DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE — Idm-E NO. E570 — DMEA NO. 3001

Application
- [ ] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [x] Project summary (final)
- [x] Work Completed analysis (final)
- All other material filed in chronological order including the following reports if checked:
- [x] Field Team Semi-Annual Report for Certified Project
- [x] Final Field Team Report (Tab)
- [x] Operator's Final Report (Tab)
- [x] Interim Field Team Reports
- [x] Operator's monthly reports and all attachments
- [x] On-site Exam Report (Tab)
- [x] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

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

Right Side

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

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

Folders No._____: Settlement Sheets

Folders No._____: Drill Logs

Folders No._____: Royalty material

17963

OFFICE OF MINERALS EXPLORATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Washington office pertaining to Contract Idm-E570, Docket DMEA-3001 (tungsten), dated July 14, 1953, with

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

for the purpose of determining the amount of royalty payable to the U. S. Government on sales of minerals from property referred to as the World Mine located in Boulder County, Colorado, during the period June 21, 1956, through December 11, 1961.

A certification of discovery or development was issued on September 15, 1954, and, in accordance with Article 6 of the contract, royalty is payable on all minerals produced from the land described in Article 2 of the contract for a period of 10 years from the date of the contract or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first. A Report of Review dated March 10, 1954, indicated accepted costs under the exploration contract amounting to $8,170.00 with the Government's contribution on a 75 percent basis being $6,127.50.

The status of the project, the scope of review, and the reasons therefor are stated on page 2.

This review established no sales subject to the Government's royalty subsequent to the period covered by a prior Report of Royalty Review, which found the sales subject to the Government's royalty through June 20, 1956, to be $4,482.65. The royalty account as of June 20, 1956, was:

Total Royalty Payable	$220.63
Total Royalty Paid	222.23
Overpayment of Royalty	$ -0-

As of December 11, 1961, the royalty account of this project was found to be:

Total Royalty Payable	$220.63
Total Royalty Paid	220.63
Balance of Royalty Due	$ -0-

E. D. Talbert

E. D. Talbert, OME Auditor

December 18, 1961

Idm-E570 Paul H. Bennett DMEA-3001

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

At the time the exploration project contract was executed, the Operator held possession of the property by virtue of a ten-year lease granted on January 17, 1953, by the Hetzer Mines, Inc., 250 Pearl Street, Boulder, Colorado. In consideration of the contract, Hetzer Mines, Inc., executed an Owner's Consent to Lien on June 20, 1953.

Exploration work under the contract was terminated during December 1953 and shortly thereafter the Operator relinquished his lease. Hetzer Mines, Inc., then gave an informal lease to a Walters, an Erickson, and M. A. Castagne, Nederland, Colorado, all employees of Cold Spring Tungsten, Inc., 1036 First National Bank Building, Denver 2, Colorado. This informal lease was cancelled upon the acquisition on August 20, 1954, by Cold Spring Tungsten, Inc., of Hetzer Mines, Inc., through the purchase of all outstanding stock.

got new address letter Sept 6, 1963 from PH. Bennett

The files indicate that all ore discovered during the exploration has been removed and that no known reserves remain, the mine has been idle since July 1954, and the surface workings, including shaft timbers to the water-level at approximately 60 feet, burned in August 1955. All production by the Operator and the subsequent lessees was covered by a prior Report of Royalty Review dated June 27, 1956. The $1.60 overpayment of royalty disclosed by that review was refunded to the Operator during July 1956.

Article 7 of the exploration contract includes the so-called "abandonment" provision. Furthermore, the Owner's Consent to Lien merely secures the payment of royalty "provided for under the terms of said exploration project contract".

The Operator's present address is unknown.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(1) All sales of production have been reported and proper royalty thereon paid;
(2) The property has been inactive since July 1954; and
(3) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

MME Form 22
April 59

DEPARTMENT OF THE INTERIOR
Office of Minerals Exploration

CHECK SHEET OF EXAMINING ENGINEER

Operator's Name Paul H. Bennett

Address Unknown

Our last letter (certified mail) was returned unclaimed 1-11-60

Exploration Contract No. Idm E570 Docket No. DMEA 3001

			Check One Yes	Check One No
1.	(a)	Does the Operator stockpile ore subject to royalty repayment?		
	(b)	If so, is segregation and identification procedure adequate?		
2.	(a)	Does Operator commingle production subject to DMEA or OME royalties with exempt production?		
	(b)	If so, do you consider the allocation of the commingled production equitable?		
3.	(a)	Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		
	(b)	If so, are adequate records maintained on such material to protect the Government's interest?		
4.		Do you consider the assay controls in effect are adequate?		
5.		Do you consider that the manner of disposing of production gives the Government its fair royalty returns?		
6.		Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA or OME royalties?		
7.		Does the Operator buy from or sell to other Operators?		
8.		Comment on any item 2 (b) to 6 if answer is No.		

Property is inactive.

Last known production was in 1954.

12-11-61
Date

Hugh M. Connors
Mining Engineer
Hugh M. Connors

400

RECEIVED
JUL 2 - 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION
SURPLUS ADMINISTRATION AND AUDIT DIVISION

REPORT OF ROYALTY REVIEW

I have reviewed the files of the Executive Officer, DMEA Field Team, Region III, Denver, Colorado, pertaining to Contract Ida-8570, Docket No. DMEA-3001 (Tungsten), dated July 14, 1953, with

3001

Paul H. Bennett
1825 Marine St.
Boulder, Colorado

for the purpose of determining the amount of royalties due the U. S. Government on sales of tungsten from property referred to as World Mine located in Boulder County, Colorado, during the period July 14, 1953 through June 20, 1956.

A certification of discovery or development was issued September 15, 1954, and accordingly, royalty is payable on all production from the land described in Article 2 of the Contract and in Annex I, attached, for a maximum of ten years from the date of the contract. A Report of Review in lieu of final cost audit dated March 10, 1954, indicated accepted costs under the Exploration Contract amounting to $8,170.00, with the Government's contribution on a 75% basis being $6,127.50.

My review included a conference with Mr. R. L. Delmar, Mining Engineer, Bureau of Mines, Denver, Colorado, who is thoroughly familiar with the project, and a tabulation and recomputation of all ore settlement sheets, which are summarized in the attached Exhibit A.

This review was made in lieu of an on-site audit of the Operator's accounts and records for the following reasons:

(a) According to the Field Team's "Annual" Report of Certified Projects dated January 31, 1956, the mine has not been in operation since July, 1954.

(b) The examining engineer is of the opinion that all sales of ore produced during the period July 14, 1953 through June 20, 1956, subject to DMEA royalty have been properly reported.

(c) The administrative cost to the Government of an on-site royalty audit at this time would be excessive in relation to the amount of possible additional royalty which might be disclosed.

The review established the total net sales of tungsten ore to be $4,482.65. Royalty due the U. S. Government at the contract rates of 1½% to 5% is $220.63. The royalty paid and the amount of overpayment are as follows:

Total Royalty Due	$220.63
Total Royalty Paid	222.23
Overpayment of Royalty	$ 1.60

Royalty Audit

Donald T. Finch

June 27, 1956

Donald T. Finch, Auditor

EXHIBIT A

PAUL H. BENNETT

Contract Idm-5570 Docket No. DMEA-2001

SUMMARY OF PRODUCTION AND ROYALTY PERIOD JULY 14, 1953 TO JUNE 30, 1956

	Sales By Paul H. Bennett	Sales By Maurice Garbagna	Total
PURCHASER:	H E T E R M I N E S, I N C.		
PERIOD:	9/24/53 TO 1/6/54	4/7/54 TO 7/19/54	9/24/53 TO 7/19/54
Gross Weight, Pounds	285,650	42,825	328,455
Dry Weight			
Pounds	268,891	41,523	310,414
Tons	134.4455	20.7615	155.2070
Average Assay WO_3	1.15	1.85	1.247
WO_3 Content, Pounds	3,100.34	769.67	3,870.21
Average Price per Pound	$1.21	$1.296	$1.225
Gross Value	$3,744.53	$997.74	$4,742.27
Allowable Deductions for Hauling, Assaying, and Empire Fees	$ 259.62	—	$ 259.62
Net Sales Subject to DMEA Royalties	$3,484.91	$997.74	$4,482.65
Average Value Per Dry Ton	$25.92	$48.06	$28.88
Average DMEA Royalty Percentage	4.56	5	4.92
DMEA Royalty Due	$170.75	$49.88	$220.63
DMEA Royalty Received	172.92	49.31	222.23
Net Overpayment of Royalty	$ 2.17	$ .57	$ 1.60

Overpayment of Royalty Applicable to Liquidation No. 776 Sold by Bennett	
Underpayment of Royalty Applicable to Liquidation No. 953 Sold by Garbagna	.57
Net Overpayment of Royalty as above	$ 1.60

Check Sheet of Examining Engineer

RECEIVED JUL 2 - 1956

DMEA Date Rec'd. JUN 26 1956

BUREAU OF MINES Denver, Colorado

Operator's Name P. H. Bennett

Address 1825 Marine Street

Boulder, Colorado

Exploration Contract No. Idm-2570 Docket No. DMEA 3001

	Check One Yes	Check One No
1. (a) Does the Operator stockpile ore subject to royalty repayment?		X
(b) If so, is segregation and identification procedure adequate?		
2. (a) Does Operator commingle production subject to DMEA royalties with exempt production?		X
(b) If so, do you consider the allocation of the commingled production equitable?		
3. (a) Does the Operator stockpile mine or mill rejects (low grade ore, tailing, middlings, etc.) that may have potential value within the royalty payment period?		X
(b) If so, are adequate records maintained on such material to protect the Government's interest?		
4. Do you consider the assay controls in effect are adequate?	X	
5. Do you consider that the manner of disposing of production gives the Government its fair royalty returns?	X	
6. Do your periodic examinations of operations indicate the Operator is properly reporting his production of ores subject to DMEA royalties?	X	
7. Does the Operator buy from or sell to other Operators?		X

8. Comment on any item 2 (b) to 6 if answer is No.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

Date June 26, 1956

82448

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/23	Murphy	500
10/24	Mc Lebre	500
10/25	Talbot	800
	Selbridge	120
10/25	Johnson	110
	Fumich	100
		220

OCT 25 1963

Mr. Paul H. Bennett
508 West 17th Place
Temple, Arizona

Re: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

Dear Mr. Bennett:

Thank you for the completed MME Form 63, enclosed with your letter of September 6, 1963.

By the terms of the subject Exploration Project Contract, as amended, and the certification of discovery or development dated September 15, 1954, all minerals mined or produced from July 14, 1953, to July 14, 1963, were subject to the Government's royalty as set forth in said contract.

As the period during which production was subject to royalty has now expired, the Government according to its present records retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this contract. Your attention, however, is called to the provisions of the contract which require the Operator to keep and preserve certain records for the periods indicated.

Sincerely yours,

George Fumich, Jr.

Director

FMMurphy/mm
10/24/63
cc: Director's Reading File
Region III w/cy of Form 63 and ltr dated 9/6/63
CA&A Division
Docket
Code 500
Codd Spring Tungsten, Inc., 630 Fifth Ave., N.Y., N.Y.

43683

DOCKET
Surname:

Hopkins
Martin
Hoffland
Gehan
Newcomb
Chamber
Kilsgaard
Hedges
Selfridge

CERTIFICATION BY THE UNITED STATES OF AMERICA
OF A DISCOVERY OR DEVELOPMENT UNDER
AN EXPLORATION PROJECT CONTRACT

To: Mr. Paul H. Bennett
1425 Marine Street
Boulder, Colorado

Pursuant to the provisions of Exploration Project Contract No. Idm-570, dated July 14, 1953 (Docket No. DMEA 3001), hereinafter called the "Contract," between you and the United States of America, hereinafter called the "Government"; to establish and fix the Government's percentage royalty on production and its lien thereon and on the land described in the contract, the Government considers and therefore certifies that a discovery or development from which production may be made has resulted from the exploration work.

The nature of said discovery or development is described broadly or indicated as follows:

Exploration work consisting of drifting, raising, and sublevel drifting on the Brandt vein resulted in the discovery of a small body of ferberite ore. Most of the ore was mined during the exploration work and yielded a quantity of tungsten trioxide.

THE UNITED STATES OF AMERICA

Dated: SEP 1 5 1954

By Frank E. Johnson
ACTING Administrator, Defense Minerals
Exploration Administration

cc: DOCKET
FT, REG.-4
CODE 400--Mr. Martin
FINANCE OFFICE
OPER. COMMITTEE
ADM. READ. FILE
IRVING GUMBEL, EPS, GSA

cc: CODE 800--Mr. Chambers
CODE 110--Mr. Johnson
J.H.HEDGES, USBM
R.W.GEEHAN, USBM
T.P.THAYER, USGS
THOR KIILSGAARD, USGS
HETZER MINES, INC. (Owner-Lessor)

JHopkins/ls
9-9-54

400

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Reports of:

3001

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

WSM

pertaining to Exploration Project Contract No. Idm-E570, Docket No. DMEA 3001, and including Amendment No. 1, for the months of July, 1953 to December, 1953, inclusive, covering a project for exploration of Tungsten located in Boulder County, Colorado, commonly known as the World Mine.

My review included an examination of the Monthly Reports (Form MF-104) and supporting documents attached thereto, comparison of costs claimed with the contract and pertinent schedules, consultation with the Government representative who visited and examined the project, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

The contract provides for payment by the Government on the basis of agreed estimated costs of units of work actually performed.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by contractor		$8,170.00
Exceptions:		
By DMEA Finance Officer	-0-	
Herewith	-0-	
Total Accepted Cost		$8,170.00

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Six Thousand One Hundred Twenty Seven and 50/100ths Dollars

- $6,127.50 -

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

Date: March 10, 1954.

T. H. Brading

T. H. Brading, Auditor

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
OCT 30 1953

No. 1

AMENDMENT OF CONTRACT: No. Idm-8570

Contract Docket No. DMEA 3001, dated July 14, 1953, between the United States of America and Paul H. Bennett is hereby amended as follows, effective as of the date of said contract:

> Referring to EXHIBIT "A" attached to Exploration Project Contract Form MF-200(A), caption "Description of the Work".
>
> Whereas the work described under item (A) and 20 feet of drifting northeasterly on the vein at point "B" described under item (B) was performed at no cost to the DMEA Exploration Project, prior to the execution of Contract Idm-8570, and whereas only 96 feet of the 120 feet of crosscutting described under item (D) was necessary to reach its objective:
>
> Now therefore, it is resolved and agreed that the aggregate unexpended footage of 34 feet will be expended in drifting on the vein exposed in the drift at point "B" in a northeasterly and/or southwesterly direction, the extent in either direction to be controlled by conditions encountered as the drifting advances and as approved by the DMEA representative. The starting point of drifting in either direction must be established by the DMEA representative prior to start of any work.

This amendment shall not be construed to increase the estimated total cost of the project, the amount of the Government's contribution, or any item of allowable cost which is expressly designated "allowable maximum".

Dated OCT 26 1953

United States of America

By Paul H. Bennett
Paul H. Bennett

By W. H. King
W. H. King, Executive Officer,
DMEA Field Team, Region IV

MF-200 (A)
(February 1952)

DOCKET NO. DMEA 3001

COMMODITY Tungsten

Idm-E570

GEKanc
7/24/53
Hoffmeyer

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]
(Short Form)

IT IS AGREED this 14th day of July, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] Paul K. Bennett
1625 Maine St.
Boulder, Colorado

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of Colorado, County of Boulder, described as follows:[3]
A tract 600 feet by 1500 feet described in Annex No. 1 attached. This tract is owned under an agricultural patent.

the Operator represents and undertakes:[4]

(*a*) [redacted]

(*b*) That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within 60 (Sixty) days from the date of this contract shall commence work on a project of exploration for[5] Tungsten

in or upon the described land; and shall bring the project to completion within a period of Six months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided. The work shall be performed by the Operator or by independent contractor or contractors efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmen's compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 4. *Costs of the project.*—The agreed, estimated costs of performing the work, expressed in terms of units of work to be performed (per foot of drifting, per foot of drilling, per cubic yard of material to be moved, etc.) are set forth in Exhibit "A," attached hereto. The Government will pay seventy-five (75) percent of these agreed, estimated costs, as they accrue, for units of work actually performed that conform with the description or specifications for the work set forth in this contract, in an aggregate total amount not in excess of $6,150.00, which is 75 percent of $8,200.00, the agreed, estimated total cost of the project in which the Government will participate: *Provided,* That until the Operator's final report and final accounting have been rendered to the Government and any final check or auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract. The Government may, as it sees fit, make payments direct to the Operator's independent contractors, if any, for the account of the Operator, rather than to the Operator.

ARTICLE 5. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operator shall provide the Government with monthly reports of units of work performed under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of units of work performed on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) *Compliance with requirements.*—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of the units of work performed, which the Government may inspect and audit at any time. The Government may at any time require a check of the work performed and an audit of the Operator's records and accounts, by a certified public accountant or otherwise, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account and statement of work performed to accompany his final report.

ARTICLE 6. *Repayment by Operator.*—(*a*) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than 6 months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such net amounts.

(For instance: The percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*b*) As here used, "net smelter returns," "net concentrator returns," and "other net amounts realized from the sale or other disposition," mean gross revenue from sales, or if not sold, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be the gross income from mining operations for percentage depletion purposes in income-tax determination.

(*c*) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(*d*) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

ARTICLE 7. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided*, that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 8. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if, in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified.

ARTICLE 9. *Changes and added provisions* _____

_____

_____

_____

_____

Executed in sextuplicate the day and year first above written.

Paul H. Bennett
(Operator)

By _____

THE UNITED STATES OF AMERICA

By W. H. King
W. H. King, Executive Officer
Field Team, Region IV, DMEA

I, _____, certify that I am the _____ secretary of the corporation named as Operator herein; that _____, who signed this contract on behalf of the Operator, was then _____ of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

_____ [CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66329-1

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of _____, County of _____, described as follows:1/

_____

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/_____

_____

_____

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

_____ [Seal]

By Elmer Peters _____ [Seal]

_____ [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

DOCKET NO. IMBA 3001
Article 2, Exploration Project Contract Form NF-200(A)

ANNEX NO. 1

Beginning at the Southeast corner of the Northwest quarter of the Northwest quarter of Section Eight, Township One South, Range 72 East of the 6th P.M., running thence East along the South line of said Northwest quarter of the Northwest quarter a distance of 600 feet to the true point of beginning, running thence East along the South line of the North half of the Northwest quarter of said Section Eight a distance of 1500 feet, thence North 600 feet, thence West 1500 feet to a point of 600 feet due North of the true point of beginning, thence South to the true point of beginning.

EXHIBIT "A"

Description of the Work

(A) Crosscut 10 feet through the fault zone in the present face of the crosscut in a northwesterly direction on the 30 foot level. The location of this work is shown at point A, Figure 2.

(B) Drift northeasterly 20 feet on the vein now showing at point B (Figure 2). With prior written approval of the DMEA representative, 20 feet of drifting on a vein or veins intersected in the crosscut extension.
(A) may be substituted for drifting at (B).

(C) Raise a maximum of 100 feet on the Brandt vein to connect with the Brandt shaft. Any footage less than the 100 feet allowable to connect with the Brandt shaft may be expended in sublevel drifting at a point or points approved by the DMEA representative.

(D) Crosscut a maximum of 130 feet southeasterly to cut the possible downward extension of the White vein ore shoot, as well as the faulted World vein ore shoot.

The location of all of the work is shown on Figure 2, which is attached and made a part of Exhibit "A".

Estimated Costs of the Project

Drifting, 20 feet at $32.00 per foot	$ 640.00
Crosscutting, 130 feet at $32.00 per foot	4,160.00
Raising and/or sublevel drifting, 100 feet at $34.00 per foot	3,400.00
Total estimated cost of project	$8,200.00
Government participation at 75%	$6,150.00

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 27 1953

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. 3001
Metal or Mineral
Date Received 4/27/53
Estimated Cost
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: Paul H. Bennett,
1825 Marine St.,
Boulder, Colo.

(*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.

(*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 attached sheet)

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

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee from Hetzer Mines, Inc., 250 Pearl St., Boulder, Colo.

(*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. One copy attached to each copy of application

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Does not consist of unpatented claims

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. See attached sheets

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

(*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. Description and map attached

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

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

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Tungsten (Ferberite)

(*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. Description and map attached

(*c*) The work will start within 10 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. See attached sheets

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.).

(*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.

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 and [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. See attached sheets

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 April 15th, 1953

Paul H. Bennett
(Applicant)

By Paul H. Bennett

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

LEASE

THIS INDENTURE, Made and entered into this 17th day of January, 1953, between Hetzer Mines, Inc., a corporation, hereinafter called the Lessor, and P. H. Bennett, Hereinafter called the lessee,

WITNESSETH: That the Lessor, in consideration of the covenants and agreements of the Lessee hereinafter expressed to be kept and performed by the Lessee, and upon and subject to the conditions hereinafter provided, has leased and demised, and by these presents does lease and demise unto the Lessee, the following described property situate in Boulder County, State of Colorado, to-wit:

> Beginning at the Southwest corner of the Northwest quarter of the Northwest quarter of Section Eight, Township One South, Range 72 West of the 6th P.M., running thence East along the South line of said Northwest quarter of the Northwest quarter a distance of 600 feet to the true point of beginning, running thence East along the South line of the North half of the Northwest quarter of said Section Eight a distance of 1500 feet, thence North 600 feet, thence West 1500 feet to a point 600 feet due North of the true point of beginning, thence South to the true point of beginning; and also, the following described equipment, to-wit:
>
> 1 - 15 H.P. Electric Hoist complete with motor, controller, grids, approximately 200 feet 3/4" cable with safety chain.
> 1 - Dump sheet
> 2 - Buckets (small)
> 50' 8# (Yd.) track
> 100' 2" pipe
> 1 - 2' x 4' Water pressure tank
> 1 - R-91 Stoper 6-D 7/8" Hex
> 1 - 3" Double screw column complete

TO HAVE AND TO HOLD The said demised premises, only however to the extent necessary for the purpose of mining the same for tungsten ore and for no other purpose, for a term of ten (10) years from the date hereof.

IN CONSIDERATION OF this lease, the Lessee covenants and agrees as follows, to-wit:

1. To work the said premises in thorough mine-fashion to the end of the safe development and preservation of the same as a workable mine, at all times extracting as much ore therefrom as is possible consistent with safe and prudent mining.

2. To work the demised premises continuously from the date of this lease, performing at least forty shifts of work therein underground during each calendar month during the time this lease shall remain in force and effect; any excess labor performed during any calendar month shall not apply on the work required hereunder in any preceeding or following calendar month. The word "shift" is taken and accepted to mean the labor of one man for one day of at least 8 hours.

3. To make all shafts and inclines eight (8) feet long by four (4) feet wide in the clear, with bucket ways three and one-half (3½) by four (4) feet in the clear, and all drifts seven (7) feet high by four (4) feet wide in the clear, provided that existing shafts, drifts, and inclines shall, unless otherwise directed by the Lessor, be continued with their present dimensions. The Lessor reserves the right to change the dimensions of any workings as and whenever in the judgment of the Mining Superintendent of the Lessor the same may be necessary or expedient.

4. To do no underhand stoping, whether for the purpose of taking out ore or for any other purpose whatsoever.

5. To neither mine, extract nor remove the ground to a point nearer than four (4) feet to each side of any working shaft, and always to leave at least four (4) feet of ground, in its original condition, to support each such shaft. To leave more than four (4) feet of ground to support each such shaft if the Mining Superintendent of the Lessor shall so direct and to crib or rip-rap any shaft at the Lessee's expense, if the said Mining Superintendent shall so request the Lessee.

6. To allow the officers, agents and representatives of the Lessor at all times to enter upon and into the said premises and all parts thereof for the purpose of inspection and sampling, and to make any surveys that they may desire, and to render them all the assistance in the power of the Lessee in so doing.

7. To keep and maintain the drifts, shafts, tunnels and other workings in the said premises thoroughly drained and clear of loose rock and rubbish, and in a safe and secure condition, except as prevented by extraordinary mining casualty, and to maintain at all times and leave the floors of all drifts and workings in good, even and unobstructed condition; to stow no waste underground except with the consent in writing of and under the direction of the Mining Superintendent of the Lessor.

8. To keep posted in conspicuous places on the surface of the said premises all notices which may be furnished by the Lessor for posting thereon.

9. The Lessee agrees and promises that before commencing operations on said premises he will take out Workmen's Compensation Insurance to protect the Lessor and to protect the Lessee and his employees from any injuries, and that as a condition of this lease the Lessee will keep said Workmen's Compensation Insurance in force during the entire term of this lease.

10. The Lessee agrees to pay to the Lessor and the Lessor reserves the royalty of sixteen per cent (16%) of the net proceeds of any ores and concentrates produced by the Lessee from said leased premises. "The net proceeds" is agreed to be the net sale price of said ores and concentrates less the cost of hauling and/or freight charges and all treatment charges. All ores and concentrates shall be shipped in the names of the Lessor and Lessee and royalties reserved by the Lessor shall be paid directly to it

by the purchaser of any ores or concentrates. The Lessee agrees to furnish to the Lessor a copy of a settlement sheet from the purchaser or purchasers of ores and concentrates.

IT IS MUTUALLY AGREED By and between the Lessor and Lessee as follows:

(a) In the event the Lessee fails to pay the royalty herein reserved, or fails to pay compensation insurance premiums, the Lessor shall have the right to terminate this lease immediately and without notice to the Lessee. In the event of the violation of any other term, provision or condition of this lease by the Lessee, the Lessor shall have the right to terminate this lease upon giving thirty (30) days' written notice to the Lessee. In the event the Lessee corrects such defaults within thirty (30) days, said lease shall not be terminated. In the event any default shall not be corrected at the end of said thirty-day period, then said lease shall be terminated as of the end of said thirty-day period. Said notice shall be given inwriting, addressed to the Lessee at 1825 Marine St., Boulder, Colorado.

(b) The title to any ores broken or mined on said leased premises at the termination of this lease, shall be the property of the Lessor, and it shall not be liable for the payment to the Lessee for the same before any costs or expenses of breaking or mining said ore.

(c) The Lessee may at his discretion, terminate this agreement and all obligations thereunder, provided it makes payment for any royalties that might be due at the time of the cancellation of the lease and returns whatever equipment is the property of the Lessor.

(d) The Lessee agrees to keep the equipment leased hereby in good repair at his expense and on the termination of this lease to surrender it in good order and condition.

IN WITNESS WHEREOF, This lease has been executed this 17th day of January, 1953.

HETZER MINES, INC.

By (Signed) Elmer Hetzer - President

SEAL OF
HETZER MINES INC.

(Signed) P. H. Bennett

Certified a true copy P. H. Bennett
P. H. Bennett

Supplemental Sheet #1 DMEA Application
P. H. Dennett, 1825 Marine St., Boulder, Colo.

3. (a) Beginning at the Southwest corner of the Northwest quarter of the Northwest quarter of Section Eight, Township One South, Range 72 West of the 6th P. M., running thence East along the South line of said Northwest quarter of the Northwest quarter a distance of 600 feet to the true point of beginning, running thence East along the South line of the North half of the Northwest quarter of said Section Eight a distance of 1500 feet, thence North 600 feet, thence West 1500 feet to a point 600 feet due North of the true point of beginning, thence South to the true point of beginning; (Excerpt from Lease from Hetzer Mines, Inc.)

4. (a) Within the boundaries of the land previously described, and under control of the applicant there exists, among others, four shafts, all of which have produced tungsten in varying amounts. The applicant has unwatered two of these, i. e., the World Shaft through which present work is being conducted, and the Brandt Shaft, which was unwatered for examination. Two other shafts adjacent, the White Shaft, and the Ford Shaft, have not been opened in recent years, but local information is that they were both producers. The World Shaft is approximately 80 feet deep with levels at 40 feet and 80 feet. The applicant has just completed driving 225 feet of crosscut in a Northwesterly direction and has cut the Brandt Vein as shown on accompanying map. This work is all open for inspection, the machinery is all installed for operation, and the power is connected, so that immediate inspection or operation is possible.

4. (b) In the early 1940's (World War II) the World Shaft was mined by George Todd, Joe Smith, and Thurman Hemmings. No exact figures are available, but production is reported to be in excess of $50,000.00 The other three adjacent shafts (under which we desire to explore) were all producers in past years under leasors operations. There are no ore reserves at present.

4. (c) This region is composed of granites and other igneous rocks crossed by fissure veins in which tungsten (Ferberite) has been found in considerable quantities. The vein series includes other big producing mines in the immediate vicinity, including the Cold Spring with a recorded production of over 2,000,000 pounds WO_3 and the Cross with a recorded production of 840,000 pounds WO_3 (These figures obtained from Hetzer Mines Inc., from the records of the Wolf Tongue Mining Co.) The applicant saw commercial ore in the bottom of the Brandt Shaft when it was unwatered two years ago, and it is the plan to crosscut and drift on the veins under the shafts referred to above as follows: (Refer to map attached)

(A) Run inclined raise 100 feet on Brandt Vein
(B) Drift NE on Brandt Vein 50 feet
(C) Crosscut 120 feet to White Shaft (and perhaps also find "lost" ore shoot in World Shaft)
(D) Drift SW 50 feet on Brandt Vein
(E) Drift SW 100 feet on Ford Vein
(F) Crosscut 20 feet NW thru fault zone
(G) Drift on Pump Vein SW 100 feet

Supplemental Sheet #2 DMEA Application
P. H. Bennett, 1825 Marine St., Boulder, Colo.

4. (d) The World Mine is 2 miles East of Nederland and 16 miles West of Boulder, in Boulder County, Colorado. Nearest marketing place is the Wolf Tongue Mill, operated by Metzer Mines, Inc., at Nederland 2 miles away. Good roads lead right to the property, and all necessary supplies are obtainable in Boulder.

4. (e) There is ample manpower available locally. Timber is plentiful; equipment needed is already installed on site; and electric power from Public Service Co. of Colorado is connected.

5. (b) This project is located in the heart of one of the best producing areas of Boulder County, and is surrounded with mines of past high production. Several of these are producing at the present time. The immediate vicinity of the World Shaft is cut by several important veins, and I want to drift and explore these veins at the depth indicated (80 to 125 feet). The ore shoot in the World Shaft was lost, apparently by a fault. Examination of this fault indicates that crosscut marked (C) on map may recover this ore, and also that reported to be in the bottom of the White Shaft. The incline marked (A) will open the ore seen by the applicant in the Brandt Shaft, and also provide better ventilation for the entire project. The drift SW on the Pump Vein marked (G) will open this vein in it's westward extension. The Eastern part of the Pump Vein was a big producer in the Cross No. 1 mine, and they had stoped within 50 feet of where we plan to start drifting. The drifts SW marked (D) and (E) seem justified by the fact that these veins show considerable mineralization on surface, and apex where a lot of high grade "float" has been found. An aplite dike marks the Western extension of this projected work.

5. (d) Work would be under the supervision of the applicant, P. H. Bennett. He has twenty years experience in mining and engineering work, and has been identified with tungsten mining for the past two years. Operated the Vasco No. 1 Mine profitably in 1952 (Tungsten) and is at present in charge of Vasco No. 7 Mine doing work under DMEA-2086 Contract No. Idm-E402. Should it be necessary to "split" supervision, the costs would be pro-rated accordingly. It might be noted in this connection that under the accompanying estimates the Supervisor will take the place of a regular man in operation.

Supplemental Sheet #3 DMEA Application
P. H. Bennett, 1825 Marine St., Boulder, Colo.

6. Detailed estimate of costs:

(a) Independent Contracts - None

(b) Labor 500 man days @ $ 13.20		$ 6600.00
Supervisor 6 months	500.00	3000.00
Consultants - None		
(c) Timber 4000 ft. @$ 100.00 del.		400.00
Explosives		1650.00
Pipe & fittings		225.00
Track & Accessories		260.00
Electric Power		570.00
Carbide, drill steel, bits, etc.,		650.00
(d) Use of 180 cfm electric air compressor, 15 HP 2 stage electric pump, 15 HP electric shaft hoist, drill, hose, shaft buckets, mine car and dolly, etc. (Value $3500.00) To be supplied by applicant.		350.00
(e) Rehabilitation & Repairs - None		
(f) New buildings, improvements, installations - None		
(g) Repairs (estimated)		200.00
Sampling and assays		50.00
Taxes (1½% FICA Tax)		144.00
Insurance (Workmen's Compensation)		384.00
Project Bookkeeping & Reports 6 months @ $ 50.00		300.00
(h) Contingencies (Approx. 5% project)		725.00
Total cost of project		$ 15,508.00

7. (b) Applicant will supply use of all machinery and equipment, and supply all pipe and track. Will also do all project bookkeeping. Balance of applicant's portion of cost will be supplied in cash as needed.

DMEA-3001

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

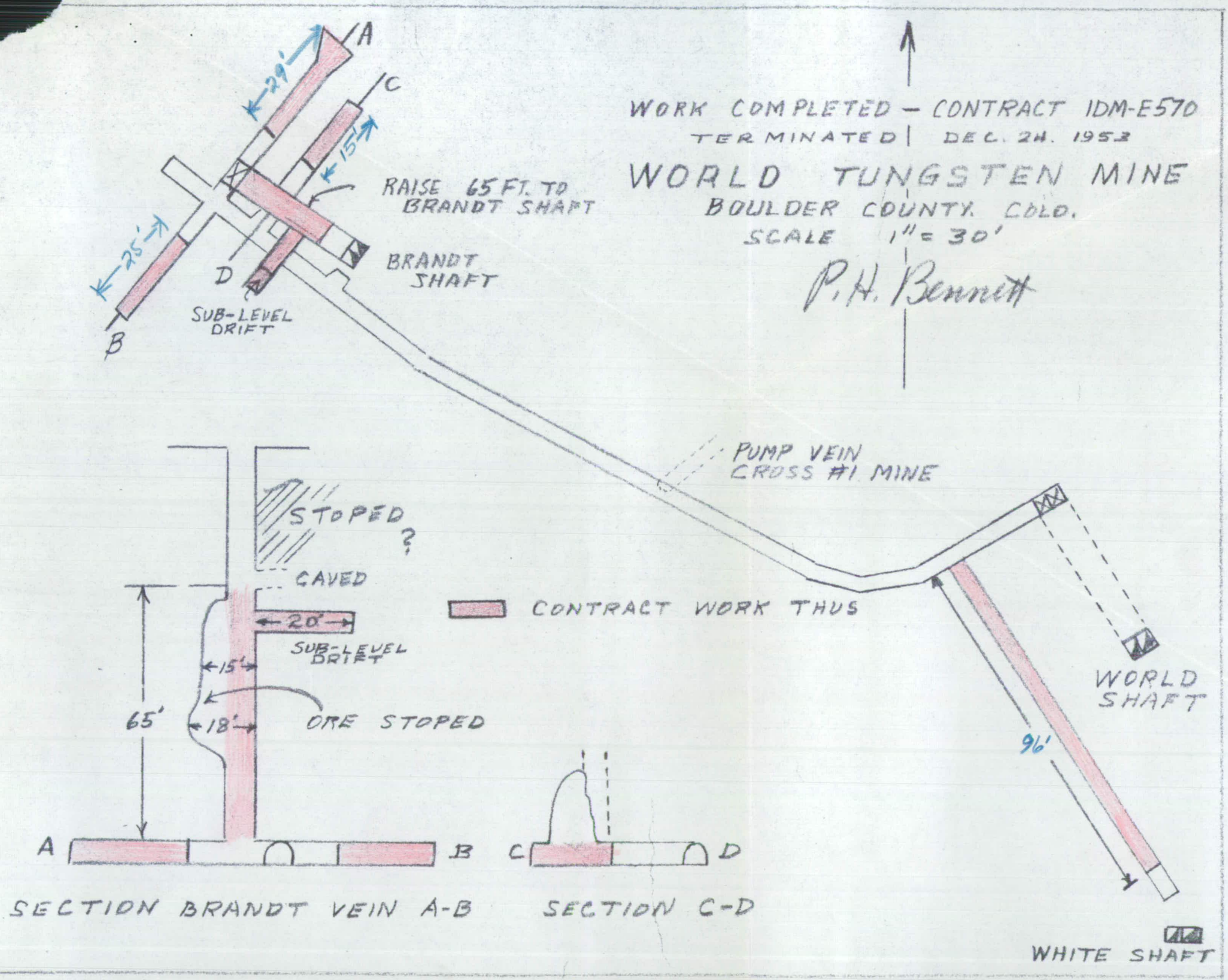
OFFICIAL BUSINESS

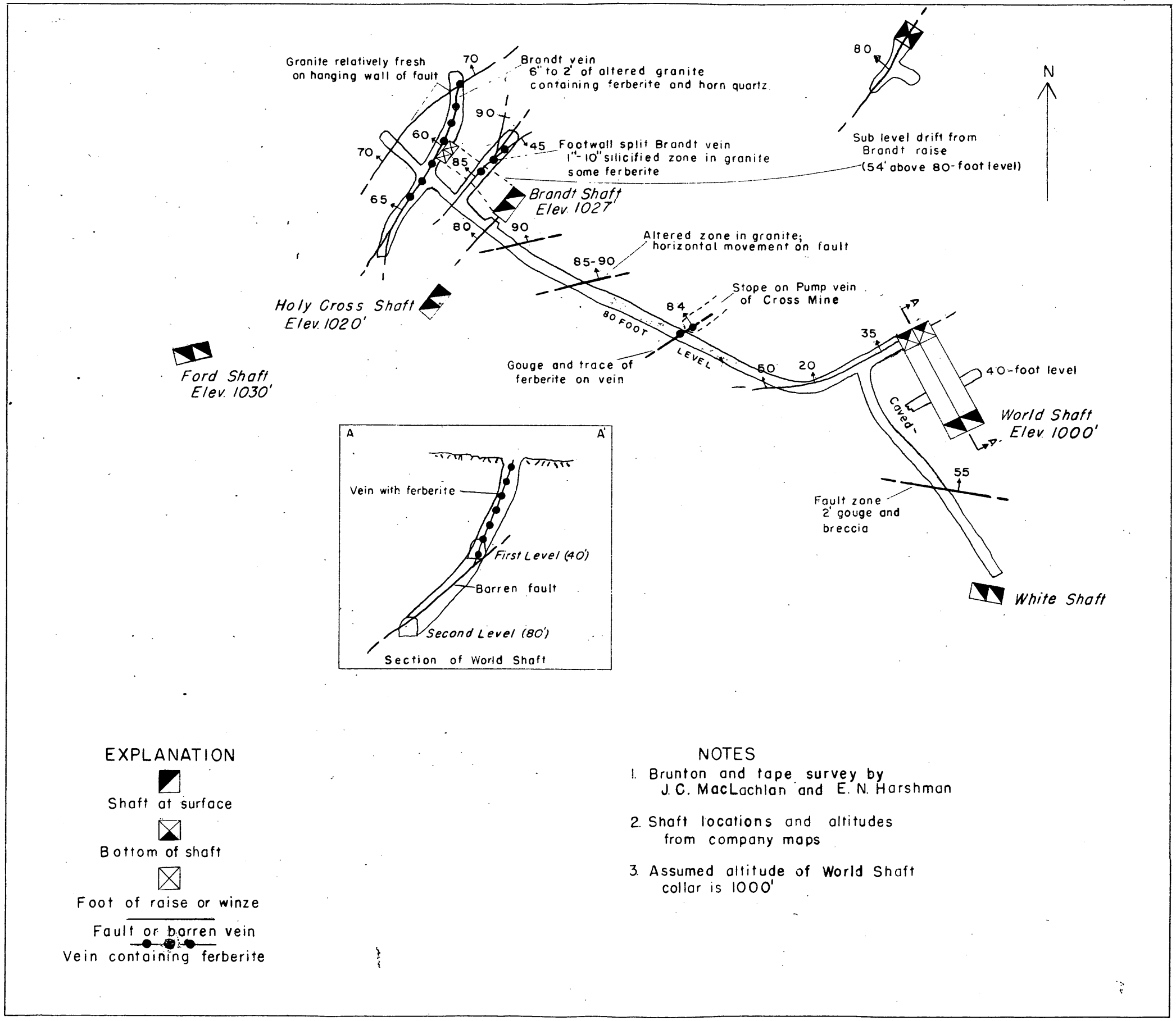
PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)

SPOKANE
APR 22
730PM
1953
WASH.

2

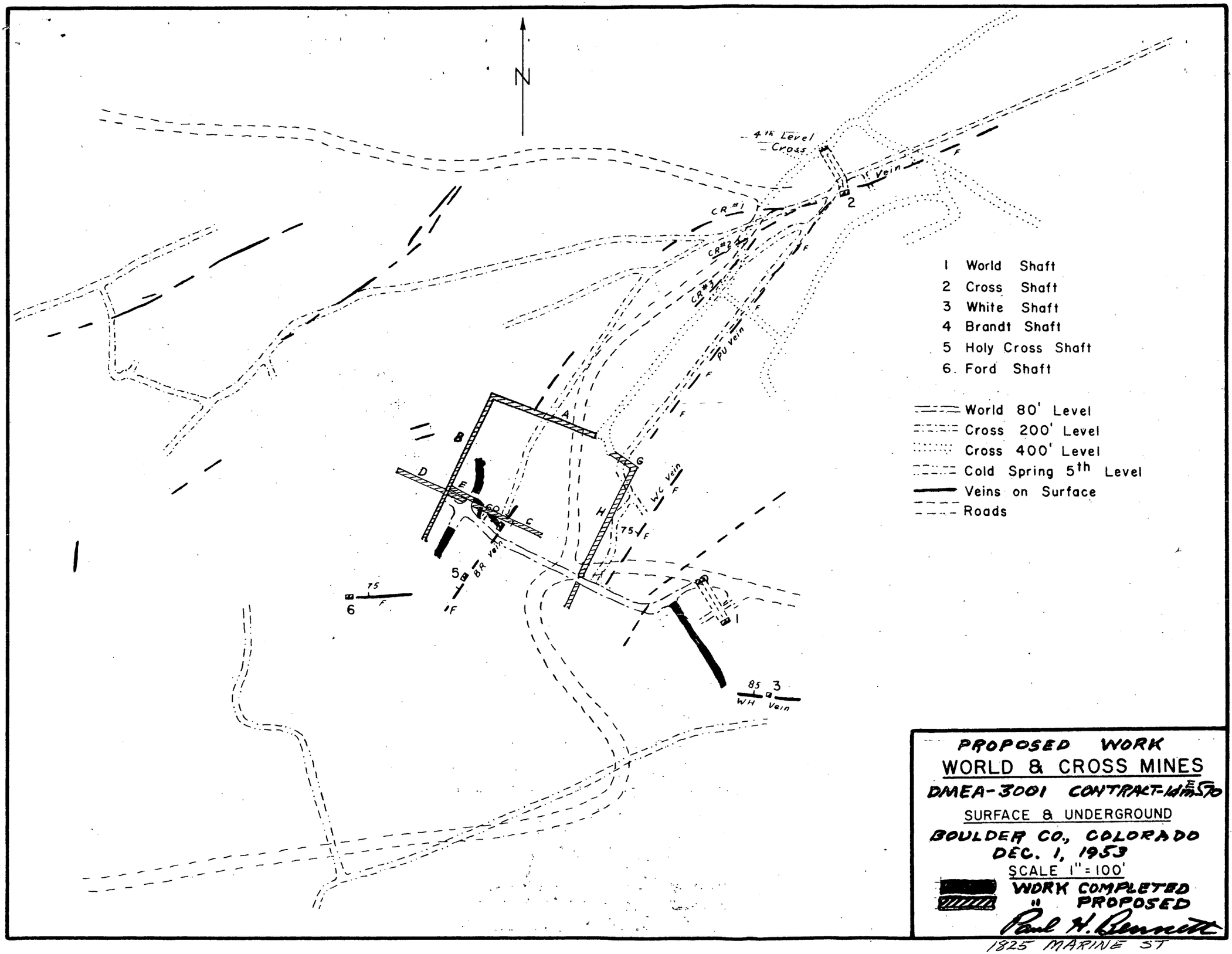
Chairman, Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.


WORK COMPLETED — CONTRACT IDM-E570
TERMINATED DEC. 24. 1953
WORLD TUNGSTEN MINE
BOULDER COUNTY. COLO.
SCALE 1" = 30'
P. H. Bennett
A
B
C
D
29'
15'
25'
RAISE 65 FT. TO BRANDT SHAFT
BRANDT SHAFT
SUB-LEVEL DRIFT
PUMP VEIN CROSS #1 MINE
STOPED ?
CAVED
20'
SUB-LEVEL DRIFT
15'
65'
18'
ORE STOPED
CONTRACT WORK THUS
WORLD SHAFT
96'
WHITE SHAFT
SECTION BRANDT VEIN A-B
SECTION C-D



E. N. Harshman, March 1954

FIGURE 1 - GEOLOGIC MAP OF THE 80-FOOT LEVEL OF THE WORLD MINE, BOULDER COUNTY, COLORADO


N
4th Level
Cross
W Vein
CR #1
CR #2
CR #3
PU Vein
WC Vein
BR Vein
WH Vein
A
B
C
D
E
G
H
1
2
3
4
5
6
75
85
1 World Shaft
2 Cross Shaft
3 White Shaft
4 Brandt Shaft
5 Holy Cross Shaft
6. Ford Shaft
World 80' Level
Cross 200' Level
Cross 400' Level
Cold Spring 5th Level
Veins on Surface
Roads
PROPOSED WORK
WORLD & CROSS MINES
DMEA-3001 CONTRACT-14m.S70
SURFACE & UNDERGROUND
BOULDER CO., COLORADO
DEC. 1, 1953
SCALE 1" = 100'
WORK COMPLETED
" PROPOSED
Paul H. Bennett
1825 MARINE ST
BOULDER, COLO.

DOCKET
Surname:
Hopkins
Martin
Chandler

INTERIOR DEPT.
SEP 10 1954
SOLICITOR

September 9, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: General Summary of Contract and Results Obtained
Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

OPERATOR: Paul H. Bennett, 1825 Marine Street, Boulder, Colo.

OPERATOR'S PROPERTY RIGHTS:
Lessee of tract of land 600 feet by 1500 feet, in NW¼ of NW¼, Section 8, Township 1 South, Range 72 West, 6th P.M. Land held under agriculture patent. Owner's Consent to Lien dated June 20, 1953.

CONTRACT: Dated July 14, 1953. Work to be completed within 6 months from date of contract.

(a) Work authorized:

1. Crosscut 10 feet through fault zone on 80-foot level.

2. Drift 20 feet on vein now showing in drift.

3. Raise 100 feet on Brandt vein to Brandt shaft.

4. Crosscut 100 feet to intersect downward extension of White vein oreshoot, as well as the faulted World vein oreshoot.

(b) Estimated Cost of the Project:

Drifting 20 feet @ $32/ft.	$640.00
Crosscutting 130 feet @ $32/ft.	4,160.00
Raising 100 feet @ $34/ft.	3,400.00
TOTAL	$8,200.00
GOVERNMENT PARTICIPATION @ 75%	$6,150.00

AMENDMENTS:-

No. 1 - Dated October 26, 1953. To allow Southwest drift on the Brandt vein to be advanced 25 feet and the Northeast drift on that vein to be advanced 29 feet as required.

This amendment was not to be construed to increase the estimated total cost of the project.

WORK COMPLETED:

Drifting 69 feet @ $32/ft.	$2,208.00
Crosscutting 96 feet @ $32/ft.	3,072.00
Raising 65 feet @ $34/ft.	2,210.00
Sublevel Drifting 20 feet @ $34/ft.	680.00
Total Cost of Project	$8,170.00
Government participation @ 75%	$6,127.50

Work was completed December 24, 1953.

AUDIT: Final Report of Review dated March 10, 1954.

CERTIFICATION: A Certification of Discovery will be issued.

COMMENTS:

The exploration project was established to explore the Brandt vein on the 80-foot level of the World mine shaft by drifting northeasterly and southwesterly, by raising on the vein to the bottom of the old Brandt shaft, and by sublevel drifting near the top of the raise. The work resulted in the discovery of a small body of ferberite ore. Ore produced during prosecution of Contract Idm-E570 and subsequent mining operations amounts to 134.53 tons with an average WO_3 content of 1.153%. All ore discovered by exploration has been removed and there is no reserve of ore remaining in the mine. There is, however, a potential source of ore at greater depths on the Brandt vein and on the footwall split from it. The denial of the Operator's request for additional exploration was based on the extensive character of the proposed work rather than an entire absence of exploration targets.

A Certification of Discovery is, therefore, being issued.

cc: DOCKET
ADM. READ. FILE
CODE 400
OPER. COMMITTEE

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

JHopkins/ls 9-9-54

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
10/25	Murphy	500
10/24	Ondrejcek	500
10/25	Talbert	800
	Selfridge	120
10/25	Johnson	110
10/	Fumich	100
		220

OCT 25 1963

Cold Spring Tungsten, Inc.
Room 627
630 Fifth Avenue
New York 20, New York

Re: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

Gentlemen:

Enclosed is a self-explanatory letter of today to the Operator under the subject contract.

This correspondence relates to the Owner's Consent to Lien, dated June 20, 1953, executed by Hatzer Mines, Inc. covering the subject property which you purchased.

Sincerely yours,

George Fumich, Jr.

Director

Enclosure

FMMurphy/mm
10/24/63
cc: Director's Reading File
Region III
Docket
Code 500

43683

Pa[illegible] H. Bennett
508 West 17th Place
Tempe, Arizona 85281
September 6, 1963

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 10 1963

DATE	INITIALS	CODE
9/10	[illegible]	800
9-10	[illegible]	100
9	Griswold	500

Mr. W. R. Griseold, Chief
Division of Minerals
Office of Minerals Exploration
Washington 25, D. C.

Dear Sir:

Re: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

Copies of your Form MME Form 63 are enclosed as requested.

Supplementing (and correcting) information contained in my letter of August 16th 1962 attached to a similiar report:

I stated that lease on which this work was prosecuted was from Nederland Tungsten Company. This was in error. The lease was from:

Hetzer Mines Inc.,
Nederland, Colorado.

I assigned the lease to:

Cold Spring Tungsten Inc.,
(Present Address)
Room 627
630 Fifth Avenue
New York 20, N. Y.

Cold Spring Tungsten purchased all of the mining estate of Hetzer Mines, and of course subject to the Exploration Contract provisions of my loan. Cold Spring Tungsten was operating an adjoining mine under lease from Hetzer mines at the time I assigned to them. This was prior to their buying the real estate from Hetzer Mines. They no doubt have records of the assignment. I have been unable to locate my copy of this document.

The manager for ~~XXXXXXX~~ Cold Spring Tungsten through this period was Dr. G. Carmen Ridland, whose present address is:

Dr. G. C. Ridland
207 West Clarendon (Apt 21)
Phoenix, Arizona

I trust this will correct the error made in my last letter.

Yours truly

Paul H. Bennett

Paul H. Bennett

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

July 30, 1963

Re: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

OFFICIAL FILE COPY
O. M. E.
RECEIVED SEP 10 1963
CODE

DATE	INITIALS	
		300
		100
		500

Mr. Paul H. Bennett
508 West 17th Place
Tempe, Arizona

Dear Mr. Bennett:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

If you will be kind enough to bring us up to date we should be able to release the Government lien against any future production from this property and close our books.

Sincerely yours,

W. R. Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

DMEA-3001
Idm-E570

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since August 16, 1962 to July 14, 1963, has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes [ ] No [X] *

2. Since August 16, 1962 to July 14, 1963, has there been any production from the land subject to the contract? Yes [ ] No [X] *

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes [ ] No [X] *

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Paul H. Bennett Title Previous lease holder

Address 508 West 17th Place Date September 6, 1963
Tempe, Arizona 85281

* Information from Dr. G. C. Ridland, Manager for Cold Spring Tungsten Inc.
(SEE ATTACHED LETTER)

4511

3001

August 16, 1962

OFFICIAL FILE COPY
O. M. E
RECEIVED AUG 23 1962
DATE
8/23 800
100
8/23 110
120
8/24 500
220

Gentlemen:

This loan was completed ~~under a~~ lease from the Nederland Tungsten Company, of Nederland, Colorado. Following completion of the project, all of this mining estate was acquired by the following:

Cold Spring Tungsten, Inc.,
Care: Mr. G. C. Ridland
(Present Address)
622 North 2nd Avenue
Phoenix, Arizona.

I have talked to Mr. Ridland today, and he informs me that there was no production Since December 11, 1961, and that he was sure that any previous production had been reported and the royalty to the DMEA paid.

Paul H. Bennett

Paul H. Bennett

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

August 9, 1962

Re: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

Mr. Paul H. Bennett
1825 ~~Marine~~ Street
Boulder, ~~Colorado~~

Dear Mr. Bennett:

After the completion of the approved exploration work under the contract identified above, we asked to be informed about changes in the status of the property and production from it during the period of royalty obligation.

To assist you to furnish this information and to assure the accuracy of our records, please answer the questions on the back of this letter and return two copies to this office with copies of any pertinent documents.

Sincerely yours,

W R Griswold

W. R. Griswold, Chief
Division of Minerals

MME Form 63
Revised 3-62

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. Since December 11, 1961 , has there been a change in ownership, lease, or sublease? If yes, please state details of the transaction below and provide a true or signed copy of the pertinent documents, unless they have been provided before. Yes ☐ No ☐ (See below)

2. Since December 11, 1961 , has there been any production from the land subject to the contract? Yes ☐ No ☐ (See below)

   A. If so and it was shipped, give quantity, value, and name and address of purchaser.

	Quantity	Value

   B. If stockpiled awaiting sale, state quantity, grade, and location.

Type	Quantity	Estimated Grade	Location
Ore	Tons		
Concentrates	Tons		
Other	Tons		

3. Since , has any production been transported through workings (see of contract)? Yes ☐ No ☐ (See below)

   A. If so, state quantity, value, and disposition of material.

Disposition of Material	Quantity	Value

Submitted by:

Name Paul H. Bennett Title Previous Lease Holder

Address 508 West 17th Place Date August 16, 1962

Tempe, Arizona

(See Attached Sheet)

~~Gentlemen:~~

~~This loan was on a lease from~~ Nederland Tungsten, Inc.

Nederland Tung[redacted] ~~sold the mining estate to the following, who~~

4511

[ ] Audited

[Yes] Certified

W[illegible] ANALYSIS SHEET - DMEA PROJECT[illegible]

Analysis as of
Incl. Voucher for ~~12/1/1954~~

[Yes] Actual Cost

[ ] Agreed Unit Costs

Name Paul H. Bennett

State Colorado

Commodity Tungsten

Docket No. ~~DMEA-3001~~

Idm-E No. ~~570~~

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	~~150'~~	~~4,800.00~~	~~165'~~	~~5,280.00~~	~~5,280.00~~
Raising	~~100'~~	~~3,400.00~~	~~85'~~	~~2,890.00~~	~~2,890.00~~
Shafts					
Winzes					
Drilling (Specify)					
Surface Excavation					
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		~~8,200.00~~		~~8,170.00~~	~~8,170.00~~

Prepared by FEJ TLC

71626

Building 20 - Federal Center
Denver 25, Colorado

December 22, 1961

Memorandum

To: Fiscal Section, Division of Administrative Services
Office of the Secretary, Department of the Interior
Washington 25, D. C.

From: Acting Field Officer, OME, Region III

Subject: Docket No. DMEA 3001 (Tungsten)
Contract No. Idm-E570
Paul M. Bennett
(World mine)
Boulder County, Colorado

Attached is the original Report of Royalty Review on the subject property dated December 18, 1961 covering the period June 21, 1956, through December 11, 1961.

Original signed by

T. M. Romslo

Attachment

TMR/lm

cc Chief, Division of Field Operations, OME
E. D. Talbert, Acting Chief
Contract Administration and Audit Division
Royalty Corres Idm E570
Chron

Form 7
-58)

OFFICIAL FILE COPY

Date	Surname	Code
12-18	gad	220

DEC 18 1961

Memorandum

To: Acting Field Officer, Region III

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

The original and one copy of a Report of Royalty Review covering the subject contract are enclosed. If you concur in the facts stated therein, please make the following distribution:

(a) Original to the Fiscal Section, Division of Administrative Services, Office of the Secretary, Department of the Interior, Washington 25, D. C.; and

(b) One copy for your files.

This Report of Royalty Review is made for record purposes only; therefore, no copy for the Operator is provided.

As evidence of your concurrence, a copy of your memorandum transmitting the original report to the Fiscal Section should be furnished this Division. If for any reason you do not concur, both copies of the report should be returned to this Division with your comments.

Enclosures

EDTalbert/ama 12-18-61

cc:
Docket
Director's Reading File
CA & A Division
Mr. Rothrock

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

DEC 6 1961

Memorandum

To: Acting Field Officer, Region III

From: E. D. Talbert, Acting Chief (Signed) E. D. Talbert
Contract Administration and Audit Division

Subject: DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract Idm-E570

This Division is preparing a Report of Royalty Review on the subject contract. Accordingly, your submission of an original and one copy of MME Form 22, Check Sheet of Examining Engineer, will be appreciated.

It appears that the property under this contract has been inactive since July 1954. If this is so, please confirm by an appropriate statement under item 8 of MME Form 22.

EDTalbert/ama 12-6-61

cc:
Docket
Director's Reading File
CA & A Division

43683

OFFICE OF MINERALS EXPLORATION

REGION III

Statement in Lieu of Interim Report
of Certified Project

Reporting Period	January 1, 1959 through February 19, 1960
Docket and Contract Number	DMEA-3001, Idm-E570 (Tungsten)
Operator	Paul H. Bennett, (World Mine) Boulder County, Colorado

The project has been inactive during the reporting period [x]

Pertinent data relative to the subject contract has remained unchanged since the last report [ ]

Remarks:

Bill Nolan, Watchman, for Cold Spring Tungsten, Inc., stated that this property has been inactive for several years.

Signed H. M. Connors
H. M. CONNORS

Date February 23, 1960

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 21 1959		
DATE	INITIALS	CODE
12/21	RCW	225
"	EES	800
12/22	Hoef	500
	SMH	225

Building 20 - Federal Center
Denver 25, Colorado
December 17, 1959

CERTIFIED MAIL

Mr. Paul H. Bennett
1325 Marine Street
Boulder, Colorado

Re: Docket No.DMEA 3001 (Tungsten)
Contract No. Idm-E570
Paul H. Bennett
(World mine)
Boulder County, Colorado

Dear Mr. Bennett:

In reference to the instructions in the last paragraph of the letter to you dated September 16, 1954, from Frank E. Johnson, Acting Administrator, DMEA, in reference to certification of Contract Idm-E570, please advise the current status of operations at the project, and also advise whether or not there has been any production from the subordinated land since January 1, 1959.

Very truly yours,

Original signed by

J. W. Townsend
Executive Officer, OME
Field Team, Region III

JWT:ltm

cc: Chmn. Op. Comm. (2)
Roy. Corres. E570
Semiannual Rept. file E570
Susp.
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

February 18, 1958

2/21 C 220
2/21 Com 100
" 110
2/24 680 800
225

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Semiannual Report of Certified Project for the period July 1, 1957 to December 31, 1957

DMEA Docket 3001 (Tungsten)
Contract Idm-E 570, Paul H. Bennett (World Mine) Boulder County, Colorado

Enclosed are the original and three copies of the subject report prepared in conformance with instructions contained in memorandum of January 6, 1956 from this office, Memorandum 29, and Special Notice in Minutes of Operating Committee Meeting No. 692.

W S King

Executive Officer, DMEA
Field Team, Region III

Enclosures

cc: Semiannual Report File E 570
Harshman
DMEA, DFC (2)
Chron.

WHR

DMEA
DEPARTMENT OF THE INTERIOR

FEB 6 - 1958
REGION III
DENVER, COLORADO

DMEA, REGION III

STATEMENT IN LIEU OF SEMIANNUAL REPORT

Reporting Period July 1, 1957 to December 31, 1957
Docket and Contract Number Docket No. 3001, Contract Idm-E570
Operator Paul H. Bennett (World Mine)

The project has been inactive during the reporting period [X]

Pertinent data relative to the subject contract has remained unchanged since the last report [ ]

Remarks:

Shaft timbers are burned to water level. The mine has been inactive and Mr. Bennett has been in Tempe, Arizona for the past two years.

Signed Carl Belser
Carl Belser

Date 1/29/58

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

July 11, 1957

OFFICIAL FILE COPY DMEA RECEIVED JUL 15 1957		
DATE	INITIALS	CODE
7-18	C	220
18	Com	100

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Semiannual Report of Certified Project for the period January 1, 1957 through June 30, 1957
DMEA Docket 3001 (Tungsten)
Contract Idm-E 570, Paul H. Bennett (World Mine), Boulder County, Colorado

Enclosed are the original and ~~three~~ Two copies of the subject report prepared in conformance with instructions contained in memorandum of January 6, 1956 from this office, Memorandum 29, and Special Notice in Minutes of Operating Committee Meeting No. 692.

W H King
~~XXXXXXXXXXXX~~
Executive Officer, DMEA
Field Team, Region III

Enclosures

MHM/vj
cc: Semiannual Report File E 570
Royalty File E570
Harshman
DMEA/DFC
Chron.

DMEA, REGION III

DMEA
DEPARTMENT OF THE INTERIOR
JUN 19 1957
REGION III
DENVER, COLORADO

STATEMENT IN LIEU OF SEMIANNUAL REPORT

Reporting Period Jan. 1, 1957 to June 30, 1957
Docket and Contract Number DMEA 3001, Idm-E570
Operator Paul H. Bennett
World Mine

The project has been inactive during the reporting period [X]

Pertinent data relative to the subject contract has remained unchanged since the last report [X]

Remarks:

The property was visited on June 10, 1957, The shaft timbers are burned to the water level at about 60 ft. and the collar of the shaft is still covered by timbers.

OFFICIAL FILE COPY
DMEA
RECEIVED JUL 15 1957

DATE	INITIALS	CODE

Signed W. J. Tesch Jr.
W. J. Tesch, Jr.
Bureau of Mines

Date

June 11, 1957

DMEA Form 18
Feb. 58

DEFENSE MINERALS EXPLORATION ADMINISTRATION

ANALYSIS OF SEMIANNUAL REPORT OF CERTIFIED PROJECT

Prepare in duplicate. File original in Official Docket. Send copy

To: Statistics Branch (Code 210)

From: Division of **Iron and Ferro-Alloys**

Report Period **7.1-12.31.56**

DMEA No.	Operator	Contract No.
3001	**Paul H. Bennett**	**Idm-E570**

ORE ESTIMATES

	Tons	Analysis
DMEA	155	1.25% WO_3 *
Operator to date	-	
Total	155	1.25 "
Production to date	155	1.25 "
Ore in ground	0	-

INVESTMENT

Type	Size		Feet	Cost
Shafts				
Winzes				
Drifts and Crosscuts				
Raises				
Drilling	Type			
Rehabilitation	Description			

FACILITIES

Mine Plant		
Mill		
Roads		

REMARKS

Work was suspended December 24, 1953. Surface workings, including cribbing and timbers near shaft, burned in August, 1955.

Report of Dec. 31, 1957 states that mine has been inactive and Mr. Bennett has been in Tempe, Arizona for the past two years.

*** Revised DMEA reserve figures from F. E. Johnson, 2/21/58**

Confirm to W. Chamberlain

Prepared by S. P. Holt Date 3.5.58

31398

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 15 1957

DATE	INITIALS	CODE
3/15	C	220

March 13, 1957

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Semiannual Report of Certified Project for the period July 1, 1956 through December 31, 1956
DMEA Docket 3001 (Tungsten)
Contract Idm-E 570, Paul H. Bennett (World Mine), Boulder County, Colorado

Enclosed are the original and three copies of the subject report prepared in conformance with instructions contained in memorandum of January 6, 1956 from this office, Memorandum 29, and Special Notice in Minutes of Operating Committee Meeting No. 692.

E. N. Harshman

for W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures
MHM/vj

cc: Semiannual Report File E 570
J. F. Shaw (2)
E. N. Harshman
Chron.

Semiannual Report of Certified Projects

Reporting Period	July 1, 1956 to December 31, 1956
Docket and Contract Number	DMEA 3001, Idm-E570
Operator	Paul H. Bennett
Commodity	Tungsten
Mine Name	World Mine
County and State	Boulder County, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
MAR 13 1957
REGION III
DENVER, COLORADO

Date of Contract	July 14, 1953
Date of Certification	September 15, 1954
Expiration Date of Royalty Payments	July 14, 1963
Date of Examination for this Report	March 8, 1957

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 15 1957

DATE	INITIALS	CODE

Total Amount of Contract	$8,200.00
Total Expenditures under Contract	$8,170.00
Amount of Government Participation at 75 %	$6,127.50

Royalty Payments this Period	none
Previous Royalty Payments	$222.23
Total Royalty Payments to Date	$220.63*
% Loan Repayment Completed	3.60%

Amount of Royalty Due	none

Royalty Remarks * Reflects royalty overpayment refund of $1.60
Refund paid July 31, 1956.

Original Estimate of DMEA Reserves (Field Team Final Report) Mines [ ] Survey [ ] Joint [X]	155.03 s.t.u. WO_3
Revised Estimate of DMEA Reserves (Field Team) Mines [ ] Survey [ ] Joint [X]	193.51 s.t.u. WO_3
Increase of Reserves by work performed subsequent to DMEA project work	38.48 s.t.u. WO_3
Production DMEA ore (This period)	none
(Previous)	193.51 s.t.u. WO_3
(To date)	193.51 s.t.u. WO_3
" Operator's ore (This period)	
found subsequent (Previous)	
to DMEA work (To date)	

Percent Revised Reserves mined 100%

(For Uranium Ores Only)

Initial Production Bonus:

Status of Operator: Ineligible [ ] Applied for [ ] Rec'ing pmt [ ] Pd up ____

Pounds U_3O_8 produced this period eligible for Bonus ____

Amount of Bonus paid to Operator this period $____

Total pounds U_3O_8 produced to date eligible for Bonus ____

Total amount of Bonus paid to Operator to date $____

Bonus Royalty Paid $____

Bonus Royalty Due $____

Investment Data

Shafts Size	Shafts Feet	Shafts Cost	Winzes Size	Winzes Feet	Winzes Cost	Drifts & Crosscuts Size	Drifts & Crosscuts Feet	Drifts & Crosscuts Cost

Raises Size	Raises Feet	Raises Cost	Drilling Type & Size	Drilling Feet	Drilling Cost	Rehabilitation Description	Rehabilitation Cost

Facilities

Mine Plant Description	Mine Plant Cost	Mill Description	Mill Cost	Roads Description	Roads Cost

Remarks

Signed D. E. Redmon (Engineer)

D. E. Redmon

RECEIVED
OCT 11 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

224 New Customhouse
Denver 2, Colorado

Date: October 8, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Semiannual Report of Certified Project for the period January 1, 1956 through June 30, 1956
DMEA Docket 3001 (Tungsten)
Contract Idm-E 570, Paul H. Bennett (World Mine), Boulder County, Colorado

Enclosed are the original and three copies of the subject report prepared in conformance with instructions contained in memorandum of January 6, 1956 from this office, ~~and~~ Memorandum 29, and Special Notice in Minutes of Operating Committee Meeting No. 692.

Note: The Reporting Period of July 30, 1956 is corrected herein.

E. N. Harshman
~~XXXXXXXXXXXXXX~~
Acting Executive Officer, DMEA
Field Team, Region III

Enclosures
MHM/vj
cc: Semiannual Report File E 570
J. F. Shaw (2)
E. N. Harshman
Chron.

DMEA, REGION III

STATEMENT IN LIEU OF SEMIANNUAL REPORT

DMEA
DEPARTMENT OF THE INTERIOR
OCT 4 1956
REGION III
DENVER, COLORADO

Reporting Period - January 1, 1956 to ~~July~~ June 30, 1956
Docket and Contract Number - DMEA 3001, Idm-E570
Operator - Paul H. Bennett

World Mine

	"X" one
The project has been inactive during the reporting period	X
Pertinent data relative to the subject contract has remained unchanged since the last report	

Remarks:

The surface workings, including the cribbing and timbers near the top of the shaft, burned in August 1955. The top of the shaft was covered by a large platform. Any future work would probably be through the Gross shaft.

Carl Belser

Signed

Carl Belser
Mining Engineer

Date

September 28, 1956

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

RECEIVED
AUG - 3 1956

224 New Customhouse
Denver 2, Colorado

CERTIFIED MAIL

July 31, 1956

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

Re: Refund of royalty payments, Docket DMEA 3001 (Tungsten), Contract E570, Paul H. Bennett (World Mine), Boulder County, Colo.

Dear Mr. Bennett:

Enclosed is Government check No. 21,107,541 for $1.60, which is to refund you for the overpayment of royalties on production from the subject property. This overpayment was determined by the Report of Royalty Review for period July 14, 1953 through June 20, 1956, prepared by the Contract Administration and Audit Division, dated June 27, 1956 as follows:

	Sales by P. H. Bennett	Sales by M. Castagne	Total
DMEA Royalty Due	$170.75	$49.88	$220.63
DMEA Royalty Received	172.92	49.31	222.23
Bal. of Royalty Due	$ 2.17 cr.	$ .57	$ 1.60 cr.

Overpayment Applicable to Liq. No. 776 sold by Bennett	$ 2.17
Underpayment Applicable to Liq. No. 953 sold by Castagne	.57
Net Overpayment of Royalty as above	$ 1.60

Please acknowledge receipt of this check.

Yours very truly,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosure

MHM/vj

cc: Royalty File E570
Correspondence File E570
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Christensen
Chron.

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

224 New Customhouse
Denver 2, Colorado

July 24, 1956

RECEIVED
JUL 27 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty payment, Docket DMEA 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett (World Mine), Boulder County, Colorado

Reference is made to the Report of Royalty Review dated July 23, 1956, by Donald T. Finch, DMEA Auditor, a copy of which was furnished to you this date. According to this report, the operator Paul H. Bennett, has overpaid the DMEA royalties due on past production from the subject property by the amount of $1.60.

In order to bring this account current to June 20, 1956, the ending date of the royalty report period, we request you have a check for $1.60 made payable to Paul H. Bennett.

Please transmit this check to our office.

W. M. TRAVER

W. M. Traver

WMT/vj

cc: Royalty File E570
Correspondence File E570
Sec. Opr. Comm. (2)
J. F. Shaw (2)
Donald T. Finch
Marshall
Chron.

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

JUL 3 - 1956

Mr. Donald T. Finch
DMEA Auditor
224 New Customhouse
Denver 2, Colorado

Re: Report of Royalty Review
Paul H. Bennett
Idm-E570, DMEA-3001

Dear Mr. Finch:

Receipt is acknowledged of the Washington copies of the Report of Royalty Review covering the above-cited project.

The report is acceptable and normal distribution is authorized.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
July 3, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.h.

400

RECEIVED
APR 13 1956

U. S. DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

224 New Customhouse
Denver 2, Colorado

Date: April 10, 1956

Memorandum
To: Chairman, Operating Committee, DMEA
From: Executive Officer, DMEA Field Team, Region III
Subject: Royalty payments, DMEA Docket 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett - Colorado

Period: March, 1956

WJM

During the above month the following royalty payments were received for ore or concentrates shipped from the subject property:

Lot No.	Dry Tons	Royalty Due	Royalty Pd.
		(NONE)	

Royalty

Totals:

Past Due Royalties Collected	None
Total Dry Tons (Ore or Cons.) Shipped to Date	151.208
Expiration Date of Royalty Repayment	July 14, 1963
Amount of Government Participation	$6,127.50
Total Royalty Payments to Date	$222.23
Percent of Loan Repayment	3.63%

W. M. Traver

W. M. Traver

vj
cc Royalty File E 570 w/Settlement Sheets
Monthly Royalty Payment File
~~T. A. Christensen~~
J. F. Shaw (2)
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

224 New Customhouse
Denver 2, Colorado

Date: May 15, 1956

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: ~~Semiannual~~ Annual Report of Certified Project for the period January 1, 1955 through December 31, 1955
DMEA Docket 3001 (Tungsten)
Contract Idm-E 570 Paul H. Bennett (World mine), Boulder County, Colorado

Enclosed are the original and three copies of the subject report prepared in conformance with instructions contained in memorandum of January 6, 1956 from this office and Memorandum 29.

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

Enclosures
RDB/vj
cc: Semiannual Report File E 570
Royalty File E570
J. F. Shaw (2)
E. N. Harshman
Chron.

RECEIVED
MAY 17 1956

Semi-Annual Report of Certified Projects

A
d.
APR 30 1956
BUREAU OF MINES
Denver, Colorado

Reporting Period January 1, 1955, to December 31, 1955

Docket and Contract Number DMEA 3001 Idm-E570

Operator Paul H. Bennett

Commodity Tungsten

Mine Name World mine

County and State Boulder County, Colo.

Date of Contract July 14, 1953

Date of Certification September 15, 1954

Expiration Date of Royalty Payments July 14, 1963

Date of Examination for this Report January 31, 1956

Total Amount of Contract $8,200.00

Total Expenditures under Contract $8.170.00

Amount of Government Participation at 75 % $6,127.50

Royalty Payments this Period None

Previous Royalty Payments $222.23*

Total Royalty Payments to Date $222.23*

% Loan Repayment Completed 3.63%

RECEIVED
MAY 17 1956

Amount of Royalty Due None

Royalty Remarks *Royalty overpayment of $1.60 not refunded.

Original Estimate of Reserves
(from Final Engr.-Geol. Report): 155.03 s.t.u. WO_3

Increase of Reserves by work performed subsequent to expiration or termination of contract: 38.48 s.t.u. WO_3

Revised Estimate of Reserves: 193.51 s.t.u. WO_3

Production this Period (Ore or Concentrates) None

Amount of Previous Production (since date of contract) 193.51 s.t.u. WO_3

Total DMEA Production to date 193.51 s.t.u. WO_3

% of Revised Reserves Mined 100%

Production Remarks: Mine has been idle since July 1954.

Note: On Uranium projects check with AEC to assure that our records are in agreement with theirs.

Other Remarks: Property presently owned by Cold Spring Tunsten, Inc.

Signed R. L. Bolmer (Engineer)

R. L. Bolmer

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

224 New Customhouse
Denver 2, Colorado

March 21, 1955

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region III

Subject: Semi-Annual Report - Docket DMEA-3001, Contract Idm-E570, Paul H. Bennett, Hetzer Mines, Inc., Boulder County, Colo.

Enclosed are four copies of the Semi-Annual Report on the Contract Idm-E570.

W. M. Traver

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

SEMI-ANNUAL REPORT OF CERTIFIED PROJECT

Period:	December 24, 1953, to December 31, 1954
Docket No.:	DMEA 3001 Contract: Idm-E570, dated July 14, 1953
Operator:	Paul H. Bennett 1825 Marine Street Boulder, Colorado
Name and location of property:	World mine (20 acres more or less of patented land) N1/2 NW1/4 sec. 8, T. 1 S., R. 72 W., sixth principal meridian, Boulder County, Colorado
Owner of property:	Metzer Mines, Inc. P. O. Box 641 Boulder, Colorado
Date project started:	July 21, 1953 Date project completed: December 24, 1953
Contract amount:	$8,200.00 Amount spent: $8,170.00
Government participation:	$6,127.50
Estimate of reserves discovered:	155 short ton units WO_3
Date certified:	September 15, 1954
Remarks:	The small tungsten ore shoot discovered on the Brandt vein had been depleted even before project work was completed. Shortly thereafter, the operator terminated his interest in the lease. Maurice Castagne, by virtue of a verbal lease from Metzer Mines, performed certain additional exploration and development work in the mine during 1954. He extended the 80-foot level northeasterly on both the Brandt and World veins. The work exposed additional small ore shoots from which production was started. In the interim, the group who control Gold Spring Tungsten, Inc., bought out the Metzer Mines. Castagne, who is the superintendent at the Gold Spring mine, therefore, was forced to stop operations. He did make two shipments of ore from the property on which the Government was paid royalty. The mine at present is idle. It is expected, however, that the new interests in control of Metzer Mines, eventually will resume work at the World property.

Production summary:

Period	Net Dry Weight (short tons)	WO_3 Content (short ton units)	Net Value	Government royalty (paid)
1953	134.45	155.03	$3,484.91	$172.92
1954	20.76	38.48	997.74	49.31
Total	155.21	193.51	$4,482.65	$222.23

R. L. Bolmer

400

DOCKET
Surname:

Hopkins
Martin
Kiilsgaard
Chamber
Hedges
Selbridge
FEJohnson

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

SEP 16 1954

Mr. Elmer Hetzer, President
Hetzer Mines, Inc.
290 Pearl Street
Boulder, Colorado

Re: Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-1576

Dear Mr. Hetzer:

Transmitted herewith for your information is a copy of the Certification of Discovery or Development issued as a result of the exploration program under the above-referenced contract. The property as set forth in the contract was leased to P. H. Bennett by Hetzer Mines, Inc. (Elmer Hetzer, President) on January 17, 1953, and is the same property referred to in Owner's Consent to Lien executed by Elmer Hetzer for Hetzer Mines, Inc., on June 20, 1953.

By the terms of the Exploration Project Contract and of the Certification, all production from the aforesaid lands from the date of the Exploration Project Contract is subject to the Government's percentage royalty as set forth in the contract until the sum of $5,127.50 is paid or until July 14, 1963, whichever occurs first.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

Enclosure

cc: DOCKET
FIELD TEAM, REG. 4
OPER. COMM.
ADM. READ. FILE
CODE 400-Mr.Martin
CODE 300-Mr.Chambers
CODE 110-Mr.Johnson
J.H.HEDGES, USBM
R. W. GEEHAN, USBM
T. P. THAYER, USGS
THOR KIILSGAARD, USGS

JHopkins/ls
9-9-54

R.C.S.

400

DOCKET
Surname:

Hopkins
Martin
Chambers
Kiilsgaard
Hedges
Selfridge
Johnson

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

SEP 16 1954

Mr. Paul H. Bennett
1825 Marine Street
Boulder, Colorado

Re: Docket No. DMEA 3001 - Tungsten
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. Bennett:

Transmitted herewith is a Certification of Discovery or Development under Contract Idm-E570 on the World Mine.

By the terms of the Exploration Project Contract and of the Certification, all minerals produced from the aforesaid mine from the date of the Exploration Project Contract No. Idm-E570, July 14, 1953, are subject to the Government's percentage royalty as set forth in the Exploration Project Contract until the sum of $6,127.50 is paid or until July 14, 1963, whichever occurs first.

Checks for reimbursing the Government for advances under the above-cited contract should be made payable to the Defense Minerals Exploration Administration and transmitted to Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV, 224 New Customhouse Building, Denver 2, Colorado.

Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of all minerals sold, the name of the purchaser, and the price and charges certified to be correct by the purchaser.

You are requested to notify Mr. King of any changes in ownership or production rights that might have any effect on the Government's right to its percentage royalty. Also, if production ceases at any time for any extended period, please notify Mr. King at 6-month intervals that no production has been made.

Sincerely yours,

Frank E. Johnson (for)

ACTING Administrator

cc: DOCKET
CODE 400
OPER. COMM.
ADM.READ-FILE
CODE 800-Mr.Chambers
CODE 110-Mr.Johnson
J.H.HEDGES, USBM
Enclosure

cc: R.W.GEEHAN, USBM
T.P.THAYER, USGS
THOR KIILSGAARD, USGS

cc: FIELD TEAM, REG. IV.
xxxxxxxxxxxxxxx

JHopkins/ls
9-9-54

R.L.S.

400

DOCKET

Hopkins
Martin
Chambers
Kiilsgaard
Hedges
Bethridge
Johnson

SEP 16 1954

Mr. Irving Gumbel, Acting Director
Materials Division
Emergency Procurement Service
General Services Administration
Washington 25, D. C.

Re: Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. Gumbel:

Enclosed is a copy of a Certification of Discovery or Development for the above-noted project.

Contract No. Idm-E570 was executed July 14, 1953. Expenditures up to $8,200.00 were authorized, of which the Government's share at 75 percent was $6,150.00. The cost of the work completed was $8,170.00, of which the Government's share at 75 percent was $6,127.50.

The object of the exploration program was to explore the downward extension of the Brandt vein on the 60-foot level of the World mine. The program employed drifting, crosscutting, raising, and sublevel drifting from the top of the raise.

The exploration work disclosed a small ore body on the Brandt vein on a sublevel. This body of ferberite ore yielded 134.45 tons, from which 155.02 units of tungsten trioxide were receovered. Most of the ore was extracted by the exploration heading. Subsequent mining depleted the remainder of the shoot even before the exploration program was completed.

A Certification of Discovery or Development was issued, however, because there was believed to remain a possibility of finding small ore bodies by further work undertaken from the Defense Minerals Exploration Administration workings.

Sincerely yours,

Frank E. Johnson

ACTING Administrator

dc: DOCKET
CODE 400
OPER. COMM.
ADM. READ. FILE
FIELD TEAM, REG. 4
CODE 800-Mr.Chambers
CODE 110-Mr.Johnson
Enclosure

cc: J.H.HEDGES,USBM
T.P.THAYER,USGS
R.W.GEEHAN,USBM
T.KIILSGAARD,USGS

JHopkins/ls
9-9-54

R.C.S.

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

September 1, 1954

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 3001 (Tungsten), Contract Idm-E570
Paul H. Bennett, World Mine, Boulder County, Colorado

In compliance with your request in letter of July 14, 1954, and teletype of August 13, 1954, we are enclosing the original and three copies of memorandum from the Chief, Mineral Resources Branch, Mining Division, Region IV, relative to operations at the site of DMEA Contract subsequent to completion of the contract work.

W. H. King

W. H. King

Enclosures

DMEA-3001 E-570

ACTION ON INTERIM
OR FINAL FIELD TEAM REPORT

Date 9-7

Referred to:

1. ~~Mr. Mecuchdorf~~
2. ~~Mr. Gibson~~
3. ~~Mr. Chambers~~
4. ~~Docket Control Mails and Files~~
5. Iron & Ferro Alloy Division
6. Docket Control Mails and Files

Note comments in report regarding:

1. Rush certification if not too late already
2.
3.
4.

and take appropriate action.

- - - - -

Action taken by Division: This information has been obtained after several requests to the F.T. It is required to support a certification that has been in process for 3 or 4 months

ROBERT E. ADAMS

Initials WSM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
August 30, 1954

Mining Division
Date Rec'd
SEP 1 - 1954
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado

On August 26, 1954, I investigated in the field the status of operations at the World mine near Nederland, Colo., formerly operated under the subject contract. This was in compliance with Mr. Selfridge's memorandum of July 14, 1954, to you, transmitted to me by your memorandum of July 26, 1954, and Mr. Martin's teletype, acting for Mr. Selfridge, of August 18, 1954, transmitted to me by your memorandum of the same date.

Briefly, the late history of operations at the World mine are as follows:

Work was suspended under the contract on December 24, 1953, with the exhaustion of funds.

A final engineering report was submitted to you April 8, 1954, recommending certification. This was in turn submitted by you to the Administrator, signifying concurrence. No certification has been made.

Prior to completion of the project on December 3, 1953, the operator requested an amendment to the contract to authorize additional funds in the amount of $35,880.00, involving exploration through adjoining Cross mine, of veins in the World mine at a depth of 200 feet below the present workings. On recommendation of the Region IV Field Team, the request was denied by the Administrator on March 1, 1954.

final report?

With completion of the project, the contractor relinquished his lease and the property reverted to Hetzer Mines, Incorporated.

Subsequently, Elmer Hetzer of Hetzer Mines, Incorporated, gave a verbal lease to three individuals, Walters, Erickson, and M. A. Castagne, all employees of Cold Spring Tungsten, Incorporated. They have worked the mine intermittently during spare time, utilizing their

own equipment since some time early in 1954. The work has resulted in some production, with shipments made to the Hetzer mill. On one shipment of 10.7 tons, Government royalty was paid and another shipment is in process.

On the date of my visit, the 80-foot level of the mine was inaccessible, due to flooding, however, M. A. Castagne described the work completed and in progress, which is shown on the attached sketch map and described as follows:

At A on the 80-foot level, he advanced a branch drift from the northeast drift on the Brandt vein, presumably on a hanging-wall split, 2 rounds or about 8 feet and claims to have a 6-inch quartz vein, carrying 2 inches of ferberite in the breast.

At B he started a drift on the 80-foot level west from the World shaft toward ore he claims is exposed in the floor of a drift driven from the shaft on the 40-foot level. He has driven this drift about 20 feet and claims to have a 2-inch mineralized vein showing in the breast and expects to break into the projected ore body with any round. His first ore shipment was made of ore mined from the margin of a stope above the 40-foot level and from ore mined from the vein described under A.

At C he started a drift southwest from the Brandt shaft on a sublevel 27 feet above the World 80-foot level on the Brandt vein and advanced it 10 feet. Here he claims a showing of ferberite in the vein that is not commercial.

Effective August 20, 1954, Cold Spring Tungsten, Incorporated, acquired Hetzer Mines, Incorporated by the purchase of all outstanding stock, and Castagne was notified by Elmer Hetzer that his verbal lease was canceled, inasmuch as he was an employee of the purchasing corporation.

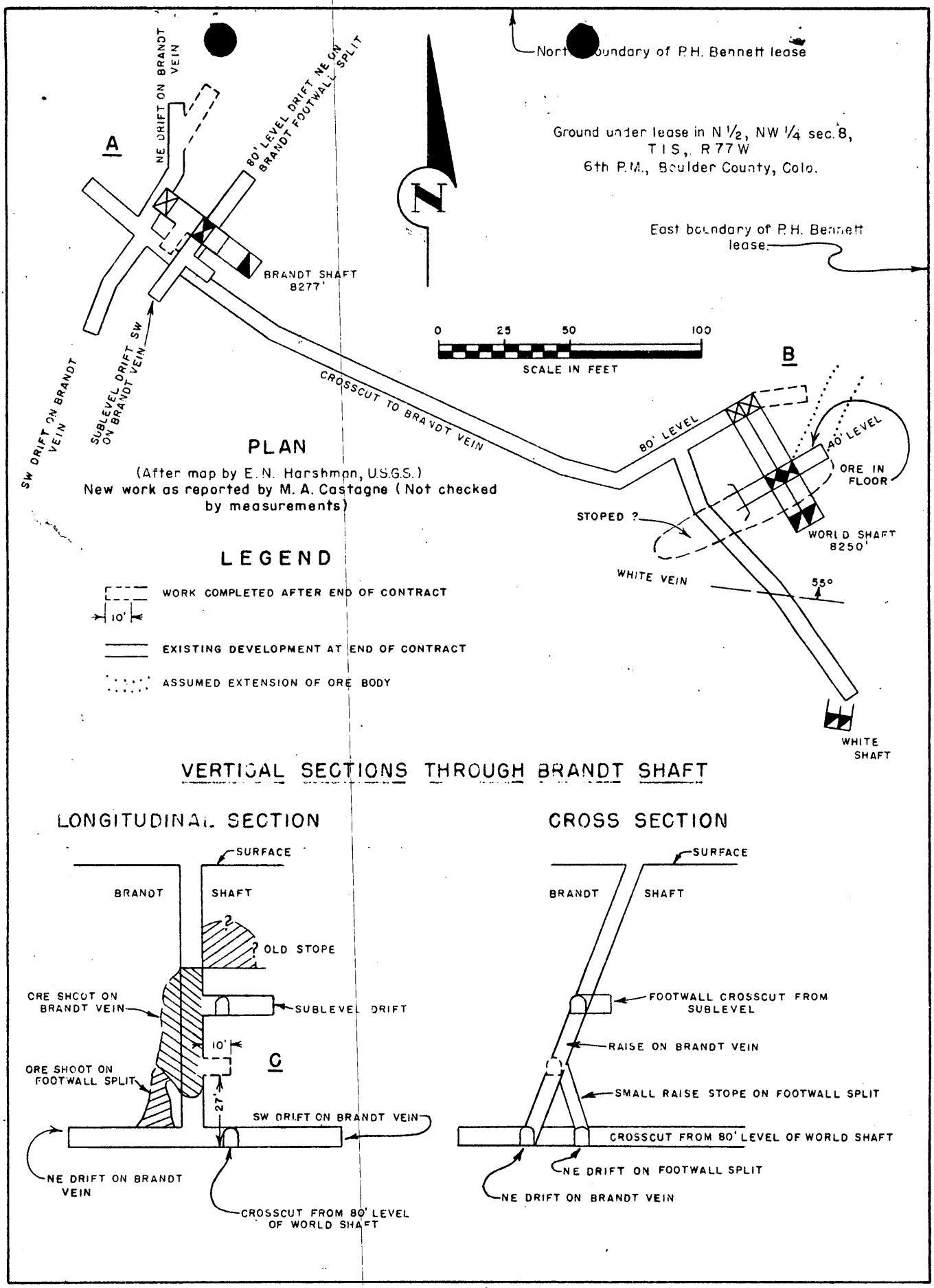
It is Castagne's opinion that because Cold Spring Tungsten, Incorporated was associated with Paul H. Bennett on contract Idm-E570, and are now owners of the World property, that they will no doubt at some future date undertake exploration of the property on company account. As Paul H. Bennett is Production Manager for Cold Spring Tungsten, Incorporated, and M. A. Castagne is Superintendent of Operations at the Cold Spring mine, it is assumed they will have some part, most likely supervisory, in the future work at any company owned property including the World mine and probably will take advantage of both Bennett's and Castagne's knowledge of the property.

It is my opinion that to protect the Government's interest, a Certification of Discovery and Development should be issued as recommended in both of the projects final reports, which were forwarded to the Secretary of the Operating Committee by you on April 14, 1954.

W. M. Traver

W. M. Traver

Enclosure
WMT/ici
cc: 7 E570 Chron.



PLAN AND SECTIONS OF WORLD MINE, SHOWING WORK ACCOMPLISHED SINCE COMPLETION OF CONTRACT, BOULDER COUNTY, COLO.
(DMEA 3001, CONTRACT Idm E570)

400 file

Drilling and mining on the Brandt vein, which cuts schistose or gneissoid granite, resulted in the discovery of a small lense of gold ore which was found rapidly exhausted out by the exploration work.

To date royalty is small to certify.

There are five veins on property. Potential if granted important. Would hold certification as long as possible to see what new leases will do. Sample like royalty sheet dated 4/7/54 is not related incorrectly. Final field from report should mention protected areas included in contract.

Letter GCS 5/18

Docket
3001
See Omen-1651
file copy for
surrender.
(JHB)

AUG 1 8 1954

Mr. A. H. King, Executive Officer
DMEA Field Team, Region IV
Bureau of Mines
924 New Customhouse Building
Denver 2, Colorado

Re: Settlement sheets
Metzer Mines, Inc.

Dear Mr. King:

Reference is made to the Purchase Schedule for Tungsten Ores (Revised December 1, 1953) by Metzer Mines, Inc.

In checking the recent settlement sheets submitted to this Administration, we have been unable in numerous cases to correlate the price per unit used with those set forth in the published schedule. It would be appreciated, therefore, if you would review the following settlement sheets:

Contract No. Idm-[illegible]
Boulder Tungsten Mines, Inc.
Docket No. DMEA 1[illegible]

Lot No.	Unit price used	Published unit price
[illegible]	$25.50	$26.50
[illegible]	$27.00	$2[illegible].50

Contract No. Idm-[illegible]53
Eureka Tungsten Mining Co.
Docket No. DMEA 1[illegible]

[illegible]	$[illegible]	$[illegible]
11[illegible]	$3[illegible]	$32.50
1149	$31.40	$31.50
11[illegible]1/	$1.[illegible]/lb.	$1.[illegible]/lb.

Contract No. Idm-[illegible]
George Jump
Docket No. DMEA 2343

Lot No.	Unit price used	Published unit price
1098	$39.60	$39.[illegible]
1101[1]	$2.[illegible]/lb.	$3.00/lb.
1127[1]	$2.[illegible]/lb.	$3.00/lb.
1155[1]	$2.[illegible]/lb.	$3.00/lb.
1200[1]	$2.[illegible]/lb.	$3.00/lb.

Contract No. Idm-[illegible]
Paul H. Bennett
Docket No. DMEA 3001

1130	$2[illegible]	$30.00

1 - No data on phosphorus penalty if applicable.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (JHB)

cc: Docket DMEA 1[illegible], 1[illegible], 3001 2343
Field Team, Reg. IV
Code 400
Adm. Reading File
OPER. Committee
Code [illegible] - Mr. Chambers

APPROVED:

J. H. Hedges (JHB)
For Bureau of Mines

D. M. Larrabee (JHB)
For Geological Survey

FARutledge/lm
[illegible]-17-[illegible]4

DOCKET
Surname:
Rutledge
Martin
Johnson
McKeudry

AUG 13 1954

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund,
Defense Production Act,
Interior (Allocated Working Fund to
the Office of the Secretary)

TELETYPE

To: W. H. King, DMEA Executive Officer, Region IV
Denver, Colorado

Reourlet July 14, 1954, Paul H. Bennett, Docket DMEA 3001.

If requested inspection not made, please expedite.

W. S. Martin
ACTING Chairman, Operating Committee

Confirmation to FT, Reg. IV

cc: Docket
~~Docket~~
Code 400
Operating Committee
Adm. Read. File
R. W. Geehan, USBM
E. L. Newcomb, USGS

FARutledge/ls
8/13/54

Royalty

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

224 New Customhouse
Denver 2, Colorado

August 2, 1954

WSM

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty-Paul H. Bennett, Docket No. DMEA 3001, Contract No. E570, Colorado

Enclosed is settlement sheet covering ore shipped under Lot No. 1130.

Also enclosed is check in the amount of $35.54 in payment of royalty on this shipment.

Account credited for this royalty payment is Paul H. Bennett, Contract No. E570, Docket No. DMEA 3001.

W. H. King

Enclosures

es

cc: Royalty File E570
Sec. to the Oper. Comm. (2) w/enc. settlement sheet
Traver w/enc. settlement sheet
Chron.

HETZER MINES, INC.

P. O. Box 641
BOULDER, COLORADO

PURCHASER

SETTLEMENT SHEET

No. 2330

Shipped by Morrice Castagna

Address

City, State Nederland, Colorado

Shipped from World Mine

Source from which Vendor obtained same

July 6, 1954
Date of Shipment

July 10, 1954
Date of Sale

ORE SHIPPED	
Gross Weight	21345
Tare	20000
Net Weight	20560
Per Cent Moisture 2	
Lbs. H_2O	411
Net Weight - Dry	20149
Assay	2.60
WO_3 Content	525.97

Phosphorus Penalty		
Schedule Price (Unit)		35.30
Phosphorus	.130	
Less	.07	
Excess Phos.	.060	
Phos. Penalty	.25	
Deduction for Phos.		1.35
Net Unit		27.15
Price per Pound		1.357

The endorsement of the check in payment of the net value shown hereby is acknowledgement by the Seller of the date of sale, residence of Seller, nature and amount of articles sold, source from which Seller obtained same, and the consideration actually paid.

COMPUTATION OF NET VALUE			
WO_3 Content			525.97
Price per Pound			1.357
Gross Value			713.30
DEDUCTIONS			
Hauling	Morrice Castagna	10.28	
Total Deductions			10.28
Net Value			703.02

DISTRIBUTION			
Royalties	10% Hetzer Mines Inc.	117.20	
	5% U. S. Treasurer	58.64	
Total Royalties			147.84
Net to Shipper			
	Morrice Castagna		552.97

400

Docket
Surname

Rutledge
Martin
Selfridge
Hopson
Attendorf

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. King:

Reference is made to the subject contract.

It would be appreciated, when next you have a man in the same area, if we could be advised of the results of any operations at the World Mine since the completion of the work under the referenced contract.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

APPROVED:

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

D. M. Larrabee
Member, Geological Survey (DML)

FARUTLEDGE:FOC
7-12-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. IV
R. W. Geehan, USBM
T. P. Thayer, USGS

R.G.L.

FILE COPY

400

Rutledge
Martin
Chronologic

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. King:

Reference is made to the subject contract. Please instruct the Operator to furnish a final report as set forth in Article 5(b) of the contract, if you have not already given such instructions.

Sincerely yours,

Chairman, Operating Committee

Approved:

Member, Bureau of Mines

Member, Geological Survey

FARutledge/ls 4/19/54

cc: Docket
Code 400
Oper. Committee
FT, Reg. 4
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

IN REPLY REFER TO:

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

May 4, 1954

WSM

Memorandum

To: W. S. Martin

From: P. W. Guild

Subject: Docket DMEA 3001 TUNGSTEN, Contract Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colo.

Certification of discovery resulting from the subject exploration contract is recommended by the Field Team, although the ore discovered has been mined "and no known ore reserves remain". Royalty has been paid on the ore found (and developed) by the exploration.

I cannot see how work done under the DMEA program leaves the mine in any better condition to explore for future reserves than it was before the DMEA phase of exploration commenced, with the possible exception of future work on the White vein. Future exploration on the Brandt vein would presumably begin from headings put in before the DMEA work began. The operator's request for an extensive new program was properly denied, but I cannot see why the property should have a lien for 5 percent of future production left hanging over it to discourage private exploration.

This philosophy may well be contrary to official thinking on the subject, but I think the facts bear some examination.

P. W. Guild

Copy retained 49?

Royalty

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

224 New Customhouse
Denver 2, Colorado

April 15, 1954

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty-Paul H. Bennett, Docket No. 3001, Contract No. E570, Colorado

Enclosed is copy of settlement sheet covering ore shipped under Lot No. 953 to Hetzer Mines, Inc.

Also enclosed is check in the amount of $13.77 in payment of royalty on this shipment.

Please hold this check in the suspense account pending Certification of property.

John F. Shaw
For W. H. King

Enclosures

es

cc: Royalty File
Sec. to the Oper. Comm. (2) w/enc. settlement sheet
Traver w/enc. settlement sheet
Chron.

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 053

Shipped By Maurice Castagna
Vendor

SETTLEMENT SHEET

Boulder, Colorado Residence of Vendor

April 7, 1964
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
3/20	World Mine (Pump Vane)	055	30005	7030	4	971	21974	1.15	265.00	1.167	231.33
	Schedule:		23.60								
	Phos. .087										
	Less .07										
	Excess .017	ea. 15¢	.26								
	Net Unit		23.34								
	Price per lb.		1.167								

DEDUCTIONS		
Royalty	16% Hetzer Mines Inc. U.S. Treasurer	44.05 / 18.77
Sampling & Assaying		
Hauling	Maurice Castagna	23.46
Milling		
Total Deductions		86.29
Net Value		217.37

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

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

Royalty

224 New Customhouse
Denver 2, Colorado

April 15, 1954

Mr. Maurice Castagne
1915-6th Street
Boulder, Colorado

W 59

Re: Royalty Payments, DMEA Docket 3001 (Tungsten) Contract Idm-E570, Paul H. Bennett (world mine) Boulder County, Colorado

Dear Mr. Castagne:

We have received from Hetzer Mines, Inc. settlement sheets for Lot No. 953 and royalty payment in the amount of $13.77 on this shipment of ore from the world mine for repayment of Government loan under DMEA Contract Idm-E570.

According to the enclosed copy of DMEA Order 1-Amended, hauling charges when performed or paid for by the Operator himself are not allowable deductions for the calculation of the net smelter value of the ore upon which the royalty payment is based. Hetzer Mines, Inc. have been notified of the proper method of calculating royalty due the U. S. Government on future shipments.

Correct royalty due on Lot 953 is 5 percent of $286.85 or $14.34, leaving a balance due on this shipment of $0.57.

Please make a check for this amount payable to the Treasurer of the United States and send it to W. H. King, Executive Officer, DMEA, Region IV, Room 224 New Customhouse, Denver 2, Colorado.

Very truly yours,

John F. Shaw

John F. Shaw
For W. H. King
Executive Officer
DMEA Field Team
Region IV

Enclosure

RDB:es
cc: Royalty File #E570
W. M. Traver
T. A. Christensen
Sec. to the Oper. Comm. (2)
Berk
Chron.

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

224 New Customhouse
Denver 2, Colorado

April 14, 1954

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colorado

Enclosed are the following final reports pertaining to work completed under the subject contract:

1. Original and one copy of the operator's final report.

2. Original and three copies of the final geologic report by the U.S. Geological Survey.

3. Original and three copies of the final engineering report by the U.S. Bureau of Mines.

Final payment to the operator was processed by this office April 5, 1954, in conformance with the final report of review by the Contract Administration and Audit Division dated March 10, 1954, which was released to this office March 18, 1954.

The exploration work consisted of 96 feet of crosscutting, 69 feet of drifting, 65 feet of raising, and 20 feet of sublevel drifting at a total accepted cost of $8170.00 in which the Government participated to the extent of 75 percent or an amount of $6127.50.

The exploration work resulted in a discovery or development of a small quantity of high grade ore. The examining engineer and geologist recommend that a certification of discovery or development be issued, in which we concur.

W. H. King

W. H. King

A. H. Koschmann

A. H. Koschmann

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

Encls.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver 2, Colorado

March 19, 1954

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3001, World Mine, Boulder County, Colorado

Attached are 9 copies of the final geologic report by E. N. Harshman covering the above docket.

Exploration under contract Idm-E570 resulted in the discovery of a small shoot of tungsten ore. Legitimate exploration targets still remain and ore potential of the mine is still favorable and was enhanced by this exploration program. Harshman therefore recommends that a certification of discovery be issued.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

WORLD MINE

BOULDER COUNTY, COLORADO

DMEA DOCKET 3001

Final Geologic Report

By E. N. Harshman
U. S. Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

WORLD MINE
BOULDER COUNTY, COLORADO

INTRODUCTION

Paul H. Bennett received a Defense Minerals Exploration Administration loan to explore for tungsten ore (ferberite) in the World mine, Boulder County, Colorado. The property, under lease from Hetzer Mines Incorporated, is located 2 miles northeast of Nederland, Colorado, in the NW¼ section 8, T. 1 S., R. 72 W., 6th Principal Meridian.

The applicant requested a loan of $15,508 to drift 300 feet, crosscut 140 feet, and raise 100 feet on or from the 80-foot level of the World mine. The mine was examined on May 20, 1953, and a reduced program, estimated to cost $8,200, was recommended. Contract Idm-E570 was signed on July 14, 1953; it authorized 20 feet of drift, 130 feet of crosscut and 100 feet of raise and/or sublevel drift.

By two amendments to the contract an additional 69 feet of drifting was allowed in lieu of an equal amount of crosscut and raise. Several of the headings were advanced beyond the contract length at the operator's expense. Work started in July 1953 and was completed on December 24, 1953. A small ore body was discovered on the Brandt vein and 134.5 tons of ore were mined and shipped. Certification of a discovery is therefore recommended.

On December 3, 1953, the operator requested additional funds to explore the Brandt and other veins at a depth of 200 feet below the lowest workings of the World mine. The program, estimated to cost $35,800, included 400 feet of drift, 290 feet of crosscut, and 400 feet of raise. The work was to be accomplished from the 400-foot level of the Cross mine, an adjoining property to the northeast.

The exploration proposed in the requested amendment appeared far more extensive than justified by the ore potential of the area to be explored and denial of the request was recommended. An alternative plan of exploration at greater depths, by a winze from the 80-foot level of the World mine, was discussed with the operator but was unacceptable to him. The requested amendment was denied by C. O. Mittendorf, Administrator, DMEA, in a letter of March 1, 1954.

GEOLOGY AND EXPLORATION

The World mine is in one of the more productive parts of the Boulder County tungsten district. It is midway between the Cross and the Cold Springs mines, both of which have produced considerable ferberite ore. Production of ore from the World mine has been small and ore appears to be confined to limited shoots on relatively weak veins.

The World shaft was sunk on ore to a depth of 40 feet where a strong fault cut off the vein (figure 1). The shaft was continued on the fault to a depth of 80 feet. A drift southwesterly along the fault failed to expose ore and was turned northwesterly to crosscut veins exposed on the surface. The crosscut intersected the "Pump" vein (actually a split from the Pump vein of the Cross mine), the Brandt vein, and a footwall split from the Brandt vein. A short drift southwesterly on the Brandt vein exposed vein material containing a trace of ferberite.

Under contract Idm-E570 the Brandt vein was explored by drifting northeasterly and southwesterly on the 80-foot level, by raising on the vein to the bottom of the old Brandt shaft, and by sublevel drifting near the top of the raise (figure 1). The footwall split of the Brandt vein was explored by a short drift on the 80-foot level (figure 1).

Exploration for the vein reported in the White shaft, possibly the faulted portion of the ferberite vein exposed in the World shaft, was accomplished by a crosscut driven southeasterly from the 80-foot level drift (figure 1).

The Brandt vein on the 80-foot level is a rather weak structure consisting of 3 to 12 inches of silicified vein material containing occasional modular masses of ferberite and some horn quartz. The wall rock is Boulder Creek granite. Near the vein the feldspars have altered to clay minerals and possibly sericite and the biotite has been bleached.

Southwest of the crosscut the Brandt vein weakens and breaks up into several minor fractures containing no ferberite and only minor amounts of quartz. Northeast of the crosscut the vein is well defined and contains minor amounts of ferberite and quartz. Near the northeast face of the drift the vein terminates against or is cut off by a strong northeasterly trending fault (figure 1).

The raise on the Brandt vein is in low grade vein material to a point about 25 feet above the 80-foot level where the footwall split joins the Brandt vein. From the point of junction upward for a distance of 15 or 20 feet, ore is exposed in the raise. High grade ferberite ore as much as 6 inches in width is present in the vein near the junction; width and grade of ore decrease rapidly upward from this point.

The strike length of the ore shoot, as exposed in limited workings from the raise, appears to be about 20 feet although narrow stringers of ore are exposed in both walls of the small stope.

A short sublevel drift near the top of the raise (54 feet above the 80-foot level) follows the Brandt vein southwesterly for a distance of 30 feet. No ore is exposed by this drift.

The footwall split of the Brandt vein is explored on the 80-foot level by a 40-foot drift (figure 1). The vein consists of 2 to 10 inches of silicified granite containing some horn quartz and ferberite. The vein material is very low grade on the level but increases in grade upward toward the junction with the Brandt vein.

Exploration by a 118-foot crosscut southeasterly from the 80-foot level drift failed to expose ore. A strong fault zone striking N. 80° W. and dipping 55° south intersects the crosscut at a point 67 feet southeast of the drift. It consists of 2 feet of clay gouge but contains no hornquartz or ferberite. This structure may represent the downward extension of the vein reported to have been explored in the White shaft.

PRODUCTION AND ORE RESERVES

A small amount of ferberite ore has been produced from stopes above the 40-foot level near the World shaft and from stopes near the surface in the Brandt shaft. The ore was produced by prior operators of the property and production figures are not available.

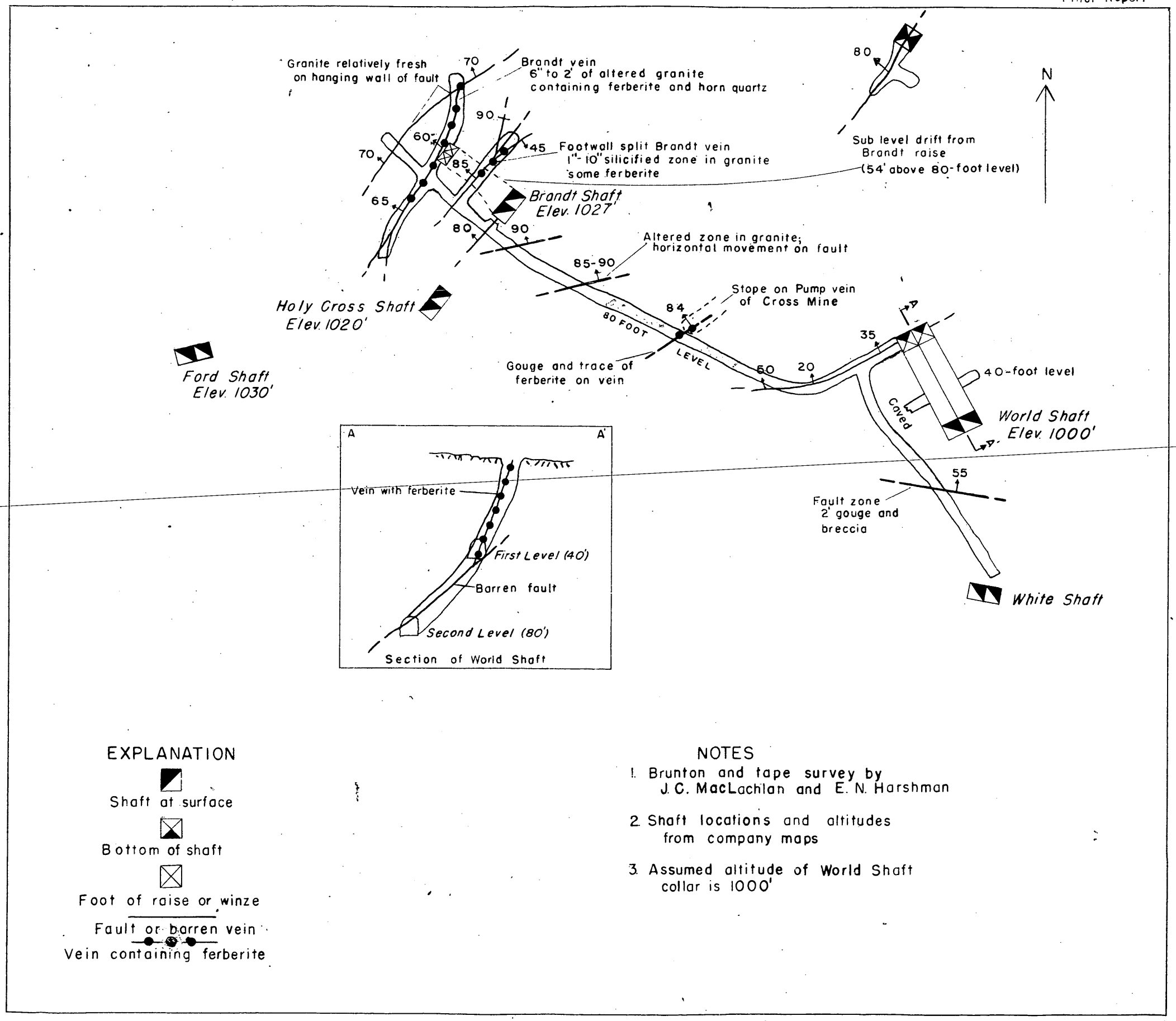
Ore produced during prosecution of Contract Idm-E570 and subsequent mining operations amounts to 134.53 tons with an average WO_3 content of 1.153%. All ore discovered by exploration has been removed and there is no reserve of ore remaining in the mine. Despite this fact there is a potential source of ore at greater depths on the Brandt vein and on the footwall split from it. The footwall split appears to be the southwest extension of the Cross No. 3 vein, from which considerable ore was produced in the Cross mine. The recommendation for denial of the request for additional exploration under Contract Idm-E570 was based on the extensive character of the proposed work rather than an absence of legitimate

exploration targets.

CONCLUSIONS AND RECOMMENDATIONS

Exploration under Contract Idm-E570 resulted in the discovery of a small body of ferberite ore on the Brandt vein in the World mine. This ore has been mined and no known ore reserves remain.

A certification of discovery is believed to be in the best interest of the Government and is recommended. This recommendation is based on the remaining ore potential on the Brandt vein and the footwall split, rather than on the actual ore mined during prosecution of the exploration program.



E. N. Harshman, March 1954

FIGURE 1 - GEOLOGIC MAP OF THE 80-FOOT LEVEL OF THE WORLD MINE, BOULDER COUNTY, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

TITLE 32A—NATIONAL DEFENSE, APPENDIX

Chapter XII—Defense Minerals Exploration Administration, Department of the Interior

DMEA ORDER-1, AMENDMENT NO. 1

DMEA ORDER-1 is amended as follows:

In section 3, in the box listing regional offices and addresses, the P. O. Box Number of the Alaska office is changed to 560.

In section 8, the first period is changed to a semicolon, and the following proviso is added immediately thereafter:

> Provided, That the Administrator may waive any deficiencies in the Operator's interest in the land when he finds such action to be in the best interest of the Government.

In subsection (a) of section 10, immediately preceding the word "including" in the third sentence, the following parenthetical clause is added:

> (unless the contract provides a different period).

In subsection (a) of section 10, immediately following the words "ten years" where they appear the second time in the third sentence, the following parenthetical clause is added:

> (or other period fixed by the contract).

Subsection (d) of section 10 is redesignated subsection (e), and a new subsection (d) is added, as follows:

> (d) The Administrator may, in special cases, fix the term of the Government's percentage royalty and lien at more or less than ten years, when he finds such action to be in the best interest of the Government.

(Sgd) C. O. Mittendorf
Administrator
Defense Minerals Exploration Administration

18FR 2059 4-11-53

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
April 8, 1954

Mining Division
Date Rec'd.
APR 12 1954
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett, (World mine), Boulder County, Colo.

Enclosed are the original and eight copies of a final engineering report by R. L. Bolmer on the above project.

Bolmer concludes that the exploration project was completed in accordance with the terms of the contract and the operator's claim for reimbursement is valid and acceptable. While further exploration with Government assistance is not considered justified, there remains a slight possibility that at a later date additional exploration may be undertaken by the present lessee or his successor. In order to protect the Government's interest, a Certification of Discovery or Development is recommended. The small discovery made was considered insignificant and resulted in a total production of 134.45 tons of upgraded ore with a net value of $3,484.90 which resulted in a royalty return of $172.92, or 2.8 percent of the Government's total expenditure.

I concur with the conclusions and recommendations.

A copy of the operator's final report received April 1, 1954, directly from him and retained in our files for use in preparation of the final engineering report is enclosed herewith.

W. M. Traver

W. M. Traver

enclosure

WMT/kp

cc 8
E570
Chron

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

FINAL ENGINEERING REPORT

DMEA 3001, Exploration Project Contract Idm-E570

World Mine

P. H. Bennett

Boulder County, Colorado

Tungsten

R. L. Bolmer, Mining Engineer
Bureau of Mines

April 2, 1954

Reviewed by
DMEA OPERATING COMMITTEE
4-23-54
(date)

DMEA 3001
Contract Idm-E570

WORLD MINE
P. H. BENNETT
BOULDER COUNTY, COLORADO

CONTENTS

Final Engineering Report	Page
Summary and introduction	1
Location	3
History and production	3
Ownership and extent	4
Description of the deposit	4
Work completed under the contract	6
Expenditures	9
Description of the discovery or development	10
Conclusions and recommendations	13

ILLUSTRATIONS

Figure	Follows Page
1. Location map, World mine, Boulder County, Colo	3
2. Extent of operator's property rights	4
3. Plan and sections of World mine, Boulder County, Colo	5

DMEA 3001
Contract Idm-E570

WORLD MINE
P. H. BENNETT
BOULDER COUNTY, COLORADO

FINAL ENGINEERING REPORT

By

R. L. Bolmer

SUMMARY AND INTRODUCTION

A tungsten exploration program authorized at the World mine, Boulder County, Colo. under Exploration Project Contract Idm-E570 was completed December 24, 1953. The program resulted in the discovery of a single, small tungsten ore shoot which already has been mined and depleted by the operator. The ore recovered from the discovery contained 155 short-ton units of tungsten trioxide and was marketed for a total net value of $3,484.91. The Government royalty on this production was $172.92.

The discovery itself was not considered significant and there are no other known ore reserves on the property. Although continued exploration under the program could not be justified, some favorable areas, which the operator may investigate at a future date, do exist on the property. Because of this possibility, it was considered to the best interests of the Government that the discovery be certified.

The contract, prepared on form MF-200(A) and dated July 14, 1953, was between the Government and P. H. Bennett, an individual,

of 1825 Marine Street, Boulder, Colo. The property rights listed therein--a 1,500- by 600-foot rectangular tract in the N1/2NW1/4 sec. 8, T. 1 S., R. 72 W., sixth principal meridian, Boulder County, Colo.--are owned by Hetzer Mines, Inc. of 250 Pearl Street, Boulder, Colo. The property is leased to the operator until January 17, 1963, and the owner has subordinated its rights to the Government under the terms of the contract.

Work authorized under the contract included a total of 130 feet of crosscutting, drifting, raising, or sublevel drifting on or in the vicinity of the Brandt vein and 120 feet of crosscutting to the White vein. All of the authorized work was to be performed from the lower level of the World mine. The total estimated cost of the project, in which the Government would participate to the extent of 75 percent on the basis of certain agreed costs for units of work actually completed, was $8,200.00.

The operator had completed certain portions of the authorized program before project work officially commenced on July 21, 1953. The crosscut distance to the White vein later proved less than that authorized. In lieu thereof, the contract was amended to permit an equivalent amount of related exploration on the Brandt vein. During the project, the operator performed certain other related exploration at his own expense. The operator's request for an elaborate extension of the program, however, was denied.

Under the program, a total of 69 feet of drifting, 65 feet of raising, and 20 feet of sublevel drifting were completed on the Brandt vein along or above the 80-foot level of the World mine.

In addition, an 80-foot level crosscut was driven to and beyond the White vein. The accepted costs of the project, based on the authorized units of exploration actually completed at the agreed unit prices, totaled $8,170.00. As the operator otherwise had complied with the provisions of the contract, his reimbursement by the Government for 75 percent of the total accepted exploration expenses, or $6,127.50, was considered valid and proper.

LOCATION

The property under lease by the operator is located in the N1/2NW1/4 sec. 8, T. 1 S., R. 72 W., sixth principal meridian, Boulder County, Colo. The workings of the World mine are in the northeast corner of the leased property midway between the larger, more productive Cold Spring and Cross mines. The World mine is about 2 miles, mostly by county roads, northeast of Nederland, Colo. (fig. 1).

HISTORY AND PRODUCTION

The property under lease originally was part of the old Trevarton ranch, an agricultural patent owned for many years by the Wolf Tongue Mining Co., a subsidiary of the Firth Stirling Steel & Carbide Corp. All of the Wolf Tongue properties were purchased by Hetzer Mines, Inc. in 1950. The World property reportedly has been worked by several different lessees since World War I; production records, however, are not available. Lessees of the mine in 1940 are reported to have produced ore valued at $50,000.00 from the World vein above the 40-foot level of the World shaft. Subsequent development of this vein along the World 80-foot level did not encounter ore. Nearby shafts on the Brandt and White veins are reported to have been sunk on ore to

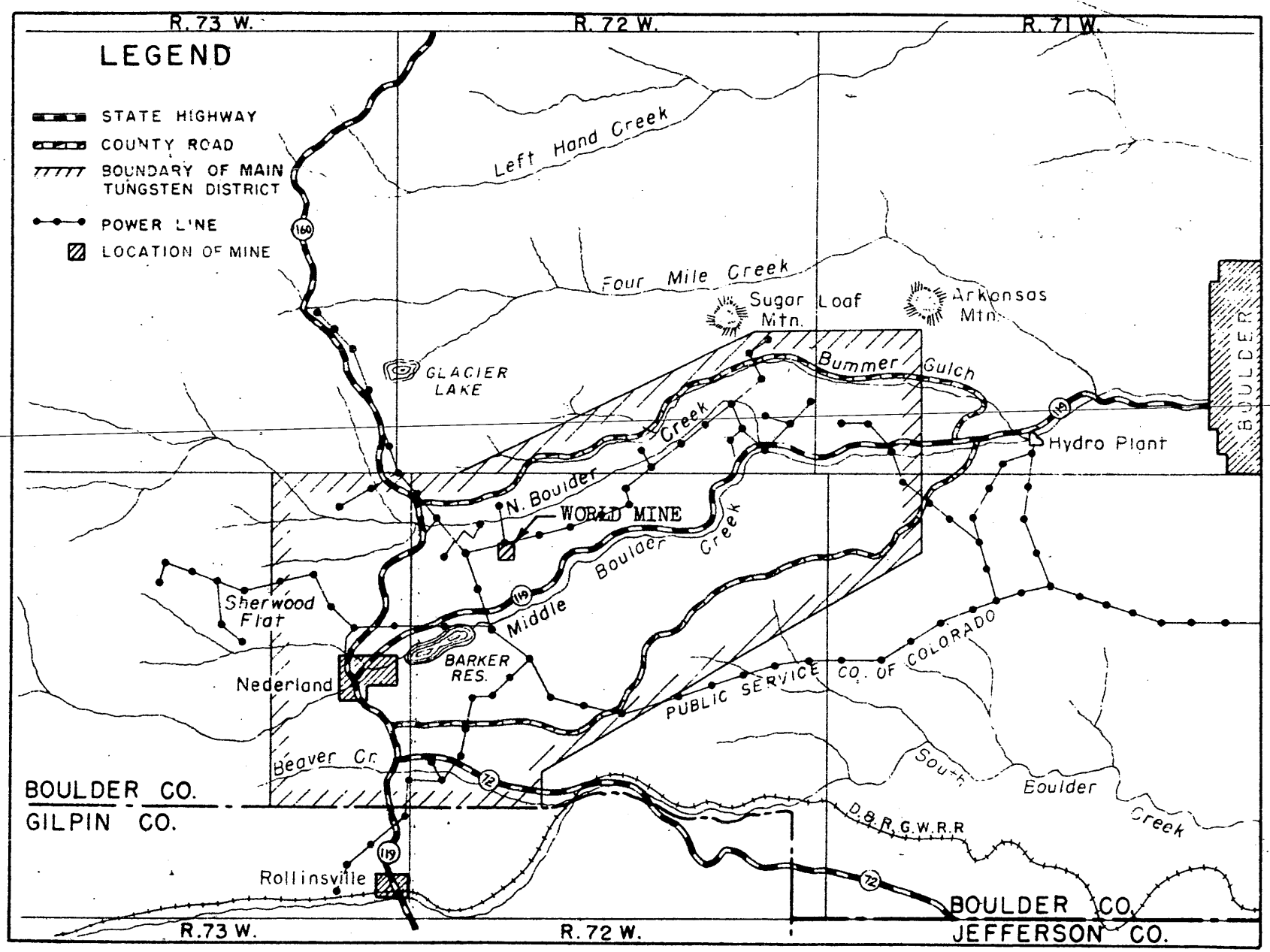


FIGURE 1 - LOCATION MAP, WORLD MINE, BOULDER COUNTY, COLO. DMEA 3001, Contract Idm-570

shallow depths. Some of the branches and splits of the Cross vein, which were quite productive farther northeast in the Cross mine, extend onto the World property. These southwesterly extensions of the Cross vein generally were weak and unproductive in this area. There are many shallow surface excavations on the property, mostly inaccessible, about which little or nothing is known.

OWNERSHIP AND EXTENT

The extent of the property leased to the operator and included under Article 2, Annex No. 1 of the contract is shown on figure 2. The rectangular tract under lease comprises 20.66 acres and includes the underground workings of the World mine. The tract is part of an agricultural patent presently owned by Hetzer Mines, Inc. of 250 Pearl Street, Boulder, Colo. The operator's lease agreement extends to January 17, 1963. Certain parties unnamed in the contract--namely, Cold Spring Tungsten, Inc., operator of the nearby Cold Spring mine, and G. C. Ridland, manager of that operation--hold controlling financial interest in the lease.

DESCRIPTION OF THE DEPOSIT

Several steeply dipping, southwesterly trending fissure veins extend onto the northeast corner of the property. The veins occur in granite and contain from a few to several inches of fine-grained quartz, clay gouge, and brecciated wall rock. Generally, the structures are barren of all other mineral. In localized sections along certain of the veins, ferberite ($FeWO_4$) occurs in association with

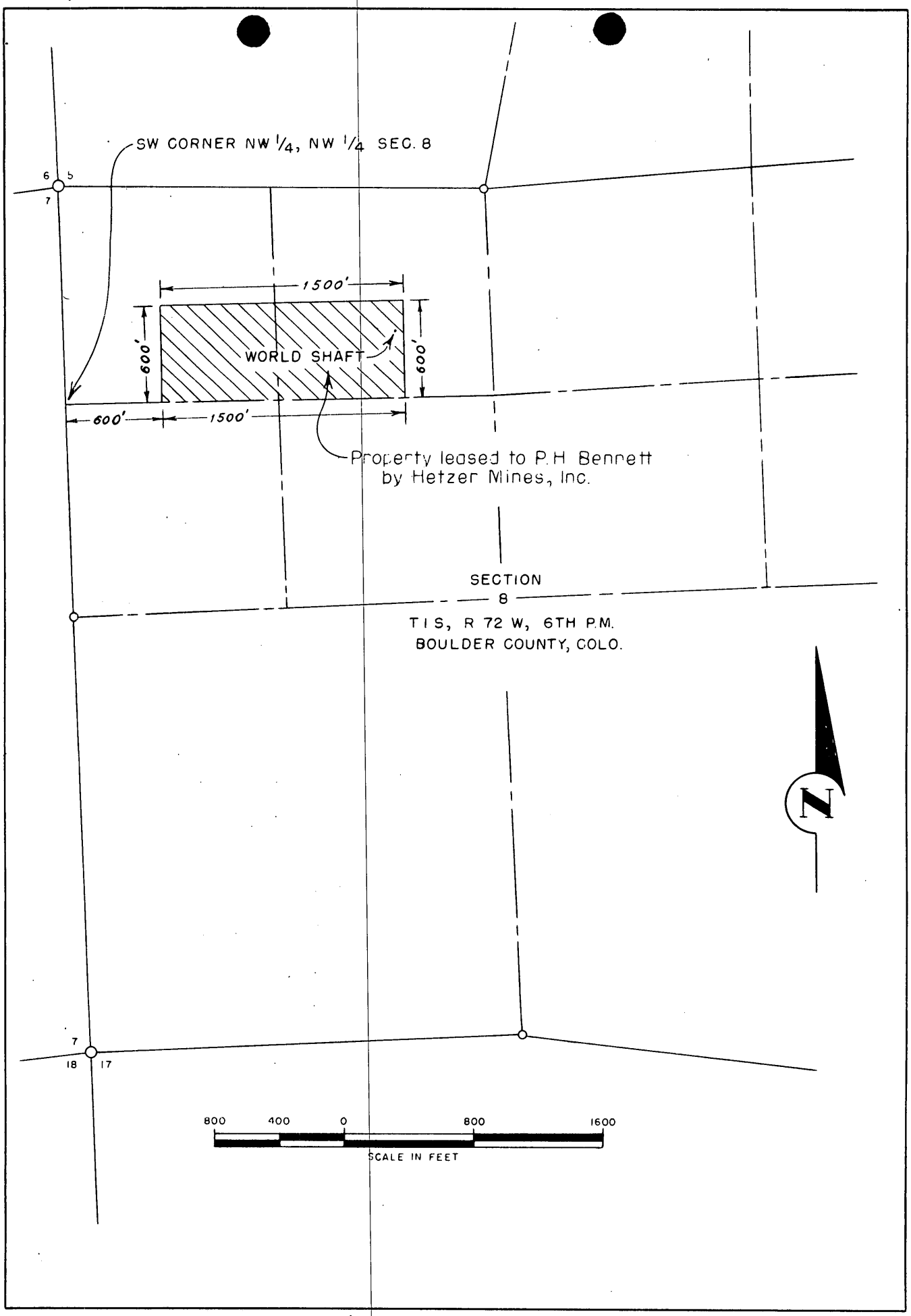


FIGURE 2 - EXTENT OF OPERATOR'S PROPERTY RIGHTS (DMEA 3001, CONTR. Idm E570)

the quartz and forms the fissure or breccia filling. The tungsten mineralization may or may not be of commercial grade over narrow mining widths. The ore shoots mined from the property have been quite limited both in lateral and vertical extent.

The World vein was productive to depths of 40 feet in the World shaft. Below this depth, the shaft followed a flatter, unmineralized structure. This structure remained barren southwesterly along the lower or 80-foot level off the shaft.

The Brandt shaft had been sunk to a shallow depth on the Brandt vein to develop a small ore shoot. Ferberite ore was exposed in the vein at the bottom of the shaft. In order to investigate this showing at greater depth, the operator began a crosscut to the Brandt vein from the existing 80-foot level of the World shaft. The Brandt vein had been intersected and drifted on for a short distance when the property was examined in response to the operator's application for Defense Minerals Exploration Administration assistance. Several other poorly defined intermediate structures had been intersected by the operator's crosscut. The Brandt vein and several of the intermediate structures intersected by the 80-foot level crosscut appear to be the southwesterly continuation of the Cross system of veins. These structures were narrowing, splitting up, and generally weakening even before extending onto the World property.

The nearby White shaft, long since caved and inaccessible, was reported to have been sunk in ore to shallow depths on the White vein. The presently accessible underground development of the property is shown on figure 3.

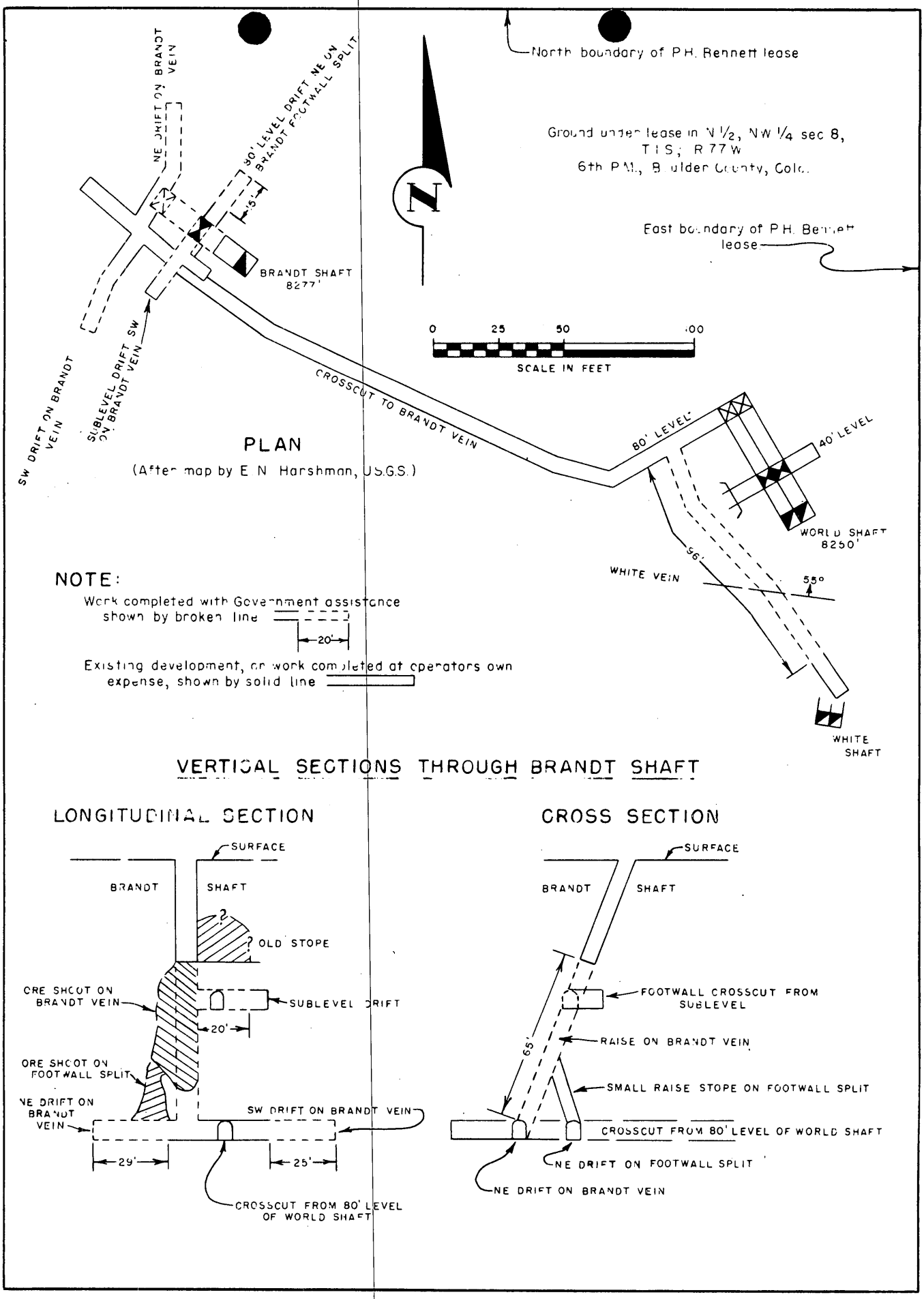


FIGURE 3 - PLAN AND SECTIONS OF WORLD MINE, BOULDER COUNTY, COLO.
(DMEA 3001, CONTRACT Idm E570)

WORK COMPLETED UNDER THE CONTRACT

Project work commenced July 21, 1953, with a crosscut driven southeasterly from the World 80-foot level to intersect the possible downward extension of the White vein ore shoot. The heading intersected a strong fault structure at a distance of 65 feet, which projected reasonably well to the reported location of the White vein in the White shaft. The structure was very wet, some 2 feet in width, and comprised principally of a white clay gouge. It did not contain ferberite. The crosscut was advanced 31 feet beyond the fault but did not encounter other structures. The operator, at his own expense, diamond drilled ahead of the crosscut. He later extended the heading itself an additional 17 feet but did not encounter a vein or other structure of any consequence.

(The exploration completed under the program is indicated on figure 3.)

The remainder of the program was directed toward exploration of the Brandt vein below its known ore occurrence in the Brandt shaft. The operator already had crosscut the vein and drifted a short distance on it. The vein, as then exposed, was weak and contained only an occasional fragment of ferberite. The authorized raising to the bottom of the Brandt shaft was begun from the operator's northeast drift on the Brandt vein. The raise had been advanced on the vein a distance of 65 feet above the back of this drift when connection was made with the bottom of the old shaft. The raise encountered commercial-grade ferberite beginning some 18 feet above the 80-foot

level and continued in ore to the bottom of the shaft. The best ore on the vein, 6 to 8 inches of high-grade ferberite, occurred 25 to 30 feet above the level in the vicinity of its junction with a nearly vertical footwall vein. The ore in the raise gradually decreased in width above this junction. The footwall split of the Brandt vein was mineralized where it left the raise and could be projected to a narrow structure containing traces of mineral then exposed in the operator's 80-foot level crosscut.

The contract provided that any raising footage less than the 100 feet authorized to connect with the Brandt shaft could be utilized for sublevel drifting from the raise. The operator requested and was granted authority to apply 20 feet of the unexpended distance on sublevel drifting from the raise and the remaining 15 feet in exploration of the Brandt footwall split along the 80-foot level.

The authorized sublevel drift, begun at a point in the raise 54 feet above the World 80-foot level, was advanced 27 feet southwest from the raise. Along the sublevel, the vein was narrow and barren. A 10-foot crosscut driven southeasterly from the sublevel did not encounter a parallel footwall structure. The crosscut and the advance of the sublevel beyond the authorized 20 feet was at the operator's own expense.

An 80-foot level drift northeasterly on the Brandt footwall split, which the operator had started earlier at his own expense, was extended an additional 15 feet under the contract. At this elevation, the footwall vein was very narrow but contained a streak of high-grade ferberite up to an inch in width. The operator

subsequently drove a raise stope from this drift to the junction of the Brandt vein which extracted all of the commercial-grade mineral above the level. The mineral on the split widened somewhat as its junction with the Brandt vein was approached.

A total of 54 feet of crosscutting, which had been authorized under the contract, was not completed, either because conditions encountered as the project progressed had not warranted its completion or because the work already had been performed by the operator, at his own expense. A request was made and authority was granted to extend by an equivalent footage the 80-foot level drifts on the Brandt vein. The drift southwest of the crosscut was advanced 25 feet and the drift northeast, 29 feet under the contract. To the southwest, the Brandt vein weakened and split up into several minor and barren fractures. Towards the northeast, the vein was stronger and contained spotty ferberite mineralization. Near the breast of this drift, the vein terminated against or was cut off by a fault.

Authorized contract work was completed December 24, 1953, and the project placed on a standby basis until the operator's request for additional funds to continue exploration of the property could be acted upon. The operator requested an increase of $35,880.00 in the contract amount in order to explore the Brandt and several other veins at depths of some 200 feet below the World 80-foot level by means of access from the lower levels of the adjoining Cross mine. While certain additional exploration may have been warranted, the operator's elaborate proposal could not be justified and the request was denied.

EXPENDITURES

The total estimated cost of the program, in which the Government would participate 75 percent on the basis of certain agreed costs for units of work actually completed, was $8,200.00. The agreed unit cost for drifting and crosscutting was $32.00 per foot; of raising and sublevel drifting, $34.00 per foot.

The total authorized units of exploration actually completed and accepted under the program, for which the operator requested reimbursement of his expenses on the basis of the agreed unit prices, are summarized below.

Authorized work performed under exploration project	Units completed	Agreed unit cost	Total accepted costs
Drifting:			
80-foot level drift SW on Brandt vein	25 feet		
80-foot level drift NE on Brandt vein	29 feet		
80-foot level drift NE on footwall vein	15 feet		
	69 feet	$32.00	$2,208.00
Crosscutting:			
80-foot level crosscut to White vein	96 feet	$32.00	$3,072.00
Raising:			
Raise on Brandt vein from 80-foot level to bottom of Brandt shaft	65 feet	$34.00	$2,210.00
Sublevel drifting:			
Sublevel drift on Brandt vein SW from raise	20 feet	$34.00	$ 680.00
Total accepted costs of project:			$8,170.00

The actual completion of the total units of exploration reported by the operator, in the manner specified in the contract or amendments thereto, has been verified by engineering inspection. The unit prices,

at which the authorized and completed exploration has been reported by the operator, conform with those agreed to in the contract. It appears that the operator otherwise has met the terms of the contract agreement and that Government participation of $6,127.50, or 75 percent, in the reported and accepted costs of the project is valid and proper. The amount is certified in a Report of Review by the Contract Administration and Audit Division, Region IV, dated March 10, 1954.

Thirty dollars of the total estimated cost of the project ($22.50 of the Government's total estimated participation) was not expended due to the authorized substitution of 15 feet of drifting at $32.00 per foot for an equivalent footage of raising at $34.00 per foot. To date, the operator has been reimbursed for $5,767.50, or 75 percent of the accepted expenses of that portion of the program actually completed through November 1953. Payment of the Government's share of the cost of approved work completed during December 1953, or $360.00, has been withheld pending official termination of the project.

DESCRIPTION OF THE DISCOVERY OR DEVELOPMENT

The small tungsten ore shoot discovered as a result of project work occurred on the Brandt vein between the bottom of the old Brandt shaft and the 80-foot level of the World mine (fig. 3). The Brandt vein splits into foot and hanging wall structures some 40 feet below the bottom of the shaft. The project raise began on the hanging wall vein and first encountered ore 18 feet above the

80-foot level. The ore was widest at its junction with the footwall vein. The ore on the composite vein above the junction gradually diminished in width toward the bottom of the shaft.

The footwall split contained a narrow streak of ferberite which also was widest at the junction and narrowed toward the 80-foot level. The level drift was extended northeast through the mineralized section of this vein; the mineralized section along the vein, however, was reported as continuing below the level.

Laterally, the ore shoot was very limited. Most of the ore had been extracted by the exploration headings. Subsequent mining had depleted the remainder of the shoot even before the exploration program was completed. The maximum lateral extent of the shoot, including the width of the raise, was only 15 to 18 feet. One sample of the vein taken in the raise 15 feet below the bottom of the old shaft, assayed 6.1 percent WO_3 over a mineralized width of 3 inches.

The crude ore recovered from the exploration headings and from subsequent mining operations was screened and sorted to some extent. The upgraded product was sold to Hetzer Mines, Inc., who operate a custom mill at Nederland, Colo. The total production resulting from the discovery is summarized as follows:

Date	Lot No.	Net dry weight (short tons)	WO_3 content (short-ton units)	Net value	Royalty (received)
9/14/53	664	10.48	8.28	$ 138.73	$ 6.94
9/17/53	672	5.09	4.99	91.47	4.57
9/24/53	692	5.91	3.84	38.41	0.58
9/25/53	694	6.28	6.72	129.31	6.47
9/28/53	701	10.07	15.10	361.06	18.05
9/30/53	704	12.21	14.65	316.94	15.85
10/26/53	754	6.87	5.70	94.91	4.75
10/28/53	756	7.97	17.54	453.74	22.69
11/5/53	776	20.55	13.15	216.86	10.84
11/7/53	782	27.37	28.73	630.57	31.53
11/11/53	787	0.62	13.62	528.38	26.42
11/24/53	804	7.55	10.57	234.74	11.74
12/17/53	835	13.48	12.13	249.79	12.49
Total		134.45	155.02	$3,484.91	$172.92

The actual tonnage and grade of crude ore produced from the discovery is unknown. All of the tungsten recoverable from the discovery shoot, however, is represented in the 134.45 short tons of upgraded ore which were marketed. The upgraded product contained 155.02 short-ton units of WO_3 which were marketed for an average gross price of $24.16 per unit. Total gross value of the production was $3,744.53. The net value of the production, upon which the Government royalty was computed, represents the gross value less certain charges deducted by the purchaser. Mostly, the deductions represent charges for trucking the ore to the mill, which were paid at the point of delivery by the purchaser.

The royalty paid the Government on lot 776 was computed at 5 percent of its net value. Actually, the net value on this lot per short dry ton is only $10.55, and per Article 6 of the contract, the royalty due the Government is 4 percent of the total net value, or

only $8.67. The resulting overpayment is $2.17. The total royalties received represent a return of 2.8 percent on the Government's total expenditure in this project.

The single tungsten ore shoot discovered under the program is not in itself considered significant. It has been depleted and the property contains no other known reserves. The Brandt vein, especially its footwall split, to moderate depths below the World 80-foot level and the White vein laterally along the 80-foot level are considered the most favorable exploration targets remaining on the property. There is a possibility that Cold Spring Tungsten, Inc., who with G. C. Ridland have financial control of the lease, may explore these and other sections of the property.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the exploration program at the World property was carried out and completed in the manner specified by the contract and that Government participation in the total accepted expense of the project, based on the units of work actually completed at the agreed unit price, is valid and proper.

The ore discovery resulting from the program is considered insignificant and has been depleted. Further exploration of the property with Government assistance is not recommended. Areas favorable for continued exploration by the operator yet exist, and there is a possibility that some additional exploration will be attempted by the present lessee or his successor. Such additional exploration could result in the discovery of new reserves and thereby enable the

Government to regain a higher percentage of return on its expenditure in the property. It, therefore, is considered in the best interests of the Government that a Certification of Discovery or Development be issued for the project.

fkp

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Date Rec'd
APR 2 1954
BUREAU OF MINES
Denver, Colorado

Region IV

Building 20, Room 237
Denver Federal Center
Denver 14, Colorado
April 1, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten) Paul H. Bennett (World mine), Boulder County, Colorado

Enclosed are the original and three copies of the operator's final report on the subject contract. One copy of the report is being retained for use in preparation of our final report.

W. M. Traver

enclosure

cc w/orig.
E570
Chron

OPEN
FILE

DIST. ENGR.
EXAMINATION
DIST. CLERK
PERSONNEL
FILES

Mineral Resources Branch
Date Rec'd
APR 1 1954
BUREAU OF MINES
Denver, Colorado

March 31, 1954

Defense Minerals Administration
Denver, Colorado

and

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - E570

Final Narrative Report

World Mine Exploration

Following signing of the above contract we began work on July 21, 1953 by repairing mine machinery and starting work on the Southwest Crosscut (Item D). This was driven 96 feet. A large vein at 65 feet proved to be the one we had been looking for, but since it had no ore we stopped work on the crosscut and started the raise to the Brandt Shaft. This was made two-compartment and equipped with chute and ladder-ways. At 18 feet above track level we encountered ferberite in the vein about one foot wide. We saved the ore produced in this raise and it ran from .65 to 1.20 WO_3 which indicated a good ore shoot if it proved to extend laterally as expected.

We also drifted 25 feet Southwest on the Brandt Vein but found nothing of interest.

As soon as the raise was connected with the old shaft we enlarged the raise taking ore from both ends as indicated on the map. We found that there was only a long narrow "neck" of ore, and that the raise had taken most of it. Maximum width of ore proved to be 18 feet.

We drive the Brandt Vein Northeast 29 feet and found spots of ferberite, but nothing of a commercial nature. It was decided to use the remaining part of our drifting under the raise (section C-D) where a split appeared in the Brandt Vein. This drift showed a little ore, and was raised to connect with the Brandt Raise. A sub-level drift and crosscut under the old stope failed to show that the surface ore body extended downward.

An amendment was requested to explore this area at greater depth through the Cross No. 1 Shaft, but this was rejected and the project was abandoned. As of this date the machinery has been removed and the lease surrendered to Hetzer Mines, Inc., the owners. The last work was done on December 24, 1953.

Following is a tabulation of all shipments made from the mine:

Date 1953	Net Weight	WO_3	Gross Value	Royalty to U. S. Treasury *
9-14	20,966	0.79	$170.60	$6.94
9-17	10,190	0.98	114.84	4.57
9-24	11,823	0.65	63.02	1.92
9-25	12,553	1.07	154.47	6.47
9-28	20,130	1.50	377.44	18.05
9-30	24,421	1.20	337.01	15.85
10-26	13,738	0.83	117.45	3.41
10-28	15,942	2.20	473.47	22.69
11-5	41,102	0.64	239.38	10.84
11-7	54,730	1.05	660.87	31.53
11-11	1,238	22.00	528.38	26.42
11-24	15,106	1.40	243.20	11.74
11-17	26,952	0.90	264.40	12.49
	268,891		$3,744.53	$172.92

* After sampling, assay and hauling charges.

The writer still thinks that deeper exploration would be a good gamble in this area, but the zones found in our exploration were so "broken up" that no continuous ore could be found.

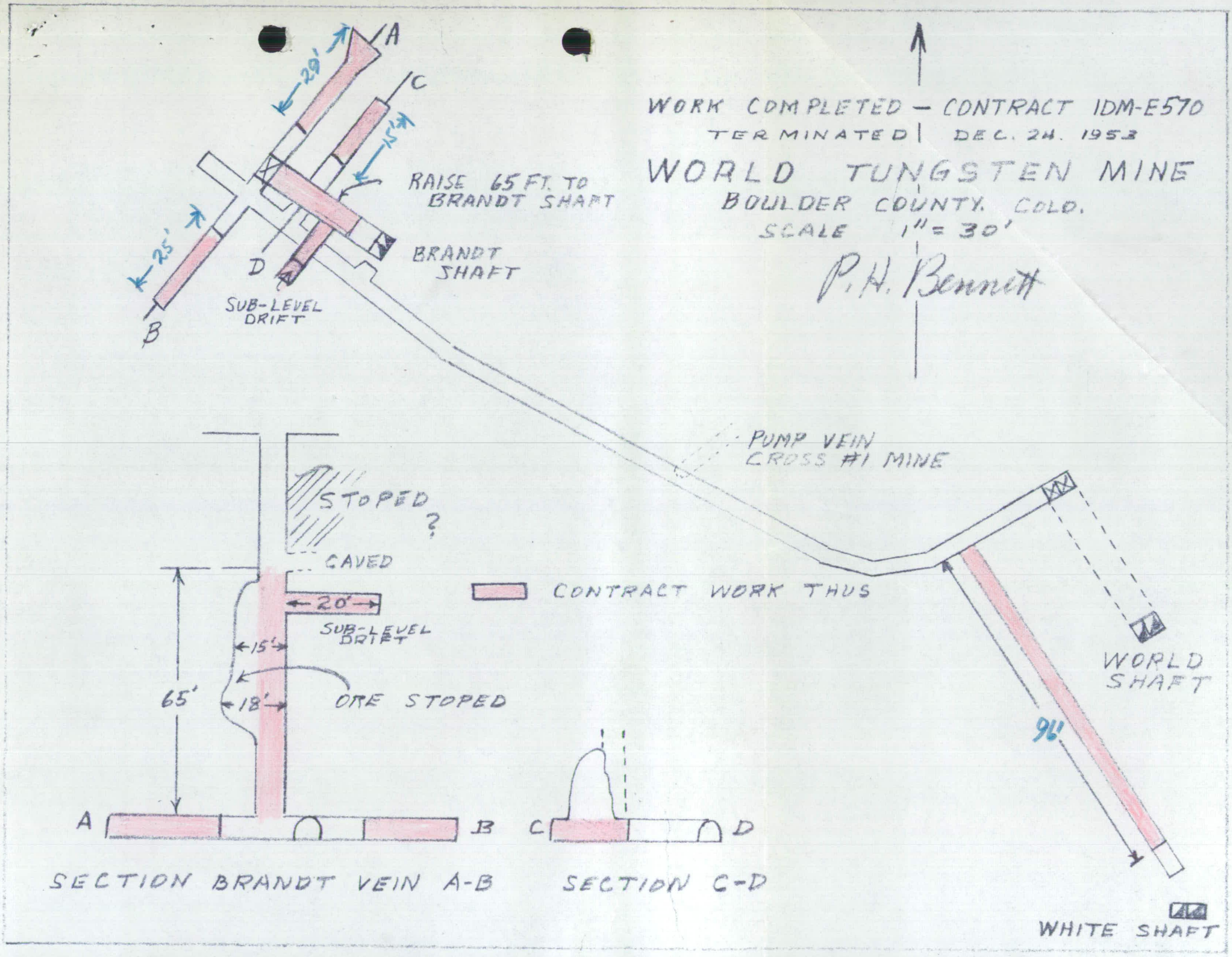
In conclusion, I want to express my sincerest appreciation for the cooperation we received, not only from the field engineers and geologists, but from the Regional and Area offices as well.

Very truly yours,

Paul H. Bennett

Paul H. Bennett

PHB:bh


WORK COMPLETED — CONTRACT IDM-E570
TERMINATED DEC. 24. 1953
WORLD TUNGSTEN MINE
BOULDER COUNTY. COLO.
SCALE 1" = 30'
P. H. Bennett
A
B
C
D
29'
15'
25'
RAISE 65 FT. TO BRANDT SHAFT
BRANDT SHAFT
SUB-LEVEL DRIFT
PUMP VEIN CROSS #1 MINE
STOPED ?
CAVED
20'
SUB-LEVEL DRIFT
15'
18'
65'
ORE STOPED
CONTRACT WORK THUS
WORLD SHAFT
96'
WHITE SHAFT
SECTION BRANDT VEIN A-B
SECTION C-D

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3001 - Tungsten
Paul M. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. King:

Reference is made to the subject contract. Please instruct the Operator to furnish a final report as set forth in Article 5(b) of the contract, if you have not already given such instructions.

Sincerely yours,

Chairman, Operating Committee

Approved:

Member, Bureau of Mines

Member, Geological Survey

FARutledge/ls 4/19/54

cc: Docket
Code 400
Oper. Committee
FT, Reg. 4
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

DOCKET

SURNAME:
Rutledge
Martin
Huhon

MAR 1 1954

Rutledge
Martin
Guild
Hedges
Selfridge
Hyman

Mr. Paul H. Bennett
1825 Maine Street
Boulder, Colorado

Re: Docket No. DMEA 3001 - Tungsten
World mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. Bennett:

Reference is made to your request by letter dated December 3, 1953, to the Executive Officer, DMEA Field Team, Region IV, for an amendment to the referenced contract to allow additional exploration at the subject property.

Careful study of the work suggested in your above-mentioned letter and review of all our information indicate to us that Government participation in your proposed program is not justified. Under these circumstances, we regret to advise you that your request for additional exploration under the subject contract is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

cc: DOCKET
ADM. READ. FILE
CODE 400
FT, REG. IV
R. W. GEEHAN, USBM
T. P. THAYER, USGS
OPER. COMM.

FARutledge/GCSelfridge/ls
2/26/54

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

Mr. Paul H. Bennett
1825 Maine Street
Boulder, Colorado

Re: Docket No. DMEA 3001 - Tungsten
World mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. Bennett:

Reference is made to your request by letter dated December 3, 1953, to the Executive Officer, DMEA Field Team, Region IV, for an amendment to the referenced contract to allow additional exploration at the subject property.

Careful study of the work suggested in your above-mentioned letter and review of all our information indicate to us that ~~the probability of disclosing minable ore reserves by the program you propose is not sufficiently promising to justify Government participation~~. Under these circumstances, we regret to advise you that your request for additional exploration under the subject contract is denied.

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

Sincerely yours,

Administrator

The Govt participation ~~is not justified in participating~~ in your proposed program is not justified.

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

Mr. Paul H. Bennett
1825 Maine Street
Boulder, Colorado

Re: Docket No. DMEA 3001 - Tungsten
World mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. Bennett:

Reference is made to your ~~Your~~ request by letter dated December 3, 1953, to the Executive Officer, DMEA Field Team, Region IV, for an amendment to the referenced contract to allow additional exploration ~~and other data available to us in Washington con-cerning~~ at the subject 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 the work suggested in your above letter, and review of all our information indicates to us that the probability of disclosing minable ore reserves by the program your proposed ~~program~~ is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your request for additional exploration under the subject contract is denied.

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

Sincerely yours,

Administrator

Ex Copy

Rewritten

DOCKET
Surname:
Rutledge
Martin
Fulton
Guild
Hedges
Selfridge
Fleming

Interior Department

Defense Minerals Exploration
Administration
14X3923.970 9-
Working Fund - DMEA

TELETYPE

February
26, 1954

To: W. H. King, Executive Officer, DMEA Region IV, Denver, Colorado

Reurtt February 23, Docket 3001, Contract Idm-2570, Paul H. Bennett. Denial being mailed.

George C. Selfridge
G. C. Selfridge (246)
Chairman, Operating Committee

WSMartin/ls
2/24/54

cc: DOCKET
FT, REG. IV _ CONFIRMATION
CODE 400
OPER. COMM.
ADM. READ. FILE
AUDITS DIVN., BUR. MINES
R. W. GEEHAN, USBM
T. P. THAYER, USGS

RCG 2-26-54

DOCKET
Surname:
Rutledge
Martin
Gehan

February 25, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for added exploration in the amount of $35,880.00
Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

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

(1) The applicant proposed to explore for the downward continuation of the Brandt vein 200 feet below the present lowest working (the 80-foot level of the World Mine) by extending the 400-foot level of the Cross Mine. The proposed program includes 400 feet of drift, 290 feet of crosscut, and 400 feet of raise at an estimated cost of $35,800.00.

(2) Exploration under the present contract, Idm-E570, consists of 89 feet of drift and 65 feet of raise exploring the Brandt vein and a footwall split from it, and 96 feet of crosscut exploring for the downward extension of the White vein. The exploration of the Brandt vein on and above the World 80-foot level has not resulted in the discovery of appreciable ore reserves. Only one minor ore shoot was encountered from which the production was 134 tons of upgraded ore averaging 1.15 percent WO_3.

(3) The narrow Brandt vein splits some 20 feet above the World 80-foot level. Below the split it exists as weaker foot and hanging wall structures. The small ore shoot occurred on the composite vein at and above the split. The hanging wall structure continued weak and barren of ore down to the 80-foot level. The weaker footwall split contained only a fraction of an inch of mineral down to the level. Neither structure is considered strong enough along the 80-foot level to warrant an elaborate program for their deeper exploration.

(4) The Field Team suggested to the applicant that his program was too extensive and offered a more modest project consisting of winzing on the Brandt vein from the 80-foot level of the World Mine for his consideration. Mr. Bennett was not interested in a program of this magnitude.

(5) The examining field team recommends denial of the subject request.

(6) The Field Team concurs.

(7) The Commodity Division of the Geological Survey recommends denial.

(8) The Commodity Division of the Bureau of Mines concurs in the denial.

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

FARutledge/ls
2/25/54

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

Mr. C. O. Mittendorf
Feb. 23, 1954
3:35 P.M.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 24 1954

BUR MINES DN 235 2-23-54 1-33 PM

C O MITTENDORF

REFERENCE DOCKET 3001, CONTRACT IDM-E-570, PAUL H. BENNETT. PLEASE TELETYPE ADVICE AS TO STATUS OF MATTER FORWARDED BY OUR MEMORANDUM OF JANURXXXX JANUARY 28,1954.

JOHN F SHAW FOR W H KING

Denver Colo

FEB 24 8 29 AM '54

BUREAU OF MINES
MAIL ROOM
WASHINGTON D C.

IN REPLY REFER TO:

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 19 1954

February 19, 1954

Memorandum

To: W.S. Martin, DMEA

From: P.W. Guild, USGS

Subject: DMEA Docket 3001 (tungsten), Contract Idm-E570

The operator requests an amendment to contract authorizing new exploration. The original work cost the Government $6,127.50, resulted in finding 134 tons of upgraded ore averaging 1.15% WO_3. Royalty paid was only $172.92. New request is for work totaling $35,880, of which the Government's share would be $26,930 (75%).

Harshman (GS), in report dated 1-15-54, recommends denial; and Bolmer (B M), 1-19-54, states that "the operator's proposal is not the most direct, most economic, nor most feasible method of exploring the Brandt vein with greater depth." Both recommended a more modest program to the operator, but the operator was not interested.

I concur in the recommendation of denial.

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

224 New Customhouse
Denver 2, Colorado

January 28, 1954

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket DMEA 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colorado

Enclosed are the original and three copies of the following material relative to authorization of additional work and allocation of additional funds under the subject contract:

1. Letter from the operator dated December 3, 1953 with attached map wherein the operator requests additional Government assistance under Contract Idm-E570 to conduct exploration work through the No. 1 shaft of the Cross mine in lieu of sinking from the World mine workings, at a total estimated cost of $35,380.00.

2. Memorandum report dated January 15, 1954 from E.N. Harshman, Geologist, U.S. Geological Survey, relative to the operator's request.

3. Memorandum report dated January 19, 1954 from R.L. Bolmer, Mining Engineer, U.S. Bureau of Mines, and transmittal thereof from the Chief, Mineral Resources Branch, Mining Division, Region IV, dated January 25, 1954 relative to the operator's request.

The examining engineer and geologist deem that the additional exploration assistance requested would not result in a discovery of a significant quantity of tungsten ore and recommend that the operator's request be denied. We concur in the recommendations of the examining engineer and geologist and recommend that the applicant be advised of the Government's denial of his request.

Inasmuch as the increased estimated costs of the project exceed that of authority delegated to this office for processing we are forwarding the matter for your consideration and appropriate action.

W H King
W. H. King

Enclosures

January 15, 1954

Memorandum

To: A. H. Koschmann AHK

From: E. M. Hershman

Subject: DMEA Docket 3001 (tungsten), Contract Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colorado

By letter of December 3, 1953, Paul H. Bennett requested additional funds and an amendment to Contract Idm-E570 to permit exploration of the Brandt and other veins at a depth of 200 feet below the lowest (80 foot) level of the World mine.

The proposed exploration program involves an extension of the 400-foot level of the Cross mine to a point beneath the 80-foot level of the World mine. The program includes 400 feet of drift, 290 feet of crosscut, and 400 feet of raise at an estimated cost of $35,880.00.

It is concluded that the requested amendment is not justified by the ore potential of the veins to be explored and denial of the request is recommended.

Exploration under contract Idm-E570 consists of 89 feet of drift and 65 feet of raise exploring the Brandt vein and a footwall split from it, and 96 feet of crosscut exploring for the downward extension of the White vein.

Ore is exposed on the Brandt vein at and above the point where a footwall split joins the vein but below the split only occasional nodules or narrow stringers of ferberite and horn-quartz are found. Although the program proposed under the requested amendment may have some exploratory value of a blind nature, it is poorly conceived and far more costly than warranted by the ore potential of the veins to be explored. A disproportionately large

part of the program consists of crosscutting and raising and must be considered as having little or no exploration value.

The footwall split of the Brandt vein in the World mine appears to be the Cross No. 3 vein of the Cross mine and limited exploration at drifts somewhat below the 80-foot level of the World mine may be justified. A plan of exploration by winzing on the vein from the 80-foot level of the World mine was discussed with the applicant but was not acceptable to him.

The program proposed by the applicant appears far more extensive than justified by the limited ore discovery made under the present contract, and denial of the requested amendment is recommended.

PAUL H. BENNETT

1825 Marine Street
Boulder, Colorado

December 3, 1953

Mining Division
Date Rec'd.
DEC 4 - 1953
BUREAU OF MINES
Denver, Colorado

Mr. W. H. King, Executive Officer
Field Team, Region IV
Defense Minerals Exploration Administration
224 New Customhouse
Denver, Colorado

Re: World Mine DMEA-3001
Contract No. Idm-E570 (Tungsten)

Dear Mr. King:

Work has been completed on the above contract, and we have found ore in one of the zones under exploration. The upward extension of the Brandt Vein from the World tunnel level shows mineable ore in several places. Some of this ore is "high grade" up to eight inches in width, and has proven to be an exceptionally good grade of milling ore, according to Hetzer Mines, Inc. to whom we have been shipping steadily. It is impossible to determine the extent of these ore bodies with the work presently accomplished, but in the writer's opinion, it definitely extends downward.

In ordinary practice we would sink a winze to explore the ore at greater depth, but the same zones can be reached with considerably less expenditure of time and money by shifting our operations to the Cross Mine #1 Shaft which is adjacent. This shaft is 200 feet deeper than our present working level, and is equipped with hoist, pump, etc., and is presently open for inspection. We have negotiated with Thomas Linder and Hetzer Mines, Inc., and have been successful in securing an easement to use this shaft for further exploration and mining. Two copies of this easement are attached for your examination.

This plan for drifting to the Southwest from the 400 foot level of the Cross Mine will explore the World Mine at an additional depth of 200 feet, and in addition will explore two of the Cross Veins which were productive in the upper levels of the Cross. All work contemplated is within the boundaries of the original lease from Hetzer Mines, Inc. to P. H. Bennett, which was a part of our original exploration contract.

Another reason for believing that our present ore extends downward, is that the larger stopes of the Cross Mine and the Cold Spring Mine were 200 to 500 feet from surface, and since the World Mine is directly between these two, it is a reasonable assumption that the ore will be deposited in similar horizons.

You will note from the attached map of the two mines that we want to crosscut from the present Cross drift to cut parallel veins on which we plan to drift SW to points under the World Workings. These drifts are both on veins which were productive in upper levels, and lead almost directly under the places where ore was found in the World.

Details of our contemplated program are as follows:

(A)	Crosscut NW to Cross #1 Vein - 110' @ $32.00	$3,520.00
(B)	Drift SW on Cross #1 Vein - 150' @ $32.00	4,800.00
(C)	Crosscut SE under World Ore - 100' @ $32.00	3,200.00
(D)	Crosscut NW under World Ore - 50' @ $32.00	1,600.00
(E)	Raise under World Ore to connect - 200' @ $34.00	6,800.00
(F)	Sub-level Drift on "E" location to be determined by USBM & USGS - 100' @ $34.00	3,400.00
(G)	Crosscut SE to Pump Vein - 30' @ $32.00	960.00
(H)	Drift SW on Pump Vein - 150' @ $32.00	4,800.00
(I)	Raise (as needed) location to be determined by USBM & USGS - 200' @ $34.00	6,800.00
	Total cost of proposed work	$35,880.00

We are in a financial position to carry on our percentage of this exploration work, and consider it to be an even better geological gamble than our original program on this mine.

We are, therefore, respectfully requesting an amendment to our present contract to include this work. A period of twelve months will be required for completion.

Please advise us of your ideas on this proposal at your earliest convenience, as we will have to secure additional ventilating and other mining equipment in advance of starting such a program.

Very truly yours,

Paul H. Bennett

Paul H. Bennett

PHB:bh

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Date Rec'd.
JAN 26 1954
BUREAU OF MINES
Denver, Colorado

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 25, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colo.--Request for an amendment to authorize additional exploration and provide additional funds

Enclosed are the original and seven copies of R. L. Bolmer's memorandum recommending denial of the above amendment request. The recommendation has my approval.

The contractor's letter with supporting data furnished with your memorandum of December 4, 1953, instructing us to submit recommendations, is also enclosed.

W. M. Traver

W. M. Traver

enclosure
WMT/kp
cc: 7
E570
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 19, 1954

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: R. L. Bolmer

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colo.--Request for an amendment to authorize additional exploration and provide additional funds

The operator under the subject contract has requested authorization to explore the Brandt, Cross No. 1, and Pump veins at a depth of some 200 feet below the present workings in the World mine. The operator proposes to accomplish such exploration by means of 290 feet of crosscutting, 300 feet of drifting, 400 feet of raising, and 100 feet of sublevel drifting, all from the 4th level of the adjacent Cross mine. He estimates the total cost of such work at $35,880.00.

The details of the proposed work, as well as the operator's reasons for requesting such a program, are outlined briefly in his letter of December 3, 1953, to the Region IV Executive Officer.

The operator expects to find ore on the three veins at greater depths in the World mine. Principally, he bases his reasoning on the fact that the World mine is located between the Cold Spring and the Cross mines, both of which have been productive to

greater depths. As further proof, he cites the results of exploration accomplished to date on the Brandt vein on and above the 80-foot level of the World mine.

Exploration of the Brandt vein on and above the World 80-foot level has not resulted in the discovery of appreciable ore reserves. The vein did contain one minor ore shoot above the 80-foot level from which 134 tons of upgraded ore averaging 1.15 percent tungsten trioxide were produced. The net value of the total production from this shoot, $3,484.91, was sufficient to pay the operator's share of the exploration expenses. As repayment on its participation of $6,127.50 in the expenses of the exploration program, the Government received only $172.92 in royalties on the production.

The narrow Brandt vein splits some 20 feet above the World 80-foot level. Below the split it exists as weaker foot and hanging wall structures. The small ore shoot occurred on the composite vein at and above the split. The hanging wall structure continued weak and barren of ore down to the 80-foot level. The weaker footwall split, probably an extension of the Cross No. 3 vein, contained only a fraction of an inch of mineral down to the level. Neither structure is considered strong enough along the 80-foot level to warrant an elaborate program for their deeper exploration.

The Cross No. 1 and No. 3 veins and the Pump vein were developed from the Cross shaft which occurs about 450 feet northeast of the World workings on the Brandt vein. The ore shoots mined on these veins bottomed at about the 3rd level off the Cross shaft (about 100 feet below the World 80-foot level). In a direction southwest from the Cross shaft, the veins weakened, became barren of mineral, and began to split up before extending onto the World property. Their development on the Cross 3rd and 4th levels was discontinued short of the World property. The ore shoots apparently raked northeasterly downward from near the surface of the World property and existed at depth only in the Cross mine.

The Cold Spring vein was developed in the vicinity of the World shaft by a single 5th level drift extended northeasterly from the Cold Spring No. 3 shaft. The Cold Spring 5th level roughly corresponds to the World 80-foot level. In a direction northeasterly from the No. 3 shaft, the Cold Spring vein split several times and was not productive in the last 1,200 feet.

The World mine appears to be located between but just beyond the tail ends of two separate vein systems developed towards the northeast in the Cross mine and farther towards the southwest in the Cold Spring mine. The exploration of the several veins with depth below the World mine, therefore, is not considered promising. It cannot be said that ore will not be found with depth in this mine;

but a program as proposed by the operator and based on so many unknown factors is considered "wild cat" exploration and, as such, is not recommended for Government participation.

The operator's program appears to be poorly conceived. The distances requested to intersect the various veins at the lower depth appear incorrect on the basis of available information. The Cross No. 1 vein, which the operator proposes to intersect within 110 feet, was not developed on the Cross 3rd and 4th levels. On the 2nd level, this vein dips in the same direction as the proposed crosscut to it. If it exists at all on the lower level, it could not be intersected within twice the crosscut distance proposed by the operator. The operator proposes to drift on the No. 1 vein and later crosscut back to the Brandt vein. This crosscut distance also would be more than doubled. The Pump vein, which the operator proposes to intersect and drift on, is not the main Pump vein developed on the 3rd and 4th levels of the Cross mine. It probably is represented by a minor structure developed to a small extent on the Cross 2nd level, which may intersect the main Pump vein. The operator's proposal is not the most direct, most economic, nor most feasible method of exploring the Brandt vein with greater depth.

Winzing on the Brandt vein from the 80-foot level of the World mine and terminating such work within moderate depths if the structure did not improve was suggested in lieu of the more elaborate proposal. The operator, however, was not interested in such a modest program.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

RLB/kp
cc: 7, E570, Chron

Nederland, Colo.
Dec. 1st 1953.

Mr. P. H. Bennett,
1825 Marine St.,
Boulder, Colo.,

Dear Sir,

This letter will confirm our conversations concerning your use of the Cross No. 1 Mine Shaft for the developing and mining of your ore on the World Mine.

You may at any time after this date move your air compressor to the Cross #1 Shaft House, and install it there. We will thereafter make joint use of all the existing facilities at Cross #1 Shaft including hoist, pump, buildings, etc., excepting mine supplies and small tools. It is understood that during such joint use of these facilities all power costs will be pro-rated accordingly between us, using as a basis for such division the tons per month (or buckets per month) hoisted. It is also understood that should we need the occasional use of compressed air, you will supply it from your compressor without charge, but that if we start a regular mining program, we will then mutually agree to work opposite times to each other, so that the air and hoisting facilities may be divided with a minimum of inconvenience to either party, and in which case a reasonable amount will be paid to you, by us, for the air supplied.

Our rights to the Cross No. 1 Shaft are held under an agreement with Hetzer Mines, Inc., and this easement to you will have no effect until approved by them.

Very truly yours

Thomas M Lindler

Thomas Lindler

Accepted:

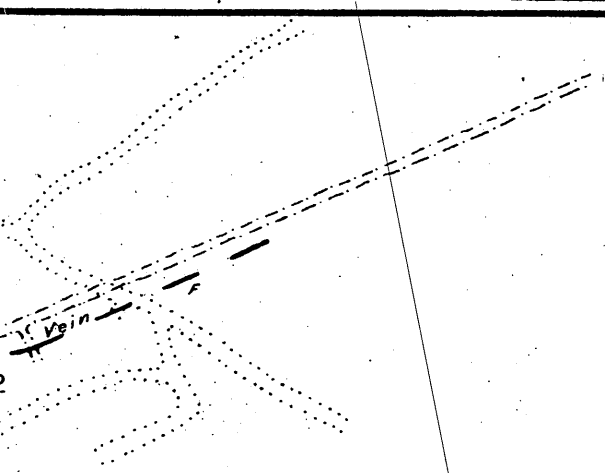
P. H. Bennett

P. H. Bennett

Approved: Hetzer Mines, Inc.

By Elmer Hetzer Pres.

Elmer Hetzer



1 World Shaft
2 Cross Shaft
3 White Shaft
4 Brandt Shaft
5 Holy Cross Shaft
6. Ford Shaft

World 80' Level
Cross 200' Level
Cross 400' Level
Cold Spring 5th Level
Veins on Surface
Roads

PROPOSED WORK

WORLD & CROSS MINES

DMEA-3001 CONTRACT-1dme 570

SURFACE & UNDERGROUND

BOULDER CO., COLO.

SCALE 1" = 100'

DEC. 1, 1953

Paul H. Bennett

1825 MARINE ST
BOULDER, COLO.

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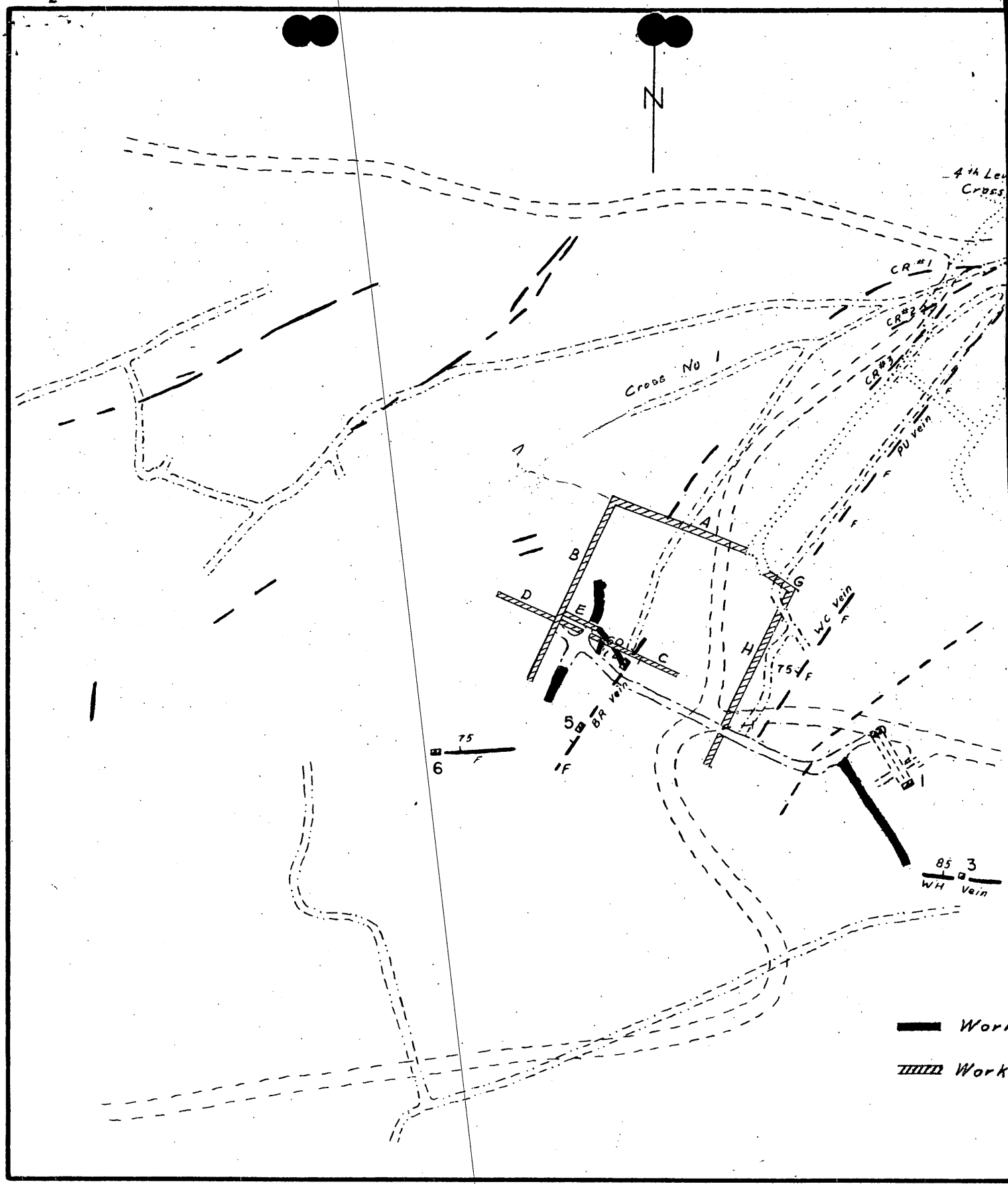
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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA 3001 - Tungsten
Paul H. Bennett
World mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. King:

Reference is made to the subject docket and the recent correspondence concerning the propriety of deducting hauling charges by an interested party before the calculation of the Government's royalty.

A memorandum concerning our letter of January 25, 1954, to you has been prepared by J. L. Chambers, Chief, Contract Administration and Audit Division, DMEA, and copies are enclosed for your information. It would, therefore, be appreciated if you will ascertain whether the hauling charges made by the Cold Springs Tungsten Company are not in excess of hauling charges which an independent carrier might make.

Sincerely yours,

Chairman, Operating Committee

APPROVED:

Member, Bureau of Mines

Not used - see P.S. on let. of Jan 25

Member, Geological Survey

Enclosure

140

FILE COPY
SURNAME:

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

JAN 25 1954

Mr. W. H. King, Executive Officer
DMEA Field Team, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-3001 (Tungsten)
Paul H. Bennett
World Mine
Boulder County, Colorado
Contract No. Idm-E570

Dear Mr. King:

Reference is made to your memorandum dated January 4, 1954, transmitting copies of Operator's Monthly Progress Report Forms and reports by the Field Team.

Mr. Bolmer's report dated December 18, 1953, stated that charges for hauling ore to the mill, paid to Cold Spring Tungsten, Inc., an owner of a 45% financial interest in the Operator's exploration venture, were deducted prior to computing the Government's percentage royalty. The propriety of such deduction was questioned.

Hauling charges of a public or private carrier, paid by a buyer-mill for the account of the seller in the regular course of business, are properly deductible prior to computing the amount of royalty due the Government. Apparently, Cold Spring Tungsten, Inc., served as a private carrier in this case, and, therefore, the hauling charges paid to it are properly deductible. The answer is not changed by the fact that Cold Spring Tungsten, Inc., has a financial interest in the Operator's business, because they are separate entities and have a right to do business with each other on that basis.

A circular on the subject of when hauling charges are deductible in computing royalty payable to the Government, has been drafted and will be distributed shortly as a guide in such matters.

R.C.G. 1-25-54

Information of the kind contained in Mr. Bolmer's report concerning the financial structure of the Operator is always helpful, and appreciated.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Approved:

J. H. Hedges (JHB)

Member, Bureau of Mines

D. M. Larrabee (JHB)

Member, Geological Survey

HCRubin/emd 1/19/54

Copy to: Docket
Adm. R. File
Op. Comm.
T. P. Thayer
J. H. Hedges
W. S. Martin
H. C. Rubin
J. L. Hofflund
chron.
pending

P.S. We should be informed whether or not the hauling charges made by Cold Spring Tungsten are in excess of hauling charges which an independent carrier might make, Will you please send the information at your convenience.

FILE COPY
SURNAME:

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

January 20, 1954

Memorandum

To: Mr. George C. Selfridge
Chairman, Operating Committee

From: Jay L. Chambers, Chief (Signed) J. L. Chambers
Contract Administration and Audit Division

Subject: Docket No. DMEA-3001 (Tungsten), Paul H. Bennett
World Mine, Boulder County, Colorado, Contract Idm-2570

Attached is a proposed letter prepared by the General Counsel's office in regard to the propriety and legality of the Cold Spring Tungsten Company hauling ore for Paul H. Bennett, World Mine, where such hauling prices are deductible prior to the calculation of the Government's royalty on such ore. The Cold Spring Tungsten Company has a 45 percent interest in the operator's exploration venture.

I am in agreement with the General Counsel that on a strictly legal basis the Cold Spring Tungsten Company may be paid for the haulage and that such payment is deductible prior to the calculation of Government royalty. I question the propriety, however, of this activity since the Cold Spring Tungsten Company doubtless has managerial control over the Bennett operation. Therefore, I believe that we should offer the advice that the Field Team should satisfy itself that the hauling charges made by Cold Spring Tungsten are not in excess of hauling charges which an independent carrier might make. This advice would clear the Washington office should the question arise in the future and the discovery made that the Cold Spring Tungsten Company charges were greater than other carriers.

My comments are in agreement with many rulings of the Comptroller General in similar cases.

Attachment

JLChambers/wh
January 20, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers
Mr. Martin

R.C.S. 1-20-54

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

224 New Customhouse
Denver 2, Colorado

January 12, 1954

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty-Contract E570, Docket No. 3001, P. H. Bennett, Colorado.

Enclosed are copies of settlement sheets covering Lot Nos. 804 and 835 for ore shipped by P. H. Bennett to Hetzer Mines Inc.

Also enclosed are checks in the amounts of $11.74 and $12.49 in payment of royalties on these shipments.

W. H. King

Enclosures

es

cc: Sec. to the Oper. Comm. w/enc. settlement sheets
Traver w/enc. settlement sheets
Chron.
Royalty File

Royalty

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

224 New Customhouse
Denver 2, Colorado

January 12, 1954

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty-Contract E570, Docket No. 3001, P. H. Bennett, Colorado.

Enclosed are copies of settlement sheets covering Lot Nos. 834 and 835 for ore shipped by P. H. Bennett to Hetzer Mines Inc.

Also enclosed are checks in the amounts of $11.74 and $12.49 in payment of royalties on these shipments.

W. H. King

Enclosures

es

cc: Sec. to the Oper. Comm. w/enc. settlement sheets
Traver w/enc. settlement sheets
Chron.
Royalty File

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 804

Shipped By P. H. Bonnett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

DECEMBER 4, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
11/24	World Mine	804	26,925	10,505	8	1,314	15,106	1.40	211.48	1.15	243.20

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	11.74 37.66
Sampling & Assaying		
Hauling	Cold Springs	8.46
Milling		
Total Deductions		57.76
Net Value		185.44

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 835

Shipped By P. H. Bennett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado Residence of Vendor

January 6, 19 54
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
12/17	World	835	49,265	20,895	5	1418	26,952	0.90	242.57	1.09	264.40

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	12.49 39.97
Sampling & Assaying		
Hauling	Cold Springs	14.61
Milling		
Total Deductions		67.07
Net Value		197.33

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

224 New Customhouse
Denver 2, Colorado

April 12, 1954.

WSM

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-3001 (Tungsten), Contract No. Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colorado.

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to work under the subject contract for the month of December 1953.

Also enclosed are two copies of a memorandum to Mr. T. A. Christensen dated April 5, 1954, relative to final payment under the terms of the subject contract.

Final payment to the Operator in the amount of $360.00 has now been made in conformance with the final Report of Review by the Contract Administration and Audit Division, dated March 10, 1954.

W H King
W. H. King

Enclosures

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

224 New Customhouse
Denver 2, Colorado

April 5, 1954.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA-3001 (Tungsten), Contract No. Idm-E570, Paul H. Bennett, World Mine, Boulder County, Colorado. Operator's Monthly Progress Report and Voucher for the month of December 1953 - FINAL PAYMENT

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report and Engineer's Report for the above period. This report constitutes the Operator's final claim for reimbursement under the terms of the contract.

The Operator has complied with the terms of the contract and final payment is recommended as follows, which is in conformance with the final Report of Review by the Contract Administration and Audit Division, dated March 10, 1954, which was released to this office March 18, 1954.

Basis for Final Payment

Total accepted costs	$8,170.00
Government participation at 75%	6,127.50
Total prior payments	5,767.50
Balance due the Operator	$360.00

W. H. King

Enclosures
JWT:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.
JWTownsend

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 21, 1954

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for December 1953

Enclosed are the original and four copies of the above progress report--forms MF-104 and MF-104A, with narrative and sketch--and the original and six copies of R. L. Bolmer's memorandum covering his inspection of the underground progress and reporting forms. The contract is unit cost on short form MF-200(A) and does not require documentation.

Bolmer confirms the 15 feet of drifting on the 80-foot level of the mine as reported in the operator's narrative and entered on the MF-104 form. The ore encountered, instead of being strong and of better value in the floor of the drift as claimed by the operator, is in a weak structure exhibiting only slight mineralization all along the drift. As stated in my transmittal memorandum with the November progress report, it is believed this is propaganda in favor of their requested amendment. This we are recommending for denial.

The inspecting engineer's descriptions of conditions encountered so far have been adequate. The small lens of ore encountered has been completely mined out evidently yielding sufficient return to repay the operator for his expenditure under the contract but only reimbursing the Government in the amount of $172.92 for their participation which will amount to approximately $6,127.50. Possibilities for further ore production from the property are apparently exhausted, and there is a possibility the mine will be abandoned. In the event it is not, certification should probably be made to protect the Government's interest.

Payment of $360.00, or 75 percent of the total $480.00 claimed for December 1953 by the contractor, is approved and certified on the MF-104 forms.

As this is the final progress report, payment should be deferred until a Report of Review by an auditor representative of the Contract Administration and Audit Division is submitted after which the contract can be closed in the usual manner.

W. M. Traver

W. M. Traver

enclosures

cc 4
E570
Chron

WMT/pan

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
January 18, 1954

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: R. L. Bolmer

Subject: DMEA 3001, contract Idm-8570 (Tungsten), Paul M. Bennett (World mine), Boulder County, Colorado - Progress report for December 1953

Progress reported this period under the subject contract, 15 feet of drifting on the 80-foot level of the World mine, was confirmed during an inspection of the property January 4, 1954. A short drift, begun by the operator on a footwall split of the Brandt vein, was advanced 15 feet under the contract. The extent of this work is shown correctly on the operator's map.

Contrary to the description given of this vein in the operator's narrative, the structure was weak and contained only a fraction of an inch of mineral along the 80-foot level drift. The mineral improved slightly above the back of the drift, and it was stoped into the raise occurring on the hanging wall split of the Brandt vein. The breast of the drift contains about 1/4 inch of ferberite. According to the old maps, this drift should have connected into an old stope on the Cross No. 3 vein. The miner in this heading reported that one drill hole in the final round appeared to have broken into old workings.

On the date of inspection, the small ore shoot, uncovered on the Brandt vein above the 80-foot level in the World mine, appeared to have been fully extracted. It is understood that all of the ore extracted has been marketed and that settlement has been received thereon. In all, 134 tons of ore averaging 1.15 percent tungsten trioxide were produced. The total production to date summarized below, grossed $3,744.53 and netted $3,484.91. The Government has received $172.98 as royalty. The production apparently was sufficient to repay the operator's share of the cost of the exploration project.

Production Summary

Date	Lot No.	Net dry weight (pounds)	WO_3 content (percent)	WO_3 content (pounds)	Gross value	Deductions	Net value	Government royalty
Reported previously		226,833	-	2,646.49	$3,236.93	$236.55	$3,000.38	$148.69
11-24-53	804	15,106	1.40	211.48	243.20	8.46	234.74	11.74
12-17-53	835	26,952	0.90	242.57	264.40	14.61	249.79	12.49
	Total	268,891	-	3,100.54	$3,744.53	$259.62	$3,484.91	$172.92

Costs totaling $480.00 (15 feet of drifting at $32.00 per foot) are reported for the period. Both the footage and the unit cost are authorized by the contract. Documentation of costs is not required for contracts prepared on the short form. Work has been accomplished as authorized in the contract and payment of 75 percent of the total amount reported on form MF-104, or $360.00, is recommended.

Progress reported this period completes all work presently authorized in the contract or amendments thereto. A request by the operator for an amendment to permit additional deeper exploration of the Brandt vein at an estimated cost of $35,880.00 has been recommended for denial. According to the operator's narrative, work at the mine was suspended December 24, 1953. That date may be considered the date of completion of work under the subject contract. Final payment to the operator should be withheld pending the completion of all details relative to the closing of the contract.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

cc 6
E570
DMEA Chron.

RLB/pam

January 15, 1954

Defense Minerals Administration
Denver, Colorado

and

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - E570

Report for the Month of December, 1953

World Mine Exploration

All DMEA work this month was confined to drifting NE on the footwall split of the Brandt Vein. This vein showed good ore in the raise above. The drift was extended 15 feet (DMEA Contract) to a total of 39 feet, the previous work having been done under company account. Ore was encountered for all of this distance, and it appeared that it was larger and of better value on the floor of the drift than at higher points. Following the completion of the drift, the ore above was stoped out and marketed, as shown on Section C-D of accompanying map. This ore extended into the raise vertically above and substantiated the belief that the vein was a split from the footwall into the Brandt Vein.

Work was suspended December 24, 1953, waiting decision on the amendment requested for driving the 4th level of the adjacent Cross Mine to explore this area at an additional depth of 200 feet.

Respectfully submitted,

Paul H. Bennett

Paul H. Bennett

PHB:th

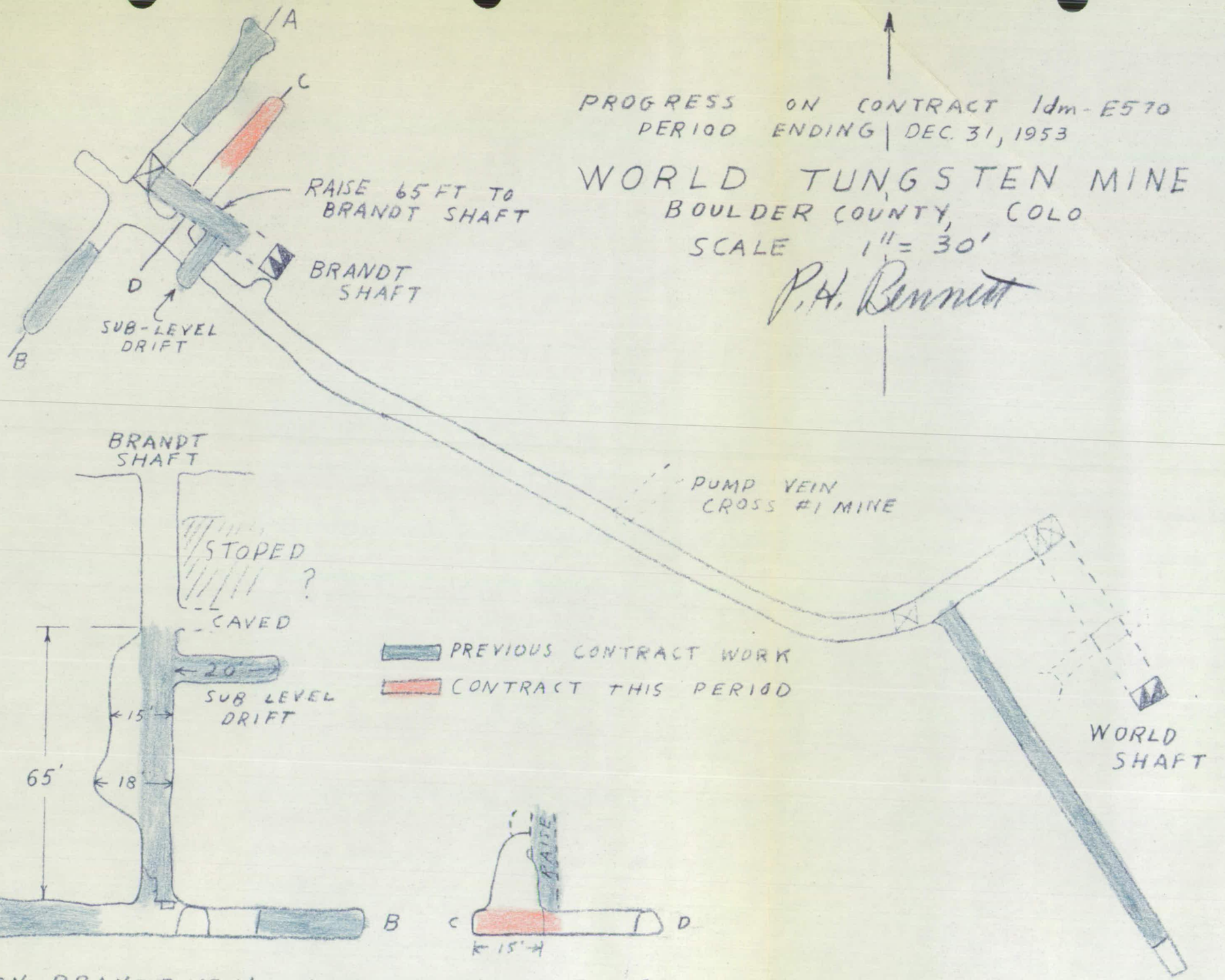
PROGRESS ON CONTRACT Idm-E570
PERIOD ENDING | DEC. 31, 1953

WORLD TUNGSTEN MINE

BOULDER COUNTY, COLO

SCALE 1" = 30'

P.H. Bennett



Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of December 1953 Docket No. DMEA 3001 Contract No. Idr-3570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine St., Boulder, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	ft.	480.00	15	2208.00	69	32.00	69	32.00
Crosscutting	ft.	--	--	3072.00	96	32.00	96	32.00
Raising	ft.	--	--	2210.00	65	34.00	65	34.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sub-Level Drifting	ft.	--	--	680.00	20	34.00	20	34.00
TOTAL DISTRIBUTED COSTS		480.00		8170.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		480.00		8170.00				

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

Date Jan. 15, 1954 Operator Paul H. Bennett
Paul H. Bennett

Per Title

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of December, 1953 Docket No. DMEA 3001 Contract No. Idm-E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine St., Boulder, Colorado
Contract Amount, $ 8200.00 Government Participation: 75 % Amount, $ 6150.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
~~Exploring~~ Raising	—	2210.00	2210.00			
Crosscutting	—	3072.00	3072.00			
Drifting	480.00	1728.00	2208.00			
Sub-Level Drifting	—	680.00	680.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	480.00	7690.00	8170.00			

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Jan. 15, 1954 *Payee Paul H. Bennett
Paul H. Bennett
Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 360.00

Signature _____
(Authorized Certifying Officer)

Date 4/6/54 Voucher No. 54-1103

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-570 in accordance with the terms of the contract.

Signature R. P. Palmer, $360.00 WMT Title Mining Engineer Date JAN 18 1954

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature W. S. King Title Executive Officer Date APR 5 1954

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

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

Defense Minerals Administration
RECEIVED
DEC 10 1953

224 New Customhouse
Denver 2, Colorado

December 8, 1953

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Settlement Sheets - Contract Idm-E570 (Tungsten), Docket No. DMEA 3001, Paul H. Bennett

Enclosed are copies of settlement sheets covering lot numbers 756, 776, 782, and 787 shipped by Paul H. Bennett to the Hetzer Mines, Inc.

W H King
W. H. King

Enclosure

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

Defense Minerals
RECEIVED
DEC 10 1953

No. 756

Shipped By P. H. Bennett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

November 23, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
10/28	World Mine	756	27,285	10,325	6	1018	15,942	2.20	350.72	1.35	473.47

The above MEMORANDUM OF SALE contions a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	22.69 72.60
Sampling & Assaying	Umpire	11.00
Hauling	Cold Springs	8.73
Milling		
Total Deductions		115.02
Net Value		358.45

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 776

Shipped By P. H. Bennett-Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

November 23, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
11/5	World Mine	776	75,000	31,275	6	2623	41,102	0.64	263.05	.91	239.38

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	10.84 34.70
Sampling & Assaying		
Hauling	Cold Springs	22.52
Milling		
Total Deductions		68.06
Net Value		171.32

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 782

Shipped By P. H. Bennett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

November 23, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
11/7	World Mine	782	100,265	41,415	7	4120	54,730	1.05	574.67	1.15	660.87

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	31.53 100.89
Sampling & Assaying		
Hauling	Cold Springs	30.30
Milling		
Total Deductions		162.72
Net Value		498.15

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 787

Shipped By P. H. Bennett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

November 24, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
11/11	World Mine	787	5,155	3,905	1	12	1,238	22.00	272.36	1.94	528.38

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	26.42 84.54
Sampling & Assaying		
Hauling		
Milling		
Total Deductions		110.96
Net Value		417.42

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

224 New Customhouse
Denver 2, Colorado

January 4, 1954

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 3001 (Tungsten), Contract Idm-1570, Paul M. Bennett (World Mine), Boulder County, Colorado. Operator's Monthly Progress Report for the period November, 1953.

Enclosed are two copies of the Operator's Monthly Progress Report Form DF-104 and 1-14, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data pertaining to Docket DMEA 3001, Contract Idm-1570, Paul M. Bennett, for the period November, 1953.

W. M. King

W. M. King

Enclosures

1-3

Sent 2 copies of report
sub
chron

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

224 New Customhouse
Denver 2, Colorado

December 28, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett (World Mine), Boulder County, Colorado. Operator's Monthly Progress Report for the period November 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	December 15, 1953.
Date Received in Field Office	December 17, 1953.
Date Received in Region Office	December 24, 1953.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
December 23, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for November 1953

Enclosed are the original and four copies of the above progress report, forms MF-104 and MF-104A, with narrative and sketch--and the original and six copies of R. L. Bolmer's memorandum covering inspection of underground progress and reporting forms. The contract is unit cost on short form MF-200(A) and documentation is not required.

The 20 feet advance of sublevel drifting, the only work accomplished under the contract, as reported by the operator in his narrative and entered on the MF-104A form, is confirmed by Bolmer. Entries and extensions on the reporting forms are correct. All are in conformance with the terms of the short form contract and amendment. The physical conditions encountered during the period are adequately described and apparently most of the time was devoted to ore production from the Brandt vein northeast of the raise although, in addition, the contractor extended the 96-foot crosscut south from the World shaft on company account.

Settlement records show a total of 226,833 pounds of ore shipped, yielding a net return of $3,000.38, with a royalty to the Government of $146.52. Bolmer mentions a situation in the financial set up of Bennett's company with respect to another Region IV contract Idm-E54 which I believe was not generally known when the subject contract was negotiated. Bennett is evidently a minority stockholder. Whether the entire situation requires investigation or not is an administrative problem but at least the deduction for ore transportation should be given some scrutiny.

Your attention is also called to the fact that the operator, in his narrative, stresses the extension of ore downward below the World mine workings. This, according to Bolmer, is propaganda in favor of an amendment he has requested for exploration at a lower elevation from the Cross shaft.

Payment is approved and certified on the MF-104 form of $510.00, or 75 percent of the total $680.00 claimed by the contractor.

Scott W Hagen Jr
for W. M. Traver

Enclosure

WMT/le
cc 6
E570
Chron.

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
December 18, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: H. L. Belmer

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for November 1953

Progress reported this period under the subject contract, 20 feet of sublevel drifting, was confirmed during an inspection of the property December 1, 1953. The sublevel, begun some 54 feet above a 1st level drift on the Brandt vein, was advanced southwest from the exploration raise completed earlier. Along the sublevel, the Brandt vein was narrow and barren of tungsten mineral.

The operator is continuing to stope the Brandt vein northeast of the raise. The ore remaining in this section is very spotty and operations here probably will be stopped shortly. It was reported that 72 cars of waste and 42 cars of ore were pulled from the raise during November. The present extent of the stope is shown on the operator's map.

The 96-foot crosscut south from the World shaft, completed earlier during the project, was extended 17 feet during the period. Only tight, oxidized fractures were cut. The work was not under the contract.

Production resulting from the exploration raise and the subsequent stope on the Brandt vein, for which settlement has been received to date, is as follows:

Date	Lot No.	Net Dry Weight (pounds)	WO3 Content (percent)	WO3 Content (pounds)	Net Value	Government Royalty (received)
Reported previously		100,033	1.07	1,071.66	$1,075.92	$ 52.46
10/26/53 Nelmer	754	13,738	0.83	114.03	94.91	4.75
10/28/53 "	756	15,942	2.20	350.72	453.74	22.69
11/ 5/53 "	776	41,102	0.64	263.05	216.86	8.67
11/ 7/53 "	782	54,730	1.05	574.67	630.57	31.53
11/11/53 "	787	1,238	22.00	272.36	528.38	26.42
Total to date		226,833	1.17	2,646.49	$3,000.38	$146.52

It is noted that hauling charges, deducted by the mill before computing the Government's percentage royalty on lots 754, 756, 776, and 782, are indicated on the settlement sheets as being paid to "Cold Springs." It is not generally known that Cold Spring Tungsten, Inc., operator under contract Idm-E54, has a 45 percent financial interest in the subject contract; G. C. Ridland, manager for Cold Spring Tungsten, Inc., a 10 percent interest; and F. H. Bennett, the recorded operator of the subject contract, only a 45 percent interest. It is questionable whether an operator, silent or otherwise, should be allowed such a deduction for transporting his own ore.

The operator's narrative gives a misleading impression regarding the extension with greater depth of the small ore shoot discovered on the Brandt vein. Ore was not encountered by a 1st level drift driven northeast on the Brandt vein. A raise was later driven from this drift and it first encountered ore some 20 feet above the level. Later the operator began a 1st level drift on what he called a footwall split of the Brandt vein. It contained some ferberite mineral which hardly could be considered commercial. The present exposures of the Brandt vein in the World mine do not indicate the extension of ore with greater depth. The Brandt vein appears to be a split of a vein developed extensively to greater depths from the nearby Cross shaft and which proved barren in deeper sections adjacent to the World mine.

Costs totaling $680.00 (20 feet of sublevel drifting at $34.00 per foot) are reported for the period. Both the footage and the unit cost are authorized by the contract. Documentation of costs is not required for contracts prepared on the short form. Work has been accomplished as authorized in the contract and payment of 75 percent of the total amount reported on form MF-104, or $510.00, is recommended. The recommended amount is subject to review by the regional office and to verification of the applicable rates and the arithmetical accuracy of the computations.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

RLB/le

cc -6
E570
Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of November, 1953 Docket No. DMEA 3001 Contract No. Idm-E570

Operator's Name Paul H. Bennett Minerals Tungsten

Address 1825 Marine St., Boulder, Colorado

Contract Amount, $ 8200.00 Government Participation: 75% Amount, $ 6150.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
~~Bulldozing~~ Raising	—	2210.00	2210.00			
Crosscutting	—	3072.00	3072.00			
Drifting	—	1728.00	1728.00			
Sub-Level Drifting	680.00	—	680.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	680.00	7010.00	7690.00	680.00	7010.00	7690.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Dec. 15, 1953 *Payee Paul H. Bennett

Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$510.00

Signature _____
(Authorized Certifying Officer)

Date 12/29/53 Vou. No. DMA 54-66

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-570 in accordance with the terms of the contract.

Signature R. P. Bolmer 510.00 Mining Engineer Date DEC 18 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: L. B.

Signature W. S. King Title Executive Officer Date DEC 28 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
JAN 6 1954

Month of November 1953 Docket No. DMEA 3001 Contract No. Idm-E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine St., Boulder, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	ft.	—	—	1728.00	54	32.00	69	32.00
Crosscutting	ft.	—	—	3072.00	96	32.00	96	32.00
Raising	ft.	—	—	2210.00	65	34.00	65	34.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
Sub-Level Drifting	ft.	680.00	20	680.00	20	34.00	20	34.00
TOTAL DISTRIBUTED COSTS		680.00		7690.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		680.00		7690.00				

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

Date Dec. 15, 1953 Operator Paul H. Bennett
Paul H. Bennett

Per ..... Title .....

NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

December 15, 1953

Defense Minerals Administration
Denver, Colorado

and

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - 3570

Report for the Month of November, 1953

World Mine Exploration

The greater part of the work this month was the production of ore from the raise which was completed last month. Since we had 35 feet of raise remaining from our 100 feet allowed, permission was asked to use 20 feet in sub-level drifting under the old Brandt stope and the remaining 15 feet for drifting the lower level. The 20 feet of sub-level drifting was accomplished this month, it being the only D.M.E.A. work for the period.

All indications are that the ore which we have found extends downward, and an amendment has been requested to explore the horizons 200 feet below by working through the Cross shaft. This is thought to be much cheaper exploration than we could obtain by sinking directly on the ore.

Respectfully submitted,

Paul H. Bennett

P. H. Bennett

PHB:bh

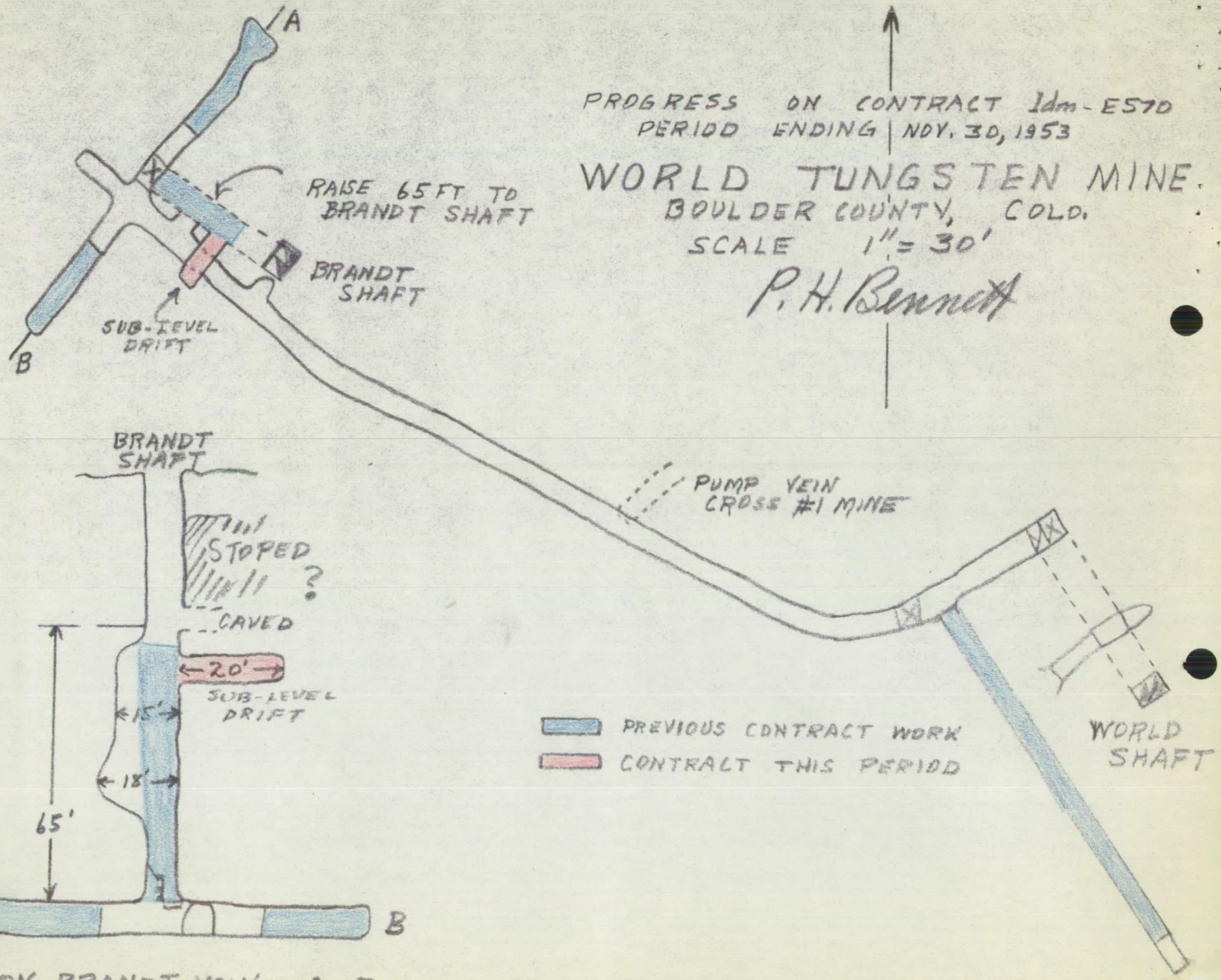
PROGRESS ON CONTRACT Idm-E570
PERIOD ENDING NOV. 30, 1953

WORLD TUNGSTEN MINE.

BOULDER COUNTY, COLO.

SCALE 1" = 30'

P. H. Bennett



SECTION BRANDT VEIN A-B

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 23 1953

224 New Customhouse
Denver 2, Colorado

November 19, 1953

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Settlement Sheet - Contract Idm-E570, Docket No. DMEA 3001 (Tungsten), Paul H. Bennett

Enclosed is a copy of a settlement sheet covering lot number 754 shipped by Paul H. Bennett (World Mine) to the Hetzer Mines, Inc.

J. W. Townsend, for
W. H. King

Enclosure

Copy retained 400

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 23 1953

224 New Customhouse
Denver 2, Colorado

November 19, 1953

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: Royalty Payment - Contract Idm-E570, Docket No. DMEA 3001, Paul H. Bennett

Enclosed is a copy of a settlement sheet covering lot number 754 shipped by Paul H. Bennett (World Mine) to the Hetzer Mines, Inc.

Also enclosed is a check in the amount of $3.41 in payment of royalty on this shipment.

A deduction of $1.34 was made from the calculation of royalty on this lot in accordance with our letters of October 20 and 22, 1953 concerning a correction on lot number 692.

J. W. Townsend, for
W. H. King

Enclosures

JFS:fwo

cc Sec.Oper.Comm.
WMTraver
Contract
Chron

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 23 1953

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 754

Shipped By P. H. Bennett - Nominee
Vendor

SETTLEMENT SHEET

Denver, Colorado Residence of Vendor

November 4, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
10/26	World Mine	754	24,920	10,305	6	877	13,738	0.85	114.03	1.03	117.45

DEDUCTIONS		
Royalty	5% U.S.Treas. 4.75 less Cr. of 1.34 16% Hetzer-Mines,Inc.	3.41 15.19
Sampling & Assaying		15.00
Hauling	Cold Springs	7.54
Milling		
Total Deductions		41.14
Net Value		76.31

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 9 - 1953

224 New Customhouse
Denver 2, Colorado

December 7, 1953

WSM

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Form MF-104, DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World Mine), Boulder County, Colorado

Enclosed are two copies of the Operator's Monthly Progress Report Form MF-104 and 104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the period of October 1953 pertaining to Docket DMEA 3001, Contract Idm-E570, Paul H. Bennett.

W. H. King

W. H. King

Enclosures

mbl

Oct

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
November 18, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: RMEA 3001, Contract Idm-R570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado -- Progress report for October 1953

Transmitted herewith are the original and four copies of the above progress report--forms MF-104 and MF-104A, with narrative, sketch--and the original and six copies of R. L. Bolmer's memorandum covering inspection of the underground progress and reporting form.

The advance reported by the operator in his narrative and entered on the MF-104A forms, 7 feet of raising and 29 feet of drifting, is confirmed by the inspecting engineer, as are entries and extensions on the reporting forms. All are in conformance with the terms of the contract or amendments thereto. The physical conditions encountered in the month's operation are adequately described. It appears that the ore encountered in raising is of limited extent.

Payment is recommended and certified on the MF-104 form of $874.50, or 75 percent of the total $1,166.00 claimed by the contractor.

Floyd N Everett for
W. M. Traver

enclosures

WMT/kp

cc 4
R570
RMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
November 17, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: R. L. Balmer

Subject: BMEA 3001, Contract Idm-2570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado -- Progress report for October 1953

Progress reported this period under the subject short-form contract, 7 feet of raising and 29 feet of drifting, was confirmed during an inspection of the property November 3, 1953. The conditions encountered during the period are described correctly in the operator's narrative.

The Brandt vein, as exposed in drifting northeast this period, consisted of a zone of horn quartz, gouge, and brecciated wall rock up to widths of 2-1/2 feet. An occasional small patch of crystalline ferberite was observed within the zone. The lateral extent of the ore shoot opened by the raise on the Brandt vein has proven very limited. Stoping was begun from the raise this period. Had the raise been driven 3 or 4 feet wider, most of the ore in the shoot would have been extracted. A footwall split of the vein showing some ferberite passed below the limits of the raise. This split may be represented by a vein containing ferberite which is exposed in a 1st level crosscut.

The production resulting from the exploration raise on the Brandt vein, for which settlement has been received to this date, is as follows:

Date	Lot Number	Net Weight (dry pounds)	WO_3 Content (percent)	WO_3 Content (pounds)	Gross Value	Net Value	Government Royalty (received)
9/14/53	Batner 664	20,966	0.79	165.63	$ 170.60	$ 138.73	$ 6.94
9/17/53	672	10,190	0.98	99.86	114.84	91.47	4.57
9/24/53	692	11,803	0.65	76.85	63.02	38.41	0.59 1.92
9/25/53	694	12,553	1.07	134.32	154.47	129.31	6.47
9/28/53	701	20,130	1.50	301.95	377.44	361.06	18.05
9/30/53	704	24,421	1.20	293.05	337.01	316.94	15.85
Total		100,083		1,071.66	$1,217.38	$1,075.92	$53.80

17.34
20.60
35.60
25.90

The above 30 dry tons of ore shipped through September 30, 1953, representing run of mine ore upgraded by screening and hand-sorting, has averaged 1.07 percent WO_3. The royalty received by the Government has been computed correctly at 5 percent of the net value on all but lot 698. On lot 698, the net value per dry ton is only $6.50 and the royalty due the Government should have been computed at 1-1/2 instead of 5 percent of the net value. The correct royalty on this lot is only $0.98 resulting in an overpayment to the Government of $1.34.

Costs totaling $1,166.00 (29 feet of drift at $32.00 per foot, plus 7 feet of raise at $34.00 per foot) are reported for the period. Both the footage and the unit costs reported are authorized by the contract or amendments thereto. Work has been accomplished as authorized in the contract and payment of 75 percent of the total amount reported on form MF-104, or $874.50, is recommended subject to review by the Regional Office and verification of the applicable rates and the arithmetical accuracy of computation.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

RLB/kp

cc ✓6
8570
BMRA Chron

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

Department of the Interior
Defense Minerals Administration
RECEIVED
DEC 9 - 1953

224 New Customhouse
Denver 2, Colorado

November 20, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World Mine), Boulder County, Colorado. Operator's Monthly Progress Report for the period October 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	November 13, 1953.
Date Received in Field Office	November 16, 1953.
Date Received in Region Office	November 19, 1953.

J. W. Townsend
For W. H. King

Enclosures

RDB: cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.

1953

November 15, 1953

Defense Minerals Administration
Denver, Colorado

and

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - E570

Report for the Month of November, 1953

World Mine Exploration

The greater part of this month was used in removing ore from the raise driven last month. We advanced this raise 7 feet during this period connecting with the bottom of the Brandt Shaft. We also advanced the drift on the Brandt vein 29 feet northeast encountering some low grade ore here.

As of date of this report we have been drilling long holes, using jointed steel, so that the remaining footage under our contract can be used to best advantage. We will probably submit a request for amendment within a few days, as soon as the information obtained by the drilling has been evaluated.

Respectfully submitted,

Paul H Bennett

P. H. Bennett

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.4
Approval Expires 6-30-53.

Defense Minerals Administration
RECEIVED
DEC 9 - 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October 1953 Docket No. DMEA 3001 Contract No. Idm - E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine St., Boulder, Colorado
Contract Amount, $ 8200.00 Government Participation: 75 % Amount, $ 6150.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent~~ Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting		3072.00	3072.00			
Drifting	928.00	800.00	1728.00			
Raising	238.00	1972.00	2210.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	1166.00	5844.00	7010.00	1166.00	5844.00	7010.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Nov. 13, 1953 *Payee Paul H. Bennett
Paul H. Bennett
Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 874.50

Signature _____ (Authorized Certifying Officer)

Date 11/25/53 Voucher DMA 54-52

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 8-570 in accordance with the terms of the contract.

Signature R. R. Bolmer, $874.50 Title Mining Engineer Date NOV 17 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R. D.B.

Signature for W. A. King. Title Executive Officer Date NOV 20 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
DEC 3 - 1953

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of [illegible] 195[illegible] Docket No. DMEA [illegible] Contract No. [illegible]
Operator's Name [illegible] Minerals [illegible]
Address [illegible]

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Crosscutting	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Raising	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		[illegible]		[illegible]				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		[illegible]		[illegible]				

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

Date [illegible] Operator Paul H. Bennett

Per ____ Title ____

NOTE.—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.

REMARKS: ____

(Instructions on reverse)

(For Government use only)

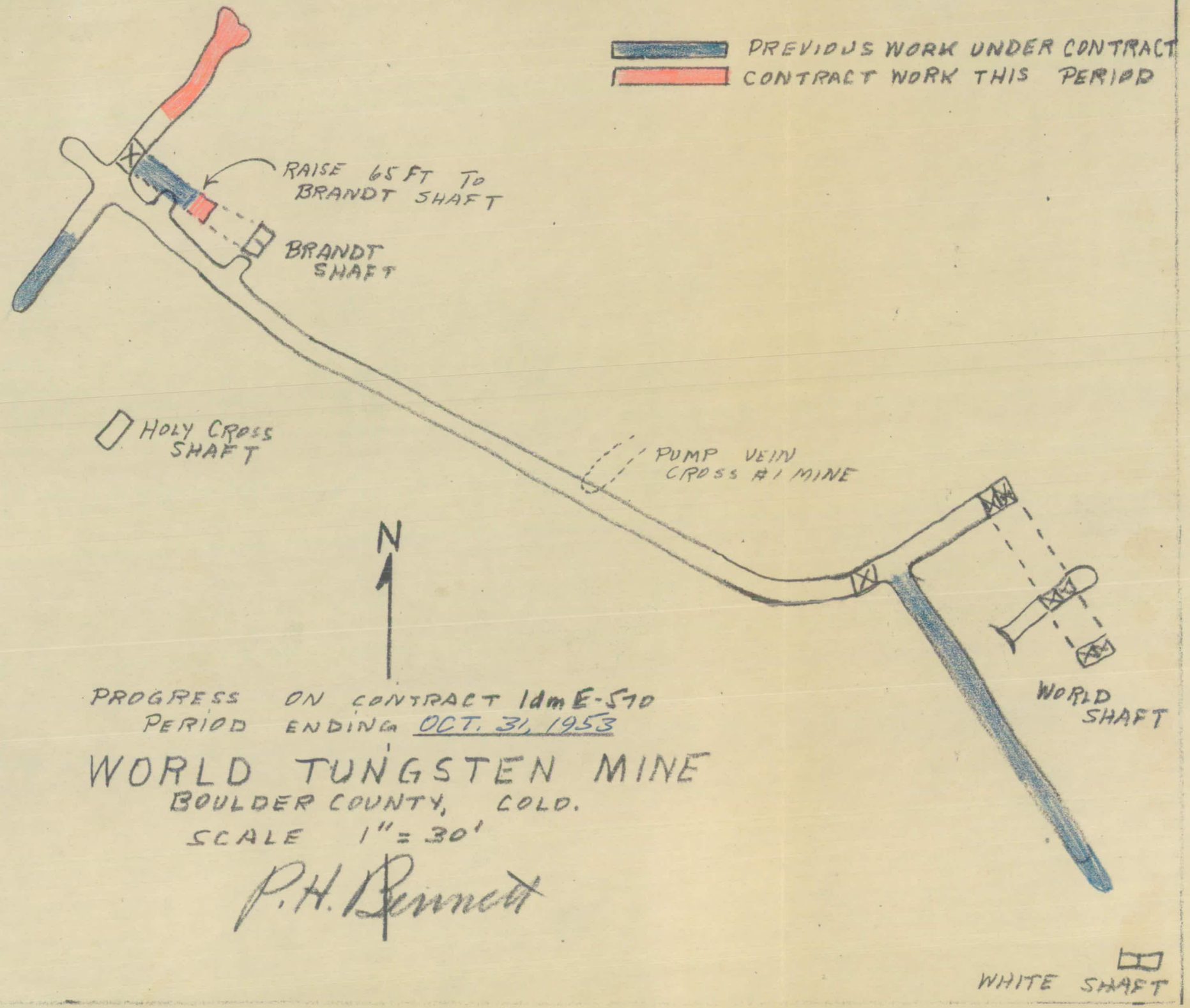
INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475



PROGRESS ON CONTRACT Idm E-510
PERIOD ENDING OCT. 31, 1953

WORLD TUNGSTEN MINE

BOULDER COUNTY, COLO.

SCALE 1" = 30'

P. H. Bennett

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 28 1953

OCT 26 1953

224 New Customhouse
Denver 2, Colorado

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docket No. DMEA 3001 (Tungsten), Contract Idm-E570, Paul H. Bennett, Boulder County, Colorado

Enclosed are the original and two copies of Amendment No. 1 to Contract Idm-E570 which has been executed to adjust footages cited in Exhibit "A" under Description of the Work. Also enclosed are three sets of data relevant to the amendment.

Copies of this amendment have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

W. H. King
W. H. King

Enclosures

RECEIVED
NOV 10 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

Cal 10.26

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

224 New Customhouse
Denver 2, Colorado

October 22, 1953

Mr. Elmer Hetzer
Hetzer Mines, Inc.
250 Pearl Street
Boulder, Colorado

Re: Docket DMEA 3001
Contract Idm-E570
Paul H. Bennett

Dear Mr. Hetzer:

Reference is made to our letter of October 20, 1953 regarding an error in the royalty check on lot number 692 shipped by Paul H. Bennett from the World Mine under Contract Idm-E570 to the Hetzer Mines, Inc.

The amount of the difference is $1.34 not $0.34 as stated in our letter.

Very truly yours,

John F. Shaw

John F. Shaw, for
W. H. King
Executive Officer, DMEA
Field Team, Region IV

JFS:fwo

cc Sec.Oper.Comm.
Contract
Chron
WMTraver
TAChristensen

402

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

224 New Customhouse
Denver 2, Colorado

October 20, 1953

W34

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Settlement Sheet - Contract IdmOE570, Docket No. DMEA 3001, (Tungsten), Paul H. Bennett

Enclosed is a copy of a settlement sheet covering lot number 664 shipped by Paul H. Bennett to the Hotzer Mines, Inc.

John F. Shaw
John F. Shaw, for
W. H. King

Enclosure

Copy retained 400

Royalty

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO
PHONE 61

PURCHASER

No. 664

Shipped By P. H. Bonnett - Dominco
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

September 24, 1953
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/14	World Mine	664	36,640	14,800	4	874	20,966	0.79	165.63	1.03	170.60
									8.28	20.6	

DEDUCTIONS		
Royalty	5% U. S. Treas. 16% Hetzer-Mines, Inc.	6.94 22.80
Sampling & Assaying		15.00
Hauling		16.27
Milling		
Total Deductions		61.01
Net Value		109.59

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

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

224 New Customhouse
Denver 2, Colorado

October 20, 1953

Mr. Elmer Hetzer
Hetzer Mines, Inc.
250 Pearl Street
Boulder, Colorado

Re: Docket DMEA 3001
Contract Idm-E570

Dear Mr. Hetzer:

Reference is made to Lot Number 692 shipped by Paul H. Bennett from the World Mine under contract Idm-E570.

The net value per ton of this shipment is $6.50; therefore the royalty rate is 1½% not 5%. The royalty due the Government is $0.58. You may deduct $0.34 from the next royalty check due under contract Idm-E570. This is the difference between $0.58 and the $1.92 royalty which was paid.

Very truly yours,

John F. Shaw

John F. Shaw, for
W. H. King
Executive Officer, DMEA
Field Team, Region IV

JFS:fwo

cc SecOperComm
TAChristensen
WMTraver
Contract
Chron

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 21 1953

224 New Customhouse
Denver 2, Colorado

October 19, 1953

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Settlement Sheets - Contract Idm-E570 (Tungsten), Docket No. DMEA 3001, Paul H. Bennett

Enclosed are copies of settlement sheets covering lot numbers 672, 692, 694, 701, and 704 shipped by Paul H. Bennett to the Hetzer Mines, Inc.

John F. Shaw
John F. Shaw, for
W. H. King

Enclosure

Copy retained 400

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. 672

Shipped By P. H. Bennett - Dominco
Vendor

SETTLEMENT SHEET

Denver, Colorado
Residence of Vendor

September 24, 1953
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/17	Corld Mine	672	18,275	7,455	6	660	10,190	0.98	99.86	1.16	114.84
									1.99 Mo Lo	23.0 Point	

DEDUCTIONS		
Royalty	5% J. C. Gross. 16% Hetzer-Mines, Inc.	4.57 14.63
Sampling & Assaying		15.00
Hauling	Hodgson	8.37
Milling		
Total Deductions		42.57
Net Value		72.27

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. 693

Shipped By R. E. Bennett - Benlinco
Vendor

SETTLEMENT SHEET

Residence of Vendor

October 2, 19 63
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/24	World Mine	693	19,905	7,660	5	622	11,623	0.65	76.65	.02	65.02
	Schedule Unit		10.20								
	Ross. .146										
	Loss .07										
	Expense .076	on. 25	1.02								
	Net Gain		10.15								
	Price per lb.		0.02								

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
	R. E. G. Grace.	1.02
Royalty	16% Hetzer-Mines, Inc.	8.70
Sampling & Assaying		16.00
Hauling	Hodges	0.61
Milling		
Total Deductions		26.29
Net Value		38.73

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. 694

Shipped By D. H. Bennett - Bonince
Vendor

SETTLEMENT SHEET

Residence of Vendor

October 2, 19 55
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/25	Uorle Mine	694	20,565	7,600	43	555	12,965	1.07	154.03	1.15	154.47

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
	5% U. S. Gross.	8.47
Royalty	15% Nelson-Hines, Inc.	12.69
Sampling & Assaying		15.00
Hauling	Hodgson	10.15
Milling		
Total Deductions		51.03
Net Value		103.44

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. 701

Shipped By D. H. Bennett - Romince
Vendor

World Mine

SETTLEMENT SHEET

Residence of Vendor

October 10, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/28	World Mine	701	36,640	15,450	5	1060	20,130	1.50	301.95	1.25	377.44

DEDUCTIONS		
Royalty	5% U. S. Treas. 15% Hetzer-Mines, Inc.	18.85 56.16
Sampling & Assaying		
Hauling	[illegible]	[illegible]
Milling		
Total Deductions		58.59
Net Value		233.66

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

HETZER MINES, INC.

250 Pearl Street
BOULDER, COLORADO

PHONE 61

PURCHASER

No. 704

Shipped By P. H. Bennett - Dominco
Vendor

SETTLEMENT SHEET

Residence of Vendor

October 9, 19 53
Date of Sale

DATE	SHIPPED FROM Source from which Vendor obtained same.	LOT NO.	GROSS WEIGHT	TARE	Per Cent Moisture	LBS. H2O	NET WEIGHT	ASSAY	TUNGSTIC ACID	PRICE PER LB.	GROSS VALUE
9/30	World Mine	704	41,200	16,220	6	1659	24,421	1.20	293.05	1.15	337.01

The above MEMORANDUM OF SALE contians a true statement of 1—the date of sale; 2—residence of vendor; 3—the nature and amount of the article sold; 4—the source from which the vendor obtained same; and 5—the consideration actually paid; receipt of which, in full, as shown by the "Net Value" above, is hereby acknowledged.

VENDOR

DEDUCTIONS		
Royalty	6% U. S. Treas. 15% Hetzer-Mines, Inc.	16.86 47.54
Sampling & Assaying		
Hauling	Hogoon	20.07
Milling		
Total Deductions		83.46
Net Value		253.55

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

224 New Customhouse
Denver 2, Colorado

October 27, 1953.

3001

Memorandum

To: Secretary to the Operating Committee

From: Executive Officer, DMEA Field Team, Region IV

Subject: Form MF-104 - DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World Mine), Boulder County, Colorado.

Enclosed are two copies of the Operator's Monthly Progress Report, Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the month of September 1953, pertaining to DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World Mine), Boulder County, Colorado.

W. H. King
W. H. King

Enclosures

Dept

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 3 0 1953

224 New Customhouse
Denver 2, Colorado

October 20, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World Mine), Boulder County, Colorado. Operator's Monthly Progress Report for the period September 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	October 15, 1953.
Date Received in Field Office	October 16, 1953.
Date Received in Region Office	October 20, 1953.

John F. Shaw
John F. Shaw
For W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
October 19, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for September 1953

Transmitted herewith are the original and four copies of the above progress report--forms MF-104 and MF-104A, with narrative, sketch--and the original and six copies of R. L. Bolmer's memorandum covering inspection of the underground progress and reporting form. The contract is unit cost, short form MF-200(A) and documentation is not required.

The advance reported by the operator in his narrative and entered on the MF-104A forms of 58 feet of raising and 25 feet of drifting is confirmed by the inspecting engineer, as are entries and extensions on the reporting forms. All are in conformance with the terms of the contract or amendments thereto. The physical conditions encountered in the month's operations are adequately described; ore was encountered in the raising.

Payment is recommended and certified on the MF-104 form of $2,079.00, or 75 percent of the total $2,772.00 claimed by the contractor.

W. M. Traver

W. M. Traver

cc: 4
E570
DMEA Chron.

WMT/cb

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 13
Denver Federal Center
Denver 14, Colorado
October 19, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: R. L. Bolmer

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for September 1953

Progress under the subject short form contract was inspected October 1, 1953. The progress during September, as reported on form MF-104A, 25 feet of drifting and 58 feet of raising, was verified.

The Brandt vein, exposed in drifting during the period, is narrow and contains very minor amounts of ferberite near the breast of the drift. The operator's narrative, with map attached, correctly and adequately describes the progress and the conditions encountered during the period. Assay results for samples taken of the Brandt vein during the inspection have not been received.

Costs totaling $2,772.00 (25 feet of drift at $32.00 per foot, plus 58 feet of raise at $34.00 per foot) are reported for the period. Both the footage and the unit costs reported are authorized by the contract, or amendments thereto. Documentation of costs is not required under contracts prepared on the short form. Work has been accomplished as authorized in the contract and payment of 75 percent of the total amount reported on form MF-104, or $2,079.00, is recommended, subject to review by the Regional Office and verification of the applicable rates and the arithmetical accuracy of computations.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

cc: 6
E570
DMEA Chron.

RLB/eb

October 15, 1953

Defense Minerals Administration
Denver, Colorado

and

Paul H. Bennett
1825 Marine Street
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - E570

Report for the Month of September, 1953

World Mine Exploration

After stopping work on the cross-cut as reported in last month's narrative we began work this period by starting a raise to the Brandt Shaft. This raise is two compartment and a chute and ladders were installed. This work continued upward for 58 feet and should be almost ready to break through into the old shaft. An examination was made of the old workings to be sure that there would be no danger from water or debris when the connection was made. Ore was encountered on this raise at a point 18 feet above the track level and has continued as far as we have gone. This ore averages only one foot wide, but is of good grade. In driving this raise it was necessary, therefore, to mine considerable waste, but all of the broken material was saved. We have shipped a quantity of this material, and it ranges from .65% WO_3 to 1.20% WO_3.

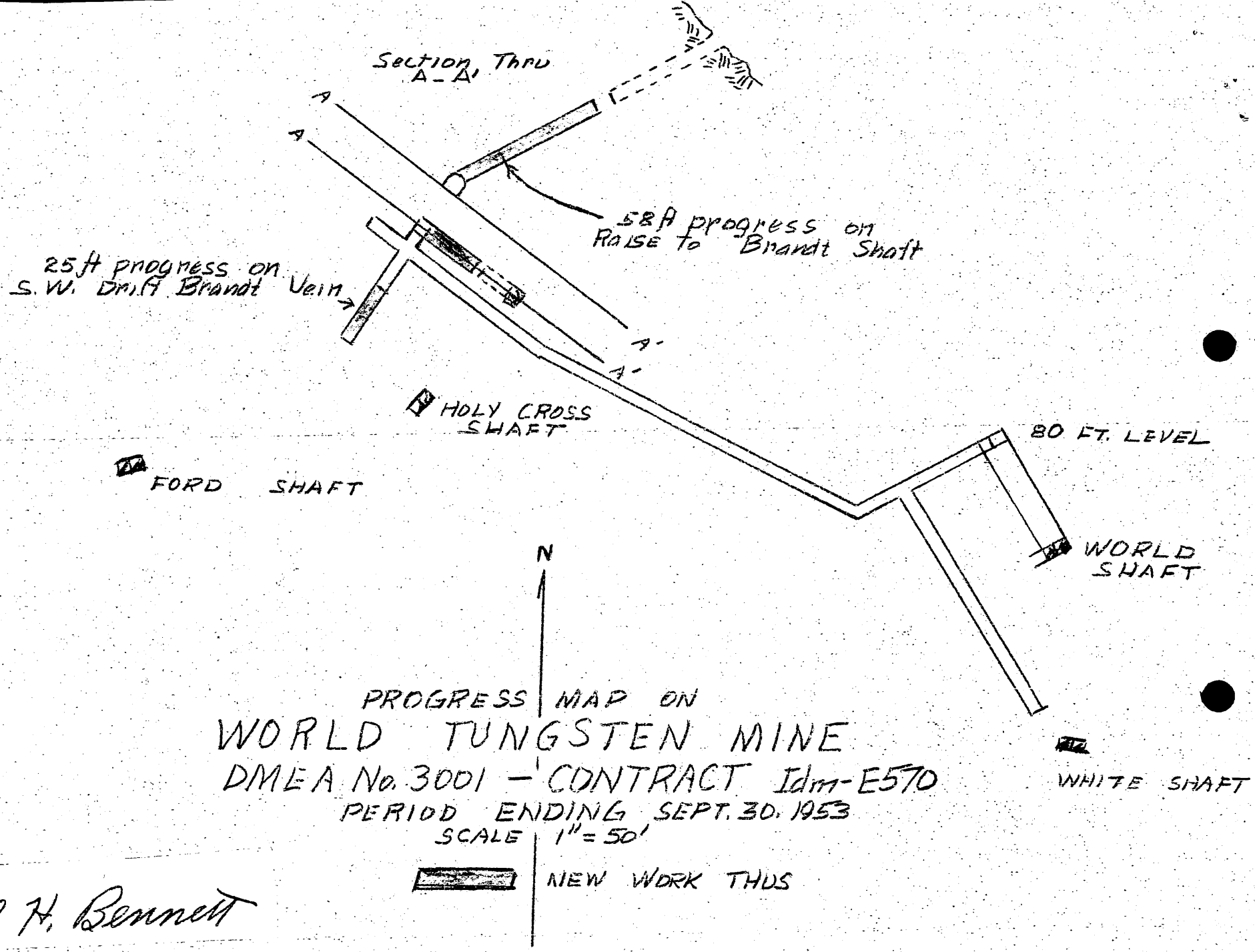
We also have driven the 25 feet of drift Southwest on the Brandt Vein as allowed in our Contract Amendment No. 1.

As of the date of this report we have connected the raise of the old shaft showing commercial ore all of the way.

Respectfully submitted,

Paul H. Bennett

P. H. Bennett



PROGRESS MAP ON
WORLD TUNGSTEN MINE
DMEA No. 3001 — CONTRACT Idm-E570
PERIOD ENDING SEPT. 30. 1953
SCALE 1" = 50'

Paul H. Bennett

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of September 195 3 Docket No. DMEA 3001 Contract No. Idm - E570

Operator's Name Paul H. Bennett Minerals Tungsten

Address 1825 Marine Street, Boulder, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	ft.	800.00	25	800.00	25	32.00	54	32.00
Crosscutting	ft.			3072.00	96	32.00	96	32.00
Raising	ft.	1972.00	58	1972.00	58	34.00	100	34.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		2772.00		5844.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		2772.00		5844.00				

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

Date Oct. 15, 1953 Operator Paul H. Bennett
Paul H. Bennett

Per _____ Title _____

REMARKS:

NOTE.—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.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 30 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of September, 1953 Docket No. DMEA 3001 Contract No. Idm - E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine Street, Boulder, Colorado
Contract Amount, $ 8200.00 Government Participation: 75 % Amount, $ 6150.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting		3072.00	3072.00			
Drifting	800.00		800.00			
Raising	1972.00		1972.00			
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	2772.00	3072.00	5844.00	2772.00	3072.00	5844.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Oct. 15/53 *Payee Paul H. Bennett
Paul H. Bennett

Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$2079.00

Signature _____
(Authorized Certifying Officer)

Date 10/23/53 Vou. No. DMA 54-41

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-570 in accordance with the terms of the contract.

Signature R. P. Bolmer - $2,079.00 Title Mining Engineer Date OCT 16 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R.S.B.

Signature W. H. KING Title Executive Officer Date OCT 20 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

September 28, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 28 1953

Memorandum

To: A. H. Koschmann G.H.K.

From: E. N. Harshman

Subject: DMEA Docket 3001 (tungsten), Contract Idm-E570, World Mine, Paul H. Bennett, Boulder County, Colorado

In a letter dated August 24, 1953, Paul H. Bennett requests that he be granted permission to use 54 feet of exploratory drifts and cross-cuts, authorized under Contract Idm-E570 and as yet unused, to drift to the northeast and southwest on the Brandt vein. Thirty feet of the unused amount results from work authorized in the contract but accomplished by the operator before the contract was consummated; twenty-four feet results from crosscutting allowed but not used in reaching the white vein.

The objectives considered in the original program have been reached. It is now apparent that the ore potentialities are greatest in the Brandt vein area and additional exploration is warranted.

It is therefore recommended that Contract Idm-E570 be amended to allow the southwest drift on the Brandt vein to be advanced 25 feet and the northeast drift on that vein to be advanced 29 feet as requested. Since the contract is on a unit cost basis, this recommendation will not raise the total expenditure authorized for exploration in the World mine.

Mining Division
Date Rec'd.
SEP. 23 1953
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
September 22, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colo. -- Request for amendment to apply certain authorized exploration to other locations

In response to your memorandum dated September 15, 1953, I am enclosing the original and five copies of R. L. Bolmer's memorandum recommending approval of an amendment to apply to new locations in the mine a total of 54 feet of crosscutting and drifting now authorized by the contract, but which has either been performed at the operator's expense or is no longer warranted.

The recommendation has my approval.

W. M. Traver

W. M. Traver

cc 5
E570
Chron

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
September 18, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: R. L. Bolmer

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colo. -- Request for amendment to apply certain authorized exploration to other locations

The operator has requested, by letter dated August 24, 1953, that a total of 54 feet of crosscutting and drifting now authorized by the contract, but which has either been performed at his own expense or is no longer warranted, be applied to new locations in the mine. The proposal is adequately described in the operator's letter.

The contract is a short form and the authorized unit cost of drifting and crosscutting is identical. The substitution of the new location for the unexpended footage is warranted and an amendment permitting the requested revision is recommended.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

RLB/kp

cc 5
E570
Chron

Mineral Resources Branch

Date Rec'd
SEP 15 1953
BUREAU OF MINES
Denver, Colorado

DIST. ENGR.	
EXAMINATION	
DIST. CLERK	
PERSONNEL	
FILES	E57

1825 Marine St.,
Boulder, Colo.,
August 24, 1953.

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
OCT 28 1953

Mr. William Traver, Jr.,
U. S. Bureau of Mines
Room 137 Building 20
Denver Federal Center
Denver, Colo.,

Re: World Mine (Tungsten)
DMEA No. 3001 Contract Idm-E570

Dear Mr. Traver,

We have now completed 96 feet of the 120 feet of cross-cut which contract shows to be run Southeast from near the World Shaft at the 80 foot level. We have cut the vein which was the objective of this drive, and have run well beyond it. The vein cut was well defined and strong, and projected upwards exactly to the White Shaft, but there is no mineralization. This leaves 24 feet of this X-cut unfinished.

There is also 20 feet of drift Northeast from intersection of old cross-cut on Brandt Vein and 10 feet of extension of old cross-cut Northwest which have not been done because we did this work on private account before contract was started.

This makes a total of 54 feet of drift and crosscut unused on this contract, and I am requesting that I be allowed to use this 54 feet as follows: 25 feet of drift Southwest from present face of drift on Brandt vein; and, 29 feet Northeast from present face of drift on Brandt vein. Inasmuch as the raise started on this vein is looking better than any other part of the mine, it looks as though this general region offers now the greatest possibilities for finding ore, and this reason is the basis for making this request.

Please advise if this amendment to the contract will be considered, and have your office designate the necessary starting points, if the change is approved.

Very truly yours

P. H. Bennett

P. H. Bennett

402

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1953

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

224 New Customhouse
Denver 2, Colorado

September 28, 1953

WSG

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Form MF-104, DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett, (World Mine), Boulder County, Colorado.

Enclosed are two copies of the Operator's Monthly Progress Report Form MF-104 and MF-104A, Operator's Narrative Report, Inspecting Engineer's Narrative Report, and other supporting data for the period of August 1953, pertaining to DMEA Docket 3001, Contract Idm-E570, Paul H. Bennett, (World Mine), Boulder County, Colorado.

W. H. King
W. H. King

Enclosures

MF-104
July-Aug 1953

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 5 1953

224 New Customhouse
Denver 2, Colorado

September 21, 1953.

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region IV

Subject: DMEA Docket 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett, (World Mine), Boulder County, Colorado. Operator's Monthly Progress Report for the period July and August 1953.

Enclosed are the original and four copies of Form MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

Work has been completed as authorized by the contract. No documentation is required for work performed under contracts prepared on Form MF-200A, therefore we recommend that payment be made for 75 percent of the amount reported by the Operator on Form MF-104, contingent on your verification of arithmetical accuracy within the report.

Remarks:

Date of Report	September 15, 1953.
Date Received in Field Office	September 16, 1953.
Date Received in Region Office	September 18, 1953.

W. H. King

W. H. King

Enclosures

RDB:cwm

cc: Contract
Secretary to the Oper. Comm. (2)
WMTraver
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
September 18, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for July and August 1953

Transmitted herewith are the original and four copies of the above progress report, the initial one--forms MF-104 and MF-104A, with narrative, sketch--and the original and six copies of R. L. Bolmer's memorandum covering inspection of the underground progress and reporting form. The contract is unit cost, short form MF-200(A) and documentation is not required.

Bolmer confirms the 96 feet advance of the crosscut to the White vein as reported in his narrative and entered on the MF-104A form. He also finds entries and extensions on this reporting form correct.

Payment is recommended and certified on the MF-104 form of $2,304.00, or 75 percent of the total $3,072.00 claimed by the contractor.

for R. L. Bolmer
W. M. Traver

Enclosures

WMT/le

cc ✓4
E570
DMEA Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
September 17, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division
Region IV

From: R. L. Bolmer

Subject: DMEA 3001, Contract Idm-E570 (Tungsten), Paul H. Bennett (World mine), Boulder County, Colorado - Progress report for July and August 1953

The progress reported by the operator for July and August 1953, 96 feet of crosscutting to the White vein, was confirmed during an inspection of the property September 1, 1953. The progress has been reported correctly on form MF-104A. The operator's narrative, with attached map, correctly and adequately describes the progress and the conditions encountered during the period.

Costs totaling $3,072.00 (96 feet of crosscut at a unit cost of $32.00 per foot) are reported for the July and August period. Both the footage and unit cost of crosscutting reported are authorized by the contract. Documentation of costs is not required for contracts prepared on form MF-200(A). Work has been accomplished as authorized in the contract and payment of 75 percent of the total amount reported on form MF-104, or $2,304.00, is recommended, subject to review by the regional office and verification of the applicable rates and the arithmetical accuracy of computations.

R. L. Bolmer

R. L. Bolmer
Mining Engineer

RLB/le

cc 6
E570
DMEA Chron.

September 1, 1953

Defense Minerals Administration,
Denver, Colorado

and

Paul H. Bennett,
1825 Marine Street,
Boulder, Colorado

DMEA Docket 3001
Contract No. Idm - E570

Report for the Months of July and August, 1953

World Mine Exploration

We began work on July 21, 1953, with three men. Several days were required to replace the pump motor because of an electrical burnout. We then proceeded on the southeast drift "Item D" on the contract, and drove this a total of 96 feet. We cut a large vein at 65 feet which vein projected upward would cut White Shaft. In as much as this was the vein for which we were looking and because it showed no mineralization or other signs of ore, we decided to stop work on this crosscut and to begin the raise on the Brandt vein.

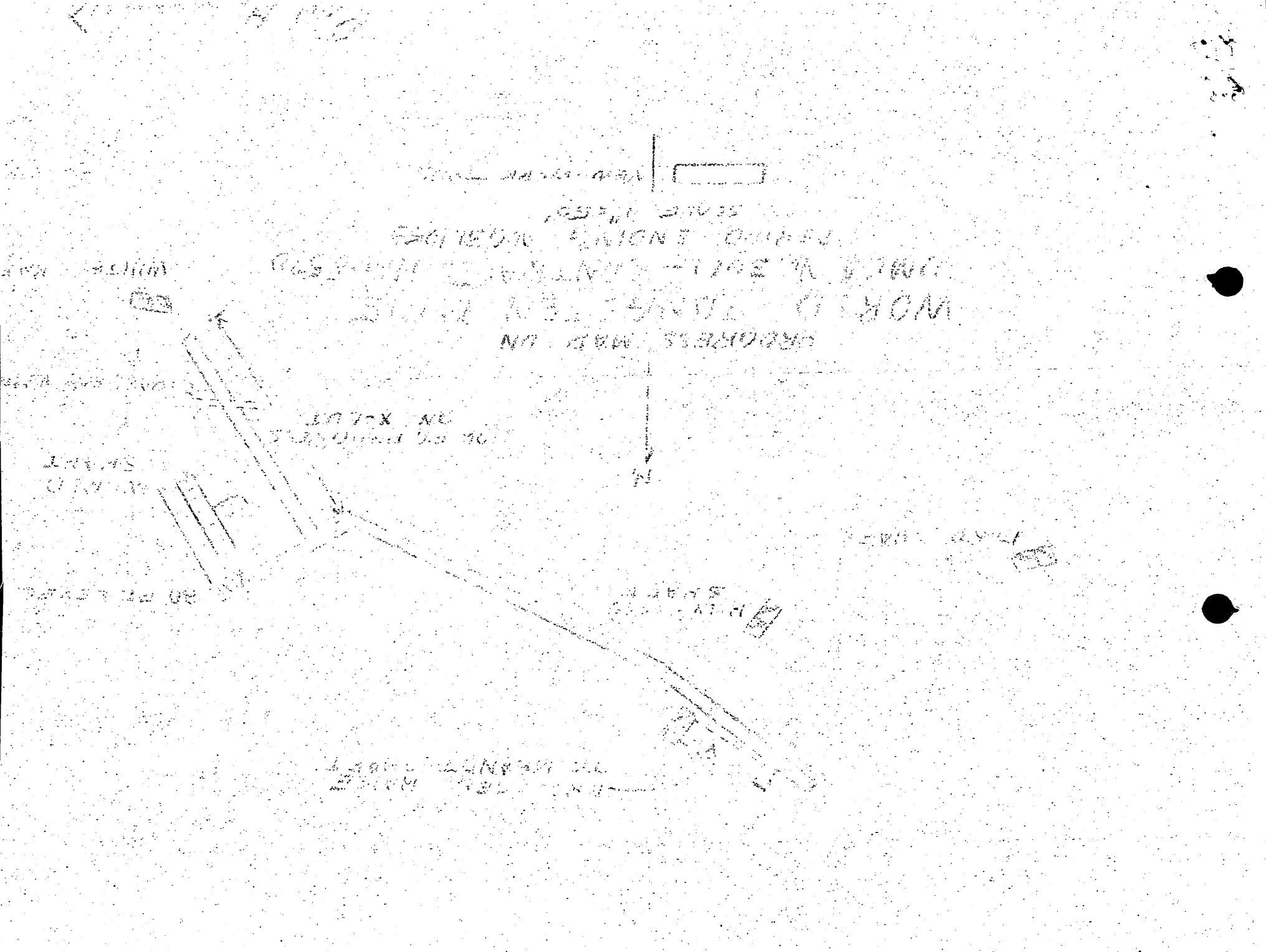
The crosscut work was all work performed during this reported period. As of the date of this report the raise is showing good ore.

Respectfully submitted,

Paul H. Bennett

P. H. Bennett

PHB:ab



Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 2 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of July&August 1953 Docket No. DMEA 3001 Contract No. Idm - E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine Street, Boulder, Colorado

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting	ft.						20	32.00
Crosscutting	ft.	3072.00	96	3072.00	96	32.00	130	32.00
Raising	ft.						100	34.00
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		3072.00		3072.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		3072.00		3072.00				8200.00

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

Date Sept. 15/53 Operator Paul H. Bennett
Paul H. Bennett
Per Title

NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF–104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF–104A has been designed to tie in with Form MF–104 for both monthly and cumulative costs. The "Total Costs" on Form MF–104A for each month should equal the monthly "Total Costs" as reported on Form MF–104. This is also true of the "Total Costs To Date".

In preparing Form MF–104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 83-38475

Form MF-401 (Rev.)
(April 1952)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42-R1036.3.
Approval expires 6-30-53.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT - 2 1953

OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of July & August, 1953 Docket No. DMEA 3001 Contract No. Idm - E570
Operator's Name Paul H. Bennett Minerals Tungsten
Address 1825 Marine Street, Boulder, Colorado
Contract Amount, $ 8200.00 Government Participation: 75 % Amount, $ 6150.00

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) ~~Independent~~ Short Form Contracts:						
Drilling						
Bulldozing						
Crosscutting	3072.00	--	3072.00			
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	3072.00	---	3072.00	3072.00	---	3072.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date Septem. 15/53 *Payee Paul H. Bennett
Paul H. Bennett
Per _____ Title _____

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$2,304.00

Signature _____
(Authorized Certifying Officer)

Date 9/24/53 Vou. No. DMA 54-31
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. E-570 in accordance with the terms of the contract.

Signature R. L. Bolmer, $2,304.00 Title Mining Engineer Date SEP 17 1953

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE: R. A.B.

Signature W. H. King Title Executive Officer Date SEP 21 1953

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

GPO 83-38476

Reg. 4 - August Report

E-570 DMEA-3001 - P. H. Bennett (World mine) (Tungsten), Boulder County, Colo.

The operator reported that he expected to start exploration work on July 21, but no further notice has been received.

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

Department of the Interior
Defense Minerals Administration
RECEIVED
JUL 20 1953

224 New Customhouse
Denver 2, Colorado

July 15, 1953

Memorandum

To: Secretary, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Final Report - Docket No. DMEA 3001 (Tungsten), Paul H. Bennett, Boulder County, Colorado

Enclosed are four copies of the final report on docket number DMEA 3001. The contract has been prepared in this office and is now in force.

W. H. King
W. H. King

Enclosure

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

RECEIVED
JUL 20 1953

224 New Customhouse
Denver 2, Colorado

REGISTERED

July 15, 1953

Memorandum

To: C. O. Mittendorf, Administrator, DMEA

From: Executive Officer, DMEA Field Team, Region IV

Subject: Contract - Idm-E 570 (Tungsten), Docket No. DMEA 3001, Paul H. Bennett, Boulder County, Colorado

Enclosed are the original and two copies of Contract Idm-E570. Copies of the contract have been given to the operator, the Fiscal Officer, Region IV, and a copy has been retained for our files.

W. H. King
W. H. King

Enclosure

Coe
7-20

RECEIVED
JUL 24 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

N. S. in R. R.

SURNAME COPY

Adams

Defense Minerals Exploration Administration

Robert E. Adams

2017

14X3923.970, Working Fund, Interior, DMEA
July 15, 1953
8:15 a.m.

W.H.King,Executive Officer,Region IV,224 New Customhouse Bldg.,Denver 2,Colorado

Assignment of Contract Number

REURTEL 7-14-53, DOCKET NO. DMEA-3001, PAUL R. BENNETT, 1825 MAINE ST., BOULDER, COLORADO, PROPERTY IN BOULDER COUNTY, COLORADO, COMMODITY TUNGSTEN. CONTRACT NUMBER IDM-E570 ASSIGNED THIS CONTRACT.

C. O. Mittendorf (for)

ADMINISTRATOR

READams/meb
cc to: Adm.Reading File
Mails & Files Br.
Audits Division
Miss Curtin

SENT
JUL 15 1953
Clerical Service Section

Mr. C. O. Mittendorf
7-14-53
12:52 P.M.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 14 1953

BUR MINES DN 235 7-14-53 9-49 AM

C O MITTENDORF

PLEASE ASSIGN A UXXXX NUMBER TO A CONTRACT COVERING DOCKET NO. DMEA-3001, PAUL H. BENNETT, 1825 MAINE STREET, BOULDER, COLORADO. PROPERTY LOCATED IN BOULDER COUNTY, COLORADO. COMMODITY TUNGSTEN. CONTRACT DATED JULY 14. TOTAL AMOUNT OF CONTRACT $8,200.00. GOVERNMENT PARTICIPATION $6,150.00.

J H EAST JR FOR W H KING

15%

IDM E-570

4100
2050
6150

Denver, Colo.

JUL 14 1 15 PM '53
BUREAU OF MINES
MAIL ROOM
WASHINGTON D. C.

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

224 New Customhouse
Denver 2, Colorado

June 29, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3001 (Tungsten), Paul H. Bennett, World Mine, Boulder County, Colorado.

Exploration assistance in the amount of $8,200.00 has been approved and the contract will be prepared by this office.

Four copies of the final report will be forwarded you when the contract is executed. The original and one copy of Form 3b is attached.

W. H. King

W. H. King

A. H. Koschmann

A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

RECEIVED
JUL 30 1953

Mining Division
Region IV

June 29, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3001 (Tungsten), Paul E. Bennett, World Mine, Boulder County, Colorado.

Enclosed are eight copies of the final engineering report on the subject docket.

The applicant requested $15,508.00 for exploration to include crosscutting, drifting and raising. The examining engineer recommends a modified project totaling 250 feet of exploration at a cost of $8,200.00.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
7-24-53
(date)

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

200 New Customhouse
Denver 2, Colo.

June 11, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 3001, World Mine, Boulder County, Colorado

Attached are 8 copies of the geological report by E. N. Harshman and the Summary, Conclusions, and Recommendations by M. H. Salsbury and E. N. Harshman covering DMEA Docket 3001 - World Mine, Boulder County, Colorado.

The applicant proposes to explore for tungsten ore by 300 feet of drifting, 140 feet of crosscutting, and 100 feet of raising at an estimated cost of $15,508.00.

After a field examination Harshman concludes that only part of the exploration program proposed by the applicant is warranted. He recommends a modified program estimated to cost $8200.00

I concur in this recommendation.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA 3001, Paul H. Bennett, Lessee

World Mine

Boulder County, Colorado

Tungsten

M. H. Salsbury, Mining Engineer
Bureau of Mines

E. N. Harshman, Geologist
Geological Survey

June 8, 1953

WORLD MINE

BOULDER COUNTY, COLORADO

PAUL H. BENNETT

DMEA DOCKET 3001

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By M. H. Salsbury, U. S. Bureau of Mines
and
E. N. Harshman, U. S. Geological Survey

WORLD MINE
BOULDER COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Paul H. Bennett, 1825 Marine Street, Boulder, Colorado, has applied for Government assistance, DMEA Docket 3001, to explore for tungsten ore in the World mine, Boulder County, Colorado. The property, leased from Hetzer Mines, Inc., is in the NW¼ sec. 8, T. 1 S., R. 72 W., 6th P. M. about 2 miles (airline) northeast of Nederland, Colorado.

The applicant proposes to explore the mine by 300 feet of drift, 140 feet of crosscut and 100 feet of raise on or from the 80-foot level, at an estimated cost of $15,508.

The World mine is in one of the more productive areas of the Boulder County tungsten district where ferberite occurs along fissure veins in pre-Cambrian Boulder Creek granite. Ore mined above the 40-foot level of the mine is reported to be valued at over $50,000.

About 300 feet of work have been done from the bottom of the shaft, the 80-foot level, and several poorly defined veins have been exposed.

Geologic conditions on the 80-foot level are not sufficiently encouraging to justify the extensive program of exploration proposed by the applicant. Certain items of proposed work are, however, believed warranted and a modified program of drifting, raising, and crosscutting is recommended. The cost of the reduced program is estimated to be $8,200, Government participation $6,150.

WORLD MINE

BOULDER COUNTY, COLORADO

PAUL H. BENNETT

DMEA DOCKET 3001

Geologic Report

By E. N. Harshman
U. S. Geological Survey

WORLD MINE
BOULDER COUNTY, COLORADO

INTRODUCTION

Paul H. Bennett, 1825 Marine Street, Boulder, Colorado, has applied for Government assistance, DMEA Docket 3001, to explore for tungsten ore in the World Mine, Boulder County, Colorado. The property, under lease from Hetzer Mines, Inc., is located about 2 miles northeast of Nederland, Colorado, in the NW¼ sec. 8, T. 1 S., R. 72 W., 6th P. M.

The applicant proposes to explore the mine by 300 feet of drift, 140 feet of crosscut, and 100 feet of raise, driven on or from the 80 foot level. The estimated cost of the project is $15,508.

The mine was examined on May 20, 1953, in company with J. C. MacLachlan, U. S. Geological Survey; M. H. Salsbury, U. S. Bureau of Mines; and Paul H. Bennett, the applicant.

It is concluded that the property does not warrant the extensive program proposed by the applicant but that certain items of proposed work are justified. A modified program of exploration is recommended.

GEOLOGY

The World mine is in one of the more productive areas of the Boulder County tungsten district. Ferberite occurs along a series of northeast striking, steeply dipping, fissures in the pre-Cambrian Boulder Creek granite and associated aplites and pegmatites. The principal minerals of the tungsten veins are ferberite and horn quartz although barite, pyrite, magnetite, and several clay minerals are present in some of the ore. The

ore shoots were formed by filling of open spaces rather than by replacement and thus their size and location may be controlled by minor changes in dip or strike of the vein fissure.

Ferberite ore with a value of somewhat over $50,000 is reported to have been mined above the 40 foot level of World mine. A few feet below the 40-foot level, now caved, the vein either terminates against or is cut off by a strong, flat-dipping fault (fig. 2). The upper part of the World shaft was driven on the ferberite vein, the lower part on the barren fault.

The 80-foot level of the World mine is in coarse-grained porphyritic granite, jointed and somewhat altered. For the first 60 feet southwest of the shaft, the level follows the barren fault exposed in the shaft below the 40-foot level. It then turns northwest and crosscuts a number of weak northeast-trending structures, including the Pump vein and the Brandt vein. The present face of the 80-foot level is in a silicified fault zone or vein.

Ore is exposed in the bottom of the Brandt shaft and is reported in the bottom of the now caved White shaft.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the exploration program requested by the applicant is somewhat more extensive than warranted by the rather poor showings on the 80-foot level of the World mine. The applicant requests 7 items of work, lettered A to G in order of preference. Items A, B, C, and F appear justified and an exploration program including them follows:

A. (applicant's item F) Extend the 80-foot level crosscut 10 feet northwest to explore the silicified fault or vein showing in the present face. It is possible this structure is the Brandt vein.

B. (applicant's item A) Drift 20 feet northeast on the Brandt vein, believed to be exposed in the short drift 20 feet southeast of the present face of the 80-foot level crosscut, but possibly the structure to be explored by item A above (fig. 2).

C. (applicant's item B) Raise on the Brandt vein from the 80-foot level to the bottom of the Brandt shaft, and drift at the bottom of the ore shoot that should be encountered in the raise. Combined raising and sub-level drifting not to exceed 100 feet total length.

D. (applicant's item C) Crosscut 120 feet southeast, as shown on figure 2, to explore for tungsten ore below the White shaft and to explore for a possible faulted segment of the vein mined above the 40-foot level in the World mine.

At the time of the examination the applicant stated that he planned to re-survey the World mine and tie in the various surface workings, including the White and Brandt shafts. This survey should be completed before the raise to the Brandt shaft or the crosscut to the White shaft are started.

The above exploration program should result in the discovery of a moderate tonnage of ferberite ore in the World mine. Government participation in the program, estimated by the U. S. Bureau of Mines to cost $8,200, is recommended.

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 8, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3001, World mine (Tungsten), Paul H. Bennett, Lessee, Boulder County, Colorado

Please find enclosed the original and eight copies of an engineering report by M. H. Salsbury on the above Defense Minerals Exploration Administration docket. The "Summary, Conclusions, and Recommendations" is being typed by the Geological Survey and will be submitted with their geologic report.

Salsbury concludes that some of the several proposals of the applicant have reasonably good possibilities of developing ferberite reserves. He recommends a modified project comprising 150 feet of drifts or crosscut and 100 feet of raise or sublevel drift, totaling 250 feet, whereas the applicant requested a total of 540 feet of the different types of exploration work requiring 6 months to complete at an estimated cost of $15,508.00. Salsbury's project will require 3-1/2 months to complete, at an estimated cost of $8,200.00. He suggests a short-form contract on a unit cost of $32.00 per foot for drifting or crosscutting and $34.00 per foot for raising or sublevel drifting. The work might all be on a unit price of $32.00 per foot regardless of the type.

I concur with the conclusions and recommendations, mainly because the project, besides having the advantage of an examination by a qualified engineer and geologist, also has the approval of Ogden Tweto, who is familiar with the Boulder County tungsten district, including the area around the World mine.

The exploration project, I believe, can only be classed by all concerned as long-shot prospecting, which is the best justification for the modification.

Scott W. Hazen Jr.
Scott W. Hazen, Jr. for
W. M. Traver

enclosures
WMT/cb
cc: 8, DMEA 3001, Chron.

DMEA 3001

PAUL H. BENNETT, LESSEE
WORLD MINE
BOULDER COUNTY, COLORADO

Engineering Report

By M. H. Salsbury
Mining Engineer
Bureau of Mines

DMEA 3001

PAUL H. BENNETT, LESSEE
WORLD MINE
BOULDER COUNTY, COLORADO

CONTENTS

Engineering Report	Page
Introduction	1
Acknowledgments	2
Location, topography, and physical features	2
History and production	3
Ownership and extent	3
Description of the deposits	4
Mineable ore reserves	5
Present status	5
Exploration and development	5
Mining and milling equipment and other facilities	7
Project proposals, with costs	7
Transportation, including access roads	10
Manpower, power, water, and timber	10
Production plan	10
Rate of production	10
Mining and milling methods and costs	10
Cost recapitulation	10
Proposed financing	11
Conclusions	11
Recommendations	12

ILLUSTRATIONS

Figure	Follows Page
1. Location of the World mine, Boulder County, Colo.	2
2. Plan of 80-foot level, World mine, Boulder County, Colo.	*

* See figure following Geologic Report

DMEA 3001

PAUL H. BENNETT, LESSEE
WORLD MINE
BOULDER COUNTY, COLORADO

ENGINEERING REPORT

By M. H. Salsbury

INTRODUCTION

Paul H. Bennett, 1825 Marine Street, Boulder, Colo., lessee of the World mine, Boulder County, Colo., has requested Defense Minerals Exploration Administration assistance, applying for a loan of $15,508.00--Government participation, 75 percent, or $11,631.00.

The property was investigated by a Region IV examining team on May 20, 1953, to check the information included in the application.

The applicant proposes to perform work on the 80-foot, or bottom, level of the World shaft totaling 300 feet of drift, 140 feet of crosscut, and 100 feet of raise, listed in seven different items.

A revised program totaling 250 feet of work is recommended, and a cost estimate totaling $8,200.00--Government participation 75 percent, or $6,150.00--is submitted on this basis.

ACKNOWLEDGMENTS

Information on the property was supplied by the applicant and by Ogden Tweto, of the Geological Survey, who is familiar with the Boulder County area.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The World mine is in the NW1/4 sec. 8, T. 1 S., R. 72 W., sixth principal meridian, Boulder County, Colo. (fig. 1), about 2 miles northeast of Nederland, the nearest post office. Nederland, a town of 300 population, is 17 miles west of Boulder, Colo., the county seat, by State highway 119, a paved, all-weather road now being rebuilt.

The nearest rail connections are at Rollinsville, Colo., 5 miles south of Nederland, and at Boulder, Colo.

The shaft, at an altitude of about 8,200 feet, is on the slope of North Boulder Creek in an area of low rounded hills and long ridges, dissected by a drainage network of small gulches. The area is sparsely forested with second-growth pine, suitable for small mining timbers.

Ore of shipping grade can be sold to custom mills in the immediate area.

The spring, summer, and fall seasons are cool. Winters are usually moderate with occasional cold periods and moderately heavy snowfall, although precipitation varies widely from year to year. Continuous operations are carried on with little difficulty.

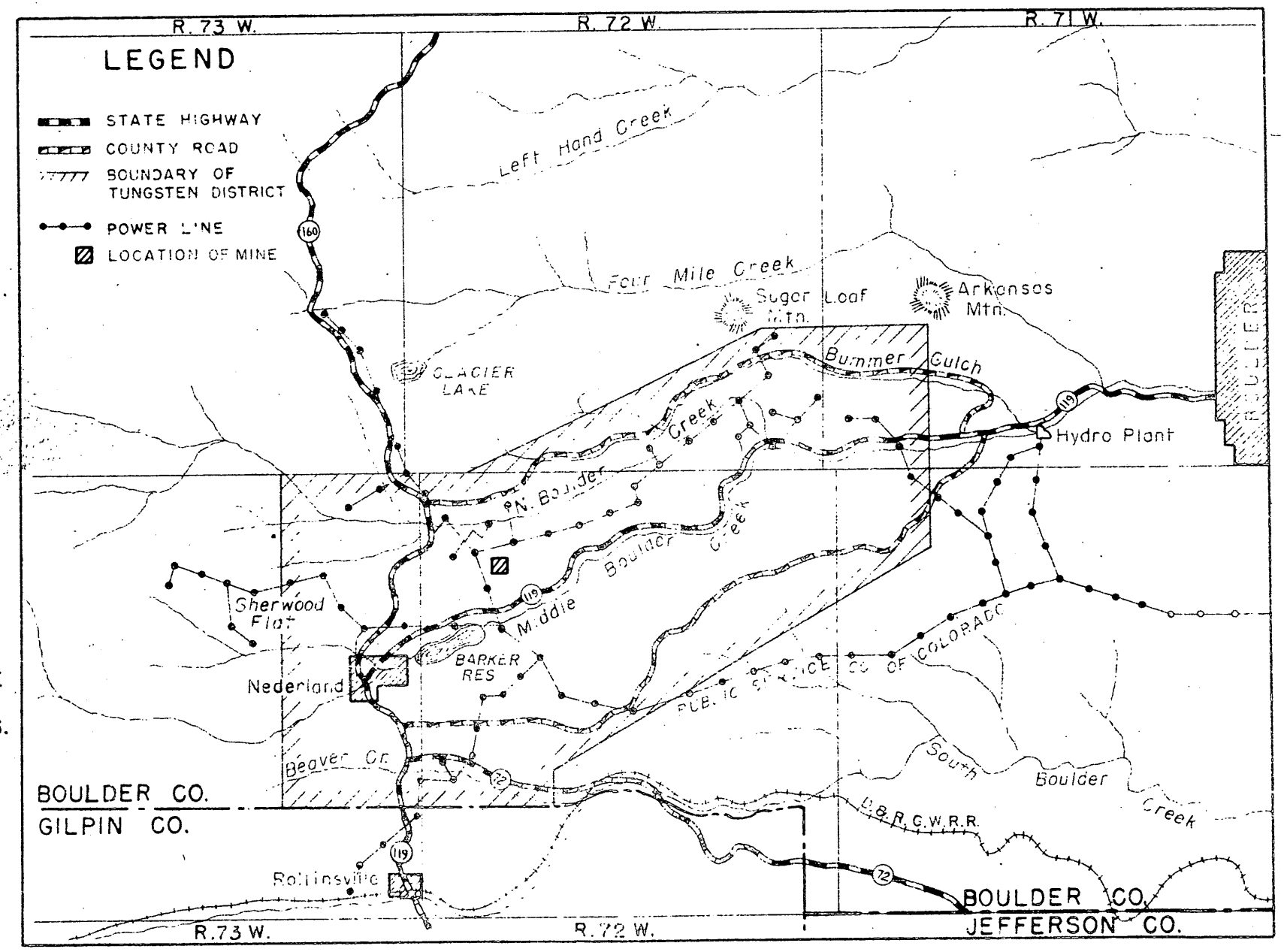


FIGURE 1. - LOCATION MAP OF THE WORLD MINE, BOULDER COUNTY, COLO. (DMEA 3001).

Power is available throughout the district from lines of the Public Service Company of Colorado.

Common small mining supplies can be obtained in Nederland or Boulder. Other items must come from Denver.

HISTORY AND PRODUCTION

The property has been worked by several different lessees since before World War I. In 1940, the present World shaft was operated by George Todd, Joe Smith, and Thurman Hennings, who are reported to have produced $50,000.00 from the World vein above the 40-foot level. Later work on the 80-foot level did not encounter ore. The present applicant has just completed 225 feet of crosscut on the 80-foot level which has cut two other veins, the Pump and the Brandt, both former producers. The neighboring properties, which have developed other veins of the same group, include two of the larger producers of the district, the Cold Spring and the Cross mines. Total production from the World mine is not recorded.

OWNERSHIP AND EXTENT

The lease block held by the applicant, a tract 600 feet by 1,500 feet, is part of the holdings of Hetzer Mines, Inc. It is owned under an agricultural patent. The lease agreement extends to January 17, 1963, and provides for a royalty of 16 percent of the net proceeds of ores or concentrates produced by the lessee. "Net proceeds" is defined as the net sale price less the cost of hauling and/or freight and treatment charges. The lessor will execute Owner's Consent to Lien.

In the application form MF-103, Paul H. Bennett is listed as the applicant, but other unnamed parties are reported to be interested financially.

DESCRIPTION OF THE DEPOSITS

There are five known veins on the property developed by shallow shafts (fig. 2 with the geological report). All have reported or recorded production from ore shoots at shallow depths. The known production has come from the northeast corner of the lease block.

The veins all strike N. -60° to 70° E. and dip 75° to 55° northwest. They are typical narrow quartz-ferberite veins in gneissic or schistose granite, which occupy what Ogden Tweto describes as tension fractures between two major faults. Commercial ore may be mined from veins as narrow as 2 to 3 inches.

The ore shoot on the Brandt vein is known to continue below the bottom of the Brandt shaft. An ore shoot worked to a depth of 40 feet through the White shaft is reported to continue downward, as is one in the Ford shaft.

The Pump vein is cut southwest of an ore shoot which was mined to surface from the Cross No. 1 shaft, but is not strongly mineralized where it is exposed in Bennett's crosscut.

The World vein, on which the World shaft was sunk, has produced ore from the 40-foot level to surface where the vein has a steep dip. Below the 40-foot level the shaft follows a flat, barren fissure, which Bennett regards as a fault displacing the ore to the southeast. He states that he has found fragments of drag ore in the vein matter.

MINEABLE ORE RESERVES

The property has no measurable ore reserves.

PRESENT STATUS

Exploration and Development

Exploration and development have been carried on through six different shafts within the block, all now inaccessible except the World shaft through which Bennett proposes to carry on his work. The World shaft has levels at 40 feet and 80 feet. There are 20 feet of drifts on the 40-foot level and 275 feet of drifts and crosscut on the 80-foot level. A map showing the World shaft workings and the relative position of the other shafts and veins was furnished with the loan application. A Brunton survey of the shaft workings was made by E. N. Harshman, Geological Survey, during the examination and is shown on figure 2 with his geological report.

The applicant drove the 225-foot crosscut on the 80-foot level of the World mine during the past year. The Pump vein was cut just at the southwest end of old workings from the Cross No. 1 shaft, which lies north of the lease block. A vein with tungsten mineralization was cut a few feet from the present face of the crosscut. This is probably the Brandt vein, although several slips showing in the face of the crosscut indicate the possibility of more mineralization directly ahead. There is no definite information on any of the other shafts except the Brandt. Bennett unwatered this shaft last year. It was in poor repair, but he reports commercial ore showing in the shaft sump at a depth of 55 feet, and an old stope from the bottom, or 50-foot, level was mined towards surface.

From the Bennett crosscut, on the 80-foot level of the World shaft, a drift was driven 10 feet southwest on a vein which is presumed to be the Brandt. The mineralization seen in the crosscut pinched out, however, and the only mineralization now showing is 1 to 2 inches of quartz-ferberite on the northeast wall of the crosscut.

The Ford shaft is reported to have been sunk on ore found in a vein which is supposed to junction with the Brandt vein. There is no definite evidence of this in Bennett's crosscut, although there is slight mineralization at one point which might be associated with an easterly extension of the Ford vein.

The collar of the Brandt shaft is 27 feet higher than the collar of the World shaft, and, on the 65° dip of the Brandt vein, there is approximately 60 feet difference vertically between the bottom of the Brandt shaft and the World 80-foot level.

Mining and Milling Equipment and Other Facilities

The World shaft is completely equipped with a 15 horsepower electric hoist, 15 horsepower electric pump, 180 c.f.m. electric-driven compressor, buckets, mine cars, and drilling equipment. At the time of the examination, the applicant was engaged in clearing up several rock falls on the 80-foot level, and no additional work will be required before operations can be started.

There are no milling facilities on the property, and any ore produced will be shipped to custom mills in the area.

PROJECT PROPOSALS, WITH COSTS

The applicant proposes the following exploration:

(A) Drive an inclined raise 100 feet on the Brandt vein,

(B) Drift 50 feet northeast on the Brandt vein on the 80-foot level.

(C) Crosscut 120 feet southeast to cut the White vein and possible continuation of the World vein ore shoot.

(D) Drift southwest 50 feet on the Brandt vein.

(E) Drift southwest 100 feet on the Ford vein (if cut).

(F) Crosscut northwest 20 feet through the fault zone in the present face of the crosscut.

(G) Drift southwest 100 feet on the Pump vein.

This work totals 540 feet, costing $15,508.00, to be completed in 6 months at an estimated cost of $28.72 per foot, probably an entirely reasonable figure.

The revised program suggested by the examining team includes part of items A, B, C, and F of Bennett's proposal, listed below in the sequence in which they are to be performed. The proposed work is also shown on figure 2 with the geological report.

(F) Continue the crosscut 10 feet to the northwest.

(B) Drift northeast 20 feet, either on the vein now showing in the crosscut or on a vein or veins intersected in the crosscut extension (F), if they appear more favorable for exploration.

(A) Raise 100 feet or less on the Brandt vein to connect with the Brandt shaft. This raise will probably not be driven the full 100 feet, and the balance should be expended in sublevel drifting at a point designated by the Region IV Field Team on recommendations from field representatives.

(C) Crosscut a maximum of 120 feet to the southeast to cut the possible downward extension of the White vein ore shoot, as well as the less-likely faulted World vein ore shoot.

Completion of this 250 feet of work is estimated to require 3-1/2 months, based on the applicant's estimate of 6 months to complete 540 feet of similar work.

Cost Estimate

	Drift or crosscut 150 feet (50 shifts or 2 months estimated)	Raise on sublevel drift 100 feet (33 shifts or 1-1/2 months estimated)
Labor and Supervision		
1 hoistman-compressorman-topman at $14.30 per shift, including overtime	$ 715.00	$ 471.90
2 miner-timbermen at $14.30 per shift, including overtime	1,430.00	943.80
1 working supervisor at $500.00 per month (also does bookkeeping, prepares reports)	1,000.00	750.00
Operating Materials and Supplies		
Timber	100.00	270.00
Explosives	525.00	350.00
Track	150.00	-
Pipe	112.50	75.00
Power	200.00	150.00
Other	150.00	100.00
Equipment		
Depreciation of operator's equipment (estimated value of $3,500.00)	116.66	87.50
Miscellaneous		
Repairs to equipment	150.00	100.00
Analyses	41.70	26.65
Payroll taxes	47.18	32.49
Liability insurance ($1.97 per $100.00 of payroll)	61.96	42.66
Total cost	$4,800.00	$3,400.00
Unit cost per foot	$32.00	$34.00

Transportation, including Access Roads

A good county road connects with a State highway and no access roads are needed.

Manpower, Power, Water, and Timber

A good supply of experienced mine labor is available locally. Water is available in the mine; electric power is already installed; ample timber can be purchased or cut on the property.

PRODUCTION PLAN

The applicant estimated 6 months to accomplish 540 feet of work, or at the rate of 90 feet per month. The 250 feet of recommended work will require approximately 3-1/2 months.

Rate of Production

While the rate of production cannot be estimated in advance, it will very likely be low with the small ore bodies typical of the region.

Mining and Milling Methods and Costs

The normal method of open stoping, with careful breaking to keep the stopes as narrow as possible, will be used. Ore will be sorted out in the stopes. Mining costs will be high.

Sorted ore will be trucked to the Wolf Tongue mill of Hetzer Mines, Inc., at Nederland.

COST RECAPITULATION

Drifting, 20 feet at $32.00 per foot	$ 640.00
Crosscutting, 130 feet at $32.00 per foot	4,160.00
Raising or sublevel drifting, 100 feet at $34.00 per foot	3,400.00
Estimated total cost of project	$8,200.00

PROPOSED FINANCING

The applicant states that he is prepared to furnish his share of the cost of the proposed project which, on the basis of his proposals, would be $3,877.00, or considerably more than 25 percent of the cost of the revised program.

CONCLUSIONS

Of the several proposals listed by the applicant, exploration of the Brandt vein, underneath a known ore occurrence, and cross-cutting to intersect the possible downward extension of the ore shoot mined on the White vein, appear to be the best. In the cross-cut to the White vein, the possible faulted section of the World vein might also be encountered, although it is by no means certain that the World vein is faulted. It could possibly have pinched out where the dip changed.

Exploration of the Pump vein to the southwest would be in new territory on a poorly mineralized showing and away from the known ore occurrence which has been mined out above this level.

After completion of the recommended work on the Brandt vein, results might encourage further work toward the Brandt vein - Ford vein junction, which is indicated but not actually known to exist.

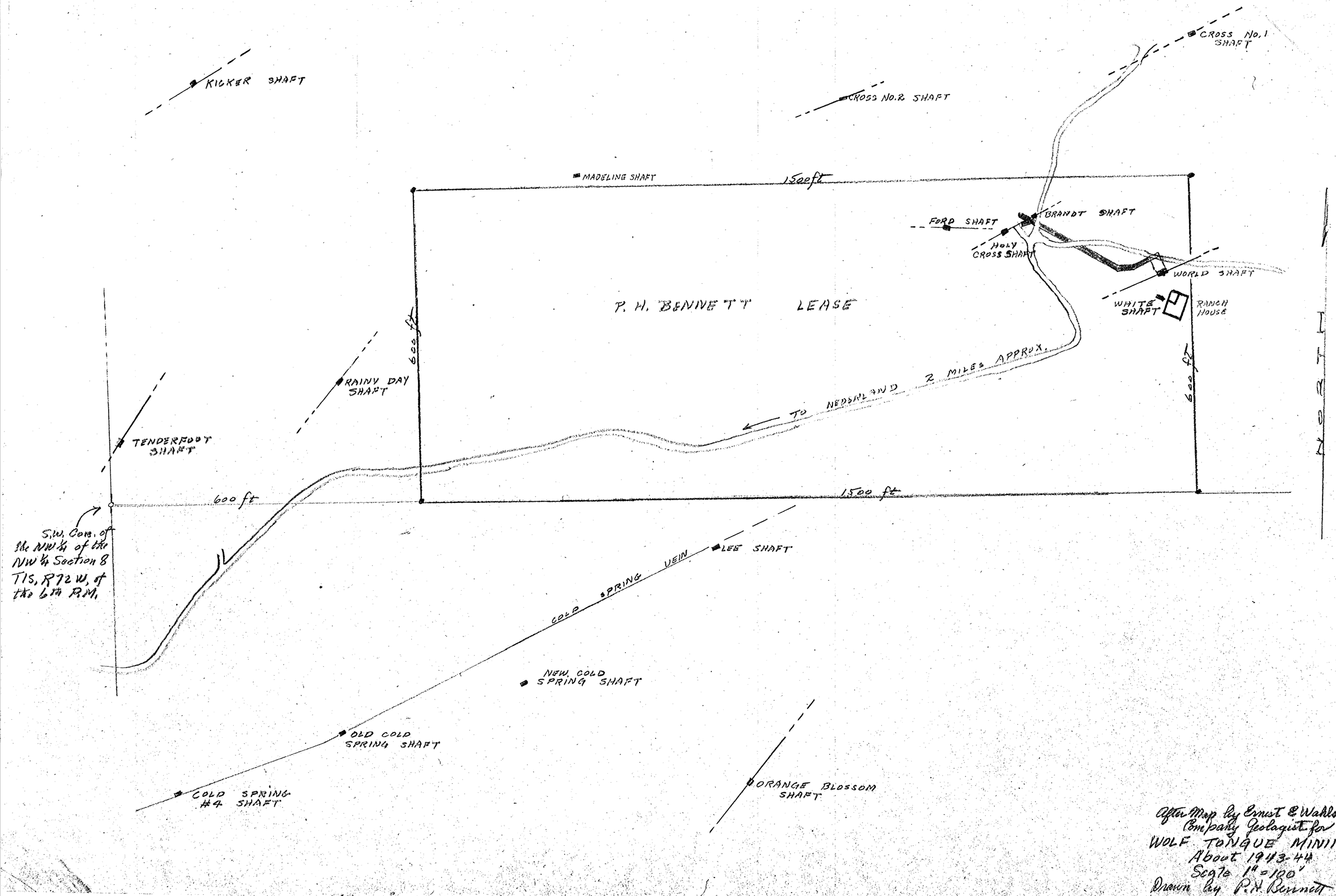
The work can be completed in 3-1/2 months at a reasonable cost. The applicant is a competent operator with considerable experience in the Boulder tungsten field and is now satisfactorily operating Defense Minerals Exploration Administration contract Idm-E402 at the Vasco No. 7 mine.

RECOMMENDATIONS

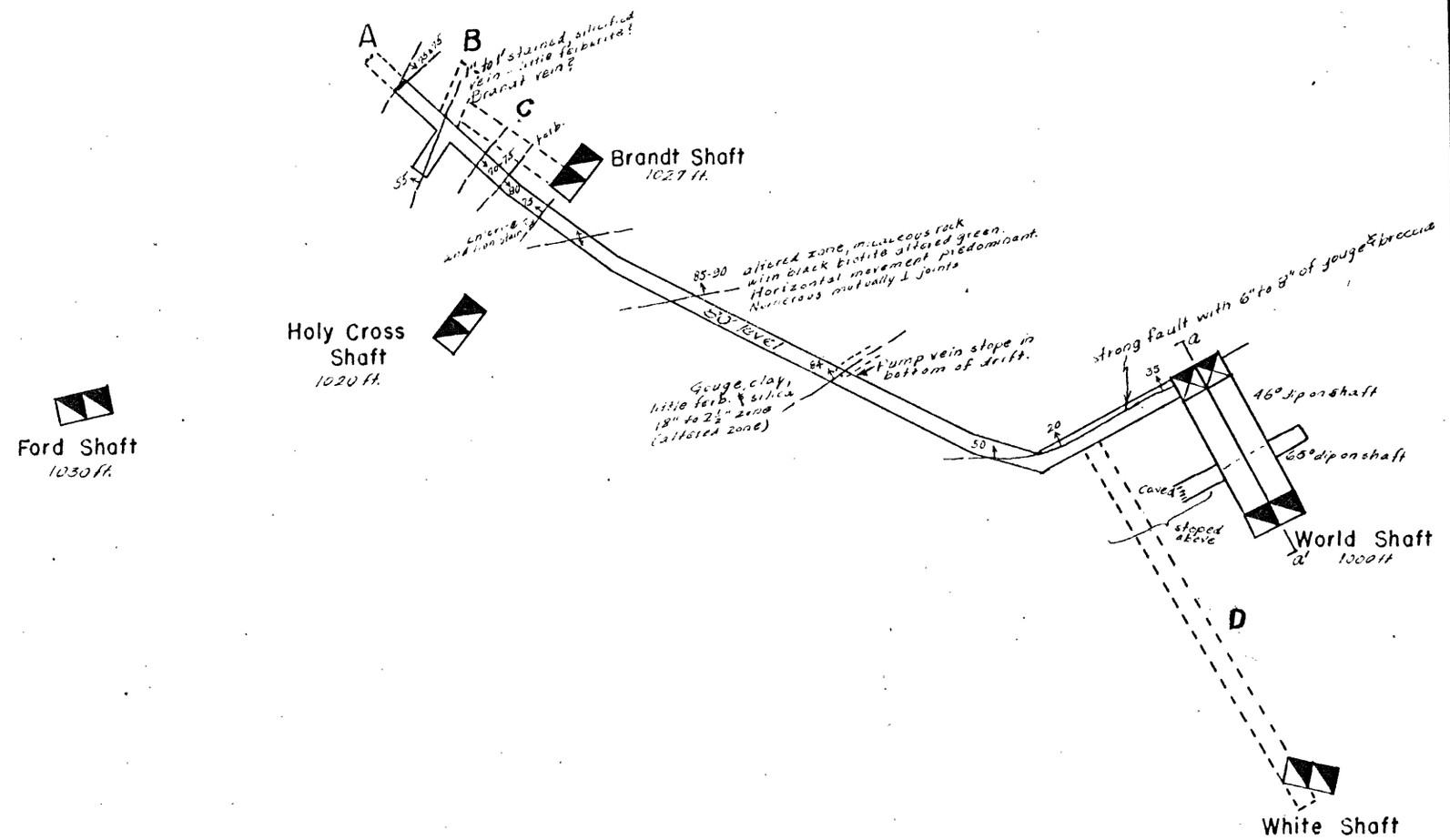
It is recommended that an exploration project of crosscutting, drifting, and raising, totaling 250 feet at an estimated cost of $8,200.00--Government participation, 75 percent, or $6,150.00--be approved. The contract should be prepared on a short-form MF-200 (A) with unit costs of $32.00 per foot for drifting or crosscutting and $34.00 per foot for raising and sublevel drifting.

cb

DMEA-3001



After Map by Ernest E Wahlstrom
Company Geologist for
WOLF TONGUE MINING Co
About 1943-44
Scale 1" = 100'
Drawn by P.H. Bennett 1953



UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY

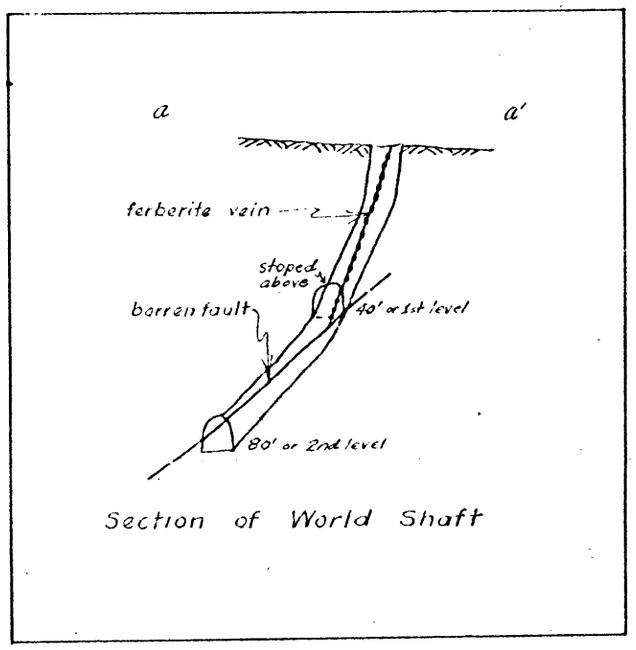
WORLD MINE, BOULDER CO., COLORADO
DMEA 3001

Shaft collars located according to company map, tunnel from tape and Brunton compass survey by E.N.Harshman and J.C.Mac Lachlan, U.S.G.S. Proposed exploration shown dashed.

Scale 1" = 50'

May, 1953

Fig. 2 Plan of 80 foot level



Section of World Shaft

P.H. Bennett lease