AUG 21 1952

Mr. Paul N. Williams
McVey Mining Company
Suite 114, San Fernando Bldg.
Los Angeles 13, California

Re: Docket No. DMMA 2587 - Tungsten
Pasho and Oliver Claims
McVey Mining Company
Yuma County, Arizona

Dear Mr. Williams:

Your application for exploration assistance and other information available to us in Washington have been carefully reviewed.

This information, while noting small scattered occurrences of scheelite on your property, indicates to us that the probability of disclosing mineable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Acting Administrator

T.Chapman:lm
8/18/52

cc: Admn. Reading File
Docket
R. W. Graham, USBM
D. M. Lemmon, USGS
Field Team Reg. IV
Operating Committee
G. C. Selfridge
T. L. Chapman

Acting Administrator, DMEA August 18, 1952

Iron and Ferro-Alloy Division, DMEA

Denial of exploration project in the amount of $114,000.00
Docket No. DMEA 2587 - Tungsten
McVay Mining Company
Pasho and Oliver Mining Claims
Yuma County, Arizona

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

1. The Pasho and Oliver group of claims are situated in the foothills of the Harquavar Mountains. Schist, limestone and granite are the principal rocks of the area. Lamprophyre dikes are numerous in the area. Mineralization in the area occurs in quartz-scheelite veins with small amounts of epidote, iron and manganese. The quartz-scheelite veins are from fractions of an inch to 8 inches in width and up to twenty feet in length. There are some quartz veins up to 4 feet in width and 150 feet long but these carry little or no mineralization and no scheelite. The indications are that, geologically, there is little probability of making a significant mineral discovery.

2. The work on the property consists of location and assessment pits and cuts, and a short adit put in when the areas were prospected for gold.

3. There has been no production from the property and no ore showings are of an economic grade.

4. The Field Team of Region IV recommends denial of the application. The Commodity Division of the U. S. Geological Survey concurs in that recommendation.

George C. Selfridge

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

TLChapman'lm
8/18/52

cc: Admn. Reading File
Docket
G. C. Selfridge
T. L. Chapman

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

IN REPLY REFER TO:

400

G-MD-CP

August 15, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Field report DMEA 2587 - Tungsten
McVay Mining Co.
Yuma County, Arizona

The tungsten prospects on the property of the McVay Mining Co. were examined July 16, 1952 by J. N. Faick, Geologist, Geological Survey and L. L. Farnham, Engineer, Bureau of Mines. Their report recommends denial of the application because the quartz veins are very narrow and the scheelite content is low and erratically distributed.

I concur with the recommendation that the application be denied.

DMLemmon:gt

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

224 New Customhouse
Denver 2, Colorado

August 6, 1952

Memorandum

To: Secretary to the Operating Committee, Defense Minerals Exploration Administration

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2587 (Tungsten) McVay Mining Company, Yuma County, Arizona

Enclosed are the original and three copies of the report pertaining to the above application. The brochure is also enclosed.

The field examiners recommend that the application for Government aid in the amount of $114,000 be denied.

We concur in the recommendation.

W. H. King

W. H. King

A. H. Koschmann

A. H. Koschmann

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 11 1952

Mining Division
Region IV

August 6, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2587 (Tungsten), McVay Mining Company, Yuma County, Arizona

Enclosed are the original and eight copies of the engineering report by L. L. Farnham of the Bureau of Mines.

Because of the small amount of tungsten mineralization, the engineer recommends that the loan be denied.

We concur in this recommendation.

W. H. King

W. H. King

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

AUG 11 1952

Reviewed by
DMEA OPERATING COMMITTE
8-15-52
(date)

Mining Division
Date Rec'd.

AUG 1- 1952

BUREAU OF MINES
Denver, Colorado

MINING DIVISION
REGION IV

July 30, 1952

Memorandum

To : W. H. King, Denver, Colorado

From : Chief, Arizona-New Mexico Branch, Mining Div., Region IV

Subject : Final Report, DMEA Docket 2587, McVay Mining Co's. Tungsten Prospects, Ellsworth Mining District, Yuma County, Ariz.

Enclosed are original and eight copies of the section on Summary, Conclusions and Recommendations by J. N. Faick of the Geological Survey and L. L. Farnham of the Bureau of Mines and the section on Engineering by Farnham for the above report. A separate section on Geology will be submitted by the Geological Survey.

Because of the small amount of tungsten mineralization, the examiners recommend that the loan be denied. I concur with their recommendations.

Brochure is enclosed.

Walter R. Storms
Walter R. Storms

CC: W. H. King (8)
C. A. Anderson
DMEA-2587
DF

WRStorms:als

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

200 New Customhouse
Denver 2, Colorado

August 5, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2587, McVey Mining Company, Yuma County, Arizona (Tungsten)

Enclosed are the original and 8 copies of the geologic report by J. N. Falck of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

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

July 31, 1952

Memorandum

To: A. H. Koschmann, Denver, Colorado

From: A. F. Shride, Tucson, Arizona

Subject: Geologic Report, DMEA 2587, McVay Mining Company, Yuma County, Arizona (Tungsten)

Enclosed are the original and 8 copies of the above report by J. N. Faick of the Geological Survey.

It is concluded that scheelite is erratically distributed in small quantities on the applicant's claims; therefore, the exploration should be denied. The report and this recommendation have my approval.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 9

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-2587, McVay Mining Co.'s Tungsten Prospects

Ellsworth Mining District, Yuma County, Ariz.

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

L. L. Farnham, Mining Engineer
U. S. Bureau of Mines

July, 1952

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By J. N. Faick[1] and L. L. Farnham[2]

In June 1952, the McVay Mining Co. applied to the Defense Minerals Exploration Administration under the Defense Act of 1950, as amended, for an exploration loan amounting to approximately $114,000. The application was docketed as DMEA-2587. The amount requested was to be used for the further exploration of several undeveloped scheelite prospects which had been recently discovered in the Ellsworth mining district of Yuma County, Ariz.

Tungsten-bearing material first was detected in the district during the latter part of 1951 when scheelite was found on the dump of a long abandoned gold quartz prospect. The claims now held by the applicant were located partially surrounding the group upon which the initial discovery was made. To date several hundred units of tungsten trioxide are reported to have been produced from shallow exploration and development openings on the claims covered by the original locations. No ore has been produced from the subject property.

The scheelite in the area occurs as coarse-grained aggregates sporadically distributed in quartz bodies which occupy irregular fractures in granite and schist, and to a lesser extent in overlying limestone. The quartz bodies range from mere stringers to short lenticular veins that attain widths of several feet. Though quartz is abundant in the area only a few of the veins have been found to contain ore.

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

Quartz float containing scheelite was present on several of the applicant's claims but only 2 exposures of quartz in place were found which contained appreciable amounts of scheelite. In both of these exposures the tungsten mineralization was confined to widths of not more than 6 inches, and the scheelite bearing portion of the vein was limited to strike lengths of less than 25 feet.

Exploratory openings on the property consisted entirely of numerous open-cuts and shallow pits such as are required for the discovery work in connection with the location of mining claims.

The exploration project as proposed by the applicant was to consist of the miscellaneous prospecting of the entire property and the sinking of 2 shafts, one at each of the present exposures on the Pacho No. 2 and Oliver No. 4 claims. In the opinion of the examiners neither of these proposals is warranted. The surface of the claims evidently has been prospected under ultra-violet light to such an extent that the chances of finding better exposures, other than those now known, are remote. Exploratory openings made on quartz outcrops that do not show ore on the surface would not be feasible.

At the 2 exposures where the shafts were proposed, the mineralization was confined to such narrow widths and the sporadic bunches of scheelite were so few and far between that it appeared, in all probability, that further exploration would not disclose a significant orebody. Therefore it is recommended that the loan application be denied.

R. B. Farnham
Walter R. Storms

John M. Faik
A. F. Shride

McVAY MINING COMPANY
YUMA COUNTY, ARIZONA
DMEA 2587

TUNGSTEN

GEOLOGY

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

McVAY MINING COMPANY
YUMA COUNTY, ARIZONA
DMEA 2587

TUNGSTEN

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Figure 1 - Location Map, McVay Mining Company, Yuma County, Arizona	See Engineering Report
Figure 2 - Claim Map, McVay Mining Company, Yuma County, Arizona	" " "

INTRODUCTION

Application for financial assistance in exploring for scheelite has been made to the Defense Minerals Exploration Administration, Docket 2587, by the McVay Mining Company, Suite 114, San Fernando Building, Los Angeles 13, California. Mr. Paul R. Williams, President, has submitted indefinite proposals for the expenditure of $114,000 to equip, explore, and develop 14 recently located unpatented claims, the Pacho Group Nos. 1-5 and Oliver Group Nos. 1-9 inclusive as shown on Figure 2.

The property is located (Fig. 1) in sections 23, 24, 25 and 26, T. 6 N. and R. 15 W. in the Elsworth Mining District, about 15 miles northwest of Salome, Arizona. The claims are about 4½ miles northeast of McVay Siding on the Atchison, Topeka, and Santa Fe railroad and can be reached from this point by about 6 miles of fair unimproved roads.

Tungsten was discovered in the district in November, 1951 by L. C. Huthmacher and two associates who located the Three Musketeers group of 4 claims upon the largest and highest grade deposits thus far discovered. Inspection reveals that two of these deposits are sufficiently large and rich to constitute potential commercial deposits of tungsten, although the deposits are as yet undeveloped. The original discoveries have been acquired by Chicago people who are now initiating exploration of the deposits. Following the original discovery much prospecting was done in the surrounding area and many new locations were made, including the 14 claims controlled by the applicant company.

GENERAL GEOLOGY

The Oliver and Pacho groups of claims are situated in the foothills at the western end of the Harcuavar Mountains in an area having a maximum relief of about 150 feet and drained westward by

several relatively small desert washes. The area is underlain by 3 principal rock types: dark-green to black schist, medium-gray massive limestone, and a light-gray biotite granite. The limestone caps most of the low hills and ridges and rests upon an eroded surface of schist which is exposed along the mountain front and in the floors of the arroyo and dry washes draining from the mountains. The schist is probably pre-Cambrian. The age of the limestone is uncertain; it may be Carboniferous. Both the schist and the limestone have been intruded by medium-grained, porphyritic light-gray biotite granite of probable Mesozoic age. Distortion of the limestone has produced many small open folds and crenulations and strong jointing. The schists in a few places are also broken by closely spaced joints and fractures, but the granite intrusive is relatively undisturbed, and has been ruptured only by a relatively few scattered tension joints or gash fractures.

Lamprophyre dikes are abundant in the area. These range in size from stringers a few inches wide to bodies many feet wide and several hundred feet long, and strike in nearly every direction; however, an east-west trend is dominant. These dikes are intrusive into granite, limestone and schist, and are thought from spatial relations to be closely associated with mineralization, although they apparently contain no tungsten.

ORE DEPOSITS

Mineralization in the area consists of quartz-scheelite veins and exceedingly small amounts of epidote, iron and manganese that form films and coatings on the joint and fracture surfaces. Oxidized copper minerals are present in trace amounts. Most of the quartz veins range

in width from a fraction of an inch to about 8 inches in width, and from a few inches to several feet in length. In a few places on the claims larger quartz veins can be seen, the largest being about 4 feet wide and 100 feet to 150 feet long. The scheelite is confined to the small quartz veinlets or stringers filling joints and fractures in the schist, limestone and granite. The largest quartz veins seen by the examiners are barren of scheelite. Where scheelite is present it is always associated with quartz, but only a small portion of the quartz contains scheelite. It is roughly estimated that only 10 percent of the quartz contains associated scheelite, the remainder being barren. This relationship of scheelite to quartz suggests that at least 2 stages of mineralization are represented, a barren quartz phase and a quartz-scheelite phase.

The scheelite is coarse-grained and much of it is in imperfect crystals ranging from 1/4 inch to 1½ inches in the longest dimension. Rounded nuggets up to 1 inch in diameter have been found in the float. Most of the scheelite fluoresces the characteristic pale bluish color under an ultraviolet light and is probably little contaminated by other metals. The only exception to this seen by the writer was at the original discovery on the Three Musketeers claim where about half of the scheelite fluoresces yellow, suggesting a relatively high molybdenum content.

On the Oliver and Pacho groups of claims the only place where scheelite occurred in noteworthy quantities is on the Oliver No. 4. Here abundant quartz-scheelite float litters a relatively flat area about 200 feet long and about 100 feet wide. The float was derived by weathering of numerous ramifying quartz-scheelite stringers and veins. These range in size from mere films on joints to veins about 6 inches wide and 15 or 20

feet long. This complex ramification of intersecting and branching veins appears to have formed by filling fractures in a relatively large irregular shatter zone or a coarse breccia, the nature of which is at present unknown. The veins strike in all directions and the dominant dip is southerly at angles of 50 to 65 degrees. These veins are too small to justify exploration, and scheelite is not sufficiently abundant to permit mining of all of the mineralized zone.

Small concentrations of scheelite are also exposed in a prospect pit on the Pacho No. 2 claim. Here scheelite is localized in small lenses and bunches in sheared and crushed quartz and schistose country rock in the footwall of one of the larger quartz veins. The largest pod of scheelite ore observed was about 18 inches long and about 6 inches wide, and the next largest pod was only about 1/4 as large. These two pods were about 3 feet apart and represented the only appreciable concentrations of scheelite along the structure as revealed by inspection with the ultraviolet light. This occurrence of tungsten ore is too small, discontinuous, and erratic in distribution to justify additional exploration.

ORE RESERVES AND EXPLORATION PROPOSALS

It is impossible to calculate any reserves for the Pacho and Oliver groups of claims because of the absence of exploration or development workings. It is unlikely that appreciable ore reserves will be developed on the property in the future because of the small size and erratic distribution of the scheelite occurrences. No concentrations of scheelite of sufficient size and grade to justify intensive exploration were seen by the examining team and none could be shown by the applicant.

The best deposit is on the Oliver No. 4 claim where many small quartz-scheelite veins crop out, but none of these are large enough to justify exploration.

The applicant's proposal is to do considerable miscellaneous prospecting on the known scheelite exposures and to follow the prospecting with more suitable exploration methods, such as shaft sinking and drifting. The applicant's proposals are vague and indefinite.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that in Sections 23, 24, 25 and 26, T. 6 N., R. 15 W., near Salome, Arizona, there is considerable scheelite erratically distributed over a large area. Two recently discovered deposits may prove to be commercial sources of tungsten; however, neither of these are on property belonging to the applicant, the McVay Mining Company. On the applicant's property the largest concentration of scheelite is on the Oliver No. 4 claim, within an area about 200 feet long and 100 feet wide, which contains abundant scheelite float and numerous small quartz veins. None of these veins contain sufficient scheelite or are large enough to justify exploration. The zone that contains numerous quartz veins does not contain enough tungsten to be mined by open pit methods.

As the scheelite deposits on the applicant's property are small and erratic in distribution, and as prospecting has not exposed potential sources of commercial tungsten ore, it is recommended that the application for financial assistance be denied.

DMEA-2587, McVAY MINING CO.'S TUNGSTEN PROSPECTS
ELLSWORTH MINING DISTRICT, YUMA COUNTY, ARIZ.

Engineering Report

By L. L. Farnham
Mining Engineer
U. S. Bureau of Mines

July 1952

DMEA-2587, McVAY MINING CO.'S TUNGSTEN PROSPECTS
ELLSWORTH MINING DISTRICT, YUMA COUNTY, ARIZ.

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2	Claim map	2

INTRODUCTION

Early in June 1952, the McVay Mining Co. applied to the Defense Minerals Exploration Administration under the Defense Production Act of 1950, as amended, for an exploration loan amounting to approximately $114,000. The application was docketed as DMEA-2587. The amount requested was for the purpose of further exploring several scheelite prospects that recently had been found within an old abandoned mining district. The property was visited by the examining team on July 16, 1952.

ACKNOWLEDGMENTS

Thanks are extended to Paul R. Williams and J. B. Merrill, officials of the applicant company, for their assistance during the examination of the property.

LOCATION AND PHYSICAL FEATURES

The subject property is located in the low desert foothills on the extreme westerly end of the Harcuvar mountains in the Ellsworth mining district of north central Yuma County, Ariz. (figure 1). The claims cover portions of Sections 23, 24, 25, and 26, T. 6 N., R. 15 W. The nearest rail shipping point is McVay, a siding on the Parker cutoff branch of the Santa Fe railroad. McVay is about 17 miles west of Salome, Ariz. The property can be reached over 6 miles of fair but unimproved desert road that branches northeasterly from paved State Highway 72 at a point about one half mile east of McVay siding.

The region is arid and lies at an altitude of about 1,500 feet above sea level.

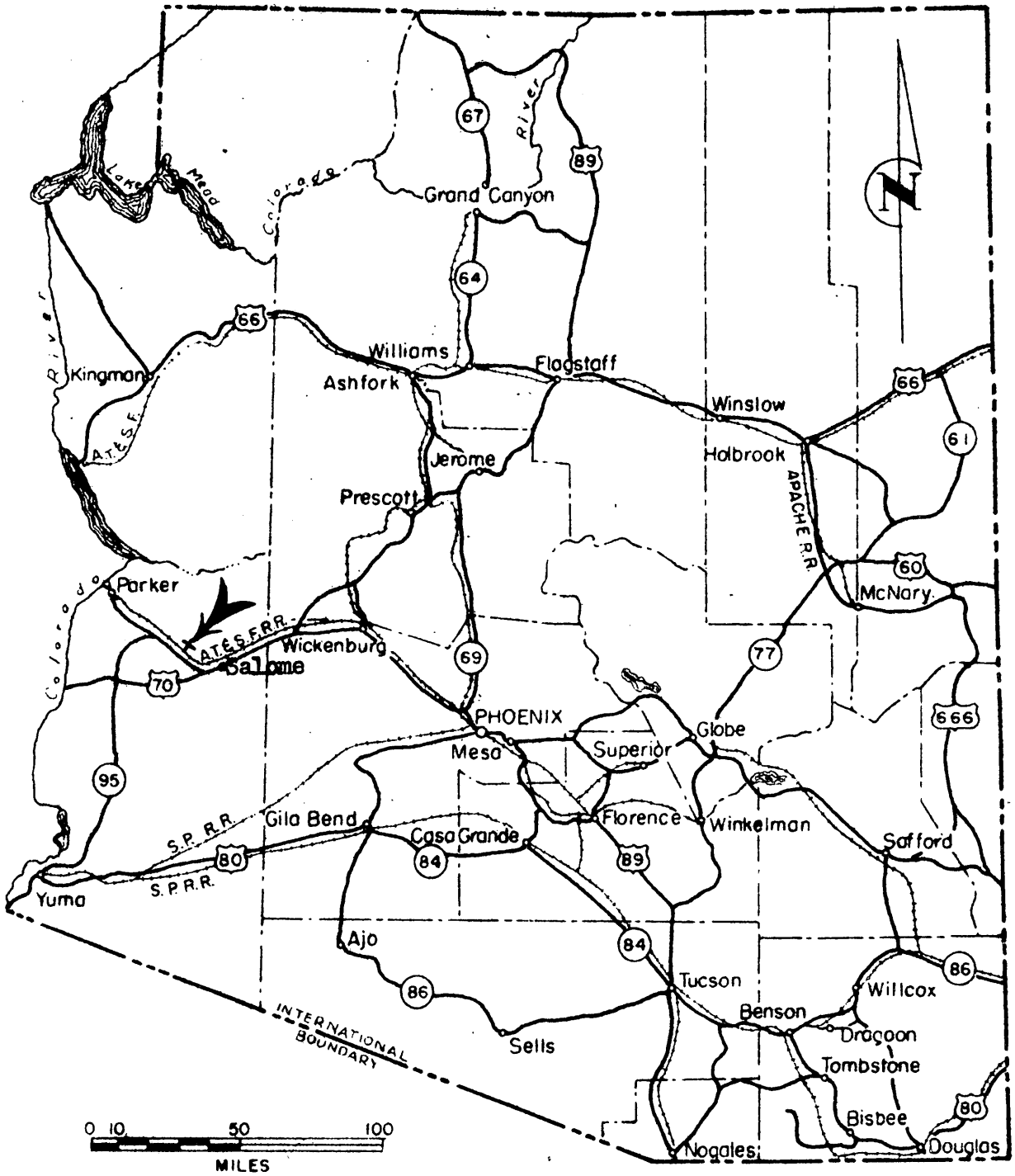

Fig. 1 - Location Map, McVay (Tungsten) Mining Company; Yuma County, Arizona, DMEA 2587.

OWNERSHIP AND EXTENT

The applicant company owns 14 unpatented lode mining claims known as the Pacho and Oliver groups. The former consists of 5 and the latter of 9 claims (figure 2). The 2 groups partially surround the Three Musketeers group which is held by the parties who made the original discovery of tungsten in the district. The applicant company has a lease on one of the Three Musketeers claims but this claim was not included in the loan application.

HISTORY AND PRODUCTION

Prospecting and the mining of gold, silver, and copper ores have been conducted intermittently in the Ellsworth mining district over a period of several decades, yet the presence of prominent outcrops of tungsten ore remained undetected in this area until very recently. During the latter part of 1951, scheelite was found through the use of ultra-violet light on the dump of a long abandoned gold-quartz prospect. R. C. Hutchmacher, John W. Wood, and John C. Brusco are credited with making the original discovery. They, having first choice of claims in the area, naturally located a group covering the more promising exposures. This group, known as the Three Musketeers, consists of 4 contiguous lode claims which are centrally located in respect to the applicant's property (figure 2). Following the news of the discovery of tungsten ore in the district, a mild rush developed and many claims were staked on all sides of the original, or Three Musketeers group. Most of the claims belonging to the applicant were located soon after the original discovery.

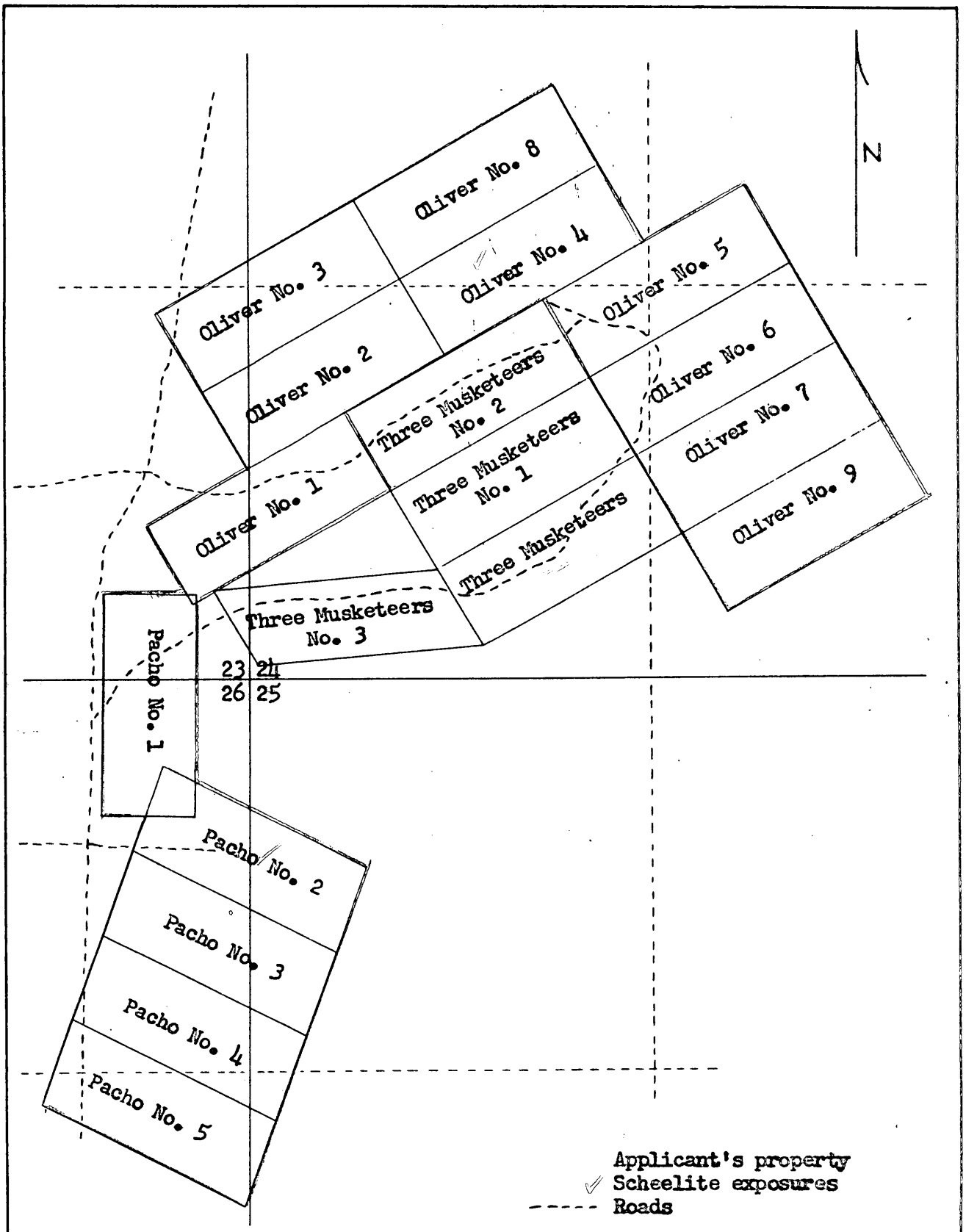

Fig. 2 - Claim, Map, McVay (Tungsten) Mining Company; Yuma County, Arizona, IMEA 2587. Scale 1" = 1,000' July, 1952
Map sketched from applicant's data and field relationships.

During the winter and spring of 1952, several of the best outcrops exposed on the Three Musketeers group were explored by opencuts and adits, the more extensive of which had reached depths of not much more than 25 feet below the surface. The better ore mined from these openings was concentrated in small mills located at Wenden and Quartzsite, Ariz. It is reported that several hundred units of WO_3 were recovered during the course of this work on the Three Musketeers group. No ore has been produced from the applicant's property.

DESCRIPTION OF THE DEPOSITS

The rocks exposed in the general area consist of granite and schist which are in places overlain by limestone and quartzite. Dikes and various sized irregular masses of lamprophyres intrude these older rocks. Quartz bodies ranging from mere stringers to prominent lenticular veins and massive "blow outs" were quite common over much of the district and appeared more prevalent in the schists than in the other rocks.

The scheelite mineralization in all cases, occurred in or was very closely associated with quartz, but only a few of the numerous quartz exposures were found to be tungsten-bearing. Although minor amounts of scheelite were widespread over an area of approximately a square mile, the locale of the maximum concentration of scheelite occurred on the Three Musketeers group.

At the site of the original discovery on this group of claims, coarse grained scheelite was well distributed across quartz lenses or pods that attained widths of over 4 feet. There three such lenses

arranged in an echelon pattern had a combined length on the surface of about 150 feet. Two of the quartz bodies over-lapped to a slight extent, but all were separated by more or less of the unmineralized schist in which they occurred. This promising prospect was inactive at the time of the visit but it was reported that it had recently changed hands and the new operators were preparing to further explore the deposit.

On the applicant's property, more or less quartz float containing scheelite was observed at a number of places on several of the claims, but appreciable quanities of scheelite in place were exposed on only two of the numerous spots that were visited. Presumably the examiners were shown the more promising exposures on the property for two of the officials of the applicant company acted as guides and both appeared to be well acquainted with the area.

Near the center of the Pacho No. 2 claim of the applicant's southern group, a short open-cut had exposed a flat-dipping quartz vein that appeared to follow the limestone-schist contact. The quartz ranged from 1 to 3 feet in thickness and had a traceable length on the surface of about 60 feet. Under ultra-violet light only occasional specks of scheelite were visible in this quartz body and they were most numerous in the vicinity of the cut. Immediately underlying this unmineralized quartz in the face of the cut there was about 6 inches of schistose vein matter within which two isolated patches of crushed quartz showed appreciable quantities of scheelite. The larger of these patches was about 18 inches long and 5 inches wide and in the other, some 3 feet

away, the scheelite was confined to an area some 8 inches long and 3 inches wide. Very little if any fluorescence was evident in the rest of the intervening vein matter that separated the spots containing the scheelite. It appeared that both of these enriched areas were bunches that could have been taken out readily by a few well directed blows of a pick.

The examiners were told that this open-cut was driven to the vein at this particular spot because of the presence of an unusual accumulation of scheelite float below the outcrop. The absence of appreciable scheelite float at no great distance on either side of the cut would strongly indicate that the tungsten mineralization was localized over a very short portion of the vein. Although the two enriched spots of scheelite exposed by this work would by themselves constitute good ore, they were obviously too small and sporadic in occurrence to be of significance.

Another outcrop of a short quartz lens was exposed in a discovery pit on the Pacho No. 3 claim. A small amount of scattered scheelite particles were present in the soil surrounding the pit but no ore was exposed by the work.

A rather spectacular showing (under ultra-violet light) of scheelite float occurred on a relatively flat surface near the center of the applicant's Oliver No. 4 claim (figure 2). There scheelite-bearing quartz fragments were scattered irregularily over the surface of an area comprising several thousand square feet. The float evidently had accumulated and been concentrated more or less in place as a result of the

erosion of a number of scheelite-bearing quartz veinlets that were exposed in the immediate vicinity. The quartz veinlets ranged up to 6 inches wide, but only a few showed appreciable scheelite and in those that did, the erratic mineralization was limited to not more than a few tens of feet along their outcrop. The scheelite occurred as coarse-grained aggregates within the milky white quartz. Nuggets of nearly pure scheelite as large as walnuts were found in the thin mantle of detrital material. Several hundred pounds of high-grade tungsten ore could probably be recovered from this surface accumulation of float. None of the individual quartz veinlets exposed in this area were wide enough or sufficiently rich to be minable, nor did they appear numerous enough or closely enough spaced within the unmineralized bed rock to constitute a low-grade orebody. No exploration work had been done in that locality.

Considerable quartz float containing scheelite was visible on the slopes of a limestone-capped hill that extended along the common end line of the Oliver No. 2 and No. 4 claims. A number of sizable but short irregular quartz bodies cropped out near the top and on the southwesterly slope of the hill but only occasional specks of scheelite were seen in these quartz outcrops. An adit near the foot of the hill had followed a strand of quartz for about 30 feet but no scheelite of consequence was found. A number of discovery and location openings had been made upon the various other claims of the groups but none appeared promising.

ORE RESERVES

There is no minable ore exposed on the applicant's property other than a few hundred pounds of scheelite-bearing quartz float that might be recovered from the detrital material on the Oliver No. 4 claim.

PRESENT STATUS

All of the exploration work to date on the property has been confined to the necessary discovery and location work on each of the various claims. The more important open-cuts and pits shown to the examiners have been previously described.

PROPOSED EXPLORATION

The exploration project as proposed by the applicant was indefinite, but as interpreted by the examiners was to consist of doing miscellaneous prospecting on the entire property in an effort to find better prospects than are presently exposed. Simultaneously with this program, the applicant desired to sink 2 shafts, one at each of the present exposures on the Pacho No. 2 and the Oliver No. 4 claims.

As far as the miscellaneous prospecting proposal is concerned it is the opinion of the examiners that the surface of the property has been well prospected already and consequently the probabilities of finding better exposures, other than those not known, appear remote. The reasons for this opinion are: (1) The host rocks in the area are well exposed as little of their surface is covered except in the comparatively narrow arroyos; (2) all the scheelite in the district occurs

in white quartz whose outcrops are conspicuous; (3) if scheelite is present in the quartz it is readily detected under ultra-violet light and this effective method of searching for scheelite has been used extensively in the area by the officials and employees of the applicant. Thus it seems reasonable to presume that most, if not all of the major quartz outcrops have been examined under ultra-violet light and thus any further prospecting of this nature would be unlikely to prove successful. Because of the sporadic occurrence of the scheelite within the veins, it is possible that some of the quartz that shows no mineralization on its outcrop may contain scheelite at some place below the present surface. However the blind search for such would not be feasible.

The best scheelite prospects exposed on the subject property were located on the Pacho No. 2 and Oliver No. 4 claims where the applicant proposed the sinking of a shaft at each of those sites. In the judgement of the examiners, both of those occurrences were to small to justify further work.

CONCLUSIONS AND RECOMMENDATIONS

Scheelite, though widespread in minor amounts on the applicant's property, was not found concentrated sufficiently in one place to indicate that further exploration would be likely to result in the discovery of a worthwhile deposit. In the best exposures the scheelite occurred in small sporadic bunches that were confined to vein widths of not more than 6 inches and to lengths along the vein that ranged from a few feet to less than 25 feet.

The outcrops of the scheelite-bearing quartz bodies on the subject property, are readily apparent and for that reason the claims no doubt have been well prospected, so that the liklehood of finding other and better exposures appears remote, Therefore it is recommended that the application for the loan be denied.