DMEA Form 1

DEFENSE MINERALS EXPLORATION ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA Docket No. 4651

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To:	400	Date	2/26/57
To:	130	Date	3-12-57
To:	110	Date	3-13-57
To:	100	Date	3-13-57
To:	225	Date	3-13-57
To:	130	Date	8-27-57
To:	110	Date	8-28-57
To:	100	Date	8-29-57
To:	225	Date	8-29-57
To:	130	Date	10-9-57
To:	400	Date	10-9-57
To:	130	Date	10-11-57
To:	110	Date	10-11-57
To:	100	Date	10-11-57
To:	225	Date	10-11-57
	130		11-26-57
	130		12-2-57
	110		12-2-57
	100		12-2-57
	225		12-2-57

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IMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

IMEA NO. 4651

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
✓ Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓ On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9775

H. L. BEARD CO.
1115 I STREET
ROOM 17, BLACK BLDG.
MODESTO, CALIFORNIA

February 20, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE
2/27	WSM	400

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

Gentlemen:

Enclosed herein is our application for aid in an exploration project for tungsten.

Your consideration of this application will be appreciated. Should further information be desired, please feel free to call upon us.

Respectfully yours,

H. L. Beard Company, Inc.

By H. L. Beard
H. L. Beard
President

HLB:db
Enc.

H. L. BEARD COMPANY, INC.

ROOM 17, BLACK BUILDING

MODESTO, CALIFORNIA

Executive Officer Region 4
Defense Minerals Exploration Administration
224 New Customhouse Building
Denver 2, Colorado

February 14, 1957

OFFICIAL FILE COPY
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RECEIVED FEB 25 1957

DATE	INITIALS	CODE

Transmitted, herewith, in quadruplicate:

Application for aid in an Exploration Project Form MP-103
(Including 5 typewritten pages)

Exhibit "A" - Lease Agreement

Exhibit "B" - Lease Assignment to Midstate Development Inc.

Exhibit "C" - Lease Assignment to H. L. Beard Company

Exhibit "D" - Copy of I. G. Irving Report dated November 29, 1952.

Exhibit "E" - Copy of J. B. White, Jr. Report dated January 20, 1955.

Drawing P-127-1 -- Plan of Mine Workings

Drawing P-127-2 -- Workings Location

Drawing P-127-3 -- Workings

Very truly yours,

H. L. Beard Company, Inc.

By H L Beard
H. L. Beard
President

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED FEB 25 1957 D.M.E.A.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 4651
Metal or Mineral Tungsten
Date Received 2/25/57
Estimated Cost $53,000.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: H. L. Beard Company, Inc. in State of California
Room 17, Black Building
Modesto, California

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. See typewritten Page 1

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract See (f) below.

(*b*) State any mine name by which the property is known. New Klondike Mine

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

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. See copy of lease attached, Exhibit A
See copy of lease and assignment, Exhibit B & C

(*e*) If you own the land, describe any liens or encumbrances on it We do not own the land.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See typewritten Page 1 (a).

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you w[illegible] to explore Tungsten minerals

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 14 days and be completed within 6 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). None.

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs. See typewritten Page 4.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes.

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

[X] Money [XX] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Feb 20, 1957

H H Beard Co.
(Applicant)

By H H Beard Pres.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

H. L. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Instructions

1. (a) H. L. Beard Company, Inc.
Room 17 Black Building
Modesto, California

(b) A corporation incorporated in the State of California.

(c) H. L. Beard, President
Room 17, Black Building
Modesto, California

A.M. FRAD
~~H. G. Hutchinson~~, Vice President
Room 17, Black Building
Modesto, California

H.C. HUTCHISON
~~F. M. Druck~~, Secretary
Room 17, Black Building
Modesto, California

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DATE	INITIALS	CODE

3. (f) See Page 1 (a)

4. (a) The geology of these claims is covered by a report by I. G. Irving, dated November 29, 1952, which is reproduced as a part of this application and marked Exibit "D".

This property has been explored with underground workings and drilling as shown on the attached maps. The most recent drilling exploration work has been the drilling program carried out under D.M.E.A. Number 2825.

Since this drilling program was completed, additional exploration has been carried on by the owners, as shown on the maps and consists of approximately 1,300 feet of drifts, raises, cross cuts and shaft work.

Part of this exploration work is covered by the report by Mr. J. B. White, Jr., dated January 20, 1955. No report has been written on the property since that date but the latest workings are indicated on the maps included. Mr. White's report is reproduced as a part of this application and marked Exibit "E".

It has been the hope of past exploration programs to develop commercial ore on this property. The exploration to date has produced small amounts of ore, but not in sufficient grade and quantity to provide a suitable mill feed. On the other hand the previous exploration work has not been negative, as evidence of the possibility of developing commercial ore have been further strengthened rather than diminished.

Instructions-cont'd

*3. (f) The following unpatented lode mining claims are situated in Miller or Granite Canyon, House Mountain Range, Millard County, Utah, and are all in Township 19 South, Range 14 West, Sections 12 and 13:

Name of Claim		Date of Location or Amended Location	Location or Amended Location Notice Recorded in Office of County Recorder, Millard County, Utah	
			Book	Page
Bright Light #1	Sec. 13	8-7-40	10	455
Bright Light #2	Sec. 13	8-31-40	10	461
Bright Light #3	Sec. 13	10-12-41	10	590
Bright Light #4	Sec. 13	10-12-41	10	590
Bright Light #5	Sec. 12 and 13	2-8-51	12	444
Bright Light #6	Sec. 12 and 13	2-8-51	12	444
Amended		3-10-51	12	459
Bright Light #7	Sec. 12	3-2-51	12	460
Bright Light #8	Sec. 13	3-10-51	12	460
Bright Light #9	Sec. 13	3-9-51	12	461
Foresoen #1	Sec. 12	8-7-40	10	455
Foresoen #2	Sec. 12	8-7-40	10	455
White Cloud #1	Sec. 12	7-13-40	10	466
White Cloud #2	Sec. 12	7-13-40	10	466
White Cloud #3	Sec. 12	2-22-51	12	461
White Cloud #4	Sec. 12	2-24-51	12	461-2
Scheelite King	Sec. 12	9-28-50	12	404
Gold Crown #1	Sec. 13	7-1-50	12	361
Happy Chance #1	Sec. 12	2-7-51	12	442
Happy Chance #2	Sec. 12	2-7-51	12	442
Happy Chance #3	Sec. 12	2-7-51	12	443
Happy Chance #4	Sec. 12	2-7-51	12	443
Happy Chance #5	Sec. 12	3-7-51	12	462
Cabin - 12 and 13		3-5-51	12	462
Cabin - 1		1/18/54	13	263-264
Bright Light #10		1/18/54	13	264

Instruction-cont'd

The property and workings are accessible for examination purposes practically the year around.

Production facilities on the property consist of the following equipment:

2 - Compressors	Dump Truck
3 - Slushers	Jeep
3 - Jackhammers	Welding Equipment
1 - Stoper	Electric and Gas
Drill Steel and Drills	Small Tools
Hoses	Picks, Shovels
Pipe	Rails
	Mine Car

This equipment is complete in good working order and adequate to perform the proposed exploration project. This equipment is owned by Mr. H. L. Beard.

There is also a cook house and two small bunk houses on the property with facilities for accomodating eight men.

No work is being done on the property at present.

4. (b) Production prior to 1952 has consisted of small shipments made from exploration workings on which no records are available.

In October, 1952 two lots of ore were shipped to the Utah Ore Sampling Company at Murray, Utah and sampled. Lot No. 1 was taken from the stockpile on the Bright Light No. 1 and 2 claims and Lot No. 2 was taken from the dump at the 20 ft. shaft on the White Cloud No. 3 claim.

The weights and assays of these two lots are given below:

	Wt. Dry Tons	Assay % WO_3
Lot No. 1	55.004	0.57
Lot No. 2	31.235	1.21

Production since 1955 consists of:

1. One shipment on May 2, 1956 to Union Carbide Nuclear Company consisting of 68,346 dry pounds of low grade concentrates containing 343.37 units of WO_3 as follows:

Lot No.	Wet Weight	Sack Weight	% H_2O	Net Dry Wt.	% WO_3	Units WO_3	Per Unit	Amt.
4-6	23,280	Bulk	13.66	20,100	10.37	104.22	41.00	4273.02
4-7	26,650	Bulk	15.69	22,469	8.61	96.73	40.00	3869.20
4-9	30,680	Bulk	15.98	25,777	11.05	142.42	41.00	5839.22
				68,346		343.37		13981.44

Instruction-cont'd

2. One shipment on June 26, 1956 to Charles G. Scharf, Bishop, California consisting of 928 pounds containing 28.689 units of WO_3.

Approximately 20 tons of concentrate is stored at the mine. The grade of this concentrate is approximately 10%.

Ore reserves are covered in Mr. White's report marked Exibit "E". Since this report additional low grade reserves have been developed but have not been reported.

4. (c) For geologic features of the property, you are referred to the report by I. G. Irving, dated November 29, 1952 and listed as exibit "D" previously referred to.

4. (d) The property is in Miller (or Granite) Canyon on the east side of the Fouse Range. It is in Sections 12 and 13; Township 19 South; Range 14 West, Millard County, Utah, at an elevation of approximately 7,000 ft. About 10 miles of desert road has been built from a fair CCC road about five miles after it crosses paved Highway 6 and 42 miles west of Delta, Utah.

The railroad shipping point is Delta, Utah, a station on the main line of the Union Pacific Railroad and is approximately 57 miles east of the property. Delta is also the nearest supply point.

4. (e) The manpower for the development campaign can be obtained from Delta, the tintic mining district or the mining districts in the vicinity of Salt Lake City.

Ample water supply has been developed and provided at the property by the installation of approximately one mile of pipe and a 10,000 gallon supply tank.

No power is available at the property. Adequate portable power exists for operating the mining equipment.

5. (b) The proposed work consists of extensions to the existing workings and new workings as indicated on the maps. The proposed work is outlined in blue.

5. (d) The officers of the H. L. Beard Company are all successful business men of Modesto, California and are capable of carrying out the exploration program outlined herein, and evidenced by the fact that past exploration programs have been completed.

The proposed work will be supervised by the owners.

Instruction-cont'd

6. (a) None. The H. L. Beard Company proposes to do the actual work.

6. (b), (c), (d), (e), (f), (g), and (h). Estimated Cost

Not including items of general overhead, corporate management, interest, taxes (other than pay roll and sales taxes) or other indirect costs. The direct cost of performing this work is estimated as follows:

Proposed drifting and cross-cutting 1,000 ft.

Direct labor $20.00/ft	$20,000
Supplies, incl. powder, drill steel, fuel, etc. $13.00/ft.	$13,000
Assays, maping and geologic consulting $5.00/ft.	$ 5,000
Contingencies 10% $5.00/ft.	$ 5,000
Rental Equipment	$10,000
TOTAL $53/ft.	$53,000

Local mining contractors have been contacted and have quoted figures ranging from $56.00 per feet to $60 per feet. Based on previous development work on this property, we are of the opinion we can perform the work at a cost not to exceed $53.00/ft.

7. (a) Yes.

7. (b) The H. L. Beard Company proposes to furnish money and to rent the mining equipment from H. L. Beard, owner for their share (25%) of the cost of performing the work.

EXHIBIT "A"

- : MINING LEASE AGREEMENT : -

This agreement, made and entered into this 5th day of November, A. D. 1951, by and between NEW KLONDIKE MINING COMPANY, a Utah corporation, hereinafter referred to as the "LESSOR" and MIDSTATE DREDGING AND MINING COMPANY, a California co-partnership, hereinafter called the "LESSEE",

WITNESSETH: That for and in consideration of the sum of one dollar ($1.00) paid by Lessee to Lessor, and the mutual covenants, agreements, conditions, and promises hereinafter contained and to be kept and performed by the LESSOR and LESSEE, respectively, the said LESSOR corporation does hereby lease unto the LESSEE co-partnership the following described mining grounds and mining claims situate in Miller Canyon, House Mountain Range, Millard County, State of Utah, to-wit:

Those certain unpatented placer claims, to-wit: TRAP PLACER, BONANZA PLACER, STAR PLACER, LINDBECK GROUP PLACER, POVERTY GROUP PLACER, HELL'S GROUP PLACER, JARVIS PLACER, CARLSON PLACER, CONTACT PLACER, BONANZA PLACER No. 2, and

See also 19th term hereafter

Those certain unpatented lode mining claims, to-wit: BRIGHT LIGHT #1, BRIGHT LIGHT #2, BRIGHT LIGHT #3, BRIGHT LIGHT #4, FORESEEN #1, FORESEEN #2, WHITE CLOUD #1, WHITE CLOUD #2,

together with all appurtenances, and without limitation the full rights of immediate possession and use of all of said mining claims, including the full rights to explore, work and mine the same and to take, extract, remove, use and dispose of all ores, metals, and minerals therefrom, together with the right to use all water and timber thereon or appurtenant thereto, from and after the date of the commencement of the term hereof. LESSOR represents that it is the sole owner of all of said mining claims, which are in good standing and free from adverse claims, liens, and encumbrances, but subject to the paramount title of the United States of America.

This lease of said mining claims is on the following terms, conditions, understandings, covenants, and promises:

1st. The period of this lease shall be for ten (10) years from the date hereon specified, to-wit: November 14th, 1951, at the hour of twelve o'clock noon on said date, and to and including the 14th day of November, 1961, at the hour of twelve o'clock noon on said last mentioned date, unless sooner terminated or extended or renewed as hereinafter provided. LESSEE shall have the right and option to renew this lease for an additional term of ten (10) years from the date of expiration of the original term, as herein fixed or extended, by giving LESSOR at least six (6) months written notice prior to the expiration of the original lease term, as herein fixed or extended.

2nd. (a) LESSEE shall commence exploratory work on said leased premises as soon as reasonable practicable, and at all events within sixty (60) days after the date hereof, and, as a condition of, and a prerequisite to the continuity of this lease from year to year, expend in labor, supplies, materials, improvements, and work on said property at least the sum and amount of ten thousand dollars during each and every year of the continuance hereof, it being understood and agreed that expenditures for machinery, equipment, and items of removable use not remaining as a part or parcel of the LESSOR'S estate on the termination hereof, shall not be valued and counted as part of the expenditure(s) required under the provisions hereof.

3rd. (a) The LESSEE shall do and perform any and all work on said leased premises hereunder as an independent contractor, and not as agent for, or otherwise on behalf of the LESSOR; and LESSEE shall promptly pay for all labor, tools, machinery, equipment, power, materials, supplies, services, and/or improvements whatsoever, engaged, ordered by, and/or furnished to LESSEE hereunder in this operation, and to at all times indemnify and save harmless the LESSOR and the title to the leased premises free from and as against any and all liens and/or claims whatsoever, for and on account of any such labor, tools, machinery, equipment, power, materials, supplies, services, and/or improvements.

3rd. (b) The LESSEE further agrees to keep posted in at least three (3) conspicuous places upon said premises, and at such other points where work is being prosecuted or deliveries of items made, a notice or notices in writing stating that the LESSEE corporation is operating the premises and as such is exclusively liable for the payment of all charges for labor, equipment, tools, machinery, power, materials, supplies, services and/or improvements used in, on, or about the working of the said leased premises, and to record such notices when necessary, convenient, or required by law or otherwise to exempt the LESSOR from any liability in connection with LESSEE'S operations.

(c) LESSEE agrees to procure industrial insurance with a satisfactory carrier, the Utah State Insurance Fund, or otherwise as may be required to meet compliance with Utah laws, whether now existing or hereinafter enacted, and to promptly pay all premiums on such insurance.

(d) As between LESSOR and LESSEE, insofar as LESSEE'S operations on said leased premises are concerned, the LESSEE assumes all responsibility for claims, judgments, suits, and liability arising because of the personal injuries, death, damages, and/or other class or classes of liability that may arise in connection with LESSEE'S operations hereunder, and LESSEE will indemnify and save harmless the LESSOR and the title to the said leased premises, of and from all claims, and from and against all suits, judgments, and other classes of claims or liabilities arising out of said operation.

(e) LESSEE accepts the said premises in their present condition and without any representations as to the physical condition or situations of said properties, or workings, now or hereafter found to exist.

4th. (a) LESSEE shall pay to LESSOR as lease rental for the said demised premises an amount equal to twelve and one-half percent (12½%) of the gross value of the gold, silver, and tungsten concentrates produced and sold from ore(s) mined from said leased premises, and a like percentage of the gross value of any other products mined, recovered, and sold, from said leased premises.

(b) The gross value shall be determined by the then current buying prices for material of like grade, quantity and quality (subject to adjusting the buying quotations to allow for fright differentials between the point of quotation and the point of production) as shown by quotations for such buying prices in the Engineering & Mining Journal figures for dates in question, or, such other quotation service as may hereafter be jointly agreed upon by writing appended hereto and signed by both lessor and lessee.

(c) Dates for determining quotations to be used in figuring settlements for materials produced shall be fixed as the day or days that cleanups are made on any milling, dredging, concentrating, or other different treatment or processing used, or, if none is so used on any type ofclass of material, then on the shipment date of such material from the leased premises; but, it is agreed that LESSEE will not so handle operations as to process or ship material in large quantities, or at all if practicable, before an imminent price rise; or, to withhold the processing or shipment of materials prior to an immediate anticipated price decline, or otherwise, conduct operations in such a manner as to intentionally prejudice the rights of the LESSOR corporation to obtain the highest and best possible returns of royalties, based on market and other factors.

(d) Settlements of royalties due by LESSEE TO LESSOR shall be made promptly upon receipt of sales or settlements made to LESSEE, when LESSEE acts only as producer and sells to other purchasers, but, in the event LESSEE elects to become the purchaser of any such material or materials or products as may be produced from the leased premises, on equal terms and prices as would be paid in the going market, then settlements from LESSEE to LESSOR shall be made at least by the 10th day of each calendar month for materials produced during the preceding calendar month, and such settlements on the face thereof shall indicated that the buyer is the LESSEE.

5th. (a) On or before the 25th day of each calendar month, the LESSEE shall report to the LESSOR for the preceding calendar month the amount and kind of work accomplished, the shifts and cost of labor expended, classified as to kind or occupation, the amount expended for materials, supplies, tools, and other expense in con-

nection with its operations at the leased premises, such as will enable the LESSOR TO prepare or furnish any information, data, reports, returns, or other requests for information, necessary, required, or needed by LESSOR in connection with any state, federal, local, or other laws, regulations, decrees, or requests.

(b) LESSEE agrees to keep and preserve within the State of Utah, at the leased premises or elsewhere, good and sufficient records of all its operations and workings hereunder, including assays and returns of materials treated and/or processed, and to permit the LESSOR, or its duly designated agent or agents, to inspect the same from time to time.

6th. LESSEE agrees to do all work in and on and about said leased premises and its water supply system, in a good and workmanlike and sufficient fashion, in keeping with safety of operations and to comply with all mine safety regulations promulgated by any state, federal, and/or local authority.

7th. As between LESSOR and LESSEE, it is agreed that LESSEE shall pay out of its share of the proceeds of any ores, products, whether metallic, non-metillic, or otherwise, the presently levied and so-called "mine occupation tax", if applicable to operations hereunder, and, if during the term of this lease the rates of same shall be raised, them to pay such increased rates. Likewise, LESSEE agrees to pay out of its share of the proceeds any several tax or taxes which may now or hereafter be levied, and whether in addition to or in lieu of the existing occupation tax, if applicable hereto. Likewise, if any similar federal and/or local severance, occupation, or the like taxes be levied, to pay such levy out of the LESSEE'S share of the proceeds. LESSOR may, at its option, require the LESSEE to create a reserve out of and proportionate to existing shipments of materials from the property for the purpose of paying such taxes or levies, and require that such reserve be deposited in a suitable bank, and/or other depositary in the State of Utah.

8th. Any increase in the real property taxes of the said demised premises, by the reason of the shipment of ores resulting in net proceeds which form the basis of additional assessed value based on the mine's net proceeds, if applicable hereto, shall be pro-rated by the LESSOR and LESSEE, on the basis of their respective shares (in dollars) of gross values of minerals, metallics, non-metallics, and/or products produced and sold (or stored) from said leased premises. It is further agreed and understood, that in the event the present lode and/or placer locations or any of them are patented and become subject to the regular taxation on the basis of the $5.00 per acre valuation, that taxes levied on that valuation shall be paid by the lessor. It is further understood and agreed, that in the event that the LESSEE should receive in addition to standard quotations on any product or item produced and sold out of the materials mined on the said leased premises, a bonus, premium, incentive payment, and/or other production stimulus, however called, in which the LESSOR may not participate due to the terms of the agreement between LESSEE and the bonus paying agency, or because of the law(s), regulation(s), or promulgation(s), or the like of any government, governmental body, agency and/or the like, and such increased proceeds of the LESSEE are or are to be included in and counted as a part of the net proceeds to be used in determining the real property tax assessment base, then, an additional adjustment in the pro-rating of such taxes, if applicable, levied on such part of the net proceeds in which the LESSOR did not participate on a royalty basis, shall be made, so that the allocation of taxes based on receipts included in the net proceeds from the mine from such bonuses, premiums, incentive payments, or other production stimuli, in which LESSOR did not participate, shall be made to the LESSEE. Nothing herein contained shall be construed to operate as a waiver, disclaimer, or in anywise prejudice the LESSOR, or its rights to participate in any such bonus, premium, incentive payment, or other production stimuli. It is further stated and understood that the LESSOR shall have the option to require, and the LESSEE will set up a reserve to meet is share of the net proceeds tax levies during the course of production, and deposit said reserve within the State of Utah in a suitable bank and/or other depositary.

9th. It is expressly understood and agreed between LESSOR and LESSEE, and declared to be a substantial premise on which the lease is let, that the operations of the LESSEE hereunder, and its relationship to the LESSOR are that of an independent contractor, and, if, for any reason, whether now existing or hereinafter coming into existence, and whether made by or under authority of any federal, state, local, or other laws, regulations, and the like, which would in anywise tend to or make the LESSOR liable for what are under the theory of independent contractors would otherwise be liabilities or chargeable to the LESSEE, then,

and in that event LESSOR and LESSEE shall renegotiate this agreement, so as to remove, if possible, those features which would, or tend to create said liability for the LESSOR based on LESSEE's operations hereunder.

10th. In the event that the LESSEE is paid, or receives, or on products sold is credited with any bonuses, premiums, incentive payments, or other production stimuli, under whatever name called, which are not included in, or reflected in the market price or prices, or which are paid in addition to such market price or prices, then, the said LESSOR herein is to receive the same proportionate part of such payments as it would receive under the terms of paragraph fourth (4th) of this lease. In the event that any governmental law, order, regulation, decree, rule of procedure, decision, or other determination forbids the sharing of any such bonuses, premiums, incentive payments, or other production stimuli, however called, LESSOR may require the renegotiation of this contract in such manner as will permit it to share or to obtain an adjusted or differential royalty rate which will preserve to it its proportionate share in the payments made or obtained, credited, on production from its properties.

11th. During its occupancy of the premises, all personal property, machinery, equipment, buildings, and improvements used or occupied by the LESSEE, including any water system or water rights, assessed as personal property by the taxing authorities, which may be taxed on an ad valorem basis to either LESSOR or LESSEE on items on or used in connection with the leased premises, shall as between the LESSOR and LESSEE have such tax or taxes or levy or levies paid by the LESSEE

12th. Upon the expiration of this lease or upon any prior termination thereof for any cause, LESSEE shall surrender and deliver up possession of said leased property to the LESSOR and all buildings (but not the contents thereof) then located upon the leased premises, or adjacent thereto on other unpatented ground, shall remain thereon and become the property of the LESSOR. LESSEE shall have thirty (30) days from and after the expiration of this lease, or from and after any prior termination thereof for any cause, within which to remove, at its own expense, all tools, machinery, equipment, fixtures, and all other items and improvements, except buildings (but may remove the contents of buildings), then located upon the leased property; it being understood and agreed, however, that prior to any removal thereof, LESSEE shall offer to sell the same to LESSOR at a definite fixed price, and LESSOR shall have twenty (20) days within which to purchase such tools, machinery, equipment, fixtures, and all other items and improvements, except buildings, at the price in cash or terms, or fixed by LESSEE.

13th. Lessee may sell, assign, hypothecate, or transfer this lease, or any right or rights acquired thereunder, including the right to subleasing, upon obtaining the prior written consent of the LESSOR, which shall not unreasonable be withheld. Failure of the LESSOR to act upon an application for any such permission to assign, sell, hypothecate, transfer, or sublease for a period of ten (10) days shall be construed as an assent by the LESSOR to such application.

14th. Lessor shall have and it hereby reserves the right to terminate this lease upon any unrectified breach by the LESSEE of any of its obligations hereunder or upon any unrectified failure by LESSEE to meet any condition expressly required for the continuance of this lease, including, without limitation, that of paragraph 2(a) hereof; provided that LESSOR shall have given to LESSEE written notice of any such breach or of any such failure to meet such condition and LESSEE shall have failed within the ensuing period of thirty (30) days to rectify such breach or to meet such condition, there being excluded from said 30 day period any period during which LESSEE shall be unable because of fire, earthquake, Act of God, extremes of the elements, strikes, labor disputes, commercial or transportation delays, governmental regulations or other causes, whether similar or not to the foregoing causes, beyond LESSEE'S reasonable control, to rectify any such breach or to meet any such condition and period during which LESSEE, having in good faith within the aforementioned period of thirty (30) days commenced to rectify any such breach or to meet any such condition, is in good faith and with diligence proceeding to complete the rectification of such breach or the meeting of such condition, and provided further that if any such breach or condition involves any difference between LESSOR and LESSEE which either LESSOR or LESSEE shall submit to arbitration, as provided in paragraph 21st hereof, then and in such event there shall be excluded from said period of 30 days, the entire period of such arbitration until the final notice of decision and award of the arbitrators or of any arbitrator and the umpire shall be made and communicated to the LESSOR and the LESSEE.

This lease shall continue for the term provided in paragraph 1st

hereof and for the period of any extension or renewal as herein provi
sooner terminated, as herein provided, it being understood and agreed
shall have and hereby reserves the right and option to terminate this
agreement at any time by at least thirty (30) days written notice to
its election so to do, and, recording with MILLARD COUNTY RECORDER a
its rights hereunder if the instant lease has been recorded, provided
foregoing right of termination shall not become effective until LESSEE shall have expended at any time during the year 1952 at least the sum of ten thousand dollars for labor, supplies, materials, improvements, and work on the leased premises, excluding expenditures for machinery, equipment, and items or removable use not remaining as a part or parcel of the LESSOR'S Estate on the termination of this lease.

The fact that LESSOR has not at any time required full and strict enforcement or compliance with the terms of any provision of this agreement, shall not in any respect be construed or considered as a waiver of the requirement of strict compliance, or give the LESSEE any right or rights as to any subsequent default or non-compliance hereunder, or the necessity of being given a longer notice than that provided above, or elsewhere hereunder, for requiring strict compliance with the terms hereof before a forfeiture may be declared.

15th. LESSEE, its assigns, agents, and employees, shall at all reasonable times and hours, allow the LESSOR or its duly appointed agents, access to the demised property and workings for the purpose of checking, sampling and/or inspection of the property leased or any portion thereof, and shall afford all reasonable facilities for making such inspection.

16th. Time is of the essence of this agreement.

17th. Any notices to be given or required to be given hereunder shall be sufficiently discharged by giving written notice to the interested party by registered mail, address:

(a) To the Lessor, New Klondike Mining Company, at 209 Atlas Building Salt Lake City, Utah,
(b) To the Lessee, Midstate Dredging & Mining Company, P. O. Box 890, Modesto, California.
(c) Above addressed may be changed by giving written notice in the manner hereinabove provided to the other party concerned.

18th. In the event that prices of the products produced and sold from the leased premises should substantially decline and are depressed to the point, where shipments of the products being produced and sold from the leased premises become detrimental to LESSOR's interest by unduly depleting the property, without providing an adequate return for the products, so produced and sold, then, and in that event, the LESSOR, upon notice to the LESSEE in writing may require cessation of shipment of the products being produced and sold from the leased premises, at the end of the calendar month next succeeding the calendar month in which notice is given, but requiring that at least thirty (30) days notice of such intention be given, provided, however, that if such cessation is called for, that the terms and conditions of this lease shall be extended for the period of any such shutdown for low metal prices and the condition of paragraph 2(a) hereof shall be suspended.

See Beard's letter of 9/20/57 to P.T. Region III and attached list of claims WSM

19th. If, in the area delineated by projection parallel lines to the boundaries of the leased premises above described at a distance of fifty (50) miles from the boundaries of the said demised premises, the lessor acquires additional mining property during the term of this lease, such property shall likewise be included herein and under the terms hereof, and, if the LESSEE has or acquires additional mining property within such delineated area, then, and in that event, in addition to other royalties provided for herein, LESSOR shall receive like royalties as herein provided from such shipments of products mined, produced, and sold by LESSEE from such acquired properties within such delineated area.

20th. It is understood that lessee will not commence operations to do business within the state of Utah without first meeting the insurance and other conditions if any, imposed by law for so doing.

21st. The lessee agrees to do and perform all necessary annual assessment work required now or hereafter by the federal government, any department thereof, or by any rules, regulations and/or other promulgations, on the unpatented mining claims

which are the subject of this lease, or may come under its terms, for and during the continuance thereof, and to furnish the lessor with (a) Data that will enable it to file proofs of labor, or (b) To file on behalf of the lessor such proof or proofs of labor covering said claims, such information and/or filings to be accomplished at least sixty (60) days prior to the then required filing date for the protection of said claims. This requirement is not to be construed as requiring expenditures in addition to those to be made under the terms of paragraph 2(a) hereof, when such work as may be done thereunder is sufficient to meet the assessment work requirements. Should lessor obtain United States patent(s) to any one or more of the said claims during the continuance of this lease, this clause shall become in operative as to such patented ground.

22nd. Any difference(s) arising between the parties to this contract, including without limitation, any differences arising in connection with any of the foregoing paragraphs of this lease agreement, shall be settled by arbitration in Salt Lake City, Utah. Each party in such event, on twnety (20) days written notice to the other of a difference to be settled, shall appoint one arbritrator, and, if the arbitrators are unable to agree, a Utah resident (preferably-skilled in the line of the particular type of item of difference) shall be appointed by the two arbitrators as umpire. Both parties agree to abide by the decision of the arbitrators, or any arbitrator and the umpire. Each party waives his right to take legal measures, except to enforce the award.

IN WITNESS WHEREOF, the parties hereto have executed this instrument in duplicate as of the date first above written.

NEW KLONDIKE MINING COMPANY, a corporation,
By_____
President
By_____
Secretary
-L E S S O R-

MIDSTATE DREDGING & MINING COMPANY, a co-partnership consisting of HERBERT BEARD, FRANK JOHNSON, LEO CARUSO, and ALVA HANNER,

By_____
A partner.
-L E S S E E-

STATE OF UTAH)
county of salt lake): SS.

On the 5th day of November, A. D. 1951, personally appeared before me, the undersigned a notary public in and for the state and county aforesaid, H. E. CARLSON, who by me being duly sworn says that he is the President of New Klondike Mining Company and that said instrument was signed on behalf of said corporation by authority of its board of directors, and said H. E. Carlson acknowledged to me that said corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the date and year in this certificate first above written.

_____
Notary Public in Salt Lake City
and County, Utah.

STATE OF UTAH)
COUNTY OF SALT LAKE): SS.

On the 5th day of November, A. D. 1951, personally appeared before me, the undersigned a notary public in and for the state and county aforesaid, HERBERT BEARD, who by me being duly sworn says that he is a co-partner of the partnership known as MIDSTATE DREDGING & MINING COMPANY, a co-partnership consisting of himself, FRANK JOHNSON, LEO CARUSO, and ALVA HANNER, and, said HERBERT BEARD, acknowledged to me that said partnership executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the date and year in t is certificate first above written.

_____
Notary Public in Salt Lake City
and County, Utah.

EXHIBIT "B"

A S S I G N M E N T

FOR AND IN CONSIDERATION OF THE SUM OF ONE DOLLAR ($1. and other valuable consideration, the receipt whereof is hereby acknowledged, the undersigned, individually and as copartners doing business under the name and style of MIDSTATE DREDGING COMPANY, hereby sell, assign, transfer and set over all the inte of lessee in that certain mining lease agreement dated November 1951, by and between NEW KLONDIKE MINING COMPANY, a Utah corporation, lessor, and MIDSTATE DREDGING COMPANY referred to in sai agreement as Midstate Dredging and Mining Company, a California copartnership, lessee to Midstate Development Inc., a California corporation.

It is understood and agreed that, by accepting this assignment, said MIDSTATE DEVELOPMENT INC., a California corporation, hereby assumes all the obligations and liabilities of sa mining lease.

This agreement and assignment supersedes and takes the place of that certain assignment dated July 30, 1952 from the undersigned to DEL ESTE LAND COMPANY, a corporation, H. L. BEARD FRANK JOHNSON, A. HANNER and GORDON EVERETT, "or to a copartnership or corporation the majority interest in which shall be owned by the foregoing or some of them", it being understood that. sin the execution of said assignment of July 30, 1952, said named assignees have formed, and are now the owners of stock in said MIDSTATE DEVELOPMENT INC., a California corporation, and further that United States Department of the Interior, Defense Minerals Exploration Administration has requested a clarification of said assignment, in connection with proposed contract with said MIDSTA DEVELOPMENT INC., a California corporation; one signed copy of this agreement is being prepared for said United States Departmen of the Interior, Defense Minerals Exploration Administration.

. BRACK
INEY AT LAW
O, CALIFORNIA

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D M E A
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DATE	INITIALS	CODE

DATED: September 22, 1953.

H. L. Beard

Frank Johnson

A. Hanner

Leo Caruso

Consent is hereby given to the foregoing assignment.

DATED: September 22, 1953.

NEW KLONDIKE MINING CO.

By H. E. Carlson
H. E. Carlson - President

Consent is hereby given to the foregoing assignment, and the undersigned, being all the stockholders of MIDSTATE DEVELOPMENT INC., a California corporation, hereby sell, assign, transfer and set over to said MIDSTATE DEVELOPMENT INC., a California corporation, all our interest, if any, in and to said above mentioned lease, said transfer being in consideration of the following shares of stock which have been and are now issued:

Del Este Land Company	10,000
H. L. Beard	2,000
Geo. K. Beard	2,000
Frank Johnson	2,000
A. Hanner	2,000
G. W. Everett	2,000

F. M. BRACK
ATTORNEY AT LAW
MODESTO, CALIFORNIA

DATED: September 22, 1953.

DEL ESTE LAND COMPANY, a corporation

By W. E. Beard, Pres.

H. L. Beard

H. L. Beard

Geo. K. Beard

Geo. K. Beard

Frank Johnson

Frank Johnson

A. Hanner

A. Hanner

G. W. Everett

G. W. Everett, also known as
Gordon Everett

The foregoing assignment is hereby accepted, and the undersigned MIDSTATE DEVELOPMENT INC., hereby assumes all the obligations and liabilities of said mining lease, effective as of the date hereof.

DATED: September 22, 1953.

MIDSTATE DEVELOPMENT INC., a corporation

By H. L. Beard

H. L. Beard, President

. BRACK
INEY AT LAW
D, CALIFORNIA

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EXHIBIT "C"

ASSIGNMENT OF LEASE

Pursuant to a resolution of the Board of Directors of MIDSTATE DEVELOPMENT, INC. adopted at a regular meeting of said Board of Directors at the principal office of the corporation on July 27, 1956, the undersigned MIDSTATE DEVELOPMENT, INC., a California Corporation, does for a valuable consideration assign, sell, transfer and grant to H. L. BEARD CO., a California Corporation duly authorized to do business in the State of Utah, all the interest of the assignor in and to that certain mining lease agreement dated November 5, 1951, by and between NEW KLONDIKE MINING COMPANY, a Utah Corporation, and MIDSTATE DREDGING AND MINING COMPANY, a co-partnership, lessee, which lease was duly assigned to the MIDSTATE DEVELOPMENT, INC. by said co-partnership.

IN WITNESS WHEREOF, the undersigned corporation has by its President and Secretary, signed its name hereto and affixed its corporate seal hereunto at Modesto, California, this 27th day of July, 1956.

MIDSTATE DEVELOPMENT, INC.

By H. L. Beard
President

Attest: Kennan H. Beard
Secretary

(Corporate Seal)

STATE OF CALIFORNIA
County of Stanislaus } ss.

On July 27, 19 56
before me, Richard F. Olsen
a Notary Public, in and for said County and State, personally appeared H. L. Beard and Kennan H. Beard
known to me to be the President and Secretary
of the corporation that executed the within instrument, and also known to me to be the persons who executed it on behalf of such corporation and acknowledged to me that such corporation executed the same.

Richard F. Olsen
Notary Public
My commission expires April 13, 1960

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N O T I C E O F C O N S E N T

The following resolutions as duly made and seconded, were unanimously accepted by the Board of Directors of the New Klondike Mining Company, a Utah Corporation, at a Special Directors Meeting held December 1, 1956 at 10:00 a.m. o'clock at 209 Atlas Building, Salt Lake City, Utah.

RESOLVED, That consent be and is hereby granted for the assignment of July 27, 1956 of the Midstate Development, Inc., a California Corporation, to the H. L. Beard Co., a California Corporation duly authorized to do business in the State of Utah, of their interest in and to that certain mining lease agreement dated November 5, 1951, by and between New Klondike Mining Company, a Utah Corporation, and Midstate Dredging and Mining Company, a co-partnership, lessee, which lease was duly assigned to the Midstate Development, Inc. by said co-partnership on September 22, 1953. The President and Secretary be and are hereby authorized to issue a notice of consent of the foregoing assignment and handle any other matters that pertain to said assignment.

RESOLVED, That a change in the royalty settlement be and is hereby accepted and reduced from 12½% to 7½% for the next three years in the November 5, 1951 lease agreement by and between the New Klondike Mining Company, a Utah Corporation, and Midstate Dredging and Mining Company, a co-partnership, lessee, which lease was duly assigned September 22, 1953 to the Midstate Development, Inc. by said co-partnership and which lease was again duly assigned July 27, 1956 to the H. L. Beard Co., a California Corporation duly authorized to do business in the State of Utah.

RESOLVED, That the President and Secretary be and are hereby authorized to Subordinate all the New Klondike Mining Company's interest to a Defense Mineral Exploration loan for which application is being made by the H. L. Beard Co., lessee of the New Klondike Mining Company properties.

NEW KLONDIKE MINING COMPANY

By H. E. Carlson
President

Attest:

Alvin R. Erikson
Secretary

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EXHIBIT "D"

COPY

REPORT ON
THE NEW KLONDIKE TUNGSTEN PROPERTY

of

THE MID-STATE DEVELOPMENT CO.

in

MILLARD COUNTY, UTAH

PART I

by

I. G. IRVING

November 29, 1952

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APPENDIX A.

Tabulation of Previous Drilling

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Mid-State Developm[illegible] Co.
Modesto, Calif.

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REPORT ON

THE NEW KLONDIKE TUNGSTEN PROPERTY

of

THE MID-STATE DEVELOPMENT CO.

in

MILLARD COUNTY UTAH

PART I

INTRODUCTION

The New Klondike Tungsten property was examined by the geological and metallurgical departments of The Galigher Company at the request of Mr. H. L. Beard of The Mid-State Development Company. Mr. Beard's address is P. O. Box 890, Modesto, California.

The purpose of the examination was to determine the present and potential tonnage and grade of the tungsten-bearing material, indicated on the property, and its amenability to satisfactory metallurgical treatment.

Regarding the first objective, an estimate of the tonnage and grade of the material now more or less indicated by previous drilling and open pits, was to be made, as some thought had already been given to the erection of a mill. In addition to this immediate calculation, an opinion was to be given of the grade and amount of material that might be counted upon as reasonable extensions of the present exposures. This would embrace material that could be made available with a relatively small amount of additional development work. Finally,

an expression of opinion on the entire property's ultimate potentialities was also desired.

In connection with the first and second steps an evaluation of the previous drilling and development work had to be made. And to conclusively demonstrate extensions, an additional drilling campaign must be carried out. Such a program is offered.

The metallurgical investigation was to include a discussion of milling costs and the size and cost of a mill of suitable capacity, in addition to providing the usual metallurgical data that result from laboratory tests. Some expressions of opinion on the minimum amount of blocked-out ore necessary, before mill construction was undertaken, was also thought advisable.

LOCATION AND OWNERSHIP

The property consists of 23 unpatented lode mining claims, located in Sections 12 and 13; Township 19 South, Range 14 West, Millard County, Utah. The area embraced is in Miller (or Granite) Canyon on the east side of the House Range, about fifty miles southwest of Delta, Utah. The elevation of the camp is approximately 7000 feet and the climate and topography is typical of the semi-arid Basin and Range province of Utah and Nevada. Several springs that provide water the year around are located nearby.

The property is owned by the New Klondike Mining Company, of Salt Lake City, Utah, but is now held by the Mid-State Development Company, of Modesto, California, under a ten-year lease.

HISTORY AND PREVIOUS INVESTIGATIONS

The property first attracted attention some twenty or more years ago as a possible gold producer. Some of the claims were probably located at that time. In addition to the lode claims, a number of placer claims were also staked out. During this early period attempts were made to treat the property as a placer operation and the usual few, but high-grade, gold shipments were made from occasional rich pockets encountered in some of the veins worked.

Tungsten in the form of scheelite and some molybdenum was noted by the owners some ten years later. And during World War II these occurrences were called to the attention of the various government agencies.

It is reported by Mr. H. E. Carlson, of Eureka, Utah, an officer of the underlying company, that the property was investigated by the Bureau of Mines, in 1941 or 1942. Mr. Carlson states that Paul T. Allsman conducted the investigation at that time, but reported negatively because none of his samples, which were assayed in Reno, Nevada, showed more than 0.1% WO_3. Later Mr. Carlson sent two carloads of the ore to the Metals Reserve, in 1942, and reports that they assayed approximately 0.5% WO_3.

Mr. Carlson further reports that the Tintic Standard Company, of Eureka, Utah, under Earl F. Hanson, examined the property a few years later and took over two hundred samples with, according to Carlson, good results. It is understood that Hanson's report to the Tintic Standard Company was quite favorable, but that the latter dropped the investigation when they heard of Allsman's results.

Early in 1951 the Molybdenum Corporation spent several months in a rather intensive preliminary investigation of the property. This work was done under the supervision of Russell Wood and included a good deal of dry-hole drilling. The drilling was done with a wagon drill and ordinary bits, with the dust and cuttings from the hole collected in a Multiclone, every five feet. A geometric pattern was laid out for this drilling, with an attempt to put down holes on the corners of fifty-foot squares. In this manner two separated areas were drilled in a program involving 32 holes and a total of 970 feet of hole. The average depth of hole was 30.3 feet.

Included as Appendix A is a tabulation of the assay results of this drilling.

The results obtained in drilling the area on the Foreseen No. 1 claim were largely very negative, but tungsten ore varying from 0.33% WO_3 to 0.75% WO_3 was encountered in ten of the seventeen holes drilled on the Bright Light No's. 1 and 2 claims. And at least two of the negative holes drilled here did not go deep enough.

A synopsis of Wood's report was available and in it, it is stated that - "In the Bright Light area tungsten concentrates were found in the five feet next above the granite, and again in a five-foot stratum about 15 feet above the lower one." Wood's report goes on to state - "The drilling blocks out over 400,000 tons of rock. Of this there is a possible 33,000 tons of rock assaying 0.4% WO_3 and over, with 33,000 tons of waste overlying it."

A discussion of the above will be made later in this report.

Recent work by the Mid-State Development Company has consisted of some minor shaft sinking on a tungsten vein, in the granite on the White Cloud claim and blasting some of the drill holes put down by the Molybdenum Corporation on the Bright Light claims. This work, particularly the latter, has produced some interesting results.

The twenty-foot shaft, sunk on the White Cloud claim produced about 31 tons that was shipped and assayed 1.21% WO_3.

On the Bright Light claims, Molybdenum Corporation's holes B-8-G, B-10-E, B-9-D, B-10-C, B-10-B and B-11-E were actually blasted out, making open pits four to seven feet deep, around the hole, and eight feet or more in diameter. In this manner the actual tungsten-bearing bed (which was exposed in most of the holes) could be seen and sampled. After this was done, an open cut was made into the bed exposed around hole B-11-B and material, mostly from this hole, but some from holes B-10-B and B-10-C was actually shipped. This shipment, which contained 55 tons, was sent to the Utah Ore Sampling Company and assayed 0.57% WO_3.

Some of this ore remains in scattered piles near the above-mentioned holes. A chip-sample was taken of this material and it assayed 0.43% WO_3. This and the shipment made is mentioned at this point because the Molybdenum Corporation's drilling here produced discouraging results. For example, in Hole B-11-B the first five feet drilled is reported as assaying only 0.1% WO_3 and the next five feet only 0.22% WO_3. The material comprising most

of the 55-ton shipment came largely from the pit around this hole, which shows the upper six feet to be good tungsten-bearing tactite and the shipment, as mentioned above, actually assayed 0.57% WO_3. This material which looks good under the light can actually be seen.

A further check on the presence of scheelite in interesting quantities is afforded by a sample taken, during the present examination of a 3.5-foot bed of scheelite-bearing tactite exposed in the pit around blasted hole B-10-E. The sample assayed 1.13% WO_3.

Further reference to Molybdenum's drilling will be made in a later discussion.

GEOLOGY OF DEPOSIT AND NATURE OF TUNGSTEN MINERALIZATION

In its bare essentials the tungsten mineralization, as would be expected, is associated with an altered zone in limestone at and near a granite contact.

The limestone beds, which are of medium thickness, strike pretty uniformly north 50 to 60 degrees east and have a very constant dip to the southeast of 13 to 16 degrees. These flat-dipping beds have been introded by a coarse pinkish granite.

In the immediate vicinity of the New Klondike property the top of the granite exhibits a sill-like relationship to the overlying sedimentaries. As exposed, just west of the Bright Light claims in Contact and Water Canyons, however, the granite is seen to be at least five hundred feet thick. If it is a sill, it is obviously a large one. On the other hand it may be that the granite is actually stock-like in character and conforms to the bedding of the limestone above only locally.

Bodies of igneous rocks that are true sills without question are also seen. On the Foreseen claim one such sill, perhaps fifty feet thick, consisting of a light-colored, fine-grained granite is exposed, and on the Happy Chance No. 1 claim a sill 25 to 30 feet thick of pink granite crops out. In both these cases tungsten-bearing tactite occurs at the contact of these smaller igneous bodies as it does at the contact of the main igneous mass.

The tungsten mineral, which shows up with a somewhat yellowish fluorescence, and is probably not pure scheelite but carries a minor amount of molybdenum, occurs in a very garnetiferous tactite. The limestone, for some distance up and out from the granite contact is highly altered, displaying in places considerable epidote, and in these lighter-colored altered beds some scattered impure scheelite also occurs.

There is definite evidence both from surface mapping and data obtained from earlier drilling that two important tactite beds exist. One lies directly on top of the granite and the other bed occupies a stratum fifteen to twenty feet above the lower one. It is not known whether or not the upper bed is a persistent "sheet" but the lower one, directly at the granite contact appears to be quite extensive. The lower bed ranges from a few feet to fourteen feet or more in thickness and appears to average at least six feet thick where exposed on the Bright Light claims, and where it is intermittently exposed for six hundred feet or more up Contact Canyon to the west. The upper bed where seen in some of the blasted holes is 3.5 to 6.0 feet thick but its lateral extent is not known.

The tungsten mineral, which though containing a small amount of molybdenum (less than two percent in concentrates made) is definitely not powellite. It occurs largely as irregular disseminations, but when the richer specimens are viewed, it sometimes forms in thin parallel bands as if following former bedding planes in the now-altered limestone.

The actual occurrence of tungsten on the property is widespread. In fact, the whole general area seems to constitute a definite tungsten province, as the material is being mined at several other and widely separated places several miles distant, in the general vicinity.

On the Gold Crown claim, about a mile west of the Bright Light Pit, a small shaft has been sunk on the contact of a remnant of tactite and the underlying granite and some very high-grade scheelite found in spots, particularly in the granite. This occurrence while interesting does not seem to have big potentialities, unless it were finally disclosed that a tungsten vein of importance extended into the granite below.

Similarly, on the White Cloud claim a small shaft reveals a strongly mineralized, sheeted zone in the pink granite, near its contact with the overlying tactite. Here, as mentioned previously, a 31-ton shipment was made that assayed 1.21% WO_3. This mineralized zone, while contained in the granite, might prove extensive enough to be important and should receive a little more work.

As is shown on Map 1, a tactite bed occurs intermittently on the Foresoen claim, but the exposure is not thick or very extensive and the drilling here was quite negative.

On the Happy Chance No. 1 claim a better exposure is seen. The details of this occurrence are also shown on Map 1. Here, it will be seen that two tactite beds occur, one above and one below a 30-foot granite sill. Further, the altered limestone above these beds contains a series of closely spaced seams, ½" to 1" thick that are rich in scheelite and indicative of the intensity of mineralization in this area.

The most important exposure on the Happy Chance claim is a six-foot bed of tungsten-bearing tactite outcropping in a gulch, near the center of the claim. This bed shows up well under the light and is said to assay 0.5% WO_3. If the drilling which will be proposed on the Bright Light claim is successful, this area should certainly be drilled later.

The most important display of mineralization, however, is that seen on the Bright Light No's. 1 and 2 claims. Moreover, it is here that the drilling done by the Molybdenum Corporation shows the best results.

On these claims, a remnant of limestone, not yet eroded away, forms a thin "skin" on top of the underlying granite, whose upper surface is definitely conformable to the bedding of the altered sedimentary rock above. The dip of the limestone very closely parallels the slope of the hill which it forms. The altered limestone area is surrounded by granite on three sides, and if erosion had proceeded only a little farther, it would have been bounded by granite on the fourth side also. This almost completely surrounded area of limestone is about 1000 feet long in a northwest-southeast direction, and will average 350 feet in width. Its shape and geologic setting will

be better understood if the surface geology on Map 1 and the longitudinal sections on Map 2 be inspected.

Around the edge of this tongue-like remnant of limestone there is a persistent bed of tactite ranging from a few feet up to fourteen feet in thickness which crops out and may be seen at a great many points. And as the sections will show, there appears to be two beds, one about 20 feet above a lower one which lies on the contact of the flat-topped underlying granite. That the lower "sheet" of tactite is persistent is seen by its exposure on the side of the gulch, southwest of this area. Here, its outcrop may be traced in a northwesterly direction for about 800 feet. All of this tactite exposure shows scheelite in varying quantities under the fluorescent lamp. And the limited drilling done at the southeast tip of this elongated patch of limestone and tactite shows a considerable amount of what might be commercial tungsten ore in a majority of the holes. Further drilling may prove that a body of ore of considerable extent is present.

ORE RESERVES

It cannot be said that any actual ore reserve has been, as yet, developed. Ore, by definition, is material that can be extracted at a profit. The material that is partly exposed and indicated, at present, cannot stand the costs of shipment and treatment at distant mills. And it has not yet been demonstrated that a sufficient quantity of it exists to justify the erection of a mill at the property. The latter would be necessary for material of the tenor indicated to be worked at a profit.

An examination of the drilling results obtained by the Molybdenum Corporation, made in conjunction with a study of the longitudinal sections, on Map 7, does allow the statement, however, that there might be partly exposed and delineated on the property some 30,000 to 40,000 tons of material that would appear to average 0.48% WO_3.

The above tonnage and grade possibilities are based on the present drill holes and supported by the recent shipment made of some of the material, plus observations made and some sampling done during the current examination. This material, however, is not blocked out ore in any sense. It must be checked and better delineated by further drilling and sampling. Also, extensions of the body, or its limits, must be determined by further exploration.

PROPOSED PROGRAM OF EXPLORATION

Because the property definitely has some merit, as a possible source of tungsten, and also because it is understood that the owners of the present lease wish to demonstrate its potentialities one way or another, a limited diamond drilling program is recommended.

This exploration program should be confined, at the start, to an attempt to determine conclusively the extent, grade and other physical factors pertaining to the tungsten-bearing beds now partly exposed and indicated on the Bright Light No's. 1 and 2 claims. The showing here is, by far, the best exposed on the property to date. Other exposures, particularly those seen on the Happy Chance No. 1 claim, could be explored later if the results obtained in the Bright Light area suggest it.

The drilling suggested is presented in plan and section on Maps 1 and 2. If these maps be studied it will be seen that the program is quite comprehensive and involves 36 holes, laid out with gaps dictated by the geology, on the corners of hundred-foot squares. Several of the holes are close to the previous drilling and are purposely designed to check the results reported, or go deeper to reach a bed, believed not to have been penetrated.

A total estimated footage of 1836' is involved in the 36 holes. The average depth of hole is 51 feet. The shallowest hole is 20 feet and the deepest 170. These are estimated distances only, and all holes should be extended to the granite believed to underlie the lower tactite bed in a manner shown on the longitudinal sections. The drilling will, of course, have to be supervised by a competent geologist and changes in the above objective (i.e., penetrating the granite in each case) might be made as results are obtained. The drilling program, as laid out, is not inflexible and a good deal of latitude should be allowed the geologist-supervisor as geologic data accumulates and is interpreted.

A properly supervised drilling project will demand, of course, that, in addition to geologic study and interpretation, careful logging of drill performance and core be done, and that cores be properly divided and split for purposes of assaying, with half of the core kept, properly identified and stored for a permanent record. Standard and well-known procedures should at all times be followed. Note-book sketches should be kept of each hole, showing geology, assays obtained

and other pertinent data. Eventually all of this material should be transferred to, and coordinated on, large permanent maps of a suitable nature.

ESTIMATED COST OF DRILLING AND TIME OF COMPLETION

As mentioned in a preliminary letter-report by C. E. Chaffin, consulting engineer with the Galigher Co., the drilling, with the production of a 7/8" core, might be contracted for at $6.00 a foot, but that for safety and to cover contingencies a figure of $7.50 a foot would be a better estimate. This may prove to be a reasonably correct figure, but the entire program, with the details on the number of set-ups, estimated depth of overburden, and individual depth of each hole should be set before various drilling companies for bids.

On the basis of $7.50 a foot, the program herein set forth involving 36 holes and a total of 1835 feet - raised here to 2000 feet for purposes of estimating - would cost in the neighborhood of $15,000.00. To this figure 10% again should be added for still additional contingencies.

If one drill is used and preliminary excavation at the site of each hole, for purposes of allowing a quick set-up, is arranged, this work might be completed in three to four months. An extra crew might be to some financial advantage but this decision should await a discussion and analysis with the drilling company.

Assaying should be done only where scheelite is prominently shown in the core under the fluorescent lamp. Assuming

that this will involve sampling most of the intersections of the heavy garnetiferous tactite, and that some holes might encounter two such beds; a study of the holes laid out indicates that the budget should allow for at least 250 samples. This allowance takes into consideration the probability of several samples being necessary in each tactite zone and, while much of the relatively barren limestone need not be sampled, some border-line material will.

At $3.00 for each tungsten sample, $750.00 or more should be anticipated for this work. Geologic supervision and final report writing should be estimated at $3,000.00 if four months is required for the job, and proportionately less if done more quickly.

A summary of the estimated costs follows:

Contract drilling @ $7.50/ft.	15,000.00
Add 10% for contingencies	1,500.00
Assaying	750.00
Geologic Supervision and Report	3,000.00
	$20,250.00

The above estimate does not include the costs of maintaining a camp and other expenses purely for the lessees account, separate and apart from the drilling.

TONNAGE POSSIBILITIES OF THE PROGRAM SUGGESTED

It would be foolish to predict the outcome of the drilling. As stated earlier, the property appears to have merit and its drilling, as a speculative venture, seems justified.

If results were distinctly negative, the possible 30,000 to 40,000 tons, mentioned earlier as being partly indicated on the property by the previous drilling, could be seriously challenged or entirely disproved.

Another result could be the delineation of small, separated and erratic lenses of tungsteniferous material with no commercial value because of lack of continuity or erratic grade. Or, the deposit may prove too narrow or thin, with too much overburden involved to be attractive. These, and other unfavorable possibilities not mentioned must be considered.

On the other hand, if the 36 holes, or a large part of them were successful in revealing commercial material, a tonnage of ore adequately exposed by diamond drilling but not blocked out preparatory to mining, of perhaps 150,000 tons could be established. Such ore could average 5 to 6 feet in thickness and show an average grade of 0.5% WO_3. This possibility is pointed out here to afford a yardstick with which to measure the optimistic results of the proposed drilling. It is in no way to be considered a prediction.

If the above tonnage, with approximately the grade suggested, or a large fraction of this amount, were revealed by the drilling, it would seem very reasonable that additional drilling in this same area and in other places would add to the tonnage established.

METALLURGY AND MILLING ECONOMICS

A discussion of this subject and the results obtained in the preliminary test work is submitted in the last half of

this report. In this discussion, the necessary minimum tonnage that should be blocked out before mill construction is taken up. Also included is an estimate of mill size and cost, and operating milling costs.

GENERAL ECONOMICS OF THE PROJECT

The economics of the milling and metallurgical treatment of the ore, involving as it does recoveries, probably grade of product and its expected net return, capital costs and operating costs, are presented in Part II of this report, as stated above. Much of this analysis must be based, at this time, on an estimated probable grade. If, after drilling, the average grade of the material exposed proves quite different from that assumed, the expected results would quite naturally be different.

A discussion of the probable mining costs and the sums required for the additional development work that would be necessary preparatory to mining, would have to await the complete delineation of the deposit to be mined. To illustrate simply, no estimate of stripping or mining costs would have any value unless the thickness of the mineable ore, as well as its depth below surface and the character and thickness of the overlying material, were known. In addition to these factors, other elements deriving from the shape, continuity and other physical aspects of the ore body would come into the picture also.

In addition to costs, both mining, milling and disposal of product, another important element enters the picture of the general economics of the venture. This, very obviously is the

present selling price of the product and the duration of the current market. It is understood that the present government purchase program expires June 30, 1956, or when 1,468, 750 units have been purchased, or whichever occurs first.

If it took six months to complete development work and mill construction, and assuming this would have to await the completion of the drilling program, it might be that full-scale production would not be obtained until the end of 1953, leaving only two and a half years of government-subsidized market. It is, of course, possible that the situation might get tighter, especially if a major war takes place, and in this case a higher price and a longer purchase program might be probable. On the other hand, adverse factors must also be considered.

CONCLUSIONS AND RECOMMENDATIONS

The property exhibits an interesting amount of tungsten mineralization which, if present in fairly large tonnages and other physical aspects are favorable, could be considered commercial ore under present conditions. The property from this point of view has merit.

Accordingly, if the present lessees are willing to gamble on the future price of tungsten and supply venture capital for further development, a moderate drilling campaign is justified. Such a program is suggested, and the details of this work are contained in the body of this report and shown on the accompanying maps. The program, if carried out as presented, is estimated to cost $20,250.00

If the results of the work outlined were favorable, tonnages up to 150,000 tons of material that could average 0.5% WO_3 might be revealed. In this case, additional drilling could well reveal greater tonnages. If the results were unfavorable the possibility of the property supporting a fairly large-scale tungsten operation would be small. This would not mean, however, that tungsten ore in small quantities, and some of it that could stand transportation and milling costs to distant points, would not be found. It is obvious that some small high-grade "pockets" have been found and it is likely that further work could reveal more such material, and it is even possible that enough might be encountered to support a small-scale leasing operation.

But to make a mine out of the prospect, milling ore in excess of 100,000 tons and preferably in amounts approaching 200,000 tons must be found. This possibility does exist and it is for this reason that the drilling program has been laid out and subject to reservations made above, is recommended.

If the drilling proves successful, a further recommendation is made that the entire area be subjected to a close geologic study, including detailed mapping and further drilling, based on this study, in other favorable places, be done.

It is believed that the property's merit is such that a government exploration loan could be obtained from the Defense Minerals Exploration Administration, Washington 25, D. C. If this course is taken application forms may be obtained and much of the material contained in this report can be used as supporting data, with the entire report being submitted as an exhibit. In

the case of tungsten, government exploration loans, if granted, are on a "matched funds" basis, with the government putting up 75% of the approved costs. An application for this type of government assistance would probably require three months of processing, perhaps more, and would include an examination of the property in the field by a government engineer.

If it is decided not to seek government aid and to go ahead on privately raised venture capital, it is suggested that holes No's. 1 through 18 be drilled first. If results at the end of this drilling prove to be negative, or show only "borderline material," this program, which would cost approximately $10,000.00, could be dropped at that point, with the feeling that the best exposure on the property had been pretty well explored.

Respectfully submitted,

I. G. IRVING
The Caligher Co.

Mid-State Development Co.
Modesto, Calif.

APPENDIX A

MOLYBDENUM COMPANY'S REPORT ON PREVIOUS DRILLING

TABLE I

ANALYSIS OF WAGON DRILL HOLES

Hole	Depth	Percent of WO_3* 0	5	10	15	20	25	30	35	40	60
B8G	15	0.33*	0.75*	0.75*							
B8I	20	Tr	0.50*	Tr	Nil						
B9D	30	Nil	Tr	Tr	0.38	Tr					
B9E	30	Nil	0.20*	0.50*	0.50*	0.33*	0.20*				
B9F	30	Tr	Tr	Tr	Nil	0.75	Tr				
B9H	25	Nil	Nil	Tr	0.33*	0.33*					
B10B	20	0.07	0.09	0.05	0.07						
B10C	20	0.08	Nil	Nil	Nil						
B10E	30	0.38	0.03	0.01	0.01	0.01	0.02				
B10G	38	Tr	Tr	Nil	0.50*	0.50*	Nil	Nil	Nil		
B10I	20	Nil	Nil	Tr	Tr						
B11B	20	0.10	0.22	0.01	Tr						
B11C	40	0.09	0.01	0.01	0.22	0.03	0.08	0.02	0.02		
B11D	30	0.10	0.03	Nil	Nil	Nil	0.06				
B11F	35	Nil	Nil	Nil	0.16	0.75	0.04	Nil			
B11H	25	0.50	Tr	Tr	Tr	Tr					
B12C	35	Nil	Nil	Nil	0.33*	Tr	Nil	Nil			
F6I	30	Tr	Nil	Nil	Tr	Tr.	Tr				
F6M	60	Tr	0.33*	0.50*	Nil	Nil	Nil	Nil	Nil	Nil	
F8G	15	Tr	Tr	Tr							
F8I	25	0.06	0.26	Nil	0.14	Tr					
F8K	35	Tr	Nil	Tr	Tr	0.33*	Nil	Nil			
F8M	35	Nil	Nil	Nil	Nil	Tr	Tr	Nil			
F9G	20	Tr	Tr	0.50*	Nil						
F10E	15	Nil	Tr	Nil							
F10G	20	Nil	Nil	Tr	Tr						
F10M	40	Nil	Nil	Tr	Nil	Nil	Nil	Nil	Nil		
F13M	40	Tr	Tr	Nil	Nil	Nil	Nil	Nil	Nil		
F13N	40	0.50	Tr	Nil	Tr	Nil	Nil	Nil	Nil		
F13P	37	Nil	Tr	0.16	Nil	Nil	Nil	Nil	Nil		
F13Q	35	Tr	Tr	Nil	Tr	Nil	Nil	Nil	Nil		
F13S	60	Tr	0.20*	Nil	Nil	Nil	Nil	Nil	Nil	Nil	

* Assays shown with asterisk (*) represent estimates

EXHIBIT "E"

THE GALIGHER COMPANY
585 West 8th South
Salt Lake City, Utah

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DMEA
RECEIVED FEB 25 1957

DATE	INITIALS	CODE

January 20, 1955

Mr. H. L. Beard, President,
Midstates Development, Inc.
726 - 10th Street
Modesto, California

Dear Mr. Beard:

New Klondike to Date

We are herewith submitting to you our report which consolidates all data obtained from diamond-drilling and underground prospecting to date.

Mr. I. G. Irving's report, dated November 29, 1952, has fully explained all aspects of the property other than the outcome of the diamond-drill and underground prospecting; therefore, this report will cover only that phase of the work.

Diamond Drill Program

1,855 feet of diamond-drilling has been completed on the property. Hole locations are indicated on the enclosed maps. Pertinent data as to results obtained have been tabulated and included with this report.

A summary of results is as follows:

DRILLING PROGRAM DEVELOPED POSSIBLE TONS

	TOTAL ORE BETWEEN 0.30% & 0.50% WO_3	OVER 0.50% WO_3 CONTENT
Open-cut mining	18,300	2,500
Underground mining	19,200	8,300
Totals	37,500	10,800

TOTAL ORE OVER 0.30 PERCENT WO_3 -- 48,300 TONS

The cap rock tonnages covering the tungsten-bearing bed are listed with the diamond-drill record included with this report.

Underground Developed Ore

Attached is a map depicting the underground mine workings to date.

Up-Contact Incline: The up-contact incline, when driven, was muck sampled every ten feet. The height of the incline has an average of seven feet and some barren limestone was broken when the incline was driven. The weighted average for 205 lineal feet, plus the north and south workings of 25 feet each, is 0.38 percent WO_3.

While the up-contact incline was being driven, a 48-ton carload of representative material taken from the zone 80 to 175 feet was shipped to the Utah Ore Sampler. The sample obtained from the carload lot assayed 0.28 percent WO_3. Muck samples taken when this work was done averaged 0.33 percent WO_3. The two samples check quite closely and are indicative that the material driven through will average 0.30 percent WO_3.

It is safe to assume that the up-incline has developed a block of tungsten-bearing material 50 feet wide, 200 feet long, and five feet wide, which contains 5,000 tons with an assay value of 0.40 percent WO_3. This block of ground is capped by 8,500 tons of rock.

Down-Contact Incline and Raise: The weighted average for the first 205 feet of down-incline is 0.33 percent WO_3. The height of the incline is seven feet.

As shown on the section map of the down-contact incline, a three-foot width of ore 90 feet long averaged 0.53 percent WO_3 and contains 1,100 tons with 5,600 tons of cap rock.

In addition to the above tonnage, it is safe to assume there is an additional 4,000 tons of 0.33 percent WO_3 material adjacent to the down-incline covered by 7,000 tons of cap rock.

TABULATION OF TOTAL TONNAGES
POSSIBLE

	TOTAL BETWEEN 0.30% & 0.50% WO_3	CAP ROCK	TOTAL OVER 0.50% WO_3	CAP ROCK
Open-cut mining				
DD Hole 1	11,600	3,300	--	--
DD Hole 24			2,500	12,500
DD Hole 18A	6,700	13,000	--	--
Underground Mining				
DD Hole 18	14,200		--	--
DD Hole 18A	5,000		--	--
DD Hole 24C			8,300	
Totals	37,500	16,300	10,800	12,500

TOTAL POSSIBLE ORE OVER 0.30 PERCENT WO_3 -- 48,300 TONS

PROBABLE

	TOTAL BETWEEN 0.30% & 0.50% WO_3	CAP ROCK	TOTAL OVER 0.50% WO_3	CAP ROCK
Open-cut mining				
Up-incline area	5,000	8,500	--	--
Down-incline area	4,000	7,000	1,100	5,600
Totals	9,000	15,500		

TOTAL PROBABLE ORE OVER 0.30 PERCENT WO_3 -- 10,100 TONS

Additional work would have to be done in the areas which contain possible tonnages in order to place them in the "probable" category.

Respectfully submitted

THE CALIGHER COMPANY

By _____
Engineer

John B. White, Jr./amb

Midstates Development, Inc.

January 20, 1955

DIAMOND-DRILL DATA

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	**POSSIBLE TONS ORE	TONS OVERBURDEN
1	22	0' to 8' - 0.39 0' to 12' - -- 12' to 22' - 0.35	4	4 10	3,300 8,300	3,300
2	18	0' to 6' - --- 6' to 15' - 0.26				
3	14	0' to 4' - --- 4' to 14' - 0.12				
4	10	Trace				
5	10	Trace				
6	10	0' to 5' - 0.14 5' to 10' - ---				
7	21	0' to 7' - --- 7' to 16' - 0.15				
8		Cancelled				
9	85	0' to 40' - --- 40' to 45' - 0.20 45' to 47' - 0 47' to 54' - 0.19 54' to 85' - ---				

**Based on 12 cu. ft. per ton 100 feet square times indicated width and 17 degree dip.

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	**POSSIBLE TONS ORE	TONS OVERBURDEN
10	26	0' to 11' - 0.12 11' to 26' - 0.12				
11	37	0' to 17-1/2' - --- 17-1/2' to 27' - 0.10 27' to 37' - 0.12				
12	39	0' to 11' - Trace 11' to 25' - 0.08 25' to 37' - 0.08				
13	26	0' to 26' - 0.25				
14	25	0' to 5' - --- 5' to 25' - 0.10				
15	19	0' to 6' - --- 6' to 18' - 0.08				
16	13	Trace				
17		Cancelled				
18	95	0' to 38' - Trace 38' to 45' - 0.22 45' to 52' - 0.11 55' to 61' - 0.33 61' to 69' - 0.10 69' to 79' - 0.09 79' to 85' - --- 85' to 95' - 0.33	Underground Mg. Underground Mg.	7 10	5,900 8,300	Underground Underground

**Based on 12 cu. ft. per ton 100 feet square times indicated width and 17 degree dip.

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	**POSSIBLE TONS ORE	TONS OVERBURDEN
18A	48	0' to 16' - --- 16' to 24' - 0.46 24' to 42' - --- 42' to 48' - 0.48	16 Underground Mts.	 8 6	 6,700 5,000	13,000 Underground
18B	125	0' to 34' - 0.15 34' to 49' - 0.17 49' to 54' - 0.11 54' to 62-1/2' - 0.14 62-1/2' to 80-1/2' - --- 80-1/2' to 92-1/2' - 0.08 92-1/2' to 100' - 0.16 100' to 110' - 0.19 110' to 125' - 0.16				
18C	192	0' to 27' - --- 27' to 34' - 0.08 34' to 95' - --- 95' to 109' - 0.10 109' to 119' - 0.11 119' to 128' - 0.10 128' to 178' - --- 178' to 192' - 0.08				
19		Cancelled				
20	26	0' to 11' - 0.24 11' to 25' - 0.25				

**Based on 12 cu. ft. per ton 100 feet square times indicated width and 17 degree dip.

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	*POSSIBLE TONS ORE	TONS OVERBURDEN
21	38	0' to 26' - --- 26' to 33' - 0.24				
22	25	0' to 5' - --- 5' to 22' - 0.23				
23	17	Trace				
24	85	0' to 15' - --- 15' to 18' - 0.63 18' to 20' - --- 20' to 25' - 0.09	15	3	2,500	12,500
25		Cancelled				
26		Cancelled				
24B	160	0' to 40' - --- 40' to 50' - 0.11 50' to 60' - 0.12 60' to 70' - 0.11 70' to 80' - 0.09 80' to 160' - No assay				
24C	220	0' to 31' - --- 31' to 35' - Trace 35' to 40' - 0.11 40' to 61' - Trace 61' to 102' - Trace 102' to 112' - 0.08 112' to 122' - 1.76 122' to 220' - Trace	Underground	10	8,300	Underground

*Based on 12 cu. ft. per ton 100 foot square times indicated width and 17 degree dip.

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	**POSSIBLE TONS ORE	TONS OVERBURDEN
27	45	0' to 12' - Trace 12' to 17' - --- 17' to 22' - 0.09 22' to 31' - 0.24 31' to 37' - 0.24				
28	90	0' to 70' - Trace 70' to 75' - 0.21 75' to 81' - 0.10 81' to 88' - 0.17				
29	40	0' to 6' - --- 6' to 14' - 0.10 14' to 24' - 0.18 24' to 32' - 0.16 32' to 40' - ---				
30	31	Trace				
31	66	0' to 36' - Trace 36' to 66' - Trace				
32		Cancelled				
33		Cancelled				
34	72	Trace				
35	103	Trace				

** Based on 12 cu. ft. per ton 100 feet square times indicated width and 17 degree dip.

HOLE NO.	DEPTH FEET	PERCENT WO_3 CORE SAMPLES	FEET OVERBURDEN	POSSIBLE FEET ORE	**POSSIBLE TONS ORE	TONS OVERBURDEN
36		Cancelled				
37		Cancelled				
38		Cancelled				

** Based on 12 cu. ft. per ton 100 feet square times indicated width and 17 degree dip.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
12/2	Chapman	400
12/2	Martin	400
12/2	[illegible]	130
12/2	[illegible]	1130
12/2	Nelson	130
		~~440~~
		~~400~~
12/2	gb	220
		225

DEC 2 1957

H. L. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Re: Docket No. DMEA 4651 - Tungsten
New Klondike mine
Millard County, Utah

Gentlemen:

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

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

Careful study of all our information, including the results of the exploration work performed under Contract No. Idm-E620 (Docket No. DMEA 2825) on your claims Bright Light Nos. 1, 2, 3, 4 and 5, does not indicate the probability that the proposed work, either on Bright Light Nos. 1 and 3, or on Happy Chance Nos. 1, 4 and 5 claims, will disclose a sufficient tonnage of ore-grade material to warrant further Government participation. Under these circumstances, we regret to advise you that your application is denied.

We wish to thank you for your continued interest in the Defense Minerals Exploration Administration program.

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

TLChapman/dlm/foc
11/22/57 - 12/2/57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

Careful study of all our information, including the results of the exploration work performed under Contract Idm-E620 (Docket No. DMEA 2825) on your claims Bright Light Nos. 1, 2, 3, 4 and 5, does not indicate the probability that the proposed work, either on Bright Light Nos. 1 and 3, or on Happy Chance Nos. 1, 4 and 5 claims, will disclose a sufficient tonnage of ore-grade material to warrant further Government participation. Under these circumstances, we regret to advise you that your application is denied.

We wish to thank you for your continued interest in the Defense Minerals Exploration Program.

admin.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
11-25	Chapman	400
11-25	Martin	400
		130
	Lamb	
	Williams	
		110
		100
		220

H. L. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Re: Docket No. DMEA 4651 - Tungsten
New Klondike Mine
Millard County, Utah

Gentlemen:

Your application for exploration assistance and other data available to us in Washington concerning the 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, including the results of work performed under the Contract, ~~although noting the occurrence of tungsten mineralization on your property,~~ does not indicate to us that the probability of disclosing ~~significant~~ sufficient ore reserves is ~~not sufficiently promising~~ to justify further Government participation. Under these circumstances, we regret to advise you that your application is denied.

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

Sincerely yours,

Administrator

TLCHAPMAN/dlm 11-22-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

November 25, 1957

OFFICIAL FILE COPY

Date	Surname	Code
11/26	Chapman	400
11/26	Martin	400
		100

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $53,000.00.
Docket No. DMEA 4651 - Tungsten
H. L. Beard Company, Inc.
New Klondike Mine
Millard County, Utah

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

Under Contract No. Idm-E630 (Docket No. DMEA 2825) a part of this property was explored with 33 diamond drill holes. As a result of this work the following estimates have been made.

By the Operator:
Inferred and indicated ore. Open cut and underground mining. 58,400 tons - 0.59% WO_3

Bureau of Mines:
Inferred ore 424,125 tons - 0.20% WO_3
of which 42,250 tons contain 0.59% WO_3

Geological Survey:
Inferred ore 493,710 tons - 0.22% WO_3

The Field Team reports indicate that the minable ore would amount to 223,465 tons averaging 0.32 percent WO_3. A general study of the maps and assays would suggests that the average of 0.32 percent WO_3 is dependent on a few high grade assays.

At the estimated grade of 0.32 percent WO_3 successful operation would probably require a price of $45.00 to $50.00 per unit if the ore could be mined by open pit, and about $60.00 per unit for mining by underground methods.

The Midstate Development Company made an attempt to mine the ore when the price of tungsten was $63.00 per unit of WO_3 and 3,243 tons then mined from underground, probably from the better areas, averaged 0.24 percent WO_3.

An application for additional work on the subject property was made on February 20, 1957, and proposed to extend the incline on the Bright Light claims 150 feet and drive 500 feet of laterals from three places in the incline at an estimated cost of $53,000.00. The property was examined on April 18 and 19, 1957, by Paul F. Fillo, and M. H. Howes, Bureau of Mines, and F. B. Moore, Geological Survey, with Mr. Carlson representing the Applicant. In lieu of the work proposed by the Applicant the Field Team proposed diamond drilling on the adjoining Happy Chance claims. The Applicant accepted this proposal and the Field Team recommended surface drilling of 26 holes in Stage I and 24 holes in Stage II.

Applicant:

H. L. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Property Ownership:

The following unpatented lode mining claims are owned by the New Klondike Mining Company:

Claim Name	Book No.	Page No.
Happy Chance No. 1	12	442
Happy Chance No. 2	12	442
Happy Chance No. 3	12	443
Happy Chance No. 4	12	443
Happy Chance No. 5	12	462
White Cloud No. 1	10	466
White Cloud No. 2	10	466
White Cloud No. 3	12	461
White Cloud No. 4	12	461-462
Foreseen No. 1	10	455
Foreseen No. 2	10	455
Bright Light No. 7	12	459

These claims are located in sections 12 and 13, T. 19 S., R. 14 W., Salt Lake Base and Meridian, Millard County, Utah.

The property owned by the New Klondike Mining Company, and any claims that might be located in the adjoining area were leased to the Midstate Mining and Dredging Company, by a Mining Lease Agreement dated November 5, 1951. On September 22, 1953, the above-noted lease was assigned to the Midstate Development, Inc. On July 27, 1956, the aforesaid lease was reassigned to H.L. Beard Company, Inc., the Applicant.

Geology: In the Notch Peak area of the House Range, the sedimentary rocks consist of a series of interbedded limestone beds of Upper Cambrian age. These beds have been intruded by a quartz monzonite stock. In several places quartz monzonite dikes and sills have extended from the main area into the sedimentary rocks. At the contact with the monzonite, the limestone beds have been metamorphosed into garnet-epidote bearing tactite ranging from a few feet up to 12 feet in thickness. Low grade tungsten in the form of scheelite is disseminated in the tactite beds. Some small high grade pockets are scattered through the mineralized zones, but the proportion is small.

Development:

The development work on the property consists of drill holes, pits, open cuts and a short inclined shaft with some underground stoping.

History and Production:

About 25 years ago this property was prospected and operated as a gold property and also worked as a placer operation. During World War II, tungsten was noted. Small shipments were made to the Metals Reserve stockpile at Salt Lake City.

In 1951 the Molybdenum Corporation of American drilled 32 wagon drill holes on 50 foot grid corners. On the Foreseen No. 1 claim the results were poor. On the Bright Light Nos. 1 and 2 claims the mineralized zone showed 0.33 to 0.75 percent WO_3. Two shipments of 55 and 31 tons assayed 0.55 and 1.21 percent WO_3, respectively. In 1955 three shipments of low grade concentrates were made of 23, 26 and 30 tons, assaying 10.37, 8.61 and 11.05 percent WO_3, respectively. In 1956 a shipment containing 28,869 units of WO_3 was made to Bishop, California.

Ore Values and Tonnage:

No ore has been developed on the Happy Chance claims, but the Field Team estimates that the proposed exploration work should find ore of a grade similar to that on the Bright Light claims, that is about 0.32 percent WO_3.

Proposed Work:

The Applicant's proposal to deepen the winze on the Bright Light claim with drifting and crosscutting is mainly development and was vetoed by the Field Team. The Field Team proposed diamond drilling on the Happy Chance Nos. 1, 4 and 5 claims. This work was accepted by the Applicant and the Field Team recommended a contract under the following provisions:

Stage I; Diamond drill 26 holes for a total of 2,200 feet at $7.50/ft.	$16,500.00
Bulldozing, supervision, etc.	3,620.00
Estimated cost of Stage I	$20,120.00
Stage II:	
Diamond drill 24 holes for a total of 2,000 feet at $7.50/ft.	$15,000.00
Bulldozing, supervision, etc.	3,200.00
Estimated cost of Stage II	$18,200.00
Sampling and assaying	860.00
Total estimated cost of project	$39,180.00
Government participation, 75 percent	$29,385.00

Comments and Conclusions:

The Field Team recommended writing a contract for the project on the basis that ore would be found similar to the ore found under Contract No. Idm-E630 (Docket No. DMEA 2825), and that such ore and other possible ore in the area could be combined into a large operation.

The Commodity Divisions of the Geological Survey, and the Bureau of Mines, concurred in the conclusions and recommendations of the Field Team.

The last paragraph of the Field Team memorandum of October 22, 1957, in reply to our letter of October 11, 1957, advises as follows:

"In summary, we recognize the borderline aspects of the subject exploration program but believe the exploration is warranted. However, you may wish to deny the application in view of the current tungsten situation and the fact that this program of exploration cannot be justified without consideration of the ore potential of adjacent property. On this basis, we would consider a denial to be appropriate".

W S Martin

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

October 22, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 25 1957

DATE	INITIALS	CODE
10/25	gb	220
10/25	WSM	400

Memorandum

To: Chairman, Operating Committee, DMEA

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4651 (Tungsten) H. L. Beard Company, Inc. (New Klondike mine) Millard County, Utah

I have reviewed the comments in your letter of October 11, 1957, as well as the examination reports, all on the subject docket. Although I am sympathetic with the general premise that the recommended program of exploration on the New Klondike property is marginal, I cannot agree with several of the reasons for doubting the suitability of the program.

I am somewhat confused by the statement ". . .information developed by a diamond drill contract with holes at 200-foot intervals would not be dependable. Therefore, if such a deposit cannot be reasonably sampled and delineated by widely spaced holes, it would not be a suitable target for DMEA assistance." Please note that the exploration program proposed in the examination report provides for a 100-foot spacing of Stage II holes. The examiners and the Field Team were fully aware that the 200-foot spacing in Stage I would not reasonably delineate and sample the deposit and therefore recommend Stage II on 100-foot centers. A two-stage program was recommended in an attempt to eliminate early in the program those areas not underlain by tactite and to concentrate work in areas where tactite was present and ore might be found. Perhaps it would be appropriate to eliminate the restriction that Stage II offsets (100-foot centers) be drilled only around holes containing 5 feet of 0.30 percent WO_3 or better, and permit drilling of Stage II offsets around Stage I holes which penetrated mineralized tactite.

From the fact that the concentrates averaged only 10 percent WO_3, you conclude that the ore is difficult to concentrate. Although this may be true, a poor concentration ratio may result from other factors such as type and suitability of a concentrating plant and competency of an operator.

In paragraph 3 of your letter you doubt the suitability of the proposed project at present, or in the near future, in consideration of the current importance of tungsten. While such short range

consideration may be entirely appropriate at the Washington level, we in Region III avoid the short range outlook for any commodity in order to be consistent in our appraisals of applications. We, therefore, have purposely avoided any consideration of current market conditions, or current importance, of any of the commodities in the DMEA program.

I assume that your belief that each DMEA project must stand alone and not depend on some other project is in effect an expression of DMEA policy. However, we believe that the DMEA program is sufficiently broad to encompass exploration designed to explore a sizable portion of an anticipated significant deposit although the reserves found by such restricted exploration may not be significant. Recommendation of the subject exploration program was based on that philosophy. If each project must stand alone and not depend on some other project, Docket DMEA-4651 should be denied.

In summary, we recognize the borderline aspects of the subject exploration program but believe that exploration is warranted. However, you may wish to deny the application in view of the current tungsten situation and the fact that this program of exploration cannot be justified without consideration of the ore potential of adjacent properties. On this basis, we would consider a denial to be appropriate.

E. N. Harshman

E. N. Harshman

A Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-10	Chapman	400
10-10	Martin	400
10/11	GCS	130
"	Johnson	110
"	Bartleson	100
10/14	C	220
		1400

OCT 11 1957

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4651 - Tungsten
H. L. Beard Company, Inc.
New Klondike mine
Millard County, Utah

Dear Mr. Harshman:

Reference is made to the Field Team memorandum of August 8, 1957, concurring in the recommendations of the Geologic Report of Frank B. Moore, Geological Survey, and Engineering Report of P. V. Fillo, Bureau of Mines, for a diamond drilling contract on the above-noted project, which is a modification of the applicant's proposal.

The above docket indicates that the proposed work is on the Happy Chance claims as well as on the Bright Light group that was explored under Contract No. Idm-E630, Docket No. DMEA 2825, Midstate Development, Inc. The examiners conclude that further work on the Bright Light claims is not warranted at present, and that the Happy Chance group has a potential similar to the Bright Light group. They question whether either property contains large enough reserves for economical mining now, but suggest that, under proper conditions, the two properties in conjunction with others in the district have enough potential for a large, low-grade mining operation. We do not feel that a contract can be so justified, as it is our belief that each project must stand alone and not depend on some other project.

We also doubt the suitability of this proposed project at present, or in the near future, in consideration of the current importance of tungsten. There is a further question whether an irregular ~~and~~ erratic ore deposit of such low grade (0.32 percent WO_3), can be mined economically even during periods of high metal prices. The Midstate Development, Inc. made an attempt to mine the ore when the price was $63.00 per unit, but had little success as 3,248 tons mined, probably from the most accessible or best grade areas indicated by the drill holes, averaged 0.24 percent WO_3. Also, the ore must have

8623

been difficult to concentrate for the concentrates from either their own or a local plant averaged only 10 percent WO_3. The low tenor of the 3,248 tons mined indicates that the ore lacks continuity and that the drill holes at 100-foot intervals give an erratic representation of the grade. Under these conditions, the information developed by a diamond drill contract with the holes at 200-foot intervals would not be dependable. Therefore, if such a deposit can not be reasonably sampled and delineated by widely spaced holes, it would not be a suitable target for DMEA assistance.

However, at this time we are unwilling to deny the application until we have had your further comments on the project.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (-46)

APPROVED:

P. F. Yopes (-46)
Member, Bureau of Mines

W. P. Williams (-46)
Member, Geological Survey

TLCHAPMAN:foc 10-11-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

A Form 7
(2-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-9	Chapman	400
10-9	Martin	400
		130
		110
		100
		220

Mr. E. N. Harshman
Acting Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4651 - Tungsten
H. L. Beard Company, Inc.
New Klondike mine
Millard County, Utah

Dear Mr. Harshman:

References is made to the Field Team memorandum of July 3, 1957, concurring in the recommendations of the Geologic Report of Frank B. Moore, Geological Survey, and Engineering Report of P. V. Fillo, Bureau of Mines, for a diamond drilling contract on the above-noted project.

We doubt the suitability of this proposed project at present, or in the near future, in consideration of the strategic importance of tungsten under present conditions. The Field Team implies that results from the recommended contract would be similar to those obtained under Contract No. Idm-E630, Docket No. DMEA 2825, Midstate Development, Inc. Each project should stand alone and not depend on some previous work. However, we do not feel that the suggested contract can be justified.

There is a question whether an irregular and erratic ore deposit of such low grade (0.32 percent WO_3), can be mined economically even during periods of high metal prices. The Midstate Development, Inc. made an attempt to mine the ore when the price was $63.00 per unit, but had little success as 3,248 tons mined, probably from the better areas indicated by the drill holes, averaged 0.24 percent WO_3. Also the ore must have been difficult to concentrate, for the concentrates from either their own or a local plant averaged only 10 percent WO_3. The low grade of the 3,248 tons mined indicates that the ore lacks continuity and that the drill holes at 100 foot intervals give an erratic representation of the grade. Under these conditions the information from a diamond drill contract with the holes at 200 foot intervals would not be dependable. Therefore, if such a deposit could not be reasonably

8623

sampled and delineated by widely spaced holes it would not be a suitable target for DMEA assistance.

At the same time we are unwilling to deny the application until we have had your further comments on the project.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Member, Geological Survey

TLCHAPMAN:foc
10-9-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

H. L. BEARD COMPANY, INC.
DOCKET NO. DMEA-4651
New Klondike Mine

MEMORANDUM

Completed Contract.

Midstate Development, Inc. Docket No. DMEA-2825
New Klondike Mine Contract No. Idm-E620
Certified April 29, 1955 630

Expenditures $16,926.88

Government share 75 percent, $12,695.17

Royalty payments, $699.07

Tonnage estimates

Operator	Indicated ore		
	Open cut mining	9,000 tons	-- 0.37%-WO_3
		1,100 tons	-- 0.53%-WO_3
	Inferred ore	2,500 tons	-- 0.63%-WO_3
	Open cut mining	18,300 tons	-- 0.40%-WO_3
	Underground mining	8,300 tons	-- 1.76%-WO_3
		19,200 tons	-- 0.37%-WO_3
	Total	58,400 tons	-- 0.59%-WO_3
Bureau of Mines	Inferred ore	424,125 tons	-- 0.20%-WO_3, of which
		42,250 tons	contain 0.59% WO_3
Geological Survey	Inferred ore	493,710 tons	-- 0.22%-WO_3

Accurate estimates of reserves is difficult due to very spotty deposition of the scheelite mineralization. Drill holes were located on a grid with 100 foot centers and assumed that each hole would have a lateral area of 100 feet by 100 feet and that 65 percent of the gross tonnage could be recovered in mining.

Geological Survey, estemates of inferred ore

10,640 tons - 0.50% WO_3
223,465 tons - 0.32% WO_3

Bureau of Mines, estimates of inferred ore

42,250 tons- 0.59% WO_3
148,850 tons- 0.35% WO_3

From a study of the Field Team Reports the indicated and inferred minable tonnage would be 223,465 tons averaging 0.32 percent WO_3

Sample Sections.

Section A-A'

Holes 20, 21, 22, 23 and 24B no assays above 0.30 percent WO_3

Hole 24, 15 ft. to 18', assay 0.63 percent WO_3

Hole 24C, 112 ft. to 122 ft. 1.76 percent WO_3

In Holes 24 and 24C all other assays below 0.30 percent WO_3

Section B-B'

Holes 10, 11, 12, 13, 14, 15, 16, 18B and 18C no assays above 0.30 percent WO_3

Hole 18A, 16 ft. to 24 ft. Assay 0.48 percent WO_3
42 ft. to 48 ft. Assay 0.48 percent WO_3

Hole 18, 55 ft. to 61 ft., Assay 0.33 percent WO_3, core
69 ft. to 79 ft., Assay 0.33 percent WO_3, core

30 ft. to 40 ft., Assay 0.57 percent WO_3, sludge
61 ft. to 71 ft., Assay 0.33 percent WO_3, sludge
80 ft. to 90 ft., Assay 0.41 percent WO_3, sludge

Section C-C'

Holes 2, 3, 4, 5, 6, 7, 9, no assays above 0.30 percent WO_3.

Hole 1, 0 ft. to 8 ft. Assay 0.39 percent WO_3
12 ft. to 22 ft., Assay 0.39 percent WO_3
All other assays below 0.30 percent WO_3

Section D-D'

Holes 27 and 28, Assays below 0.30 percent WO_3

Section E-E'

Holes 29 and 30, and 31, Assays below 0.30 percent WO_3

Section F-F'

Holes 32, 33, 34, 35, and 36, abandoned or no assays.

The relatively few assays above 0.30 percent WO_3 are scattered and to obtain the 223,465 tons of ore averaging 0.32 percent WO_3 the operation would have to be carried on from a number of different points.

A question comes up, why the applicants did not make any attempt to carry on an operation during the the period when the price of WO_3 was $63.00 or $55.00 per unit?

On the basis of a 75 percent mill saving it is estimated that it would be necessary to have the following grades of ore to be economic for underground and open pit mining.

Open pit mining, at $22.00 per unit, 0.70 percent WO_3. Value $11.55 per ton
at $30.00 per unit, 0.50 percent WO_3. Value $11.25 per ton

Underground mining, at $22.00 per unit, 1.00 percent WO_3. Value $16.50 per ton
at $30.00 per unit, 0.75 percent WO_3. Value $16.87 per ton

On new application of Docket No. DMEA-4651, H. L. Beard Company, Inc., the Field Team recommends Stage I drilling 26 holes for a total of 2,170 feet at a cost of $20,500 and Stage II drilling 2,000 feet of holes at a cost of $18,580.00 or a total cost of $39,080.00 for the project.

It is expected that the results of the drilling in Stage I would be similar to that obtained in Docket No. DMEA-~~4651~~ 2625, Midstate Development, Inc.

On the estimated grade of 0.32 percent WO_3 it would require a price of $45.00 to $50.00 per unit for open pit mining. For underground mining it would require a price of around $60.00 per unit. These estimates are on the basis of mining and milling 300 tons per day.

Under these conditions this Division recommends that the application be denied.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

AIR MAIL

September 23, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Alternate Acting Executive Officer, DMEA Field Team, Region III

-24C

Subject: Docket DMEA-4651 (Tungsten) H. L. Beard Company, Inc. (New Klondike Mine) Millard County, Utah

Enclosed is a copy of the following, which purportedly shows evidence by which H. L. Beard Company, Inc. controls the Happy Chance Nos. 1-5 claims and the White Cloud Nos. 3 and 4 claims:

1. List of claims, dated November 4, 1952, owned by New Klondike Mining Company.

2. Letter, dated September 20, 1957, from the Applicant, which submitted Item 1 to this office.

J. W. Townsend

Enclosures

OFFICIAL FILE COPY
D M E A
RECEIVED SEP 24 1957

DATE	MARKS	CODE
9/24	C	220
9/24	WSM	400

DMEA
DEPARTMENT OF THE INTERIOR

SEP 23 1957
REGION III
DENVER, COLORADO

Room 17 Black Building
Modesto, California
September 20, 1957

United States Dept. of the Interior
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

Re: Docket DMEA 4651 (Tungsten)
H. L. Beard Company, Inc.
(New Klondike Mine)
Millard County, Utah

Gentlemen:

We are enclosing four copies of the list of our claims under lease in the New Klondike Mining Company, along with Mr. Carlson's signed statement.

These may be attached to your copy of the Lease.

Respectfully yours,

H. L. BEARD COMPANY

H. L. Beard

H. L. Beard, President

Salt Lake City, Utah
November 4, 1952

The following unpatented placer and lode mining claims are held and owned by the New Klondike Mining Company and are situated in Miller or Granite Canyon, House Mountain Range, Millard County, Utah:

Name of Claim	Date of Location or Amended Location	Location or Amended Location Notice Recorded in Office of County Recorder, Millard County, Utah	
		Book	Page
Trap Placer	11-16-33	9	281
Bonanza Placer	10-4-33	9	215
Bonanza #2 Placer	4-26-39	9	215
Star Placer	2-13-35	9	121
Lindbeck Group Placer	10-4-33	9	210
Poverty Group Placer	10-4-33	9	141
Hell's Group Placer	10-4-33	9	214
Jarvis Placer	10-4-33	9	219
Carlson Placer	10-4-33	9	219
Contact Placer	11-15-33	9	214
Bright Light #1	8-7-40	10	455
Bright Light #2	8-31-40	10	461
Bright Light #3	10-12-41	10	590
Bright Light #4	10-12-41	10	590
Bright Light #5	2-8-51	12	444
Bright Light #6	2-8-51	12	444
Amended	3-10-51	12	459
Bright Light #7	3-2-51	12	460
Bright Light #8	3-10-51	12	460
Bright Light #9	3-9-51	12	461
Foreseen #1	8-7-40	10	455
Foreseen #2	8-7-40	10	455
White Cloud #1	7-13-40	10	466
White Cloud #2	7-13-40	10	466
White Cloud #3	2-22-51	12	461
White Cloud #4	2-24-51	12	461-2
Scheelite King	9-28-50	12	404
Gold Crown #1	7-1-50	12	361
Happy Chance #1	2-7-51	12	442
Happy Chance #2	2-7-51	12	442
Happy Chance #3	2-7-51	12	443
Happy Chance #4	2-7-51	12	443
Happy Chance #5	3-7-51	12	462
Cabin	3-5-51	12	462

H. E. Carlson
President, New Klondike Mining Company

State of Utah)
County of Salt Lake)

H. E. Carlson, being first duly sworn under oath, stated that the above statement and list of claims is correct, and that H. L. Beard Corp., a California corporation, holds a bona-fide Lease upon the same.

Lawrence G. Gunday
Notary Public
Residing at Salt Lake City, Utah

My commission expires: November 2nd 1958.

Dated: 9-20-1957

224 New Customhouse
Denver 2, Colorado

September 4, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 9 1957

DATE	INITIALS	CODE
9/9	G	220
9/9	HSM	400

Mr. H. L. Beard
H. L. Beard Co.
Room 17, Black Bldg.
1115 1 Street
Modesto, California

Re: Docket DMEA 4651 (Tungsten)
H. L. Beard Company, Inc.
(New Klondike Mine)
Millard County, Utah

Dear Mr. Beard:

Before your application can be processed further, it will first be necessary that you provide this office with four copies of the lease, which shows your control of the following unpatented lode mining claims:

Claim	Date of Location or Amended Location	Location or Amended Location Notice Recorded in Office of County Recorder, Millard County, Utah	
		Book	Page
White Cloud #3	2-22-51	12	461
White Cloud #4	2-24-51	12	461-2
Happy Chance #1	2-7-51	12	442
Happy Chance #2	2-7-51	12	442
Happy Chance #3	2-7-51	12	443
Happy Chance #4	2-7-51	12	443
Happy Chance #5	3-7-51	12	462

The above-listed claims, in addition to other claims, noted in your application, are not covered by the lease of November 5, 1951, which is the only lease submitted to us.

Very truly yours,

E. N. Harshman

E. N. Harshman
Acting Executive Officer

MHM:eh
cc: Sec. Op. Comm. (2)
Harshman) W/cy of Chairman's
DMEA/SLC) letter of 8/29/57
Docket
Chron.

Form 7
-56)

OFFICIAL FILE COPY

Date	Surname	Code
8-21	Chapman	400
8-21	Martin	400
	Long	140
	Lindsay	148
8/26	Johnson	110
29	Hutchinson	100
		220
8/29	[illegible]	
8/28	[illegible]	130
		400

AUG 29 1957

Mr. William H. King
Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

INTERIOR DEPT.
AUG 22 1957
SOLICITOR

Re: Docket No. DMEA 4651 - Tungsten
H. L. Beard Company, Inc.
New Klondike mine
Millard County, Utah

Dear Mr. King:

The lease of November 5, 1951, submitted with the above-noted application includes only the following unpatented lode mining claims:

Bright Light No. 1, Bright Light No. 2, Bright Light No. 3, Bright Light No. 4, Foreseen No. 1, Foreseen No. 2, White Cloud No. 1, and White Cloud No. 2.

Of the claims named above, the recommended contract should cover only the last two. However, it should also cover the following claims:

White Cloud Nos. 3 and 4, and Happy Chance Nos. 1, 2, 3, 4, and 5, which we do not find mentioned in any lease or assignment in our docket. Please send us a copy of a lease covering these additional claims if you have one or can obtain one from the Applicant.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

APPROVED:

P. F. Yopes (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

TLChapman:foc 8-21-57
cc to: Docket
Code 400
Admr. R. File
Oper. Comm.
FT. REG. III
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

FROM SOLICITOR
AUG 26 1957
FOR SIGNATURE

8623

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DMEA
RECEIVED AUG 20 1957

DATE	INITIALS	CODE
8/20	G	220
8/20	WSM	400

Date August 19, 1957

DMEA Report No. 4651

DMEA Contract No.

Commodity Tungsten

Name of applicant H. L. Beard Co., Inc.

Name of property New Klondike Mine

Location of property Millard County, Utah

Estimated cost of project

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

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

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

1. Date of Field Team report 7/2/57 2. Date received by Bureau 8/15/57

3. Is a copy of this property known to reviewer: Yes [X] No [ ]

4. Is a copy of any proposition known to reviewer: Yes [ ] No [X]

5. Is additional evidence on port production: Yes [ ] No [X]

6. Other problems for your review to reviewer: Yes [ ] No [X]

7. Explain items marked yes above:

Idm-E630, DMEA-2825

8. Factors meeting special consideration:
- a. Location [ ]
- b. Commodity [ ]
- c. Evidence of financialization [ ]
- d. Geology [ ]
- e. Proposed exploration method [ ]
- f. Alternate exploration method [ ]
- g. Costs [ ]
- h. _____ [ ]

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

10. Remarks: (Use back of page if necessary)

I concur with the examination of the examiners and the Field Team.

R. W. Holliday

R. W. Holliday

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DMEA
RECEIVED AUG 20 1957

IN REPLY REFER TO:

DATE	INITIALS	CODE
8/16	G	220
		400

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

August 15, 1957
Re: DMEA 4651
H. L. Beard Company, Inc.
New Klondike Mine
Millard County, Utah
Applicant's Estimate $53,000 - Tungsten
Recommended Estimate $39,080

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicant requested assistance in doing underground exploratory work on a property, the southerly part of which, the Brightlight mine, had been drilled under contract, Idm-E630 (DMEA 2825) in 1953-54. The proposed work was to be done in the Brightlight section and in the northerly part of the property, the Happy Chance area.

The work under contract Idm-E630 resulted in the 'discovery' of considerable low grade ore. The Final Report estimates of the engineer and geologist did not agree as to tonnages. The project was certified.

After the drilling was done the operator did a large amount of underground work and made several small shipments of ore and low grade concentrate. As of July 19, 1956, 3,077 tons of 0.24% WO_3 material had been produced of which about 2,400 tons was milled and 34.173 tons of 10% WO_3 concentrate was produced. Exploratory work and mining were done where some of the 0.4 and 0.5% WO_3 material was to be expected if the drilling data are reliable.

Instead of the underground work proposed by the applicant, drilling is recommended by the examiners to be done on the northerly Happy Chance claims only. The holes would prospect a relatively thin remnant of limestone resting on quartz monzonite. Some of the limestone has been altered to tactite and the area is to be explored for tactite which may contain scheelite. At one point, at least, scheelite-bearing tactite is exposed. Part of the drifting and crosscutting proposed by the applicant was planned to explore the exposure.

I concur with the recommendation of the examiners and the Field Team.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

224 New Customhouse
Denver 2, Colorado

August 8, 1957

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DMEA
RECEIVED AUG 13 1957

DATE	INITIALS	CODE
8/13	Q	220
8/14	2	130 2
		220
8/16	WSay	400

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket DMEA 4651 (Tungsten) H. L. Beard Company, Inc. (New Klondike Mine) Millard County, Utah - Two Reports of Examination

Enclosed are the original and two copies of a Report of Examination on the subject property by Frank B. Moore, USGS, and the original and two copies of a Report of Examination on the subject property by P. V. Fillo, USBM.

The field examiners conclude that the probability for making a significant discovery is sufficiently promising to justify Government participation. Accordingly, they recommend that the Applicant's work proposal be approved, as modified by them, in which the Field Team concurs.

You will note from Fillo's memorandum dated August 6, 1957, preceding the engineer's report, that the Bright Light No. 7 and Foreseen Nos. 1 & 2 Claims are recommended for subordination. The Foreseen Claims are not mentioned in the body of the report. The Field Team, however, believes that the Government's interest will be protected without the subordination of these three claims.

Also enclosed are eight extra copies of Figures 2 & 3 for use in the preparation of the contract.

We will appreciate the Legal Section of the Washington Office preparing all necessary Forms MF-205, Consent to Lien, for our forwarding to the proper persons.

E. N. Harshman

E. N. Harshman
Acting Executive Officer

Reviewed by
DMEA OPERATING COMMITTEE
8-16-57
(date)

IN REPLY REFER TO:

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR
JUL 5 1957
DENVER, COLORADO

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

July 3, 1957

TRANSMITTED
AUG 8 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 4651 (Tungsten), E. L. Beard Company, Inc. (New Klondike mine), Millard County, ~~Colorado~~ UTAH

Enclosed are the original and seven copies of a geologic report by Frank B. Moore, U. S. Geological Survey, covering his examination of the subject property.

The applicant proposed a program of sinking and drifting on the Bright Light and Happy Chance No. 1 claims at an estimated cost of $53,000.

Scheelite occurs in a tactite zone near the contact of Cambrian limestones and quartz monzonite intrusive rocks.

Moore concludes that the work proposed on the Bright Light claims, already drilled with DMEA assistance under Contract Idm-E630 (Docket 2825), is development but that drilling on the Happy Chance claims may add significantly to the low grade tungsten ore reserves of the area. He recommends a two-stage program of AX core drilling, Stage I to comprise 2,170 feet in 26 holes. Stage II work, if warranted is estimated to comprise 2,000 feet of drilling.

Original signed by
E. N. HARSHMAN

E. N. Harshman
Member, Field Team

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DMEA
RECEIVED AUG 13 1957

DATE	INITIALS	CODE
8/14	EHB	130 EHB
		220

Enclosures (8)

ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
8-16-57
(date)

FOR UNITED STATES GOVERNMENT USE ONLY

TRANSMITTED

AUG 8 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA 4651

H. L. Beard Company, Inc.

New Klondike mine

Millard County, Utah

OFFICIAL FILE COPY
DMEA
RECEIVED 1957

DATE		CODE
8/16	HB	130 HB
		220

Tungsten

Geological Report

by

Frank B. Moore, Geologist
Geological Survey

July 2, 1957

Reviewed by
DMEA OPERATING COMMITTEE
8-16-57
(date)

on Site Exam

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Proposed exploration	5
Recommended exploration	5
Conclusions and recommendations	8

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Figure	Follows page
1. Index map of Utah showing location the New Klondike mine, Millard County, Utah. DMEA 4651	2
2. Geologic map showing recommended drill holes, Happy Chance claims, Millard County, Utah. DMEA 4651	8

DMEA 4651

H. L. BEARD COMPANY, INC.
NEW KLONDIKE MINE
MILLARD COUNTY, UTAH

INTRODUCTION

The H. L. Beard Company, Inc., has applied for assistance to explore for tungsten on the Bright Light and Happy Chance claims in Millard County, Utah. The proposed program consisted of 1,000 feet of inclines and laterals at an estimated cost of $53,000. The H. L. Beard Company, Inc., holds a lease on the property under reassignment from Midstate Development, Inc.

The property was examined on April 18 and 19, 1957, by Paul Fillo and M. H. Howes, Bureau of Mines, and F. B. Moore, Geological Survey. Mr. Carlson represented the applicant.

During the examination an attempt was made to discuss the feasibility of core drilling on the Happy Chance claims. Carlson apparently did not have the authority to speak for the applicant on this point. On May 2, 1957, H. L. Beard, president of the applicant company, was contacted in California to determine the company policy regarding drilling. Beard asked for a delay until about May 10, the date of the annual lessor-company meeting in Salt Lake City. On May 10 in a telephone conversation with S. R. Wilson, U. S.

Bureau of Mines, Salt Lake City, Wilson confirmed the applicant's agreement to drilling on the Happy Chance claims. Wilson also stated that the applicant wished to drill from underground on the Bright Light claims. Maps necessary for planning the drilling on the Happy Chance claims were completed by M. H. Howes late in May 1957.

LOCATION

The Bright Light and Happy Chance claims are in Granite Canyon on the east flank of the House Range in Millard County, Utah (fig. 1). The claims are in secs. 12 and 13 (unsurveyed) T. 19 S., R. 14 W., S.L.B. & M.

HISTORY AND PRODUCTION

Tungsten, in the form of scheelite, was recognized on the applicant's property over 15 years ago. In 1942, two carloads of ore assaying about 0.5 percent WO_3 were reportedly shipped to the Metals Reserve stockpile in Salt Lake City. In 1952, the Molybdenum Corporation of America drilled 17 wagon-drill holes on the Bright Light Nos. 1 and 2 claims. As a result of drilling, one 55-ton lot of ore assaying 0.57 percent WO_3 was sent to the Utah Ore Sampling Company at Murray, Utah.

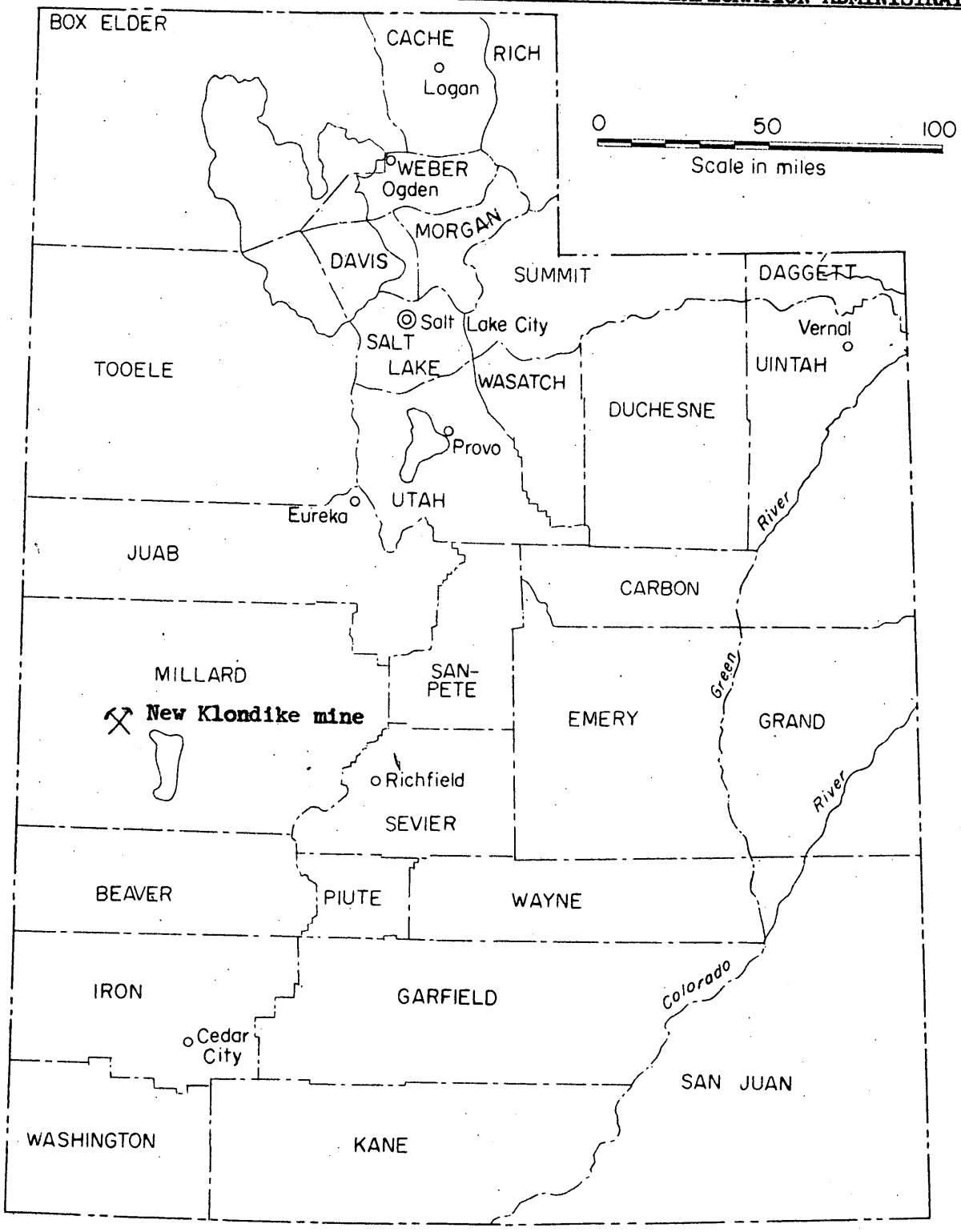


FIGURE 1—INDEX MAP OF UTAH SHOWING LOCATION OF THE NEW KLONDIKE MINE, MILLARD COUNTY, UTAH.

A diamond-drilling program consisting of 33 holes was completed in April 1954 under Docket No. DMEA 2825, Contract Idm-E 630 on the Bright Light claims. In a final engineering report (October 1954), the DMEA engineer concluded that the area had been adequately explored. During and/or shortly after the completion of the above contract, the company sunk an incline in the drilled area from which several hundred tons of ore was produced. Shipments totalling about 200 tons of ore containing an estimated 0.40 percent WO_3 were made to the Metcalf Mill in Millard County, Utah. In May 1954, about 100 tons of ore assaying 0.34 percent WO_3 was shipped to the Combined Metals Reduction Company mill at Bauer, Utah. Several small shipments of concentrates averaging about 10 percent WO_3 were made in 1955 and 1956. Some ore and concentrates have been stockpiled at the mine.

GEOLOGY

In the area of the Bright Light and Happy Chance claims, the country rock consists of Cambrian limestones and shales which have been intruded by a quartz monzonite stock known as the Notch Peak intrusive. The sedimentary rocks strike N. 40° to 60° E., dip about 15° southeast, and, in general, are in conformable contact with the intrusive. At the contact with monzonite, the limestone beds have been metamorphosed into garnet-epidote-bearing tactite bodies ranging from a few feet to 10 or 12 feet in thickness. Limestone beds

farther away from the contact have been irregularly converted to tactite. These higher tactite bodies are believed, in part at least, to be related to unconformable contacts or break-throughs of the monzonite.

Low-grade (generally less than 1 percent) tungsten ore in the form of scheelite is disseminated in the tactite beds. The better grade ore is found in the garnet-rich portions. Where monzonite crosscuts the bedding, more susceptible beds are exposed to metamorphic action and the deposits may be locally thicker. Theoretically, such areas could contain higher grade pockets owing to the better chance of the monzonite contacting the most favorable bed. However, too few data are available to prove this relationship. In any event, any high grade pockets thus formed would be small and constitute only an insignificant percentage of the total deposit.

On both the Bright Light and Happy Chance claims, erosion has stripped all but the lower 50 to 100 feet of the sediments from areas about 1,000 feet long by several hundred feet wide. To the east of these areas the beds dip under higher ground which would be impractical to explore by drilling. The stripped areas are near dip slope.

PROPOSED EXPLORATION

The applicant proposes to extend the incline on the Bright Light claims downward 150 feet and to drive a total of 500 feet of laterals from three places in the incline. He also proposes driving a 165-foot incline with 350 feet of laterals to explore the Happy Chance No. 1 claim. Cost of the proposed exploration is estimated to be $53,000.

The Bright Light claims have been explored by drilling under DMEA Contract Idm-E 630; the work proposed by the applicant on these claims is considered development. The exploration area on the Happy Chance claims is similar to that drilled under DMEA contract on the Bright Light claims. Underground "drifting", in hopes of hitting pockets of higher grade ore, is believed to be a poor way to explore a large low-grade deposit of this type. Some of the favorable areas are near the surface and there is no geologic reason to believe that the grade of the ore will increase with depth. Potential tonnages of low-grade ore are sufficient in the area to warrant a drilling program.

RECOMMENDED EXPLORATION

A program of exploration by diamond-core drilling is recommended to appraise the Happy Chance claims. Although the specific program

proposed has not been discussed with the applicant, he has agreed that a drilling program would be acceptable to him.

A two-stage program of diamond core drilling is recommended to explore the Happy Chance No. 1, 4, and 5 claims. Stage I would consist of 26 holes on 200-foot centers approximately as shown on figure 2. Total footage of Stage I drilling is estimated to be 2,170 feet. Stage II would consist of 24 additional holes to be drilled as 100-foot offsets from Stage I holes that contain 5 feet of 0.30 percent WO_3 or better. Drilling footage under Stage II is estimated to be 2,000 feet. The holes are to be drilled vertically and penetrate not more than 5 feet into the underlying quartz monzonite except in the area of the sill. In this area holes should penetrate 15 feet into monzonite and continue to the basement monzonite if tactite or limestone is re-encountered.

The estimated depth of individual Stage I holes is tabulated below. Because of uncertainty over the true location of the contact an average of 15 feet per hole has been added to the depths figured mechanically from structural contours. The depths thus represent a maximum estimate.

Tabulation of diamond-drill holes, Happy Chance claims

Stage I

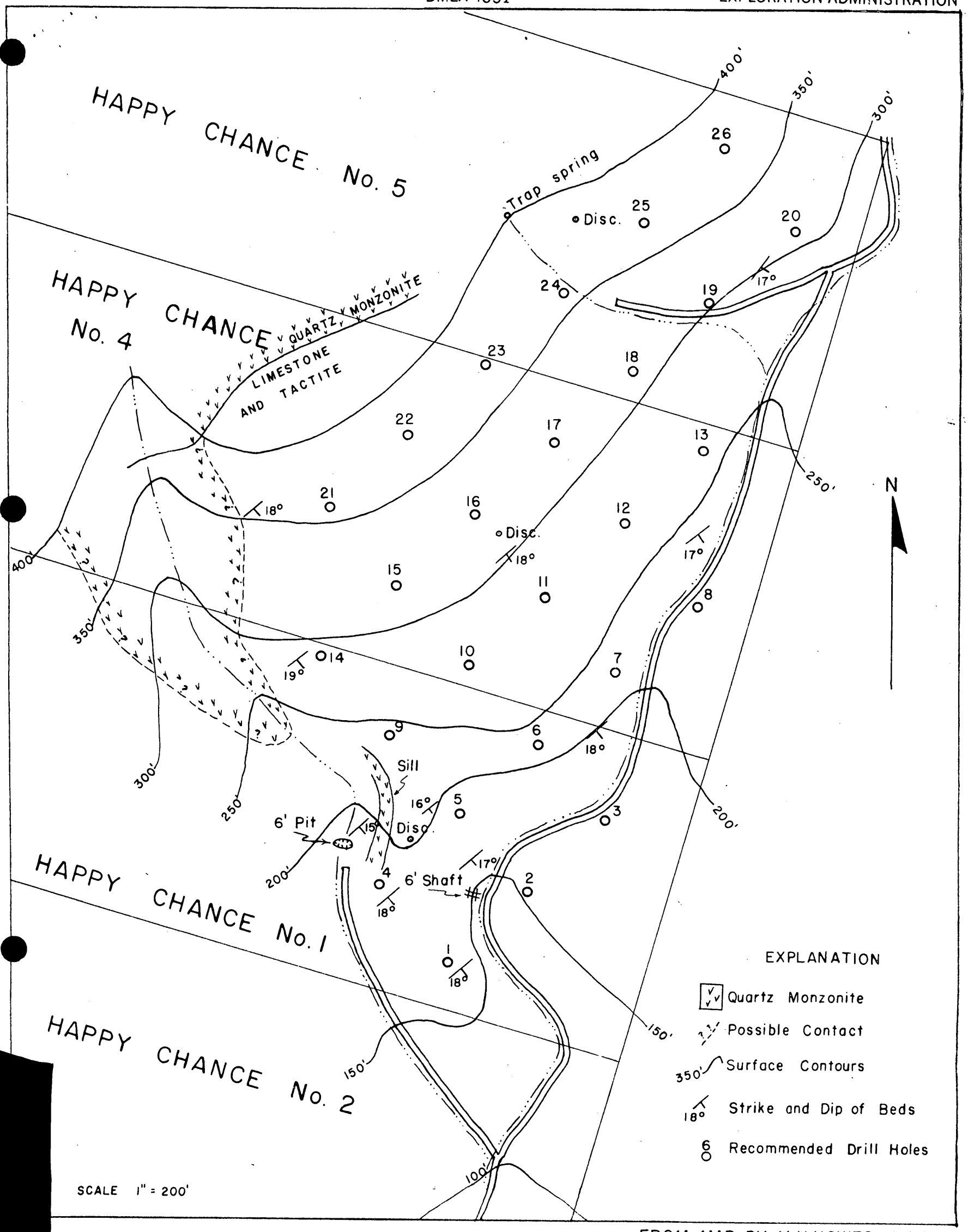
Hole No.	Surface elevation	Elev. of contact (est)	Maximum estimated depth
1	170	70	120
2	150	70	100
3	175	70	125
4	185	130	75
5	180	130	70
6	215	135	100
7	215	135	100
8	215	140	95
9	240	195	65
10	270	200	90
11	280	200	100
12	270	200	100
13	260	200	80
14	285	255	50
15	310	260	70
16	325	260	85
17	320	260	80
18	310	265	65
19	305	265	60
20	315	265	70
21	350	320	50
22	375	320	75
23	370	325	65
24	360	325	55
25	365	330	55
26	375	330	70
			2,170

The holes should be AX in size. All core should be examined under a black lamp and mineralized portions split and assayed for tungsten. Individual assays should represent not more than a 5-foot interval of core. It is estimated that 70 assays will be required for Stage I and an equal number for Stage II if completed.

CONCLUSIONS AND RECOMMENDATIONS

Drilling on the Bright Light claims under DMEA contract Idm-E 630 disclosed an indicated ore reserve of more than 200,000 tons of 0.32 percent WO_3. The drilling program is believed to have adequately explored the Bright Light claims area and further work on these claims is not warranted at the present time. The Happy Chance claims area has a potential similar to the Bright Light group. Although it is doubtful if either property contains large enough reserves to be mined economically at this time, the two properties in conjunction with others in the district have a potential sufficiently large to make a large, low-grade mining operation feasible under proper conditions.

Because there is a good possibility of finding a significant tonnage of tungsten ore on the Happy Chance group of claims, it is recommended that a drilling program as outlined above be approved.



FROM MAP BY M.H.HOWES, MAY, 1957

FIGURE 2-GEOLOGIC MAP SHOWING RECOMMENDED DRILL HOLES, HAPPY CHANCE CLAIMS, MILLARD COUNTY, UTAH

OFFICIAL FILE COPY
D M E A
RECEIVED AUG 15 1957

DATE	INITIALS	CODE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

DMEA
DEPARTMENT OF THE INTERIOR
AUG 8 - 1957
REGION III
DENVER, COLORADO

August 6, 1957

Memorandum

To: W. L. King, Executive Officer, DMEA Field Team, Region III

From: P. V. Fillo

Subject: Docket No. DMEA-465 (Tungsten), H. L. Beard Co., Inc. (New Klondike mine). Millard County, Utah

Reference is made to a memorandum dated July 29, 1957, from F. N. Hartman, Acting Executive Officer, DMEA Field Team, Region III. Mr. Hartman has requested that a claim map be prepared to accompany the engineering and geologic reports covering examination of the subject property.

Twenty prints of a claim map have been mailed under separate cover. The claims listed below are recommended for subordination under the proposed contract. It is believed the claims will be sufficient to fully protect the Government's interest. The present application includes all listed claims plus several others, including Bright Light Nos. 1, 2, 3, 4, 5, and 8, which are encumbered under Contract Tdr-1630, Midstate Development, Inc. The Bright Light No. 8 claim is shown on the present claim map to illustrate the relationship between the two claim groups.

Claim	Recording Data Book	Page No.
Happy Chance No. 1	12	442
" " No. 2	12	442
" " No. 3	12	443
" " No. 4	12	443
" " No. 5	12	462
White Cloud No. 1	10	466
" " No. 2	10	466
" " No. 3	12	461
" " No. 4	12	461-462
Foreseen No. 1	10	455
" No. 2	10	455
Bright Light No. 7	12	459

Reviewed by
DMEA OPERATING COMMITTEE
8-16-57
(date)

P. V. Fillo
P. V. Fillo

FOR UNITED STATES GOVERNMENT USE ONLY

H. L. BEARD CO., INC.
NEW KLONDIKE MINE
MILLARD COUNTY, UTAH
DMEA-4651
Tungsten

TRANSMITTED
AUG 8 1957

Engineering Report

By P. V. Fillo
Mining Engineer
Bureau of Mines

July 22, 1957

Reviewed by
DMEA OPERATING COMMITTEE
8-16-57
(date)

H. L. BEARD CO., INC.
NEW KLONDIKE MINE
MILLARD COUNTY, UTAH

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Ore reserves	4
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Estimated cost	6
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ILLUSTRATIONS

Fig. 1 Location map, New Klondike mine, Millard County, Utah

Fig. 2 Geologic map showing drill holes

Fig. 3 Claim map

INTRODUCTION

On February 14, 1957, H. L. Beard Co., Inc., Millard County, Utah, applied for assistance in doing further exploratory work on their property. The original work was done in 1953 and 1954 under Contract Idm-E630, docket No. DMEA-2825.

The applicant's new tungsten exploratory project proposal consists of 1,000 feet of drifting and crosscutting, estimated to cost $53,000. The applicant proposes to extend present drifts and crosscuts on the Bright Light Nos. 1, 2, and 3 claims. He also proposes to explore the Happy Chance No. 1 claim by sinking an inclined shaft and drifting and crosscutting from the inclined shaft to evaluate the mineralized zone.

On April 19, 1957, F. Moore, Geological Survey, and P. V. Fillo, Bureau of Mines, examined this property to determine the merits of their proposed program. Mr. H. E. Carlson, president of New Klondike Mining Co., accompanied the examining team on the property.

LOCATION, TOPOGRAPHY, AND CLIMATE

The New Klondike mine is located in the Notch Peak area of the House Range, approximately 57 miles by road west of Delta, Millard County, Utah, the railroad shipping point, a branch line of the Union Pacific Railroad (fig. 1).

The property is situated at an altitude of approximately 7,000 feet, on the east slope of the range. Part of the claims extend into Miller (or Granite) Canyon, northwest of Notch Peak, in sections 12 and 13 of unsurveyed T. 19 S., R. 14 W., Salt Lake Base and Meridian.

The property may be reached from Delta, Utah, by driving westerly 42 miles on U. S. Highway 6 (paved), thence 5 miles northerly on a graveled CCC road, and thence 10 miles on a dirt road.

The climate is semiarid. In the summer, days are hot and nights are cool. Total rainfall is fairly light, and often comes in the form of cloudbursts. Light snow and moderately low temperatures generally prevail in the winter.

HISTORY AND PRODUCTION

Approximately 25 years ago the Klondike property was prospected and operated as a gold property and worked as a placer operation. The operation was never a success.

During World War II, tungsten ore was discovered. Small shipments were made to the Metal Reserve stockpile in Salt Lake City, Utah. Records of these shipments are not available.

In 1951 Molybdenum Corp. of America conducted an exploratory program using a wagon drill. Thirty-two vertical holes were drilled on 50-foot grid corners. On Foreseen No. 1 claim the results were poor, but on Bright Light Nos. 1 and 2 claims the mineralized zone contained 0.33 percent to 0.75 percent WO_3.

In October 1952 two shipments were made to the Utah Ore Sampling Co. at Murray, Utah. The first shipment was taken from the Bright Light claims Nos. 1 and 2; the second shipment of ore was taken from the 20-foot shaft on the White Cloud No. 3 claim. The weights and assays of the shipments were as follows:

Shipment No.	Weight, dry tons	Assay, percent WO_3
1	55.004	0.55
2	31.235	1.21

In 1955 three lots of ore were shipped to the Union Carbide Nuclear Co., as follows:

Lot No.	Wet Wt.	Dry Wt.	WO_3, percent	Units WO_3	Per unit	Amount
4-6	23,280	20,100	10.37	104.22	41.00	$ 4,273.02
4-7	26,650	22,469	8.61	96.73	40.00	3,869.20
4-9	30,680	25,777	11.05	142.42	41.00	5,839.22
						$13,981.44

On June 26, 1956, a shipment was made to Charles H. Scharf, Bishop, California, containing 28.689 units of WO_3.

OWNERSHIP AND EXTENT

Part of the New Klondike Mining Co. property is located in Miller (or Granite) Canyon in the House Range, Millard County, Utah. The property was leased by "Notice of Consent" to H. L. Beard and Co. from Midstate Development, Inc., for a period of 10 years, from November 14, 1951, to November 14, 1961. The "Mining Lease Agreement" includes the unpatented lode-mining claims listed below. The lease agreement also includes four placer-mining claims: Trap Placer, Bonanza Placer, Contact Placer, and Star Placer.

Name of Claim	Book	Page
Bright Light No. 1	10	455
" " " 2	10	461
" " " 3	10	590
" " " 4	10	590
" " " 5	12	444
" " " 6	12	444
" " " 7	12	459
" " " 8	12	460
" " " 9	12	460
" " " 10	13	264
White Cloud No. 1	10	466
" " " 2	10	466
" " " 3	12	461
" " " 4	12	461-462
Scheelite King	12	404
Gold Crown No. 1	12	361
Happy Chance No. 1	12	442
" " " 2	12	442
" " " 3	12	433
" " " 4	12	433
" " " 5	12	462
Cabin No. 12	12	462
" " 13	12	462
" " 1	13	263-264

The above location notices are recorded in the Office of the County Recorder, Millard County, Utah.

GEOLOGY

In the Notch Peak area of the House Range, the sedimentary rocks consist of a series of interbedded limestone beds of Upper Cambrian age. These beds have been intruded by a quartz monzonite stock, known as the Notch Peak intrusive, which is about 3 miles in diameter. The contact between the intrusive and the overlying sedimentary rocks is exposed on the north, east, west, and south sides of the stock. On the west side of the stock, the intrusive dips under the valley floor. In several areas the quartz monzonite dikes and sills have been observed to extend from the main intrusive into the adjoining sedimentary rocks.

The Bright Light claims and the Happy Chance claims lie on the southeast side of the stock and the sedimentary rocks strike approximately N. 60° E., dip about 16° SE., and the bedding is parallel to the underlying quartz monzonite contact. The Happy Chance claims lie northeasterly from

the Bright Light claims. A good exposure of the tactite beds is seen occurring above and below a quartz monzonite sill approximately 30 feet thick on the Happy Chance claim No. 1. The altered limestone beds contain a series of closely spaced seams $\frac{1}{2}$ inch to 1 inch thick, striking S. 80° E., and showing scheelite mineralization. The best tactite mineralization on the Happy Chance claim No. 1 is a 6-foot bed outcropping in a gulch near the center of the claim.

ORE DEPOSITS

The ore deposits on the Bright Light claims Nos. 1, 2, 3, 4, 5 and 8 are confined to tactite zones developed in the limestone overlying the quartz monzonite. The tactite deposits are located on a southeast-sloping ridge approximately 1,000 feet long and 350 feet wide between Contact Canyon and Water Canyon. The limestone is affected by contact metamorphism and contains scheelite in varying amounts. The deposits occur in two beds of tactite separated by a 5-foot to 15-foot bed of bleached limestone. The lower bed of limestone varies from 6 to 12 feet in thickness and is exposed for a distance of approximately 800 feet. The upper bed is visible on the dip slope at the lower end of the ridge just north of Contact Canyon and is exposed for a distance of 300 feet. In this area the strike is N. 60° E., dips 16° SE., and is generally concordant with the overlying limestone.

ORE RESERVES

The reserves are restricted to indicated and inferred ores on the Bright Light claims. The reserves were computed on a completed DMEA diamond-drill program, and the operator's exploratory drifts and two stopes. The drill holes were drilled vertically on 100-foot grid pattern. In view of the erratic deposition of the tactite zone, it was assumed that only 65 percent of the gross tonnage can be recovered in mining.

The following indicated and inferred ore-reserve figures were taken from the final engineering report on docket No. DMEA-2825 prepared by M. H. Howes, mining engineer, Bureau of Mines:

Gross tons	Minable tons	Weighted average grade WO_3, percent
55,000	42,250	.59 } 0.40
229,000	148,850	.35
652,500	424,125	.20

The ore reserves on Happy Chance claims have not been determined, since no diamond drilling or drifting has been done on the claims.

PROPOSED EXPLORATION

The applicant is requesting $53,000 to conduct an exploratory program to continue the drifts and crosscuts from the existing workings on Bright Light claims Nos. 1, 2 and 3. On Happy Chance claim No. 1, the operator proposes to sink an inclined shaft 165 feet and from the bottom of the inclined shaft drift and crosscut 350 feet.

Items under the applicant's proposed program are as follows:

Drifting and crosscutting 1,000 feet at $20 a foot ----	$20,000	
Supplies, including powder, drill steel, and fuel, at $13 a foot	13,000	
Assays, mapping, and geologic consulting at $5 a foot	5,000	
Contingencies, 10 percent, $5.00 a foot	5,000	
Rental equipment	10,000	
Total		$53,000

The above-proposed exploratory work might possibly have some merit, but it is the belief of the examining team that the increase of ore reserves would be marginal and the cost would be excessive.

The Bright Light claims have already been covered by a diamond-drilling program and have been adequately explored for the present time.

A diamond-drilling program appears to be sound and is probably the most logical method for exploring the Happy Chance claims which have a potential similar to the Bright Light claims. It was suggested to the applicant that diamond drilling would be the best way to explore the Happy Chance claims Nos. 1, 4, and 5.

RECOMMENDED EXPLORATION

To properly evaluate the property, diamond-core drilling is recommended on Happy Chance claims and a 200-foot (approximate) grid pattern be used as shown on figure 2.

This specific proposed program has not been discussed with the applicant, but he has agreed that a drilling program would be acceptable to him.

A two-stage program of diamond-core drilling is recommended to explore the Happy Chance claims Nos. 1, 4 and 5. Stage I would consist of 26 holes on 200-foot centers approximately as shown on figure 2. Total footage of Stage I drilling is estimated to be 2,170 feet. Stage II would consist of 24 additional holes to be drilled as 100-foot offsets from Stage I holes that contain 5 feet of 0.30 percent WO_3 or better. Drilling footage under

Stage II is estimated to be 2,000 feet. The holes are to be drilled vertically and penetrate not more than 5 feet into the underlying quartz monzonite, except in the area of the sill. In the sill area the holes should penetrate 15 feet into monzonite and continue to the basement monzonite if tactite or limestone is reecountered.

In Stage I program the estimated depths of individual holes are as follows:

Hole No.	Estimated depth, feet	Hole No.	Estimated depth, feet
1	120	14	50
2	100	15	70
3	125	16	85
4	75	17	80
5	70	18	65
6	100	19	60
7	100	20	70
8	95	21	50
9	65	22	75
10	90	23	65
11	100	24	55
12	100	25	55
13	80	26	70

This work should be adequately supervised by an engineer.

TIME SCHEDULE

Forty-two-hundred feet of diamond-core drill at 18 feet a day will require 233 days for completion. Contract, 8 months.

ESTIMATED COST

Stage I

Diamond-core drilling, 2,200 feet of holes, AX core, at $7.50 a foot (including reaming and casing)	$16,500	
Bulldozer work, 32 hours at $12.50 an hour	400	
Water haulage, $100 a month for 4 months	400	
420 core boxes at $1 each	420	
Supervision (engineer), $600 a month for 4 months	2,400	
Total		$20,120
Fixed Unit Costs		
80 sample analyses for WO_3 at $4 a sample	$ 320	
20 sample analyses for Mo at $3 a sample	60	
Total		480
Stage I grand total		$20,600

Stage II

Diamond-core drilling 2,000 feet of holes, AX core, at $7.50 a foot (including reaming and casing)	$15,000	
Bulldozer work, 16 hours at $12.50 an hour	200	
Water haulage, $100 a month for 4 months	400	
200 core boxes at $1 each	200	
Supervision (engineer), $600 a month for 4 months	2,400	
Total		$18,200

Fixed Unit Costs

80 sample analyses for WO_3 at $4 a sample	$ 320	
20 sample analyses for Mo at $3 a sample	60	
Total		380
Stage II grand total		$18,580
Grand total, Stages I and II		$39,~~0~~80
Government participation at 75 percent		$29,3~~10~~85
Applicant's cost		$ 9,770

The applicant agreed to furnish his share of the estimated cost.

CONCLUSIONS AND RECOMMENDATIONS

The applicant's proposal for underground work on Bright Light claims Nos. 1, 2, and 3, and on Happy Chance claim No. 1 does not have sufficient merit to justify the work.

The Bright Light claims have been diamond drilled under DMEA Contract Idm-E630, disclosing an indicated ore reserve of more than 200,000 tons of 0.32 percent WO_3. This is believed to have adequately explored the Bright Light claims area.

The Happy Chance claims area is very similar to the Bright Light claims. It is doubtful that either property contains large enough ore reserves to be mined economically at this time. The two properties could be a part of a large, important source of tungsten that would make a significant contribution to the national reserves if mined and milled under a large, low-grade operation. It is believed that a drilling program is warranted on the Happy Chance claims.

It is recommended by the examining team that the Defense Minerals Exploration Administration enter into a contract agreement with the applicant to do the proposed drilling, as outlined in this report, at an estimated cost of $39,080.

OFFICIAL FILE COPY
D M E A
RECEIVED AUG 9 1957

DATE	INITIALS	CODE
8/9	G.K.	220
8/9	WSM	400

224 New Customhouse
Denver 2, Colorado

August 7, 1957

Memorandum

To: Defense Minerals Exploration Administration
Salt Lake City (Attention: F. V. Fillo)

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4651 (Tungsten) H. L. Beard Company (New Klondike mine) Millard County, Utah

Will you please advise the date on or before which we may expect to receive the copies of the claim map requested in our memorandum, dated July 29, 1957, on the subject docket.

Original signed by
E. N. HARSHMAN

E. N. Harshman

ENH:jy

ec: Sec. Op. Comm. (2)
Harshman
Connors
Docket 4651
Chron.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 31 1957

DATE	INITIAL	CODE
7/31	C	220
7/31	WSM	400

224 New Customhouse
Denver 2, Colorado

July 29, 1957

Memorandum

To: Defense Minerals Exploration Administration
Salt Lake City (Attention: P. V. Fillo)

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-4651 (Tungsten) M. L. Beard Company (New Klondike mine) Millard County, Utah

The rough draft of the engineering section of the Report of Examination on the subject docket has been typed in final form by this office. The maps included in the Survey's Report of Examination are satisfactory. However, a claim map should accompany the Report of Examination, and twelve extra copies will be needed for use in the contract.

Attached is a copy of a claim map submitted by the Applicant. Will you please prepare twenty copies of a claim map to be shown as Figure 3, and forward all copies to this office at an early date so that we may forward the completed reports to the Washington Office, DMEA.

Original signed by
E. N. HARSHMAN

E. N. Harshman

Attachment

HMC:jy

cc: Sec. Op. Comm. (2)
Harshman
Docket 4651
Chron.

OFFICIAL FILE COPY DMEA RECEIVED MAR 22 1957		
DATE	INITIALS	CODE
3/23	C	220
3/25	WSM	400

224 New Customhouse
Denver 2, Colorado

March 20, 1957

Memorandum

To: E. N. Harshman) W/enclosures,
W. H. King) Items 1-5 Below

From: DMEA, Field Team, Region III

Subject: Docket DMEA 4651 (Tungsten) H. L. Beard Company, Inc. (New Klondike Mine) Millard County, Utah

Enclosed is the following material relating to the subject docket:

1. Copy of application for Government assistance in exploration work under the DMEA Program.
2. Memorandum of Review by R. W. Holliday, USBM.
3. Memorandum of Review by N. E. Nelson, USGS.
4. Letter of transmittal of the foregoing to this office dated March 14, 1957, from the Chairman, Operating Committee, DMEA.
5. Application routing Control Sheet.

A joint report of recommendations is requested or a joint report and a field examination, if warrented, are requested.

If the field examiners recommend that the Government participate in an exploration project, please submit twelve extra copies of each map used which show the land to be subordinated and the location and extent of recommended work in relation to the property boundaries. Please return the Bureau of Mines' copy of the application to this office with the joint report. The Survey's copy of the application should be returned to Mr. Harshman's office.

Original signed by
E. N. HARSHMAN

Enclosures
MEN:eh
cc: Sec. Op. Comm. (2)
Harshman
King
Docket 4651

Chron.

By E. N. Harshman
Acting Executive Officer

March 21, 1957

DMEA
DEPARTMENT OF THE INTERIOR
MAR 21 1957
REGION III
DENVER, COLORADO

Memorandum

To: S. R. Wilson

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4651 (Tungsten) H. L. Beard Company, Inc., (New Klondike Mine) Millard County, Utah

Enclosed please find the application for H. L. Beard Company, Docket DMEA 4651, in the amount of $53,000.00 which was received in this office on March 21, 1957.

A field examination and suitable report are required. The completed report should be forwarded directly to the Executive Officer with a copy of the memorandum of transmittal to this office.

W. E. KING

W. E. King

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 28 1957

DATE	INITIALS	CODE
3/28	C	220
3/28	WSM	400

cc: Executive Officer (3)
S. N. Marshman (2)
J. B. Clemmer

no(2)

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/8	Chapman	400
3/8	Martin	400
3/13	Selfridge	130
"	Johnson	110
"	Rathenbach	100
3/14	C	220

400

MAR 14 1957

Mr. E. N. Harshman, Acting Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 4651 - Tungsten
H. L. Beard Company, Inc.
New Klondike Mine
Millard County, Utah

Dear Mr. Harshman:

The above-docketed application for exploration assistance is being referred to your office for review and a field examination of the property if necessary. This property has been certified under Docket No. DMEA 2825, Contract No. Idm-E620, Midstate Development, Inc.

Copies of memoranda dated February 27 and March 12, 1957, by H. E. Nelson, Geological Survey and R. W. Holliday, Bureau of Mines, respectively, relating to the project are enclosed. Also enclosed are two extra copies of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

P. F. Yopes

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

TLChapman:am 3/8/57

cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

Enclosures

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/8	Chapman	400
3/8	Martin	400
3/13	Selfridge	130
"	Johnson	110
"	Matthews	100
		220

MAR 14 1957

E. E. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Re: Docket No. DMEA 4651 - Tungsten
New Klondike Mine
Millard County, Utah

Yours
Kilsgaard

Gentlemen:

The above docketed application for exploration assistance for tungsten ores has been reviewed by the Iron and Ferro-Alloys Division, of the Defense Minerals Exploration Administration, and referred to Mr. E. N. Harshman, Acting Executive Officer, DMEA Field Team, Region III, 224 New Custom House, Denver 2, Colorado, for review and a possible field examination of the property.

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

Sincerely yours,

C. D. Mittendorf

Administrator

TLChapman:am 3/8/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. R. Holliday, USBM
T. Kiilsgaard, USGS

8623

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 12 1957

DATE	INITIALS	CODE
3/12	C	220
		400

March 12, 1957

Application No. 4651
Mineral Interest No.
Commodity Tungsten
Name of Applicant H. L. Beard Co, Inc.
Name of Property New Klondike Mine
Location of Property Millard Co, Utah
Mineral Belt or Area of Prod.

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

R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Application

Date Received 2/14/57 Date Entered 3/5/57

Is this application to be issued to a minor: Yes [ ] No [X]

Is this application from a minor: Yes [ ] No [X]

Is there a prior application: Yes [ ] No [X]

Is there any prior lease to applicant: Yes [ ] No [X]

Prior Lease # 2825 DMEA

Recommendation:

[ ] Grant
[ ] Grant with modification
[ ] Deny
[ ] Other

[ ] a. Proposed exploration method
[ ] b. Alternate exploration method
[ ] c. Costs
[ ] d. _____

[ ] Return to applicant
[X] Return to field team
[ ] Return to Chief of Div.
[ ] Return to _____

[ ] a. Disagree with field team
[ ] b. Suggest alternate plan
[ ] c. Request another conference
[ ] d. Approval
[ ] e. _____ at _____ MC office.

(Continue on back if more space is necessary) Evaluation of work subsequent to completion of DMEA 2825, and recommendations as to additional exploration should be obtained from the Field Team.

R. W. Holliday

R. W. Holliday

IN REPLY REFER TO:

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

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 28 1957

DATE	INITIALS	CODE
2/28	C	220
2/28	WSM	400

February 27, 1957
Re: DMEA 4651
H. L. Beard and Co.
New Klondike Mine
Millard County, Utah
$53,000 - Tungsten

Memorandum

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

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application

The applicant requests assistance in doing further exploratory work on property on which under contract Idm-E630 (DMEA 2825), work was done in 1953 and 1954. Thirty-three holes were drilled for a total of 1,855 feet, at a cost of $16,926.88 of which the Government's share was $12,695.17.

The president of the present applicant was president of the operating company under contract Idm-E630, Midstate Development, Inc.

The drilling, along with natural exposures and previous work, indicated sheet-like scheelite-bearing tactite zones of varying thicknesses developed in a remnant mass of limestone resting on granite. Substantial tonnages of low-grade material were inferred and the project was certified as a discovery April 29, 1955.

Considerable underground work has been done since the contract was terminated, and as of July 19, 1956, 3,077 tons of 0.24% WO_3 material had been produced of which 2,400 tons was milled. The 34.173 tons of concentrate produced is estimated to contain 6,834.6 pounds of scheelite (10%) and the recovery was only 2.82 pounds per ton. Inasmuch as the recent underground work appears to have been done in the most likely areas, the results are not what were to be expected. No section is given showing the depths attained by the slopes (inclines), but I suspect the ore horizons of drill holes 18-A, 18 and 24-C were aimed for and reached. If so, some spots of 0.4 - 0.5% WO_3 should have been found, if the drilling data are to be relied upon.

The work now proposed does not appear to be justified, but an examination may be warranted.

Referral of the application to the Field Team is recommended.

N. E. Nelson
N. E. Nelson

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

February, 26, 1957

H. L. Beard Company, Inc.
Room 17, Black Building
Modesto, California

Subject: DMEA-4651

Gentlemen:

Your application for exploration assistance, dated February 20, 1957 submitted to our office at Washington, D. C. has been assigned Docket Number DMEA-4651 and referred to the Iron & 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: Code 400 ✓

5416

KAROLTON KLASP—10 x 15
"MADE IN U. S. A."
THE AMERICAN ENVELOPE CO.
WEST CARROLLTON, OHIO

From:

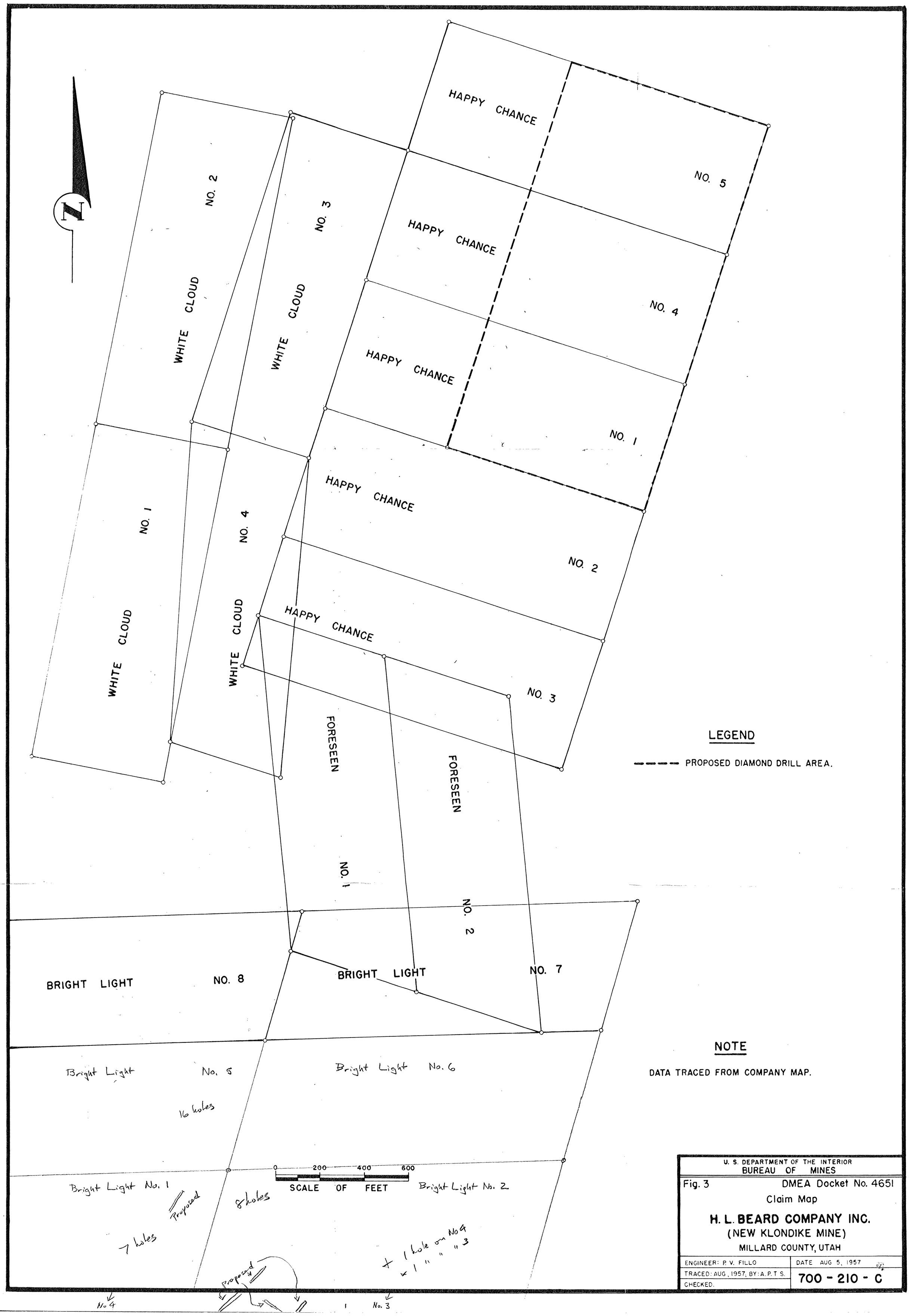
B.H.Putnam, Operator
Box 647
Marietta, Ohio

COPY No. 1

To:

Defense Minerals Exploration Administration
United States Department of Interior

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region IV
Room 13, Post Office Bldg.
Knoxville 2, Tennessee



LEGEND

PROPOSED DIAMOND DRILL AREA.

NOTE

DATA TRACED FROM COMPANY MAP.

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 3 DMEA Docket No. 4651

Claim Map

H. L. BEARD COMPANY INC.
(NEW KLONDIKE MINE)
MILLARD COUNTY, UTAH

ENGINEER: P. V. FILLO	DATE AUG 5, 1957
TRACED: AUG., 1957, BY: A.P.T.S.	700 - 210 - C
CHECKED.	

NORTH

BRIGHT LIGHT NO. 8

WATER CANYON

BONANZA PLACER

HORSE CANYON

FORESEEN NO. 1

FORESEEN NO. 2

BRIGHT LIGHT NO. 7

CABIN

PLACER

TRAP

BRIGHT LIGHT NO. 5

CONTACT PLACER

BRIGHT LIGHT NO. 6

STAR CANYON

CONTACT

BRIGHT LIGHT NO. 2

PLACER

BRIGHT LIGHT NO. 1

PORTAL

SHAFT

BRIGHT LIGHT NO. 9

GOLD CROWN

NO. 1

CABIN

BRIGHT LIGHT NO. 4

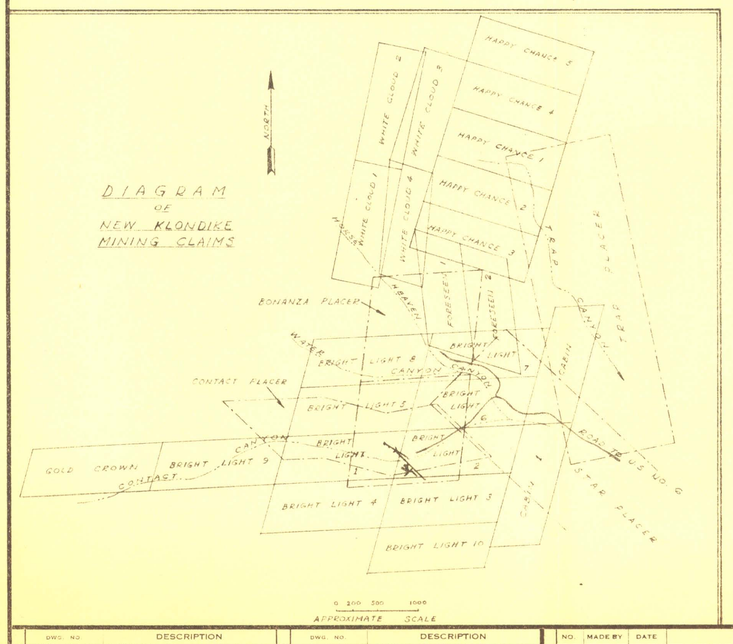
BRIGHT LIGHT NO. 3

BRIGHT LIGHT NO. 10

CONTACT - SCHEELITE-BEARING TACTITE

PROPOSED NEW DRIFT

DIAGRAM OF NEW KLONDIKE MINING CLAIMS



NOTE:
DATA ADAPTED FROM MID-STATE DEVELOPMENT COMPANY MAPS, NOTES AND RECORDS.

REFERENCE DWG. NO.	DESCRIPTION

REFERENCE DWG. NO.	DESCRIPTION
P-127-1	PLAN OF WORKINGS

REVISIONS NO.	MADE BY	DATE	DESCRIPTION
6			
7			
8			
9			
10			

REVISIONS NO.	MADE BY	DATE	DESCRIPTION
1			
2			
3			
4			
5			

		DATE
DRAWN BY	J.S.R.	1-22-51
TRACED BY		
CHECKED BY		
APPROVED		
APPROVED		

THE GALIGHER CO.
ENGINEERING DEPARTMENT
SALT LAKE CITY, UTAH, U.S.A.

MID-STATE DEVELOPMENT CO.
KLONDIKE MINE
MILLARD COUNTY, UTAH
WORKINGS LOCATION

SCALE 1" = 200'

P-127-2
LATEST REVISION