DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. _____

DMEA NO. 4840

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [x] Application and attachments

Right Side

- [ ] Project summary (final)
- [ ] Work Completed analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. _____: Reports
- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

- [ ] Field Team Semi-Annual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with transmittal, narrative and maps.

Folders No. _____: Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty material

17963

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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DATE	INITIALS	CODE

September 25, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: New Application (Tungsten)
Minerals Engineering Co.
Fool Hen Property
Beaverhead County, Montana

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application from Minerals Engineering Company for Government assistance to explore for tungsten in Beaverhead County, Montana.

The applicant proposes a program comprising bulldozing a jeep trail approximately 5 miles long, excavating 4 bulldozer cuts, drilling 1,500 feet of wagon drill holes and drilling 1,125 feet of BX size diamond drill holes. The total estimated cost of this project is $30,000 of which the Government's share would be 75 percent or $22,500.

The deposit is apparently along or near the contact of a limestone roof pendant in granitic rocks. It is near and apparently similar to the Red Button (Calvert) deposit which was estimated to have contained about 300,000 tons of ore having an average grade of 1.1 percent WO_3. About 125,000 tons had been mined from the Red Button deposit when the property was shutdown last month due to the low price of tungsten.

Because of the lateness of the season and the high altitude at which this property is located we will schedule an examination for next week. At that time, and for the same reasons, we will also examine the Slate Creek Mine, which application we forwarded to you September 20, 1957.

Sincerely yours,

A E Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Prinz

Items not enclosed herewith but will be forwarded with the week

1. Copy of Lease Between Minerals Engineering Co. and owners of Fool Hen Tungsten Group.

2. Book and page of recordings of claims in the Beaverhead County Court house.

3. Consent to Liem and Subordination Agreement.

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SEP 24 1957
U. S. G. S.
SPOKANE, WASH.

Form MF-103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1035.3
Approval expires June 30, 1958

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

NAME OF APPLICANT (Full legal name and mailing address as it should appear on contract if one is executed)

Minerals Engineering Co.
P.O. Box 94
Glen, Mont.

RECEIVED
SEP 24 1957
D.M.E.A. U.S.G.S. SPOKANE, WASH.

RECEIVED by hand SEP 30

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4840
Date Received: 9/30/57
Government Participation %:
Region: I
Division Code: 400

BUSINESS ORGANIZATION (Check one)

- Individual [ ]
- Corporation [X]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized: Colorado

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
Blair Burwell	P.O. Box 1951, Grand Junction, Colo.	Pres.
R. G. Sullivan	Same	Vice. Pres.
		Gen. Mgr.
E. B. Adams	Same	Sec.
C. A. Walt	Same	Treas.

Mineral(s) for which you wish to explore: Tungsten

Estimated Cost of Project: $ 30,000

LOCATION OF PROPERTY

Name	County	State
Fool Hen	Beaverhead	Mont.

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order-I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals,* of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

September 24, 1957
Dated

MINERALS ENGINEERING Co.
Robert N. Roby
Robert N. Roby
BY (Signature)
Mgr. Exploration Mont. Tungsten Div.
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the lands, including existing mine workings. Describe all production facilities.

(b) State your interest, if any, in operations stated in 2*(a)*.

(c) State, as far as you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves on the property giving quantities and grades and sampling methods used, supporting your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you may have, indicating on each whether you require its return to you.

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

(a) Describe fully the proposed exploration project giving individual footages and sizes of openings *for each item of work*. Use narrative, maps, plans, and longitudinal and cross sections as necessary. Show the location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *property boundaries* or to the closest identifiable corner.

(b) If an access road to the project must be built, show the location on the property map and state the length, type, and construction methods proposed.

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

(a) Independent contracts. State the cost of any proposed independent contract for the performance of all or any part of the work, expressed in units of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. *(Note* – If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

(c) Operating materials and supplies. List items of material and supplies with their cost. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of necessary *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant, which will be used on the exploration project.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration project stating specifications and cost including labor, materials and supervision.

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

Note – No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

MINERALS ENGINEERING COMPANY
MONTANA TUNGSTEN DIVISION
P. O. Box 94
GLEN, MONTANA

1. Applicant's Property Rights:

(a) Sections 19 & 20, T. 1N., R. 12 W., Mont. PM, Beaverhead County Montana. Unpatented mining claims as follows:

Fool Hen Nos. 1 to 8, inc.
Standby Nos. 1 to 13, inc.

The claims are recorded in the Beaverhead County Court House at Dillon, Mont. as follows:

Claim	Book	Page
Fool Hen No. 1		
" " No. 2		
" " No. 3		
" " No. 4		
" " No. 5		
" " No. 6		
" " No. 7		
" " No. 8		
Standby No. 1		
" No. 2		
" No. 3		
" No. 4		
" No. 5		
" No. 6		
" No. 7		
" No. 8		
" No. 9		
" No. 10		
" No. 11		
" No. 12		
" No. 13		

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(b) Lande Tungsten

(c) Minerals Engineering Co. has lease on property. Lease is enclosed.

(d) None

2. Physical Description

(a) No mining has been done on the property.
(b) Not applicable
(c) Not applicable
(d) There are no indicated ore reserves on the property at present time. One exposure of ore appears to be about 40 feet wide. Samples are shown on plan sketch.
(E) The tungsten occurance at the Fool Hen deposit is similar to the occurance at the Calvert deposit two and a quarter miles to the northwest. Both are tactite deposits formed in limestone at the contact with quartz monzonite of the Pioneer Batholith. The tungsten mineral is scheelite with relatively coarse crystals. Crystals as large as 1/2-inch across have been noted. Epidote is a common accessory mineral together with iron pyrite. A limestone block 650 feet wide and at least 1,000 feet long rises

MINERALS ENGINEERING COMPANY
MONTANA TUNGSTEN DIVISION
P. O. Box 94
GLEN, MONTANA

2 (e) continued

out of a basin underlain principally with quartz monzonite. The limestone on the southwest is bordered by schist that probably was part of the pre cambrian series of which the limestone is part. The vertical thickness of the limestone is not known. Strike and dip of the limestone beds are not apparent. The northeast end of the block forms a ridge that in places forms low cliffs. The southwest slope is gentle, sloping about 20 to 25 degrees. At numerous places on this gentle slope are noted light and dark streaks in the limestone that strike about N. 25° W. and have a vertical dip. It is thought that these streaks may represent bedding. If this is true the block is lying on its side in the quartz monzonite. The schist on the west parallels these streaks and may represent an adjoining sedimenatary bed.

The tungsten prospect occurs on the northeastern end of the limestone block at the contact with quartz monzonite. At one cut tactite is indicated to be at least 40 feet wide but additional exeavating will be required to expose the tactite solidly in place and to indicate its dip.

(f) The contact between limestone and quartz monzonite at the Fool Hen property are so similar to the Calvert property 2 1/4 miles to the north west together with the fact that the tungsten ore exposed in the one trench is also so similar to the Calvert ore it makes this contact zone appear very favorable for finding a sizeable tungsten deposit. At least two additional indications of tungsten ore have been noted along the long dozer trench northwest of the trench in ore. These are shown on the plan sketch.

(g) None of the enclosed material need be returned.

3. Accessibility of Project:

(a) Either of two individuals will be available to show the property, they are : Earl Craig, Dillon Montl , Phone 452 (home) or 742 (office)
Neil Roby, Dillon, Mont., Phone 742 or Andrus Hotel.

The principal tungsten showings and the claims on which it is proposed to do the exploration work are in unsurveyed sections 19 and 20, T. 1 N. , R. 12 W. The altitude is about 7,600 feet or about 300 feet higher than the Calvert Mine, and, although the terrain is not precipitous, slopes up to 40 degrees are not uncommon.

A dozer was walked into the property from the northeast up ridges west of Alder Creek. However, some pitches on this dozer trail are as steep as 35 to 40 percent. Traction is poor owing to the present dry powdery condition of the soil so that the trail is impassable even to a 4-wheel drive Jeep.

An access Jeep trail to the property at reasonable grades can be made either by adding switchbacks to the present dozer train from the northeast or by making a new trail from the Calvert Mine road in Bryant

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MINERALS ENGINEERING COMPANY
MONTANA TUNGSTEN DIVISION
P. O. Box 94
GLEN, MONTANA

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Creek. Surveys are planned to determine the most feasible route for an access trail to bring in wheel equipment.

There are no underground mine workings.

(b) Most of the Company staff live in Dillon, Mont., about 65 miles south of the Fool Hen property. During the exploration work it is proposed to have a tent camp at the job. Minerals Engineering Co. has also a trailer camp at the village of Wise River about 12 miles east of the property.

4. The Exploration Project:

(a) The order of exploring the Fool Hen deposit will be trenching, trail building, (In order to bring wheel equipment to the property) wagon drilling, and finally, diamond drilling. Minerals Engineering Co. has available all the equipment necessary to explore the deposit.

Four cross trenches are proposed(See plan and sections). These trenches will be excavated with bulldozer together with front end loader, compressor and drills. The terrain is such that deep cuts would be difficult to make with bulldozer alone. It is proposed to doze the trenches as deep as possible and then to drill and blast the bottom and to remove the broken rock with a front end loader. It is believed that with the aid of a D-8 tractor a 365 cfm compressor and a front end Michigan loader can be brought into the property. If necessary two tractors could be used to bring the compressor and loader to the property.

After the four trenches are excavated across the contact a drilling program will be outlined depending on the attitude of the tactite deposit. A Jeep trail will be needed before truck mounted drills can be brought into the property.

If the tactite zone is 40 feet wide and vertical as is indicated by the showing on the south end, a number of vertical wagon drill holes could be drilled from the four cuts. Deeper angle diamond-drill holes would be drilled either from the northeast or through the limestone from the southwest.

If the tactite dips to the southwest under the limestone it will be necessary to make drill stations along the toe of the limestone outcrop northeast of the ridge and also other drill stations on the southwest slope of the limestone. So little is known of the attitude of the deposit that it is difficult to lay out a definite drilling program at this time. The best that can be done is to recommend a modest amount of drilling for a deposit of this type based on experience at other deposits and then to place the holes later as required on the advice of both the Government and Company engineers.

(b) Access road or Jeep trail described under 4 (a) above. Two proposed routes are shown on the area sketch enclosed herewith. The length of either route would be about 4 miles. It will be constructed on approximately a 7 percent grade with a bulldozer. It will be one blade wide and only a rough trail. Rock work will be avoided where possible by leaving the grade and returning to it beyond the solid rock.

MINERALS ENGINEERING COMPANY
MONTANA TUNGSTEN DIVISION
P. O. Box 94
GLEN, MONTANA

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In other words this will be a Jeep trail and not a finished road.

(c) Work can start immediately as soon as the contract is executed. Dozing will require about one month, trail building one month and and drilling six weeks. Owing to the lateness of the season perhaps only the dozing can be completed this fall. However, if the weather remains open the work can continue.

5. Experience

Officials of Minerals Engineering Co. have been in the tungsten business for many years. For the past four years the Company has been operating a tungsten concentrator at Glen, Beaverhead County, Mont. This plant operated at capacities up to 1,000 tons per day with an average tonnage of about 750 tons per day. The ore for this mill came from the Brown's Lake deposit and from the Calvert Deppsit. The Brown's Lake deposit was explored by D.M.E.A. loan that amounted to about $94,000. This loan has been completely repaid.

The Company also is joint owner and operates the Salt Lake tungsten refinery in Salt Lake City, Utah.

The project engineer on the Fool Hen project will be either Earl Craig, Manager of Montana Tungsten Division, David Aro, Superintendent of Mining or Neil Roby, Manager of Exploration, Montana Tungsten Division. Either of the three are qualified to manage the work.

6. Estimate of Costs:

(a) An estimate of the units to be accomplished by Minerals Engineering Co. and the cost are as follows:

Excavating 4 cuts, 195 hours at $18 per hour	$3,500
1500 feet Wagon drill hole at $2.50 per ft.	3,750
1125 feet BX Diamond-drill hole at $8.00 per ft.	9,000
Jeep trail, approx. 5 miles	10,000
(b)	
Project engineer 3 months at $700 per month	2,100
Camp cook 3 months at $300	900
(c) None. Minerals Engineering Co. has available necessary operating equipment and supplies.	
(d) Operating equipment to be provided by Minerals Engineering Co.	
(e) Establishigg Camp	750
(f) None	
(g) None	
TOTAL	$30,000

(f and g) None

7. (a) Minerals Engineering Co. is prepared to furnish their share of the cost of the proposed project.

(b) Minerals Engineering Co. will do the work at the above unit rates and invoice the Government at the end of each month for the amount of work completed during the month.

3. Applicant's Property Rights:

(a) Sections 19 & 20, T. 12., R. 12 W., Mont. M., Broadwater County Montana. Unpatented mining claims as follows:

Foul Hen Nos. 1 to 8, inc.
Stanley Nos. 1 to 10, inc.

The claims are recorded in the Broadwater County Court House at Townsend, Mont. as follows:

	Book	Page
Foul Hen No. 1	89	113-114
" " No. 2	"	115-116
" " No. 3	"	321-322
" " No. 4	"	323-324
" " No. 5	"	325-326
" " No. 6	"	327-328
" " No. 7	"	329-330
" " No. 8	"	331-332
Stanley No. 1	"	111-112
" No. 2	"	303-304
" No. 3	"	305-306
" No. 4	"	307-308
" No. 5	"	309-310
" No. 6	"	311-312
" No. 7	"	313-314
" No. 8	"	315-316
" No. 9	"	317-318
" No. 10	"	319-320

[redacted]

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(b) Assume Tungsten

(c) Minerals Engineering Co. has lease on property. Lease is enclosed.

(d) None

2. Physical Description

(a) No mining has been done on the property.
(b) Not applicable
(c) Not applicable
(d) There are no indicated ore reserves on the property at present time. The exposure of ore appears to be about 40 feet wide. Samples are shown on plan sketch.
(e) The tungsten occurrence at the Foul Hen deposit is similar to the occurrence at the Calvert deposit two and a quarter miles to the northwest. Both are contact deposits formed in limestone at the contact with quartz monzonite of the Pioneer Batholith. The tungsten mineral is scheelite with relatively coarse crystals. Crystals as large as 1/2-inch across have been noted. Epidote is a common accessory mineral together with iron pyrite.

A limestone block 600 feet wide and at least 1,000 feet long rises

AGREEMENT, made this 15th day of August, 1957, by and between DEWEY LANDE, CHARLES LANDE, BERT L. SIRIA and CLEORA J. SIRIA, the parties of the first part (hereinafter referred to as the "Owners") and MINERALS ENGINEERING COMPANY, a Colorado corporation, the party of the second part, (hereinafter referred to as "Minerals"):

In order to induce Minerals to enter into this agreement Owners warrant and represent -

A. (1) That Dewey Lande is the owner of an undivided one-half interest, Charles Lande is the owner of an undivided one-fourth interest, Bert L. Siria is the owner of an undivided one-eighth interest, and Cleora J. Siria is the owner of an undivided one-eighth interest in and to the following described unpatented lode mining claims, situated in Township 1 North, Range 12 West, Beaverhead County, Montana, to-wit:

FOOL HEN NO. 1; FOOL HEN NO. 2; [illegible];

and said owners are entitled to the possession of said claims.

(2) That Dewey Lande and Charles Lande are the owners in equal shares, and entitled to the possession of, the following described unpatented lode mining claims, situated in Township 1 North, Range 12 West, Beaverhead County, Montana, to-wit:

FOOL HEN NOS. 3 to 8, INCLUSIVE,

STANDBY NOS. 1 to 13, INCLUSIVE.

B. Owners desire to have Minerals immediately enter into and upon either, any or all of the lands described in paragraph A preceding, and to investigate, explore, test and sample the same in such manner as to Minerals may seem advisable for the purpose of determining if any, either or all of said properties can be profitably worked and mined.

WHEREAS, Minerals represents that it is ready and willing and has adequate facilities, equipment and trained personnel wherewith

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to investigate, explore and mine said properties upon the terms and conditions herein set forth; and

WHEREAS, the parties hereto desire to enter into an agreement whereby Owners grant unto Minerals the sole and exclusive right and option of leasing said properties, following Minerals investigation thereof, upon the terms and conditions herein stated;

NOW, THEREFORE, IT IS AGREED:

1. Owners do hereby give and grant unto Minerals, its successors and assigns, the exclusive right from date hereof to and including the 15th day of November, 1957, within which to enter into and upon all, either or any of the properties described in paragraph A preceding, and to investigate, explore, test and sample the same in whatever manner, place and means as to Minerals may seem advisable, including the excavation of pits, open cuts, drilling or underground work. In such investigative work Minerals may mine and sell ores from said properties, and Minerals shall be entitled to retain all proceeds therefrom, save and except a royalty, as hereinafter agreed payable upon ores mined from said premises by Minerals as lessee.

2. Minerals agrees to enter into and upon such properties and to perform such investigative and exploratory work as to it may seem advisable to ascertain the value, extent and worth of the mineral deposits therein. In the performance of such exploratory work Minerals agrees:

(a) From time to time, and as compiled and prepared, to furnish Owners with duplicate copies of all mine and analysis maps, assays, reports of ores mined, beneficiated and/or shipped, and other data resulting from the investigation and exploration of such properties by it.

(b) To do and perform such work in a minerlike and proper manner and to comply with all requirements of State and Federal statutes to the extent applicable in such operations, and to maintain in full force and effect Workmen's Compensation Insurance.

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(c) During the period of such exploratory work Owners and their authorized representatives may enter in and upon said properties for purpose of inspection.

3. Minerals shall pay to Owners the sum of $500.00 on or before September 15th, 1957, such payment to be made into the First National Bank of Dillon, Montana, for Owners' credit.

4. Minerals shall have the exclusive right and option, hereby specifically granted to it by Owners, and on or before November 15th, 1957, to either:

(a) Terminate this agreement and surrender possession of all the properties hereinbefore described in paragraph A. Upon such termination -

Minerals will provide Owners with a recordable written instrument that it has no further interest in such properties, and it shall thereupon return such properties to Owners in as good order as on the date hereof, the results of Minerals' mining and exploratory work and damage by the exements excepted.

Minerals shall have a period of sixty (60) days thereafter within which to remove all machinery, materials, equipment, structures and other property placed upon such properties by it, and any such property not removed within such time shall become the property of Owners. Minerals shall not remove or impair any supports placed in any mine or any timber or framework necessary to the use of shafts or other approaches to such mine or tramways within the same.

Such termination shall become effective immediately after notice in writing by Minerals to Owners that it has elected to terminate, and it shall thereby be released of and from any and all liabilities of every kind and nature hereunder.

OR

(b) To thereafter work and mine said properties as the lessee of Owners. In the event of its election so to proceed it shall give written notice thereof to Owners on or before November 15th, 1957,

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DATE	INITIALS	CODE

and it shall concurrently therewith pay into the First National Bank of Dillon, Montana, for Owners' credit, the sum of $1500.00, and thereupon the following terms, conditions and covenants shall apply, to-wit:

1. TERM. Owners do hereby lease to Minerals and Minerals does hereby take and hire from Owners the said mining claims and properties described in paragraph A preceding for a term of twenty years from the date of the written notice of the election to proceed, subject however to termination by forfeiture, cancellation or surrender within said term as hereinafter provided.

2. PURPOSE OF LEASE. The above described premises are leased to Minerals for the purpose of exploring for, mining, taking out and removing the minerals found on or in said lands, together with the right to construct or make such buildings, excavations, openings, ditches, drains, railroads, tailings ponds, railroads, roads and other improvements upon said premises as may be necessary or suitable for such purposes.

3. ASSESSMENT WORK. Minerals shall perform by June 30 of each year all assessment work required under the applicable mining laws to keep the said unpatented mining claims herein described or subsequently located hereunder in good standing and shall make due and timely proof thereof on or before said date of the performance of such work.

4. TAXES. Minerals shall pay all taxes which may be assessed against said lands and the improvements thereon, used or controlled by Minerals, and the personal property thereat, used or controlled by Minerals.

5. REPORTS. Minerals shall furnish to Owners, upon request in writing from time to time, and as compiled and prepared, but not oftener than quarterly, duplicate copies of all exploration reports, concentrating plant reports, mine maps, analysis maps and plans of

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development made and used in the operations on said premises. It shall furnish to Owners a monthly report showing the estimated weight and analysis of all ore material stockpiled according to each classification, whether merchantable, concentratable, or nonmerchantable. It shall furnish to Owners a monthly report of all ores mined and shipped or beneficiated from said premises, showing the values, tonnage and analysis thereof, together with a record and analysis of any tailings and rejects, and specifying the claims from which said ores were mined.

6. OPERATIONS TO BE CONDUCTED IN ACCORDANCE WITH GOOD MINING; WORKMEN'S COMPENSATION: INDEMNIFICATION. Minerals shall have the sole and absolute supervision of mining and milling operations hereunder. Minerals will open, use and work the mine or mines on said lands in such manner only as is usual and customary in skillful and proper mining operations of similar character and in accordance with the requirements, methods and practices of good mining engineering.

In its occupancy of the demised premises and in carrying on the operations to be carried on hereunder, Minerals shall comply with all requirements of State and Federal statutes to the extent applicable to such operations, and shall maintain in full force and effect Workmen's Compensation insurance.

Owners shall not be liable to Minerals for any damage occurring by reason of any defect in, upon or about the demised premises nor be liable for any damage occasioned by said premises being out of repair or for any damage arising from any act or neglect of any person on any adjoining or contiguous property. Minerals agrees to indemnify and hold Owners free and harmless from and against any and all loss, liability or claims for the death and/or injury to any person and/or for the loss or damage to property in or about the demised premises or to property of other persons occurring

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during the term hereof and resulting directly or indirectly out of any of Minerals' operations hereunder. It is understood and agreed that Minerals will carry on all mining and milling operations hereunder as an independent contractor. Minerals agrees to hold Owners harmless from and against any and all liens that may be placed upon the demised premises resulting from any operations or activities of Minerals hereunder.

7. MINIMUM RENTAL AND PRODUCTION REQUIREMENTS. Minerals agrees to work and mine said premises as aforesaid and to extract a minimum of at least twelve hundred (1200) tons of ore annually from said premises. In lieu of such production Minerals may pay to Owners as rental $200.00 per month which payment shall be the equivalent of the production of one hundred (100) tons of ore as herein required. Such rental shall be payable at the expiration of each month of this lease, and shall constitute a credit against the current year's production requirements.

Any amount paid for rental accrued shall be credited on any royalty that may become due for minerals removed hereunder.

At any time the production royalties, as provided in paragraph 9 hereof, shall exceed $2,400.00 in any lease year, Minerals shall be excused from further production requirements for the remainder of such lease year.

8. SUSPENSION OF MINIMUM RENTALS. In the event the market price of tungsten trioxide (WO_3) (as such market value is quoted in the Engineering and Mining Journal or other standard publication) shall decrease below $25.00 per short ton unit including bonus and/or incentive payments made by any government agency, Minerals may, at its option, suspend all of its operations hereunder, save the performance of the annual assessment work, so long as the market value remains below $25.00 per short ton unit; provided however that in the event Minerals shall suspend operations upon such demised premises, because

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of such market values, for a period of eighteen months (18) months, then Owners may, at their option, terminate this lease. Minerals shall not be obligated to resume operations until the market value of tungsten trioxide (WO_3), including bonus and incentive payments remain above $25.00 per short ton unit for a continuous period of three months. During the time that such market value remains below $25.00 per short ton unit for tungsten trioxide (WO_3) Minerals shall be excused from the minimum production and rental requirements, as provided in paragraph 7 preceding.

9. ROYALTIES ON ORES MINED. Minerals shall have, and it is hereby given and granted, the right to treat or ship and dispose of, at the best price reasonably to be obtained, any and all ores taken on or from the demised premises. On all ores extracted from said premises Minerals shall pay to Owners a sum equal to five percent (5%) of the gross recovered value thereof, after milling. The term "gross recovered value thereof, after milling" shall mean the gross assayed values of such ores after the same have been processed through the primary mill, and before further treatment. To illustrate, on any ore assaying .25 WO_3 it is anticipated that .04 WO_3 will be lost in the primary milling; Owners' royalty shall be paid on the net of .21 WO_3.

Should any dispute arise as to the assay value of such ores, such sample or samples as taken, shall be submitted to the Union Assay Company and Ledoux & Company, as umpires, whose findings in the matter shall be conclusive upon the parties hereto. Should said umpires obtain different results, the average obtained shall be conclusive.

Said demised premises are believed to be principally valuable for tungsten ores; should lessee mine and ship from said premises ores commercially valuable because of other metals for which Minerals shall receive payment it shall pay to Owners a sum equal to five percent (5%) of the gross value thereof.

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Such royalties shall be due at the end of each month for ores removed from said premises during the month immediately preceding the first day of the month in which payment shall become due, and the same shall be paid to the First National Bank of Dillon, Montana, for the credit of the Owners.

10. ADDITIONAL LOCATIONS. Minerals shall make such additional mining locations as it may deem necessary for the full and complete development of the demised premises, in the names of Dewey Lande and Charles Lande, with privilege to Minerals of working and occupying such discoveries as parcel of the demised premises. Minerals shall likewise have the privilege of working and occupying such additional locations as may be made by the Owners and which locations are immediately adjacent to said demised premises. The provision of this paragraph shall not apply to millsite locations made by Minerals, the understanding in this regard being that such locations may be made by Minerals in its own name and for its own benefit.

11. RIGHT OF INSPECTION. The Owners, their agents, engineers, or other persons in their behalf, with their assistance, shall have the right to enter at all times the mines and other workings connected therewith and other operations of Minerals under this lease, in order to examine, sample, assay, inspect, survey, or measure them or any part thereof. Minerals agrees to render to Owners, their agents or engineers, proper assistance in making such inspection, surveys or examination.

12. FORCE MAJEURE. It is understood and agreed any period of delay in the performance of any obligation hereunder occasioned by strikes, acts of God, war, rebellion, or other causes (except financial) reasonably beyond the control of the defaulting party, shall be excused during the continuance of such cause or causes and such delay shall not be considered a default hereunder by such party, but such party shall exert every reasonable effort to overcome any such cause of delay, and shall give other party prompt

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DATE	INITIALS	CODE

written notice of all such delays and their expected duration.

13. NOTICE OF DEFAULT AND TERMINATION. In the event of failure of Minerals to perform any obligation assumed by it hereunder and the failure of Minerals to correct such default within sixty (60) days (or in the event such default is of such nature that it cannot reasonably be corrected within sixty (60) days, in the event of failure of Minerals to commence within such sixty-day period to correct such default and to diligently prosecute to completion the work of correcting such default) after written notice from Owners so to do, Owners may, at their option, terminate this agreement.

14. TERMINATION BY MINERALS. Minerals shall be entitled at any time during the term hereof to terminate this agreement and surrender the demised premises upon sixty (60) days prior written notice to Owners of intention so to do, and upon the expiration of such sixty (60) day period all of its obligations hereunder, save as to payment of royalties accruing during such period, shall thereupon cease. Upon such termination Minerals shall provide Owners with a recordable written instrument evidencing that Minerals has no further interest in the demised premises. Minerals shall have a period of sixty (60) days thereafter within which to remove all machinery, materials, equipment, structures and other property placed upon such premises by it, and any property not removed within such time shall become the property of Owners. Minerals shall not remove or impair any supports placed in any mine or any timber or frame work necessary to the use of shafts or other approaches to such mine or tramways within the same.

15. OPTION. In the event of a contemplated sale of said premises, Owners agree to give to Minerals a notice in writing at least sixty (60)days before the contemplated sale of the terms on which it is proposed to be made, and thereupon Minerals shall have the right to purchase such premises within such sixty (60) day period upon such terms and conditions proposed, the intent being that Minerals shall

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DATE	INITIALS	CODE

have the first refusal of any terms of sale acceptable to Owners. A sale to a third party shall be subject to this lease.

16. BENEFIT. This agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto.

17. NOTICE. Any notice to be given hereunder shall be properly given if delivered or mailed by registered mail, postage prepaid:

To Owners:

Dewey Lande
P.O. Box 300
Billings, Montana

Charles Lande
P.O. Box 535
Anaconda, Montana

Bert L. Siria
P.O. Box 535
Anaconda, Montana

Cleora J. Siria
P.O. Box 535
Anaconda, Montana

To Minerals:

Minerals Engineering Company
P.O. Box 1951
Grand Junction, Colorado.

IN WITNESS WHEREOF, the parties have executed this agreement in five counterparts the day and year first above written.

Dewey L. Lande
Charles A. Lande
Bert L. Siria
Cleora J. Siria
PARTIES OF THE FIRST PART.

ATTEST:
Its Assistant Secretary.

MINERALS ENGINEERING COMPANY
By R. B. Sullivan
Its Vice Pres.
PARTY OF THE SECOND PART.

DATE	INITIALS	CODE

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D M E A
RECEIVED OCT 14 1957

DATE	INITIALS	CODE

STATE OF MONTANA)
ss
County of Beaverhead)

On this 15th day of August, 1957, before me, the undersigned, a Notary Public for the State of Montana, personally appeared DEWEY LANDE, CHARLES LANDE, BERT L. SIRIA and CLEORA J. SIRIA, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

CARL M. DAVIS NOTARIAL SEAL STATE OF MONTANA

Carl M. Davis
Notary Public for State of Montana
Residing at Dillon, Montana.
My commission expires June 24, 1958

STATE OF MONTANA)
ss
County of Beaverhead)

On this 22nd day of August, 1957, before me, the undersigned, a Notary Public for the State of Montana, personally appeared R. G. SULLIVAN and LEONARD A. SCHULZ, known to me to be the Vice-President and Assistant Secretary, respectively, of Minerals Engineering Company, the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

CARL M. DAVIS NOTARIAL SEAL STATE OF MONTANA

Carl M. Davis
Notary Public for State of Montana
Residing at Dillon, Montana
My commission expires June 24, 1958

STATE OF MONTANA, }
County of Beaverhead. } ss.

I hereby certify that the within instrument was filed for record on the 26 day of August A.D. 57 at 40 min. past 9 o'clock A.M. and recorded on page 489-99 of 441 of Misc. Records of Beaverhead County, Montana.

Attest my hand and seal

COUNTY RECORDER.

By _____ Deputy

INDEXED

Fee $ 11.00

Schulz + Davis

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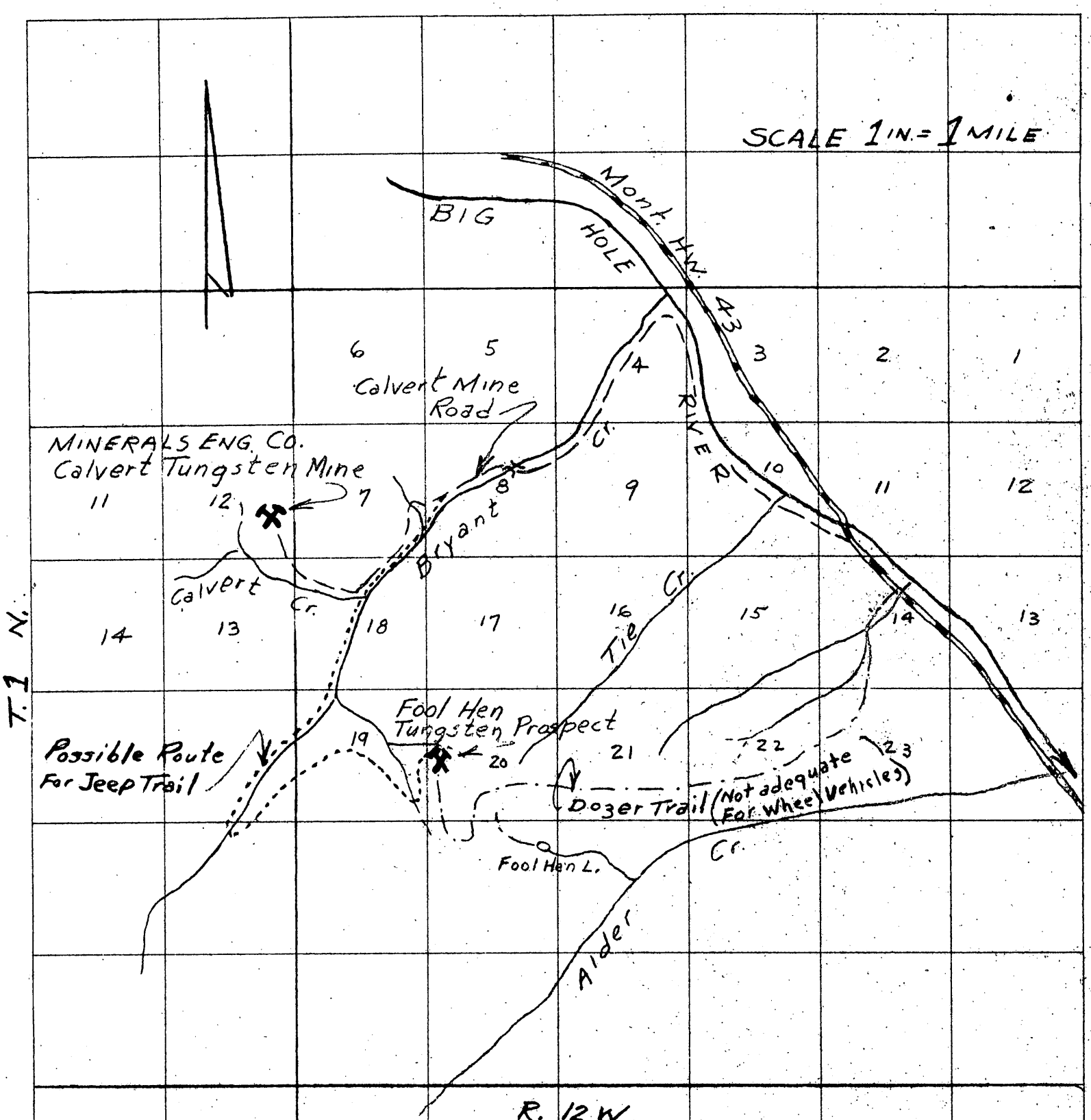

MINERALS ENGINEERING CO.

SKETCH SHOWING POSITION OF

THE FOOL HEN TUNGSTEN PROSPECT

BEAVERHEAD COUNTY, MONT.

R M Raby 9/21/57

J. A. Gendron Co., Spokane

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

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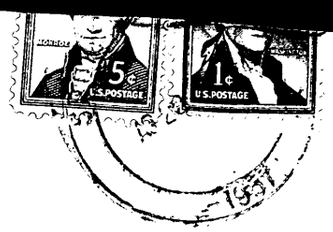
RECEIVED SEP 30 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1201 N. DIVISION STREET
SPOKANE 2, WASHINGTON



Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

DMEA Form 7
(12-56)

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Date	Surname	Code
3-17	Chapman	400
3-17	Martin	400
		110
		100

March 17, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron & Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $30,000.00
Docket No. DMEA 4840 - Tungsten
Minerals Engineering Company
Fool Hen property
Beaverhead County, Montana

A denial without prejudice to the property of the subject application is recommended by this Division based on the following information:

The above-noted property was the subject of a request dated September 24, 1957, at an estimated cost of $30,000.00 for trail building, trenching, wagon-drilling and diamond drilling. The property was examined on October 12, 1957, by E. W. Parsons, Bureau of Mines, and W. E. Prinz, Geological Survey, accompanied by Earl Craig, representing the Applicant.

Applicant: Minerals Engineering Company
P. O. Box 94 — Main Office, Box 1951
Glen, Montana — Grand Junction, Colorado

Property Ownership: The property consists of 21 unpatented lode mining claims owned by: Dewey Lande, Box 300, Billings, Montana
Charles Lande, Box 535, Anaconda, Montana
Bert L. Siria, Box 535, Anaconda, Montana
Cleora J. Siria, Box 535, Anaconda, Montana
located in sections 20 and 21, T. I N. R. 12 W. Beaverhead County, Montana and recorded as follows:

Claim Name	Book No.	Page No.
Fool Hen No. 1	149	113-114
Fool Hen Nos. 2-8 incl.	149	321-332
Stand By Nos. 1-13 "	149	111-112
		303-320

8623

The property is held by a Lease Agreement, dated August 15, 1957, by the Minerals Engineering Company, Box 1951 Grand Junction, Colorado.

Geology: Western Beaverhead County is underlain by sediments which have been intruded by a Tertiary quartz monzonite batholith. The sediments on the property consists of dolomitic limestone, siliceous limestone and micaceous quartzite. At contact points with the intrusive tactites have been formed and are exposed in several places. Scheelite is disseminated at various places in the tactite. The scheelite appears to occur in lenses and pods.

Development: Work on the property consists of one long bulldozer trench and small pits and cuts.

Ore Values and Tonnage: There are no ore reserves on the property. Samples taken gave the following values:

Sample No.	Width Ft.	Percent WO_3 U.S.B.M.	HANKS	MACK
EWP-25A	3 & 4 10' apart	0.43	0.55	0.54
EWP-1B	Grab	0.01	0.05	Tr.
EWP-2B	8.0	0.01	0.07	Tr.
EWP-3B	15.0	0.12	0.18	0.14
EWP-4B	12.0	0.25	0.40	0.41

History and Production: No ore of a minable tonnage and grade has been exposed on the property and no ore has been produced.

Applicants' Proposal: The Applicant proposed the building of 5 miles of jeep trail, 195 hours of bulldozing 4 open cuts, 1,500 feet of wagon drilling and 1,125 feet of diamond drilling (BX size), at an estimated cost of $30,000.00.

Comments and Conclusions: The Bureau of Mines Engineer concludes that the possibility of making a significant discovery is very remote and recommends that the application be denied.

The Geological Survey Geologist believes the property warrants exploration assistance to consist of two stages as follows:

Stage I

Bulldoze 7 trenches about 150 feet each across the contact. If approved by the Government an additional 350 feet of trenches to be bulldozed. If this work does not expose better mineralized zones than are already showing, then no further work is proposed. If good showings are found then proceed with

Stage II

Bulldoze 5 miles of jeep trail

Wagon drilling 900 feet

Diamond drilling, 9 holes for a total of 1,125 feet.

The Field Team believes that Stage I as suggested by Prinz, Geologist, is warranted if the Applicant can demonstrate that the overburden is not too deep for trenching.

The Commodity Division of the Geological Survey believes that a request to have the Applicant sink a small shaft is appropriate if a contract by DMEA is seriously considered.

The Commodity Division of the Bureau of Mines believes a small amount of trenching is justified and also believes any necessary preliminary work, such as shaft sinking, should be participated in by DMEA.

W S Martin

W. S. Martin, Director
Division of Iron and Ferro-Alloys

TLCHAPMAN:foc
3-17-58
cc to: Docket
Admr. R. File
Oper. Comm.

DMEA Form 7
(12-56)

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Date	Surname	Code
3-17	Chapman	400
3-17	Martin	400
3/19	Selledge	130
3/19	McMahon	130
3/19	Nelson	130
		~~110~~
		~~109~~
		220

MAR 19 1958

Minerals Engineering Company
P. O. Box 94
Glen, Montana

Re: Docket No. DMEA 4840 - Tungsten
Fool Hen property
Beaverhead County, Montana

Gentlemen:

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

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

Careful study of all our information, although noting the occurrence of tungsten mineralization on your property, indicates to us that the probability of disclosing significant ore reserves of a minable grade is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances that your application is denied. Such denial, however, is made without prejudice to the property.

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

Sincerely yours,

Administrator

TLCHAPMAN:foc
3-17-58
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT, REG. I
Messrs: R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

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	WSM	400

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

Date March 5, 1958

DMEA Docket No. 4840
DMEA Contract No.
Commodity Tungsten
Name of applicant Minerals Engineering Co.
Name of property Fool Hen Property
Location of property Beaverhead County, Montana
Estimated cost of project

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Field Examination Report
(Application, Field Team Report, etc.)

1. Date of subject document: 1/9/58 1/17/58. 2. Date received by reviewer: 2/21/58.
3. Prior reports on this property known to reviewer: Yes [ ], No [X].
4. Prior reports on nearby properties known to reviewer: Yes [ ], No [X].
5. Information available on past production: Yes [ ], No [X].
6. Other pertinent factors known to reviewer: Yes [ ], No [X].
7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [ ]
   h. _____ [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [X]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [X]
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary) I agree with the Field Team conclusion that a small amount of trenching is justified (if trenching is shown to be feasible). However I believe that any necessary preliminary work such as sinking would more appropriately be done with DMEA participation.

R W Holliday
R. W. Holliday

DMEA
RECEIVED FEB 27 1958
DATE | INITIALS | CODE
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WSM | 700

IN REPLY REFER TO:

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

February 26, 1958

Memo~~randum~~

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4840 (tungsten) Minerals Engineering Company, Fool Hen Property, Beaverhead County, Montana

The examining team has submitted separate reports of examination because of a difference of opinion concerning the merits of the applicant's property. The examining geologist recommends approval of the application; the engineer recommends denial.

The applicant's property lies within a geologic environment that is strongly similar to the Calvert (Red Button) mine located 2 miles to the northwest. The Calvert mine has produced 100,000 tons of ore averaging 1.08 percent WO_3 and has an estimated reserve of 200,000 tons. Samples, taken from the applicant's property by the examining engineer, gave assays as high as 0.54 percent WO_3.

The examiners have established the fact that the applicant's property is geologically favorable for tungsten ore deposits because a tactite zone is present at the contact between Precambrian sediments and a Tertiary quartz monzonite intrusion. Sampling by the engineer shows that the favorable assemblage or rock has been subjected to mineralizing processes. Large deposits have been found elsewhere in the vicinity.

I agree with the findings of the examining geologist. It appears that an exploration project on the applicant's property would have a good chance of discovering new tungsten ore reserves in significant amounts that would have a grade of 0.50 percent WO_3 or better. I will not hazard a prediction as to when economic conditions will permit the exploitation of such reserves.

The Field Team recommends that before a DMEA contract is offered the applicant that he be asked to sink a small shaft to bedrock to establish the feasibility of surface trenching. Such a request would seem appropriate provided a DMEA contract is seriously considered. If, however, administrative policy with regard to the strategic position of tungsten makes a contract impossible or unlikely, then requesting the applicant to do preliminary work would probably be inadvisable.

W. P. Williams

W. P. Williams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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DATE		CODE
2/19	C	220
2/21	JB	130
2/21	C	220
	WSM	400

February 14, 1958

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4840 (Tungsten)
Minerals Engineering Company
Fool Hen Property
Beaverhead County, Montana

Dear Mr. Selfridge:

Enclosed are three copies each of reports on the subject application by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, and W. C. Prinz, Geologist, U. S. Geological Survey. The two reports have conflicting recommendations.

Parsons states that one trench on the property has exposed a lens of tactite which carries a small amount of scheelite. Other tactite exposures in the trench are small and poorly defined and it was not possible to determine whether they were composed of talus or material in place. In his opinion, the observed exposures of scheelite-bearing tactite indicate that the possibility of making a significant discovery is remote. He, consequently, recommends denial of the application.

Prinz states that the Fool Hen deposit is associated with Precambrian sediments engulfed in a quartz monzonite intrusion. Tactite pods are found along the contact of the sediment and the intrusion rock and in some places they contain scheelite. The potential length of the tactite zone is approximately 1,000 feet. He points out that 2 miles to the northwest, the Calvert (Red Button) mine in a very similar geologic environment has produced 100,000 tons of open-pit ore averaging 1.08 percent WO_3 and still contains an estimated reserve of 200,000 tons of ore. Because of the property's favorable geologic environment, and the similarity of the geology to that at the Red Button deposit even though the showings as presently exposed on the Fool Hen property are not large, Prinz believes that some exploration is warranted. He recommends a two-stage contract.

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

After reviewing both reports, the Field Team ~~further~~ is unwilling to recommend the second stage of the two-stage program advocated by Prinz, but it does feel that the showings and the geologic environment do justify the trenches suggested by Prinz, provided this trenching is feasible. Because there is some doubt as to whether the talus is sufficiently shallow to permit trenching, the Field Team recommends that before approving a contract, the applicant be asked to sink a small shaft to bed rock somewhere along the presumed contact, about midway between the existing trenches. If, by means of this shaft, the applicant can demonstrate that the overburden is not too deep to prohibit trenching the contact, a contract to dig approximately seven trenches across the contact is recommended.

By Field Team, Region I

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosures (2 reports)

cc: USBM (2)
USGS (SRO)
Prinz

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1201 N. Division St.
Spokane 2, Washington

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DATE	INITIALS	CODE
2/21	JB	130
		220

ON SITE EXAM.

January 9, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: E. W. Parsons, Mining Engineer, Bureau of Mines

Subject: Field examination report, Docket No. 4840 (tungsten), Fool Hen Property, Minerals Engineering Company, Wise River, Beaverhead County, Montana

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

INTRODUCTION

The Minerals Engineering Company submitted on September 24, 1957, an application for aid in exploring for tungsten on the Fool Hen group of unpatented lode mining claims located in unsurveyed secs. 19 and 20, T. 1 N., R. 12 W., Wise River, Beaverhead County, Montana.

Tungsten, as scheelite in a tactite zone, was found on Fool Hen Mountain in 1957 and was prospected by means of bulldozer trenches. In the principal area one lens has been found in place and indications of others which may or may not be in place along a trench roughly 1,000 feet long. Other outcrops of tactite occur over a fairly wide area on the same ridge, and two miles to the northwest the company has mined scheelite ore from tactite bodies.

SUMMARY

The property was examined on October 12, 1957, by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, and W. E. Prinz, Geologist, U. S. Geological Survey, accompanied by Earl Craig for the applicant. Two and one-half hours were spent examining the 1000-foot bulldozer trench and cuts at the upper end. Geological features exposed in the trench were plotted on a map furnished by the company as well as the location of five samples taken during the examination. The cuts at the upper end of the trench were lamped and a small amount of scheelite was observed to be fairly well distributed through the tactite. Mr. Craig stated the other exposures in the trench did not lamp so no attempt was made to lamp them during the examination.

CONCLUSIONS AND RECOMMENDATIONS

The trench on the property has exposed one lens of tactite which carries a small amount of scheelite. Other tactite exposures in the trench are so small and poorly defined that it was not possible to determine whether they were composed of talus, slide rock, or material

in place. Therefore, I recommend denial of the application as the observed exposures of scheelite-bearing tactite indicate the possibility of making a significant discovery is very remote.

ACCESSIBILITY

The Fool Hen group of claims is accessible from Wise River on Montana State Highway 43 by going northwest 7 miles to a bridge across the Big Hole River, then 2-1/2 miles on a private road on the left or west side of the river to Hill Creek, then 4 miles up Hill Creek on private road (Calvert mine road), then 1-1/2 miles by trail up Bryant Creek, then 1-1/2 miles by steep footpath up a sharp ridge on the left side of the stream to the property. Horses were used for the last 7 miles but for the last 1-1/2 miles the trail was too steep for riding. A bulldozer was taken in over a ridge west of Alder Creek but the grades were too steep for wheeled vehicles. The elevation at Wise River is about 5,700 feet and at the property 7,600 feet. The State Highway is kept open throughout the year but the road to the Calvert mine will be blocked with snow after the first winter storm as the mine is not working now.

PROPERTY

The property consists of 21 unpatented lode mining claims held by the Minerals Engineering Co. under lease from the owners. The claims are recorded in the County Recorder's office, Beaverhead County Courthouse, Dillon,Montana, and are listed as follows:

Claim	Book	Page
Fool Hen No. 1	149	113-114
" " No. 2-8 incl.	149	115-116
Standby No. 1-13 incl.	149	111-112

COMPETENCY OF APPLICANT

The applicant company is a corporation with headquarters in Grand Junction, Colorado. In the past four years it has successfully operated two tungsten mines, the Brown's Lake deposit (DMEA No. 2292) and the Calvert deposit, as well as the Salt Lake Tungsten Refinery in Salt Lake City, Utah. Staff engineers of the company are well qualified to supervise the proposed work.

DESCRIPTION OF PROPERTY

The property is on the crest and near the top of a sharp ridge above the Big Hole River and between Bryant-Hill Creeks and Alder Creek. The surface is sparsely covered with virgin pine timber. Surface outcrops of country rock consist of apparent limestone pendants surrounded by granite. One bulldozer trench approximately 1,000 feet long was cut

along the bottom of a small draw as well as two short cuts at the head of the draw. An irregular outcrop of tactite, about 25 by 60 feet with vertical contacts, was exposed at the head of the draw and also an indication of tactites in three places along the trench. There are no facilities or equipment on the property. There is no road by which equipment on wheels can be moved to the property.

GEOLOGY

The geology of the property and the region will be submitted by W. E. Prinz in a separate report by the U. S. Geological Survey.

Five samples were taken during the examination, the assay results of which are as follows:

Sample No.	Length	Percent tungstic oxide			
		Hanks	Peter Mack	Albany	Average
EWP-25A	3.5'	0.53	0.54	0.43	0.50
EWP-1B	Grab	0.03	Tr	0.01	0.01
EWP-2B	8.0'	0.07	Tr	0.01	0.02
EWP-3B	15.0'	0.18	0.14	0.12	0.15
EWP-4B	12.0'	0.40	0.41	0.23	0.35

PAST OPERATION

No ore has been mined from the property.

SUPPLIES AND EQUIPMENT

Materials, supplies, and equipment are available in Butte, Montana, about 50 miles northeast. Labor is available both locally and in Butte, and the wage scale is about the same as in Butte. A small quantity of water is available on the hill from springs, possibly sufficient for drilling, but will probably have to be hauled a short distance. All equipment used during the prospecting stage on this property will have to be gasoline- or diesel-driven.

APPLICANT'S PROPOSAL

The applicant's proposal calls for trenching, trail-building, and wagon and diamond drilling.

The trenching is to consist of four cross trenches, three to be about 150 feet long, 20 feet wide, and 30 feet deep at the face, and the fourth 65 feet long, 20 feet wide, and 30 feet high at the face. Excavation will be by bulldozer and front end loader, and the rock will have to be blasted.

The trail-building will entail the making of more than five miles of jeep road with an estimated rise of 1,400 feet and will probably start at the Calvert mine road at Calvert and Bryant Creeks.

A number of wagon drill holes are to be drilled from each of the four cross trenches. The location of deep diamond drill holes will be plotted after studying information obtained from trenching and the wagon drill hole results.

An estimate of the units of work and cost are as follows:

Excavating 4 cuts	195 hours @ $18.00/hr.	$ 3,500.00
Wagon drilling	1500 feet @ 2.50/ft.	3,750.00
Diamond drilling, BX size	1125 feet @ 8.00/ft.	9,000.00
Jeep trail, approximately	5 miles	10,000.00
Project engineer	3 mos. @ 700.00/mo.	2,100.00
Camp cook	3 mos. @ 300.00/mo.	900.00
Establish camp		750.00
Total		$30,000.00

The proposal is feasible but as the applicant points out "so little is known of the attitude of the deposit that it is difficult to lay out a definite drilling program at this time." Actually, nothing is known definitely about the deposit except the fact that one lens of scheelite-bearing tactite is exposed which carries 0.15 to 0.35 percent WO_3. It is not possible to determine from the other exposures along the trench whether they are material in place, slide rock, or talus, or to gain an idea as to their size. The limestone appears to be part of a series of roof pendant structures in the Boulder batholith. Scheelite-bearing tactites have been developed along some of the contacts and in one place, two miles to the northwest, the company has mined a considerable tonnage of tungsten ore from irregular tactite bodies.

Two channel cut samples, EWP-3B and 4B, 15 and 12 feet long, respectively, taken from excavations in the center of the lens where Mr. Craig stated the best ore was exposed, assayed 0.15 and 0.35 percent WO_3. The best sample taken during the examination, EWP-25A, which assayed 0.50 percent WO_3 over a width of 3.5 feet, was taken from two points 10 feet apart on a series of soft, narrow tactite streaks exposed near the lower end of the cut. These samples indicate that there is tungsten mineralization in the tactites, but many tactites carry traces of tungsten without being large enough or containing sufficient tungsten mineralization to form a minable ore body. The trenching accomplished very little more than could have been done by two workmen with pick and shovel for a week. On the southwest side of the trench the steep hillside, in places practically

a cliff, prevented the dozer from clearing the area where there was supposed to be tactite formation along a contact. In a number of places away from the trench the rock exposed was limestone or marbleized limestone, not tactite. There was no evidence that a tactite zone was formed continuously along the assumed line of contact as suggested in the application. The one lens has definite near-vertical boundaries and extends at right angles to the assumed line of contact.

The proposal to excavate four trenches across the contact, based on evidence resulting from the 1000-foot trench, will be mainly prospecting. There seems to be no good reason why a trench should be excavated across the one known lens as it is well exposed. Additional sampling on the exposed lens could give as good an idea of the tungsten mineralization in the lens as a cross trench. The applicant seems to be of the opinion that the exposed tactites will become larger with depth. There is no evidence to justify this line of reasoning.

The proposal calls for the construction of five miles of jeep road at a cost of $10,000. The prospective right-of-way was not traversed but could be seen in part from the top of the ridge near the property. The country is very rugged although apparently the road would require very little rockwork. Most of the road would have to be made on the hillside and it is very doubtful that a road of this kind, even for jeep traffic, could be made for the estimated cost. The road would rise approximately 1,400 feet. The cost of the road is 33-1/3 percent of the cost of the project which is in itself a greater percentage of the total cost than is usually considered allowable for an access road.

The applicant seems to be working on the theory that because there is a property two miles away that has a minable concentration of tungsten in a tactite, any tactite in the region with a trace of tungsten should be explored even though it is only partially prospected. If this application results in a contract the applicant will have a road into the area that will facilitate the prospecting of the whole area.

The company's Calvert mine (Red Button), two miles to the northwest, which was producing about 500 tons of tungsten ore per day with an average grade of 1.04 percent WO_3, was closed in September 1957 because it could not continue operation at the market price which is governed by the prevailing world price of tungsten. This mine produced 100,000 tons and has reserves estimated to be 200,000 tons. This and other tungsten mines were opened solely to take advantage of the support price paid by the Government for a limited tonnage. Even at the high support price few if any mines could produce economically if the average grade of the ore was less than 0.50 percent WO_3. It is doubtful that in the foreseeable future any tungsten ore below 0.50 percent WO_3 will be worked for tungsten alone.

The best exposure of possible ore material on the lens at the Fool Hen prospect has a grade of 0.35 percent WO_3. If mining were attempted the grade on the lens as a whole would undoubtedly be much lower.

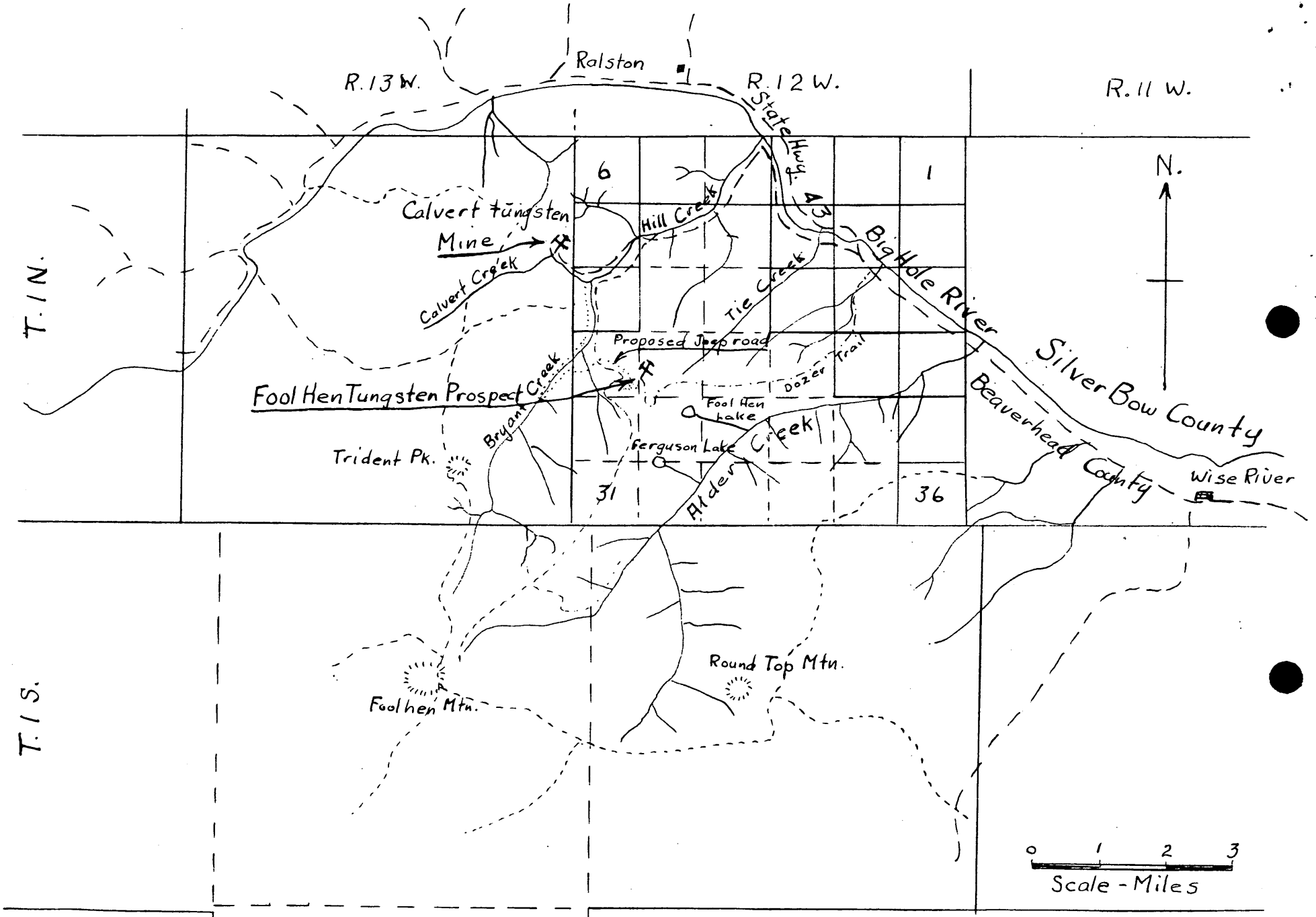
During the examination Mr. Craig showed every part of the property which he considered pertinent to the examination and every phase of the application was discussed, both on the property and later in Wise River.

The applicant has not demonstrated that there is a reasonable chance of there being tactite bodies of sufficient size and grade on the property to warrant exploration.

E. W. Parsons

Attachment

Distribution:
DMEA (3)
USGS (2)
USBM (4)
Docket



Location Map - Foolhen Property, Minerals Engineering Co., Beaverhead County, Montana

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DATE	INITIALS	CODE

DMEA

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 19 1958

DATE	INITIALS	CODE
2/21	HB	130
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

January 17, 1958

MEMORANDUM

To: DMEA Field Team, Region I

From: William C. Prinz, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4840 (Tungsten), Minerals Engineering Company, Fool Hen Property, Beaverhead County, Montana.

INTRODUCTION

On September 24, 1957, Minerals Engineering Company submitted an application for Defense Minerals Exploration Administration assistance in exploring for tungsten on the Fool Hen property, Beaverhead County, Montana. The applicant proposes to explore the property by trenching, trail building, and wagon and diamond drilling at an estimated cost of $30,000. Government participation at 75 percent would be $22,500.

I examined the property on October 12, 1957, accompanied by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, and Earl Craig for the applicant. Since Parsons and I could not agree on a recommendation, separate reports are being prepared; Parsons is recommending denial, I am recommending approval. Since Parsons' report contains a discussion of the location and accessibility, the applicant, property rights, etc., these will not be repeated here.

SUMMARY AND RECOMMENDATIONS

The Fool Hen property lies along the contact between Precambrian limestone and micaceous quartzite, and a Tertiary quartz monzonite intrusion. Tactite pods are found along this contact and, in some places, they contain disseminated scheelite. Two miles to the northwest, the Calvert (Red Button) mine, which lies along a similar contact, has produced 100,000 tons of ore averaging 1.08 percent WO_3 and contains an estimated reserve of 200,000 tons.

Reviewed by
DMEA OPERATING COMMITTEE
2-21-58
(date)

Although ore showings on the Fool Hen property are not large, the possibility of finding a significant deposit has not been disproved. The property does lie in a favorable geologic setting, shows some tungsten mineralization, and is only 2 miles from a large producing mine in the same geologic setting. For these reasons, I believe further exploration is warranted and recommend that the application be approved.

The recommended program consists of two stages. The first stage will consist of trenching. If this is successful, it will be followed by a second stage consisting of building a Jeep trail to the property and of wagon and diamond drilling.

GEOLOGY

Western Beaverhead County, Montana, has never been mapped geologically so very little is known of the regional geology of the area in which the applicant's claims are found. The Montana State Geologic Map (compiled by C. P. Ross, D. A. Andrews, and I. J. Witkind, U.S.G.S., 1955) shows the area to be questionably underlain by Precambrian Missoula group sediments intruded by a Tertiary quartz monzonite batholith related to the Boulder batholith. The rocks on the applicant's property consist of recrystallized dolomitic limestone, siliceous limestone, and micaceous quartzite, all probably of Precambrian age, intruded by Tertiary quartz monzonite. The sediments lie to the southwest, the intrusive rocks to the northeast, and at a few places near the contact, scheelite-bearing tactite is exposed (fig. 1). It is not certain whether the sediments form an inclusion in the batholith, a roof pendant, or are in place.

The sediments were examined at several places along the long dozer trench; however, some uncertainty exists as to how much of this material is actually in place, especially near the northwestern end of the trench. The limestone has been recrystallized and is now a medium-grained, gray dolomitic marble. In one place near the northwestern end of the trench, a medium-grained, pale green, calcareous and quartzose rock is exposed. This rock is probably either an original arenaceous sediment or a silicified limestone. Medium-grained, gray micaceous quartzite (the applicant's "schist") is found at several places along the trench. This rock consists mainly of quartz but does contain streaks or disseminated flakes of muscovite and biotite. Banding in the sediments, which probably represents bedding, is visible in several places and it strikes from N. 25° W. to N. 25° E. and is nearly vertical.

Quartz monzonite is found in place at the southern end of the dozer trench and boulders of quartz monzonite are found in the floor of the trench a short distance to the north and near

the northwestern end of the cut. How far these boulders have been moved and the exact position of the contact along most of the trench is not known. The quartz monzonite is a medium- to coarse-grained rock consisting mainly of white to light-gray striated feldspar, hornblende, and quartz.

Tactite masses are found near the contact between the igneous and sedimentary rocks in several places. The largest is a lens-shaped mass about 80 feet long and 25 feet wide exposed in the southern part of the main trench and in smaller trenches to the west. The western contact of this lens is nearly vertical; the northern contact is also nearly vertical but there is some question as to whether the limestone immediately to the north is actually in place. The probable eastern end of this mass is found in the main trench where a near-vertical seam of tactite 1 foot wide is bordered on the south by quartzite. Northwest of this main exposure, tactite is found along the trench in several places; however, exposures are small and it is not known how much of this material is actually in place. The tactite is a medium- to coarse-grained rock composed of epidote, quartz, brownish red garnet, white calcite, black tourmaline needles, white scheelite, and a fine, pale green fibrous mineral which is probably actinolite. The ore mineral scheelite is disseminated irregularily through some of the tactites but may be absent in others. It commonly forms grains up to an eighth of an inch across. In the northwestern part of the trench the tactite is commonly altered to a loose, green epidote-rich sand or to a green clay which is generally poor in tungsten. The large lens of tactite near the southern end of the trench was lamped and showed a fair amount of disseminated scheelite. The applicant believes that the tactite forms a fairly continuous band along the contact; however, I feel that it will probably be spotty and will lay along the contact in lenses or pods.

Samples collected by Parsons during the examination were assayed by the U. S. Bureau of Mines' Albany, Oregon Laboratory, by Abbot Hanks, and by Peter Mack. The results of these assays are shown on the following table and Hanks' assays are posted on the map, figure 1.

WO_3 Assays

Sample No.	Width	ASSAYER U.S.B.M.	Hanks	Mack
EWP-25A	3' & 4' 10' apart	0.43	0.53	0.54
EWP-1B	Grab	<0.01	0.03	Tr.
EWP-2B	8.0'	<0.01	0.07	Tr.
EWP-3B	15.0'	0.12	0.18	0.14
EWP-4B	12.0'	0.23	0.40	0.41

The assay results show a fair amount of tungsten in two small tactite streaks in the northwestern part of the trench and in part of the big lens in the southern part, with only small amounts elsewhere.

Although exposures and assays available at the present do not prove the presence of an ore body, they do not disprove it either. Since the property does lie in a favorable geologic setting 2 miles from a large mine and since it does show some tungsten mineralization, a modest amount of exploration work to prove or disprove the merits of the property appear warranted.

APPLICANT'S PROPOSAL

The applicant proposes to explore the property by trenching, trail building, and wagon and diamond drilling. First, he wants to excavate four deep trenches across the sediment-quartz monzonite contact with a bulldozer and front end loader. This is to be followed by building a 5-mile Jeep road to the property so that wheel-mounted drilling equipment can be moved in. About 1,500 feet of wagon drilling and 1,125 feet of diamond drilling are proposed as a final stage.

I feel that the work should be redistributed to allow for more trenching and less drilling and that the trenches need not be so deep. More trenching is advantageous so that more information can be gathered before building the costly access road to the property.

RECOMMENDED PROGRAM

The program recommended for approval consists of two stages, a first stage of trenching and a second stage of trail building and drilling.

The proposed first stage consists of excavating seven 150-foot long trenches to bedrock across the sediment-quartz monzonite contact as shown on figure 1. Also, 350 feet of additional trenching, location subject to prior approval of the Government, should be provided to allow for testing the extent of tactite lenses found in the cross trenches or of those presently exposed in the main trench. If this trenching does not reveal larger and better mineralized tactite bodies than those now exposed, then no further work is proposed. If this work is successful, a Stage II is recommended.

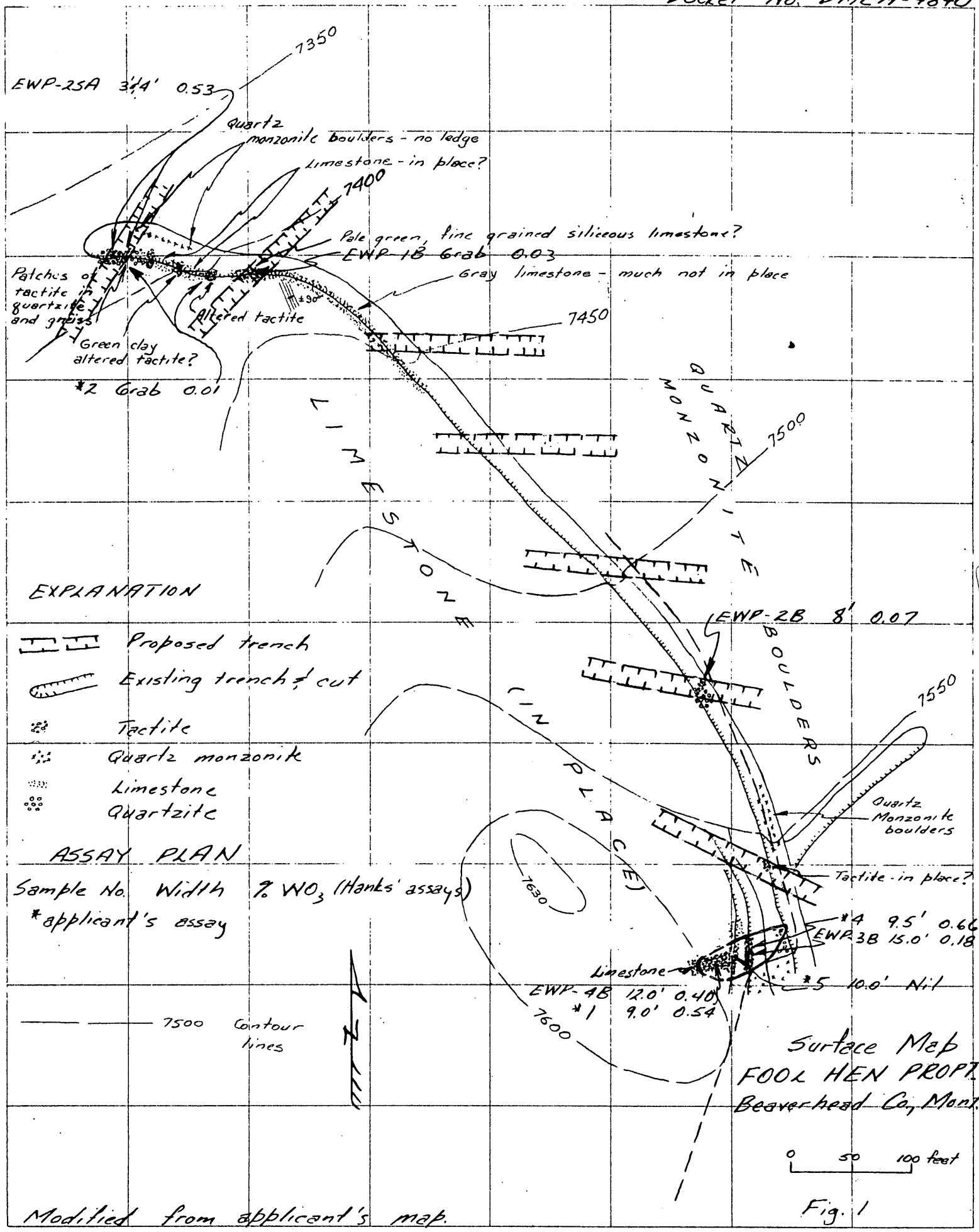
Proposed Stage II consists, first, of building a 5-mile Jeep trail to the property to be followed by drilling to test the tactite bodies at depth. The location, depth, and direction of the holes would be agreed upon in advance between the operator and the Government. The amount of wagon drilling proposed by the applicant is considered excessive and should be cut to 900 feet; the amount of diamond drilling proposed, 1,125 feet, appears satisfactory. This would permit drilling about twelve 75-foot wagon drill holes and nine 125-foot diamond drill holes which should be adequate to test the tactite at depth.

Enclosure
Distribution:
DMEA(3)
USBM(2)
USGS(SRO)
Docket
Prinz

UNITED STATES
DEPT. of the INTERIOR

PREPARED for DMEA
APPLICATION REPORT

Docket No. DMEA-4890



J. A. Gendron Co., Spokane

"ALBANENE" No. 188M K&E CO., N.Y.
REG. U.S. PAT. OFF

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

Minerals Engineering Company
P. O. Box 94
Glen, Montana

Re: Docket No. DMEA 4840 - Tungsten
Fool Hen property
Beaverhead County, Montana

Gentlemen:

The above-referenced application for exploration assistance for tungsten ores has been reviewed by the Division of Iron and Ferro-Alloys of the Defense Minerals Exploration Administration, and referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I, South 157 Howard Street, Spokane 4, Washington, for a field examination of the property.

Any assistance you can give the members of the Field Team will be appreciated.

Sincerely yours,

Administrator

Not used.

Property examined

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

Mr. A. E. Weissenborn, Executive Officer
DMEA Field Team, Region I
South 157 Howard Street
Spokane 4, Washington

Docket No. DMEA 4840 - Tungsten
Minerals Engineering Company
Fool Hen property
Beaverhead County, Montana

Dear Mr. Weissenborn:

Reference is made to your letter of September 25, 1957, in which you advised that you had scheduled an examination of the above-noted property in the following week due to the lateness of the season.

Copies of memoranda dated October 10 and 25, 1957, by W. P. Williams, Geological Survey, and R. W. Holliday, Bureau of Mines, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

We are enclosing a letter to the Applicant which you will please forward in case the examination has not been made.

Sincerely yours,

APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

A. E. Weissenborn [illegible] in 11/8, 57
Property examined and report in preparation

Member, Geological Survey

Enclosures

Letter not used

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DMEA
RECEIVED OCT 30 1957

DATE		CODE
10/30	C	220
10/30	WSM	400

October 25, 1957

4840

Tungsten
Minerals Engineering Co.
Fool Hen Property
Beaverhead County, Montana

W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals and Ferroalloys
R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

New Application

9/24/57 10/21/57

X

X

X

X

An examination by the Field Team has been scheduled and appraisal should wait for the examination report.

R. W. Holliday

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

IN REPLY REFER TO:

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DMEA
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DATE	INITIALS	CODE
10/11	C	220
	WSM	400

October 10, 1957

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4840 (tungsten), Minerals Engineering Company, Fool Hen property, Beaverhead County, Montana

The applicant proposes to explore for tungsten ore deposits in a tactite zone between limestone and quartz monzonite. The work would consist of surface trenching, wagon drilling, and diamond drilling.

The property is relatively unexplored but both the applicant and the Executive Officer draw some geologic parallels between the subject property and the Red Button (Calvert) deposit. About 125,000 tons of ore have been mined from the Calvert.

The property should be evaluated by field examination; and I note in a letter to the Chairman, Operating Committee from the Executive Officer, that a field examination will probably be made early in October.

W. P. Williams

W. P. Williams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

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DATE	INITIALS	CODE
10/14	C	220
10/14	WSM	400

October 9, 1957

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4840 (Tungsten)
Minerals Engineering Company
Fool Hen Property
Beaverhead County, Montana

Dear Mr. Selfridge:

Enclosed is a photostat copy of a lease dated August 15, 1957, between Minerals Engineering Company and the owners of the Fool Hen No. 1-8 and Standby No. 1-13 claims.

Also enclosed are three thermofax copies of page 1 of the application which shows the book and page numbers of the recording of the claims in Beaverhead County Courthouse in Dillon, Montana.

Sincerely yours,

O.R. Macharen
for A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I

Enclosures

cc: USBM (2)
Prinz

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

September 30, 1957

Minerals Engineering Company
P. O. Box 94
Glen, Montana

Gentlemen:

Subject: DMEA-4840

Your application for exploration assistance, dated September 24, 1957 submitted to our office at Spokane, Washington has been assigned Docket Number DMEA-4840 and referred to the Iron and Ferro-Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

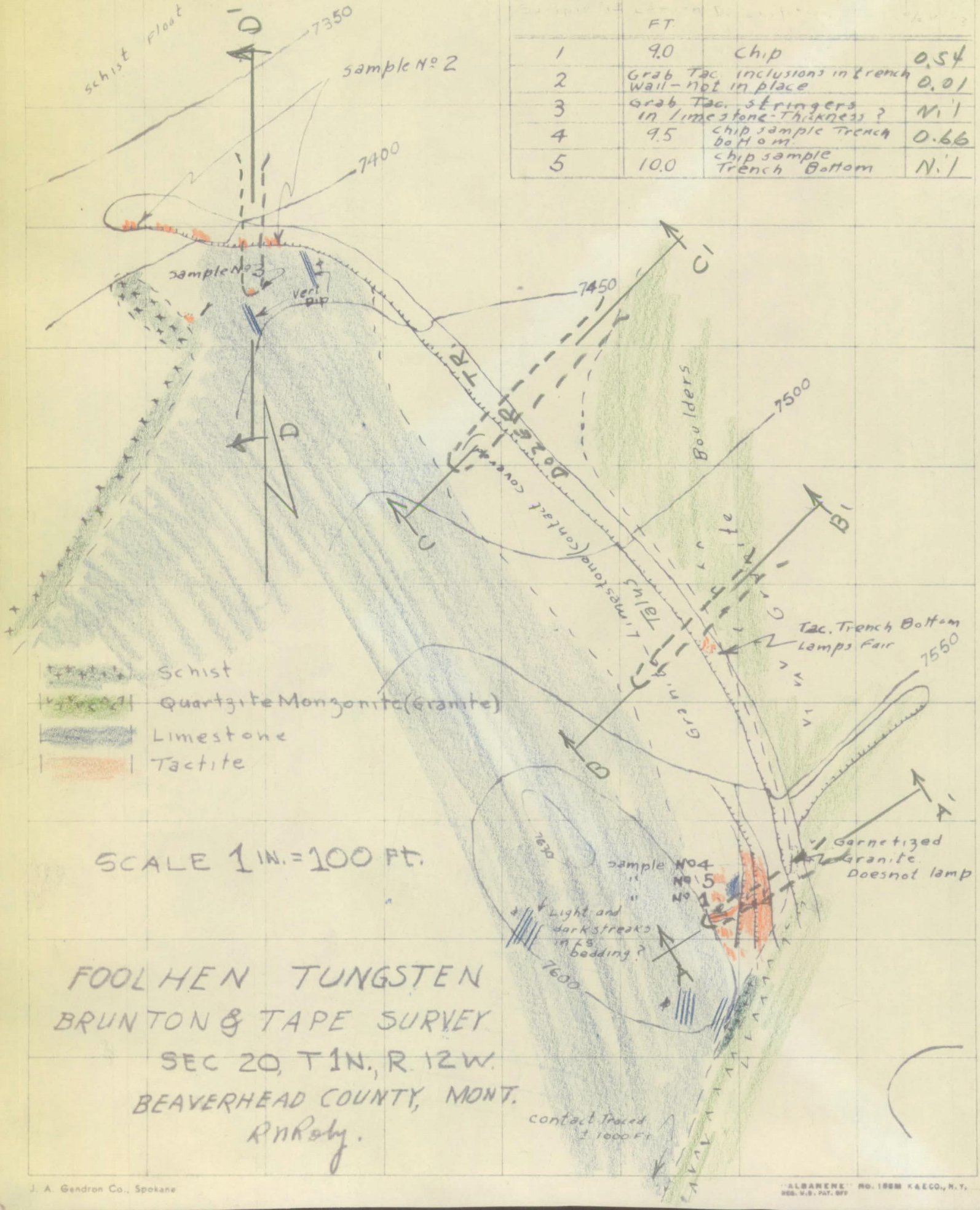
Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region I

	FT.		
1	9.0	Chip	0.54
2	Grab Tac. inclusions in trench wall - not in place		0.01
3	Grab Tac. stringers in limestone - Thickness ?		N.I
4	9.5	chip sample Trench bottom	0.66
5	10.0	chip sample Trench Bottom	N.I



FOOL HEN TUNGSTEN
BRUNTON & TAPE SURVEY
SEC 20, T 1N., R 12W.
BEAVERHEAD COUNTY, MONT.
R.N.Roby.

J. A. Gendron Co., Spokane
"ALBANENE" NO. 1888M K&E CO., N.Y. REG. U.S. PAT. OFF

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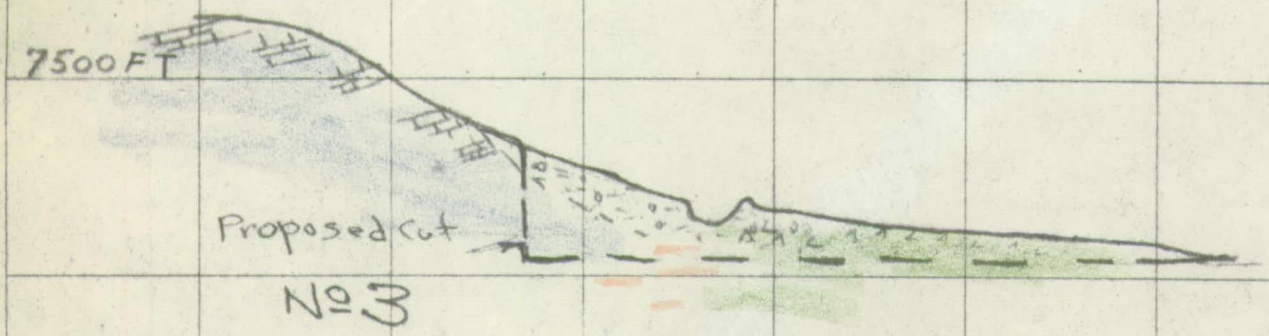
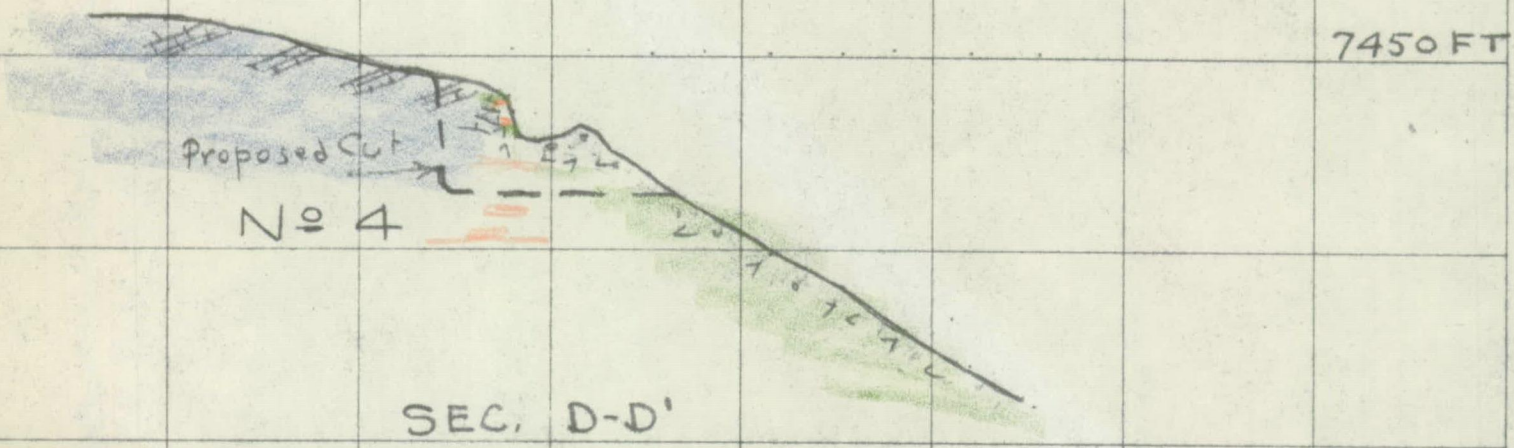


SEC. C-C'

1 IN. = 50 FT.



SEC. D-D'

MINERALS ENGINEERING CO.

SECTIONS THROUGH PROPOSED DOZER CUTS

FOOL HEN TUNGSTEN

BEAVERHEAD COUNTY, MONT.

J. A. Gendron Co., Spokane

RM Raby 9/21/57

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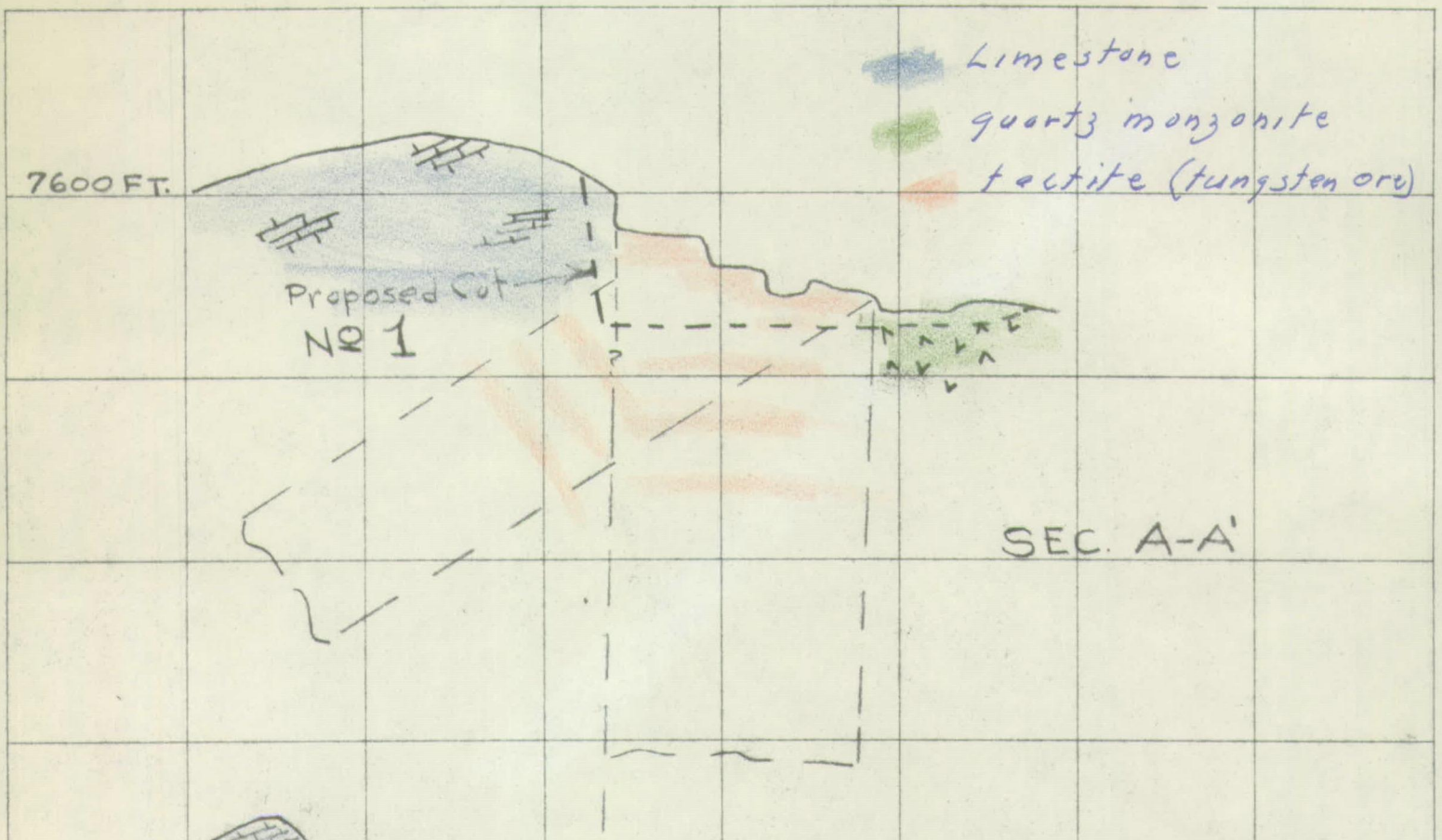

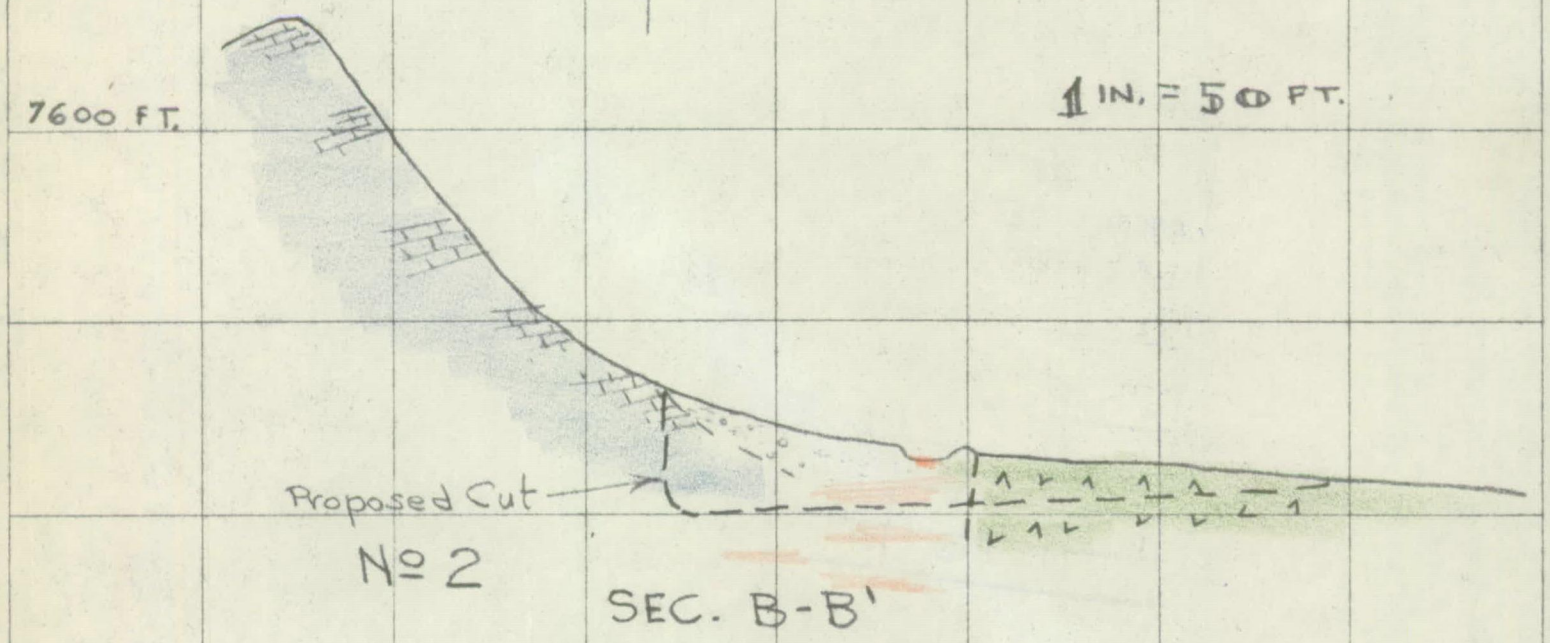

MINERALS ENGINEERING CO.
SECTIONS THROUGH PROPOSED DOZER CUTS

FOOL HEN TUNGSTEN
BEAVERHEAD COUNTY, MONT.

9/21/57
R H Raby

J. A. Gendron Co., Spokane
"ALBANENE" No. 196M K&E CO., N.Y. REG. U.S. PAT. OFF

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