been mined to about six feet in length following the vein into the mountain side.

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[redacted]

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G. E. Atkin

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

Not To Be Filled in by Applicant

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DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
MAR 27 1952

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March 24th, 1952
(Date)

Owner
(Title)

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

SUPPLEMENT TO FORM MF-103

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATOR

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G. E. ATKIN

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[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
U. S. Bureau of Mines
1012 Flood Building
870 Market Street
San Francisco 2, Calif.
OFFICIAL BUSINESS

[illegible]

Defense Minerals Exploration Program
Interior Building
Washington 25, D. C.

FIRST CLASS

****

CLAIM # 16

TUNGSTEN CONTENT -- 0.91%

Respectfully submitted,
HORNKOHL LABORATORIES

Frank Hornkohl

Schedule 3

Area 2459

A. V. HERR LABORATORY

ASSAYERS AND CHEMISTS

SINCE 1902

LABORATORY 5176 HOLLYWOOD BLVD. PHONE OL. 5052

CERTIFICATE № 13474

HOLLYWOOD 27, CALIFORNIA, Feb, 28, 1952

WE HEREBY CERTIFY THAT THE SAMPLES ASSAYED FOR Mr. O. W. Atkin
GAVE THE FOLLOWING RESULTS:

OWNER'S MARK	GOLD OZ. PER TON	SILVER OZ. PER TON	WO_3					VALUE PER TON
Sample for Tungsten, ----------			2.65%					$166.95

GOLD @ $_____ PER OZ.

SILVER @ $_____ PER OZ.

CHARGES $ 5.00 Pd.

C. V. Herr ASSAYER

WO_3 $63.00 per unit (for 60% conct.)

Schedule I

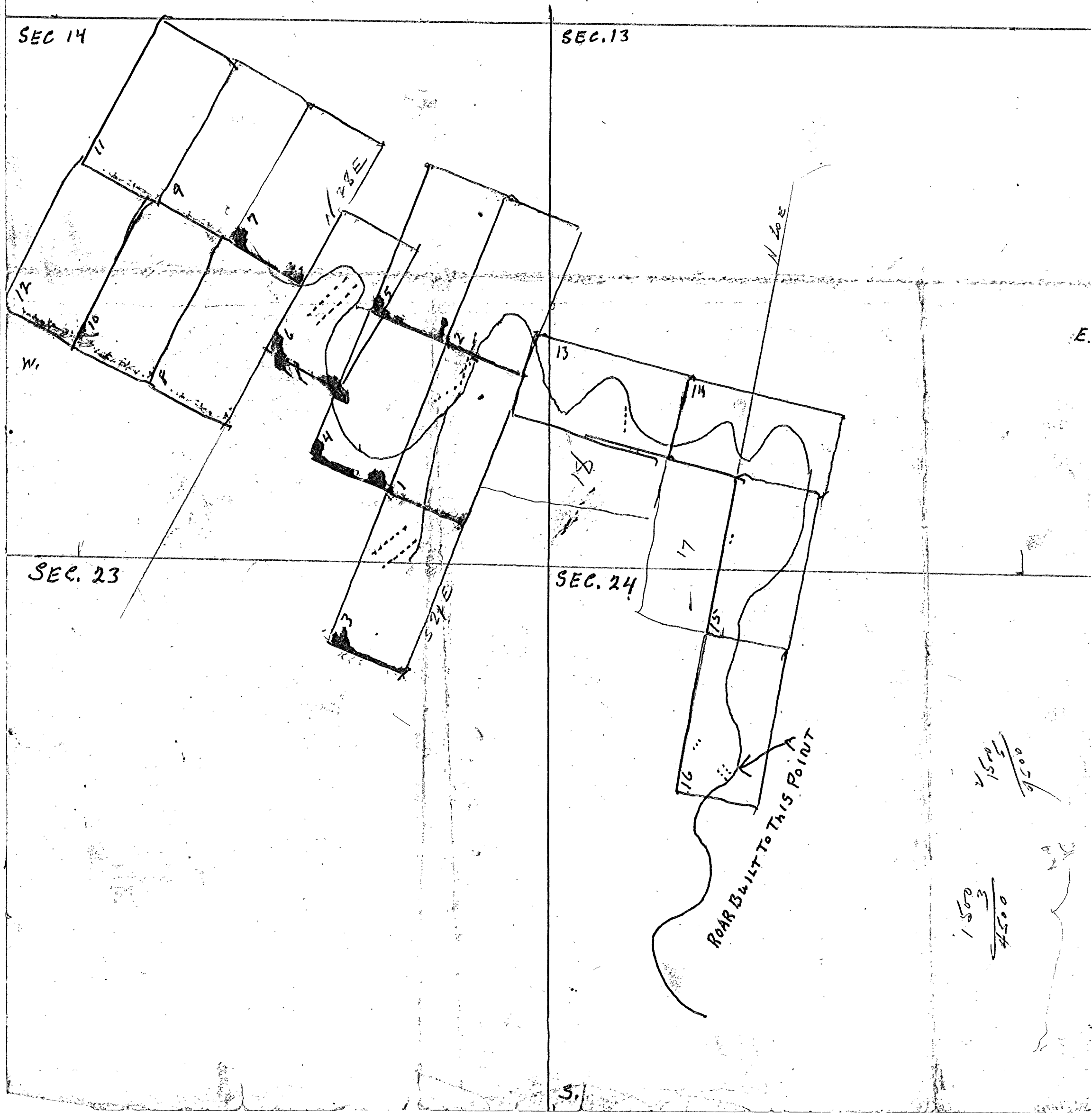
T 27S. R. 34 E. MD

N.

APPROXIMATE LOCATION
OF LIME DYKE MINING CLAIMS

Nos. 1 to 16 INC.
IN KERN COUNTY CALIF.
RECORDED AT BAKERSFIELD CALIF.

Dwg 2450

UNBROKEN BLUE LINE INDICATES PROPOSED ROAD

BROKEN BLUE LINES AREAS INDICATE VEINS EXPOSED