DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

Idm-E NO. 481

DMEA NO. 2688

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- [ ] Withdrawn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

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

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

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

Additional Folders:

Left Side

Folders No. 2 : Reports
- [x] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

Folders No. 4 : Maps (Use pocket folder or envelope)

Folders No. 3 : Settlement Sheets + Royalty material

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 Amended Contract Idm-E481, Docket DMEA-2688 (tungsten), dated January 27, 1953, with

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

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 Minerva Tungsten Mine located in White Pine County, Nevada, during the period June 1, 1956, through December 7, 1961.

A certification of discovery or development was issued on July 18, 1953, and, in accordance with Article 8 of the amended 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. An Audit Certificate dated April 20, 1953, indicated accepted costs under the exploration contract amounting to $165,512.67 with the Government's contribution on a 75 percent basis being $124,134.50.

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 Royalty Audit Certificate, which found the sales subject to the Government's royalty through May 31, 1956, to be $374,798.27. The royalty account as of May 31, 1956, was:

Total Royalty Payable	$18,431.45
Total Royalty Paid	18,431.45
Balance of Royalty Due	$ -0-

At December 7, 1961, the royalty account of this project was found to be:

Total Royalty Payable	$18,431.45
Total Royalty Paid	18,431.45
Balance of Royalty Due	$ -0-

December 12, 1961

E. D. Talbert, OME Auditor

STATUS OF PROJECT, SCOPE OF REVIEW
AND REASONS THEREFOR

Mining operations on the leased unpatented claims under this contract ceased on May 12, 1956, and the last shipment of production was made on May 16, 1956. Inspections and inquiries by field representatives have found that, except for annual assessment work, the property has remained inactive.

All sales of production (tungsten ore and concentrates) from the date of the contract through the last shipment on May 16, 1956, were covered by a Royalty Audit Report and Certificate dated August 1, 1956.

Article 8 of this amended contract provides that the Operator, as principal if the producer or as surety if not the producer, shall pay the Government's percentage royalty on all production from the land. The Operator is a joint venture of the Combined Metals Reduction Company and the American Zinc Company of Tennessee.

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

(1) No minerals have been produced from the property since May 1956;

(2) All sales of production have been accounted for and proper royalty thereon paid; 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.

Check Sheet of Examining Engineer

Operator's Name M. I. A. Mines Company. (Minerva Tungsten Mine)

Address 218 Felt Bldg.,

Salt Lake City, Utah

Exploration Contract No. Idm-E 481 Docket No. DMEA-2688

	Check One Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?	X	
(b) If so, is segregation and identification procedure adequate?	X	
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?	X	
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?	X	
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.

The mine has been idle since May, 1956.

George H. Holmes, Jr.

George H. Holmes, Jr.
Mining Engineer
Acting Field Officer, OME
Region 11

Date December 7, 1961

82448

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

RECEIVED
AUG - 6 1956

THIRD ROYALTY AUDIT CERTIFICATE

I have examined the records and sales documents pertaining to the sale of tungsten ore and tungsten concentrates for the period July 1, 1955 to May 31, 1956, by the

M.I.A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

NSM

produced from the Minerva Tungsten Mine, White Pine County, Nevada, approximately 30 miles southeast of Ely, Nevada, on which royalties are due the U.S. Government under the terms of Contract No. IDM-2481, Docket No. DMEA-2688 (Tungsten), dated January 27, 1953, including Amendments Nos. 1, 2 and 3, inclusive, and Amended Contract dated January 27, 1953, including Amendment No. 1.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established the net sales of tungsten ore and tungsten concentrates for this period to be $199,730.82. Royalty due the United States Government at contract rate of five percent is $9,986.56.

Prior audits conducted by this auditor for the period of January 27, 1953, to February 28, 1955, and for the period March 1, 1955 to June 30, 1955, found the sales as of the last date to be $175,067.45, which added to sales for this period make a total of $374,798.27 as of May 31, 1956. The royalty account as of June 30, 1955, was

Total Royalties Due	$8,444.89
Total Royalties Paid	8,444.89
Balance Royalties Due	-0-

As of May 31, 1956, the royalty account of this project was found to be

Total Royalties Due	$18,431.45
Total Royalties Paid	18,431.45
Balance Royalties Due	-0-

George Mavor
George Mavor
Auditor

August 1, 1956

III Royalty Audit

RECEIVED
AUG - 6 1956

THIRD ROYALTY AUDIT REPORT

I INTRODUCTION

On June 21 and 22, 1956, an audit was made of the production, sales, and royalty accounts and records of

M.I.A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

pertaining to the sale of tungsten ore and tungsten concentrates during the period July 1, 1955 to May 31, 1956, produced from property known as the Minerva Tungsten Mine, located in White Pine County, Nevada, approximately 50 miles southeast of Ely, Nevada, on which royalties are due the U.S. Government under the terms of Contract No. Idm-Eh81, Docket No. NMEA-2688, dated January 27, 1953, including Amendments Nos. 1,2 and 3, inclusive, and Amended Contract dated January 27, 1953, including Amendment No. 1.

The records pertaining to this contract are located in the company's office, 218 Felt Building, Salt Lake City, Utah, and the following officials were consulted during the course of the audit.

O. F. Burton, Treasurer
O. Nordfelt, Account

Their cooperation and assistance greatly facilitated the audit.

Mr. Glen G. Gentry, Mining Engineer, U.S. Bureau of Mines, collaborated in the audit, for which his assistance is hereby acknowledged.

II GENERAL INFORMATION

A certificate of discovery was issued under date of July 18, 1953, and the producing area subject to royalties is described in Annex I, of the Amended Contract as follows:

The land referred to in Article 2 of the contract, consists of the following unpatented lode claims, all recorded in the White Pine County Recorder's office, Ely, Nevada

Claim	Book	Page
Silver Bell (easterly 1/2 of claim)	96	276
Silver Bell No. 1	96	277
Wedge (southerly 1/2 of claim)	134	207
Pet Pie No. 1 (southerly 1/2 of claim)	128	377

and that part of the west 1/2 of the Silver Bell claim that contributes ore from Objective Area No. 1
(See attached map 6-1107)

Under Article 8 (b) of the Amended Contract, the royalty repayment period is stipulated as 10 years from date of contract, which was dated January 27, 1953.

The contract was completed January 27, 1955 and the Final Audit Report and Certificate dated April 20, 1955, prepared by this auditor, showed the total accepted costs of the exploration amounted to $165,512.67, with the Government's contribution, on a 75 percent basis, being $124,134.50.

There were two prior royalty audits made for this contract. The First Royalty Audit Report dated April 20, 1955, covered the period January 27, 1953 to February 28, 1955. The Second Royalty Audit Report was dated November 22, 1955, and covered the period March 1, 1955 to June 30, 1955, and both of these royalty audit reports were prepared by this auditor. The present audit extends the period covered by audit to May 31, 1956.

The company ceased mining operations May 12, 1956, and the last tungsten concentrates shipped was May 16, 1956 to the General Service Administration, San Francisco, California, and covered by Combined Metals Reduction Company Settlement Statement dated July 10, 1956, G.M.R. Co. Lot No. 13 and Shippers Lot No. 9-2646-2, and the 5 percent royalty payment in amount of $1,514.68, was received by Finance Officer in San Francisco, California on July 24, 1956, and deposited under G/D No. 14-23-030-5.

III SCOPE OF AUDIT AND FINDINGS

A. Conference with Examining Engineer

A conference with the examining engineer (Mr. Gentry) disclosed the following:

(a) The examining engineer considers, and this auditor agrees, that the operator maintains adequate records pertaining to stockpiled ore and mine or mill rejects that may have a potential value within the royalty repayment period.

(b) The method of allocation of proceeds from commingled production is considered equitable.

(c) Assay controls are deemed adequate

(d) The manner of disposing of production is considered as giving the Government its fair royalty returns.

(e) Periodic examinations by the examining engineer indicate that the operator is properly reporting the current production subject to royalties.

(f) There has been no indication that the operator has bought ore from, or sold ore to other operators.

B. Audit of Settlement Statements

A considerable amount of preaudit work was accomplished in the Finance Office, Region XI, San Francisco, California, prior to field audit. During this preaudit work a statement of royalties received was prepared from copies of settlement sheets furnished by purchasers of ore and concentrates in support of royalty payments made by such purchasers directly to the Regional BMRA Executive Officer. The royalty receipts were verified with deposits made by the Regional Finance Officer. All of the data included in the statement was confirmed. This statement, which is filed as a part of audit work papers, was reconciled with the production and sales records, maintained by the operator in their office, at Salt Lake City, Utah.

An analysis of tungsten ore and concentrate sales during the audit period January 27, 1953 to May 31, 1956, showed shipments made to the following purchasers:

Tungsten Ore

Purchaser	Dry Tons	Net Sales
Combined Metals Reduction Co.	5,597.735	$95,863.36
Minerals Engineering Co.	508.298	6,538.98
Total Tungsten Ore	6,106.033 *	$102,402.34

*100% from BMRA Area

Tungsten Concentrates

	Net Total Sales			Net Sales from BMRA Area	
	Units WO_3	Amount	%	Units WO_3	Amount
G. W. Jones	3,303.821	$195,898.16	100.00	3,303.821	$195,898.16
Minerals Engineering Co.	453.649	27,239.36	46.85	212.535	12,761.64
" " "	364.631	21,731.09	59.00	215.132	12,821.34
Gen'l Service Admin.	391.6691	24,854.11	87.50	342.7105	21,742.35
" " "	480.8384	30,298.44	100.00	480.8384	30,298.44
Totals	4,994.6085	$498,815.16		4,555.0369	$272,395.93

Total Royalties Paid to BMRA

	Sales	Royalty Rates	Royalties Paid
Tungsten Ore	$102,402.34	1-1/2% to 5%	$ 4,811.64
Tungsten Concentrates	272,395.93	5%	13,619.81
Totals	$374,798.27		$18,431.45

Included in the above tungsten concentrates sales, were mixed lots from company and BMRA ore production, and the BMRA proportion of the sales were included with lot No. 10-46.89%, lot No. 11-59.00% and lot No. 12-87.50%. The

company ore production was from old sections of the mine, which was not subject to MMRA royalties. The method of arriving at the percentage of sales applicable to MMRA, was based on daily mine production reports, which showed the tonnage and indicated whether the ore was produced from company or MMRA areas. After production, the ore is then sorted, which results in a loss of 20 to 30 percent, depending on type of ore produced. The method of obtaining the sales percentage applicable to MMRA for lot No. 10 - 46.85%, was calculated as follows:

	Tons Produced Before Sorting	Tons Produced After Sorting	% After Sorting
MMRA Area	430	335	46.85%
Company Area	473	380	53.15%
Totals	903	715	100.00%

The same procedure was used when computing the percentages applicable to MMRA sales on lot No. 11 - 59.00% and lot No. 12 - 87.50%. The total sales of tungsten concentrates listed above, for which MMRA royalties applied, amounted to $272,395.93 and was accounted for in lots Nos. 1 to 8, inclusive and lots Nos. 10 to 13, inclusive. Lot No. 9 covered a shipment of tungsten concentrates to S. W. James, Bishop, California, and settlement was made for 299.875 units in amount of $18,003.81, and this entire shipment, was attributable to ore produced from old company stopes, in which the MMRA did not participate in royalty payments.

All tungsten concentrates shipped and covered by lots Nos. 1 to 13 inclusive, were produced at the Steyer, Steyer and Allen Mill, located on Minerva Mining properties. The ore production records indicate that 5,956.5 tons was produced and shipped to the Steyer, Steyer and Allen Mill during the period February 1955 to May 1956, and the milling records indicate the entire tonnage of 5,956.5 had been milled. From this 5,956.5 tons milled, the mill records showed an estimated concentrate recovery of 162,173 dry lbs. at an average of 64.5% WO_3 = 104,617 lbs. WO_3 or 5,230.85 units. After deducting a mill inventory of 8.15 units, this would indicate that 5,222.70 units had been shipped which was less than the total of 5,894.4775 units shown in settlement statements 1 to 13, inclusive. This variation was due to the final assays shown in settlement statements being slightly higher than the estimated mill recovery assays. When mining and milling operations ceased May 18, 1956, the mill records showed 250 dry lbs. of tungsten concentrates at 65% WO_3 or 8.15 units remaining on hand at the mill. The operator also showed 1,320 tons of low grade ore 0.40% WO_3, on hand at the mine site.

The settlement statements for tungsten concentrates prepared by the Combined Metals Reduction Company, are not calculated on a 20 lb. unit price, but a price per ton of dry tungsten concentrates, however for audit report purposes 20 lb. units have been used, which were obtained from the buyer's settlement statements.

During the course of the audit, an examination was made of all prices shown in settlement statements. Negotiated prices were the basis of

settlement on tungsten concentrate shipments to C. W. Jones, Bishop, California and Minerals Engineering Company, Salt Lake City, Utah.

Additional information pertaining to operator's accounts and records and method of shipping tungsten ore is explained in pages 3, 4 and 5 of Second Royalty Audit Report, dated November 22, 1955.

IV CONCLUSIONS

An analysis of the operator's production and sales of tungsten ore and tungsten concentrates, subject to MMSA Royalties, are as follows:

	Tungsten Concentrates	Tungsten Ore
Wet Weight	138,648.1270 lbs.	12,511,906 lbs.
Moisture	569.6137 lbs.	299,800 lbs.
Dry Weight	138,078.5133 lbs.	12,212,106 lbs.
Dry Weight	69.0393 tons	6,106.053 tons
Average % WO_3	65.98%	
20 lb. Units WO_3	4,555.0309	
Average price per unit (approximate)	$59.80	
Average value per ton (dry weight)	$3,945.52	$16.77
Gross Value	$273,858.31	$141,857.90
Allowable Deductions	1,462.38	38,455.56
Net Value	$272,395.93	$102,402.34

Summary of Sales and Royalties

	Sales	Royalty Rates	Royalties Paid
Tungsten Concentrates	$272,395.93	5%	$13,619.81
Tungsten Ore	102,402.34	1-1/2% to 5%	4,811.64
Totals	$374,798.27		$18,431.45

A detail of royalty payments is filed as part of the audit work papers.

The audit has confirmed the accuracy and propriety of the royalty payments received by the Finance Officer, during the period January 27, 1953 to May 31, 1956. It has also determined that all indicated sales of tungsten ore and tungsten concentrates subject to MMSA royalties under exploration contract, for which settlement sheets have been released, have been properly accounted for.

George Mavor

George Mavor
Auditor

August 1, 1956

Check Sheet of Examining Engineer

RECEIVED
AUG - 6 1956

Operator's Name M.I.A. Mines Co. (Minerva Tungsten Mine)

Address 218 Felt Bldg.,

Salt Lake City, Utah

Exploration Contract No. Idm-E481 Docket No. DMEA-2688

	Check One Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?	X	
(b) If so, is segregation and identification procedure adequate?	X	
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?	X	
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?	X	
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.		

Glenn G. Gentry

Glenn G. Gentry

Mining Engineer

Date 6/26/56

82448

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

1605 Evans Avenue
Reno, Nevada

July 5, 1956

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

RECEIVED
JUL 9 - 1956

Attached are three copies of our royalty audit on subject contract prepared by George Mavor, two copies of example of detailed charges Lot No. 11 concentrates, and two copies each of ore production and concentrate records for months of March, April and May.

I believe these data will furnish the information requested in your letter of May 18, 1956. According to lamping by G. G. Gentry at various times, the rejects from the sorted ore carry only unappreciable amounts of scheelite.

S. Ricker

Attach.

Minerva Ore Production & Concentrate Production for the Period Ending May 12, 1956.
May 21, 1956

Mr. W. F. Burton, Treasurer

M. L. Brittain

Dear Mr. Burton:

Following is the ore production and concentrate production for the period ending May 12, 1956.

Mill Ore - Assay 1.50% WO_3	194 Tons

Explanation of Inventory

Inventory May 1, 1956 - 1.00% WO_3	156 Tons
May Production for mill - 1.00% WO_3	194 "
Milled at Stopper Mill during May	350 "
Mill ore inventory 5/12/56	0 "

Low Grade Stockpile at Mine

May 12, 1956 (no change) - 0.40% WO_3	1,320 Tons

Concentrate Production - May, 1956

350 tons milled in 325 hours.
11,437# dry concentrates* (68% WO_3) produced.

*(Note: 11,187 in MIA Lot 13 or Lot 2 to G.S.A., San Francisco, 5/16/56.
250# approx. - inventory at mill.)

Very truly yours,

M. L. Brittain
Manager

cc: PG
PMA
Gm
File

April 1956

Minerva Ore Production & Concentrate Production for Month of April, 1956.

May 10, 1956

Mr. J. F. Burton, Treasurer

R. L. Brittain

Dear Mr. Burton:

Following is the ore production and concentrate production for the month of April, 1956.

Mill Ore - Assay 1.[illegible]% WO_3	477 Tons

Implementation of Inventory

Inventory April 1, 1956 @ 0.7[illegible]% WO_3	210 Tons ✓
April Production for mill @ 1.[illegible]% WO_3	477 "
Milled at Stopper Mill during April	531 "
Mill ore inventory 5/1/56 @ 1.[illegible]% WO_3	156 " C ✓

Low Grade Stockpile at Mine

May 1, 1956 (no change) @ 0.[illegible]% WO_3	1,320 Tons B ✓

Concentrate Production - April, 1956

531 tons milled in 413.5 hours.
11,32[illegible]# dry concentrate* (65% WO_3) produced.

*(Note: 8,270# in MIA Lot 12 or Lot 1 sold to G.S.A., San Francisco, 4/23/56.
3,05[illegible]# to be in MIA Lot 13 or Lot 2 to be shipped to G.S.A., San Francisco, 5/14/56 or 5/15/56.)

a

Very truly yours,

R. L. Brittain
Manager

cc: FB
FMA
GH
File

March 1956

Minerva Ore Production & Concentrate Production for Month of March, 1956.

April 6, 1956

Mr. O. F. Burton, Treasurer

R. L. Brittain

RECEIVED
JUL 9 - 1956

Dear Mr. Burton:

Following is the ore production and concentrate production for the month of March, 1956.

Mill Ore - Assay 0.72% WO_3	549.5 Tons

Explanation of Inventory

Inventory March 1, 1956 - 1.00% WO_3	117.5 Tons
March Production for mill - 0.72% WO_3	549.5 Tons
Milled at Stopper Mill during March	457.0 Tons
Mill ore inventory 4/1/56 - 0.72% WO_3	210.0 Tons

Low Grade Stockpile at Mine

March 1, 1956 - 0.40% WO_3	1,293.0 Tons
March Production - 0.40% WO_3	27.0 Tons
Total stockpile 4/1/56 - 0.40% WO_3	1,320.0 Tons

Concentrate Production - March, 1956

457.0 tons milled in 390.5 hours.
7,411# dry concentrate (65% WO_3) produced.

(Note: 3,688# in Lot 11, sold to Minerals Engineering Co., Salt Lake, March 14, 1956. Balance of 3,723# to be in Lot 12.)

Very truly yours,

R. L. Brittain
Manager

cc: PG
FMA
OM
File

M.I.A. MINES COMPANY
c/o Combined Metals Reduction Co.
Pioche, Nevada

March 24, 1956

RECEIVED
JUL 9 - 1956

Mr. O. F. Burton, Treasurer
Combined Metals Reduction Co.
Salt Lake City, Utah

Dear Mr. Burton:

Following is a detail of charges, tongs of crude ore, and percentages of the tonnage for D.M.E.A. royalty calculation on Lot #11 concentrates:

Milling:	506.5 hours @ $20.00 per hour (Milling invoice attached)	$10,130.00
Trucking:	R. D. Wilkin (Invoice attached)	130.00
Mine Handling and Trucking -	625 tons @ $1.00 per ton	625.00

D.M.E.A. Royalty Calculation -
369 tons or 59% of tonnage from D.M.E.A. workings
D.M.E.A. royalty will be based on 59% of the lot

Stopper Royalty Calculation -
Net per ton appears to be below $30: so the royalty rate to Stopper should be 5%.

Final Settlement -
The final settlement from Mineral Engineering Co. will be made on a split basis on their assay and M.I.A. assay from Ledoux & Co., New Jersey.

Yours very truly,

M.I.A. MINES COMPANY

E. L. Brittain, Manager

cc: CM
FHA
PG
ELB
File

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

RECEIVED
DEC - 1 1955

SECOND ROYALTY AUDIT CERTIFICATE

I have examined the records and sales documents pertaining to the sale of crude tungsten ore for the period January 27, 1953 to June 30, 1955, by:

W3M

26 88

M. I. A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

produced from the Minerva Tungsten Mine, White Pine County, Nevada, under the terms of Contract No. Idm-E481, Docket No. DMEA-2688.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established total sales of crude tungsten ore for this period to be $175,067.45. Royalty due the U. S. Government at the contract rates of 1 1/2 to 5 percent is $8,444.89. The royalty due and paid is as follows:

Total Royalties Due	$8,444.89
Total Royalties Paid	8,444.89
Balance of Royalties Due	-0-

George Mavor
George Mavor
Auditor

November 22, 1955

Transfer Recd

SECOND ROYALTY AUDIT REPORT

RECEIVED
DEC - 1 1955

I INTRODUCTION

On September 8, 1955, an audit of royalty payments received, was made for the period January 27, 1953 to June 30, 1955, covering tungsten ore produced and sold under Contract No. Idm-E481, Docket No. DMEA-2688, by:

M. I. A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

covering a project of exploration for tungsten ore, on property known as the Minerva Tungsten Mine, located in White Pine County, Nevada.

The mining properties are reached by proceeding on highway 93, approximately 35 miles south of Ely, Nevada, then turn east on unnumbered gravel road 15 miles to mine site.

The records pertaining to this contract are located in the company's office, 218 Felt Building, Salt Lake City, Utah, and the following officials were consulted during the course of the audit.

O. F. Burton, Treasurer
O. Nordfelt, Accountant

Their cooperation and assistance greatly facilitated the audit.

Mr. Glen G. Gentry, Mining Engineer, U. S. Bureau of Mines, collaborated in the audit, for which his assistance is hereby acknowledged.

II GENERAL INFORMATION

A certificate of discovery was issued under date of July 18, 1955, and the producing area subject to royalties is described in Annex I, of the Amended Contract as follows:

The land referred to in Article 2 of the contract, consists of the following unpatented lode claims, all recorded in the White Pine County Recorder's Office, Ely, Nevada.

Claim	Book	Page
Silver Bell (easterly 1/2 of claim)	96	276
Silver Bell No. 1	96	277
Wedge (Southerly 1/2 of claim)	134	207
Pot Pie No. 1 (southerly 1/2 of claim)	128	377

and that part of the West 1/2 of the Silver Bell claim that contributes ore from Objective Area No. 1 (see attached map c-1107).

Under Article 8 (b) of the Amended Contract, the royalty repayment period is stipulated as 10 years from date of contract, which was dated January 27, 1953.

The contract was completed January 27, 1955, and the total cost of the contract, together with the Government 75% participation is as follows:

	Cost	Government Participation 75%
Cost of Contract	$165,512.67	$124,134.50

The sum of $8,444.89 has been received by the Finance Officer, covering royalty repayments on tungsten ore sales made during the period January 27, 1953 to June 30, 1955. This leaves an unpaid balance of $115,689.61 due on the Government loan as of June 30, 1955.

III SCOPE OF AUDIT AND FINDINGS

The first royalty audit was made for the period August 14, 1954 to March 1, 1955, and audit report issued April 20, 1955. The period August 14, 1954 to March 1, 1955 as heretofore shown, were dates that ore was received at smelter, whereas the correct audit period should have been from the date of contract January 27, 1953 to February 28, 1955. This second royalty audit covered the period March 1, 1955 to June 30, 1955 and the combined results of the two audits are discussed in this report.

The audit was limited to determining the accuracy and propriety of royalty repayments, received by the Finance Officer, covering royalty repayments on tungsten ore sales during the period January 27, 1953 to June 30, 1955, and a determination that all indicated sales of tungsten ore subject to royalty repayment under the exploration contract, for which settlement sheets had been released, have been properly accounted for.

The extent of the audit and the findings follows:

Conference with Examining Engineer

Conference with the Examining Engineer, U. S. Bureau of Mines, during the audit disclosed the following:

The operator stockpiles ore subject to DMEA royalty repayment. Tungsten ore has been occasionally stockpiled at the mine, and at a later date has been transferred to the sorting plant adjacent to the mine and the resultant sorted product shipped to the Combined Metals Reduction Company Plant, at Bower, Utah, for treatment.

The assay controls in effect are considered adequate.

The operator does not commingle production subject to DMEA royalties with exempt production.

The operator stockpiles mine rejects, that may have potential value within the royalty payment period. The rejected ore from the sorting plant at mine is stockpiled at the mine for possible treatment at a later date if considered economically advisable.

The manner of disposing of production is considered as giving the Government its fair royalty returns.

Periodic examinations indicate the operator is properly reporting the production of ore subject to DMEA repayment royalties.

There has been no indication that the operator has bought ore from, or sold ore to other operators.

Audit of Settlement Statements

A detailed summarization of royalty purchases by Smelter was prepared from settlement statements submitted by the operator during the audit period of January 27, 1953 to June 30, 1955. The total net sales of tungsten ore as shown on this summary aggregated $175,067.45 and the royalty payments of 1 1/2 to 5 percent amount to $8,444.89. The royalty payments were verified to the certificates of deposit and the Finance Office Ledger Record.

Operator's Accounts and Records

The operator maintains a general ledger and subsidiary records for the exploration project activities, including the supporting records on royalty repayments to DMEA. The net amount of $175,067.45 subject to royalties was verified to Mining Revenue Account, and the royalties paid in amount of $8,444.89 was verified to royalty payments, charged to the Development Cost Account in the general ledger. The cash records covering the foregoing transactions were also examined, which included an examination of paid freight bills, and invoices covering trucking charges, loading cars and assaying.

The Mining Revenue Account in the operator's ledger showed a total of $167,925.71 as compared with the amount of $175,067.45, subject to royalties as shown in this audit report. The difference of $7,141.74 represents trucking charges of $7,089.24 and car loading charges of $52.50 which had been paid direct by M. I. A. Mines Company. The aforementioned charges were disallowed on lots 1, 2, 4, 5 and 6, when computing royalty settlements. This was due to the M. I. A. Mines Company paying the charges direct, whereas according

to Title 32A - National Defense Appendix, DMEA Order - 1 Amended, Section 10 Repayment by Operator, paragraph (c) states that only the buyer can deduct such charges from the settlement statement.

The M.I.A. Mines Company maintain their records on an accrual basis, and it is the company's policy to estimate the value at the end of each month any tungsten ore that was stockpiled at the mine, and set up the estimated inventory value in their books. The end of the month estimated inventory of tungsten ore is reversed during the succeeding month, therefore, this estimated inventory has no direct bearing on royalties due the Government, for the reason no settlement statements have been received.

An analysis of tungsten ore and concentrate sales during the audit period showed shipments made to the following purchasers:

Tungsten Ore

Purchaser	Dry Tons	Net Sales
Combined Metals Reduction Co.	5,597.755	$ 95,863.36
Minerals Engineering Co.	508.298	6,538.98
Total Tungsten Ore	6,106.053	$102,402.34

Tungsten Concentrates

Purchaser	Dry Tons	Net Sales
C. W. Jones	18.4395	$ 72,665.11
Total Net Sales		$175,067.45
Royalties Paid at 1 1/2 to 5%		$ 8,444.89

When shipment of tungsten ore first started during April 1954, the tungsten ore was transferred from the Minerva Mine by truck to Delta, Utah and loaded into freight cars for reshipment to the Combined Metals Reduction Company Plant at Bauer, Utah. This shipment procedure was discontinued at the end of November 1954, and subsequent to this date the tungsten ore was transported from the Minerva Mine by truck to Pioche, Nevada and loaded into freight cars for reshipment to Bauer, Utah. There is very little difference between the freight and hauling charges via Delta, Utah and freight and hauling charges via Pioche, Nevada. The operator stated they had better control over shipments routed out of Pioche, Nevada. During November and December 1954, there was one lot of tungsten ore shipped from the Minerva Mine by trucks to the Minerals Engineering Company, Ely, Nevada. After a discussion with the Executive Officer and the U. S. Bureau of Mines, Examining Engineer, it was agreed

that the Bauer, Utah Plant of the Combined Metals Reduction Company, was the most logical plant to treat the ore from the Minerva Mine, during this period of operation, April 1954 to April 1955.

Commencing with the month of April 1955, the operator made arrangements to transfer all tungsten ore produced to the Stoper, Stoper and Allen Mill, located on Minerva Mining properties. Stoper, Stoper and Allen are the lessee's of the property, and now have the necessary mill equipment to treat tungsten ore, and produce tungsten concentrates. The tungsten concentrate 20 lb. units are shipped in sacks by trucks, on a consignment basis to C. W. Jones, Bishop, California, a distance of approximately 350 miles. Each consignment is settled separately, and supported by a Purchase Statement, which shows the base price of $61.25 per unit less penalties, with resulting net price per unit. The base prices and penalties are based on Government Schedules and Specifications, and the only other allowable deductions, are for sampling, assaying and trucking charge paid by consignee. The aforementioned Purchase Statement, which contains all necessary settlement data, is then the basis for the preparation of the Combined Metals Reduction Company settlement statement, issued to M.I.A. Mines Company, and royalty payment to the Government.

The settlement statements prepared by the Combined Metals Reduction Company, are not calculated on a 20 lb. unit price, but on a price per ton of dry tungsten concentrates, and the method of calculation, as taken from a single settlement sheet is illustrated as follows:

Combined Metals Reduction Company
Settlement Statement dated June 23, 1955, Lot No. 2

Base Price	$61.25
Pb Penalty	(.40)
Net Price	$60.85

WO_3 = 65.42 X $60.85 = $3,980.806 per dry ton

6.7665 dry tons at $3,980.806 =		$26,934.89
Deduct		
Sampling	$67.67	
Assaying	7.00	
Haulage	150.00	224.67
Net Sale		$26,710.22
Royalty at 5%		$ 1,335.51

The above net sale of $26,710.22 is in agreement with the amount shown on Purchase Statement submitted by C. W. Jones, which was calculated on a 20 lb. unit price.

Other than one shipment of tungsten ore to Minerals Engineering Company, Ely, Nevada, the settlement statements for Tungsten ore are based on Combined Metals Reduction Company "Custom Ore Schedule", which shows the following prices:

Grade of Ore	Price Per STU WO_3
Less than 0.299% WO_3	none
0.30 to 0.999% WO_3	$46.00
1.00 and higher % WO_3	$47.00
Treatment Charges	**Per Dry Ton**
Less than 50 tons per month	$8.00
More than 50 tons per month	$6.00

Sampling and assaying $10.00 per lot of ore

During the course of the audit, an examination was made of the Combined Metals Reduction Company, Bauer Plant ore production records, which shows the tons of crude tungsten ore milled each month. The settlement statements of the M.I.A. Mines Company were verified to this production record and no errors were discovered.

At the Caselton Plant Office, Pioche, Nevada, the operator maintains a record of ore and concentrate shipments, which includes copies of all settlement statements. During the audit a visit was made to the Caselton Plant Office and an examination was made of the aforementioned documents, which were found to be in order.

IV CONCLUSIONS

An analysis of the operator's production and sales of tungsten ore and tungsten concentrates, subject to DMEA Royalties, are as follows:

	Tungsten Ore	Tungsten Concentrates
Wet Weight	12,511,906 lbs	-0-
Dry Weight	12,212,106 lbs.	36,879 lbs.
Dry Weight	6,106.053 tons	18.4395 tons
Gross Value	$141,037.90	$72,960.70
Allowable Deductions	38,635.56	295.59
Net Value	$102,402.34	$72,665.11
Average Value Per Ton (Dry Weight)	$16.77	$3,940.73/

For information purposes the cost per unit of tungsten concentrates, based on the above figures of 18.4395 dry tons and gross value of $72,960.70, can be calculated on an estimated basis as follows:

18.4395 Dry Tons x 65.06% WO_3 = 1,199.674 Units
$72,960.70 Gross Value divided by 1,199.674 Units = $60.82 Per Unit

Royalties Paid

	Net Sales	Rates	Royalty
Tungsten Ore	$102,402.34	1 1/2% to 5%	$4,811.64
Tungsten Concentrates	72,665.11	5%	3,633.25
Totals	$175,067.45		$8,444.89

A detail of royalty payments is filed as part of the audit work papers.

The audit has confirmed the accuracy and propriety of the royalty payments received by the Finance Officer, during the period January 27, 1953 to June 30, 1955. It has also determined that all indicated sales of tungsten ore and tungsten concentrates, subject to DMEA royalties under the exploration contract, for which settlement sheets have been released, have been properly accounted for.

George Mavor

George Mavor
Auditor

November 22, 1955

Check Sheet of Examining Engineer

RECEIVED
DEC - 1 1955

Operator's Name M.I.A. Mines Co. (Minerva Tungsten Mine)

Address 218 Felt Bldg.,

Salt Lake City, Utah

Exploration Contract No. Idm-E481 Docket No. DMEA-2688

	Check One Yes	No
1. (a) Does the Operator stockpile ore subject to royalty repayment?	X	
(b) If so, is segregation and identification procedure adequate?	X	
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.

Glenn G. Gentry
Mining Engineer

Date 9/27/55

82448

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

FIRST ROYALTY AUDIT CERTIFICATE

I have examined the records and sales documents pertaining to the sale of crude tungsten ore for the period August 14, 1954 to March 1, 1955, by:

M. I. A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

produced from the Minerva Tungsten Mine, White Pine County, Nevada, under the terms of Contract No. Idm-2481, Docket No. DMEA-2688.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

The audit established total sales of crude tungsten ore for this period to be $85,029.91. Royalty due the U. S. Government at the contract rates of 1 1/2 to 5 percent is $3,943.01. The royalty due and paid is as follows:

Total Royalties Due	$3,943.01
Total Royalties Paid	3,943.01
Balance of Royalties Due	-0-

George Mayer
George Mayer
Auditor

April 20, 1955

FIRST ROYALTY AUDIT REPORT

I INTRODUCTION

On March 24 and 25, 1955, an audit of royalty payments received, was made for the period August 14, 1954 to March 1, 1955, covering tungsten ore produced and sold under Contract No. Idm-E481, Docket No. DMEA-2688, by:

M. I. A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee
218 Felt Building
Salt Lake City, Utah

covering a project of exploration for tungsten ore, located in White Pine County, Nevada and generally known as the Minerva Tungsten Mine.

The mining properties are reached by proceeding on highway 93, approximately 35 miles south of Ely, Nevada, then turn east on unnumbered gravel road 15 miles to mine site.

The records pertaining to this contract are located in the company's office, 218 Felt Building, Salt Lake City, Utah, and the following officials were consulted during the course of the audit.

O. F. Burton, Treasurer
H. E. Swanson, Chief Clerk, Ore Settlement Dept.
O. Nordfelt, Accountant

Their cooperation and assistance greatly facilitated the audit.

Mr. Glenn O. Gentry, Mining Engineer, U. S. Bureau of Mines, collaborated in the audit, for which his assistance is hereby acknowledged.

II GENERAL INFORMATION

No certificate of discovery has been issued, however Article 8 (b) of the Amended Contract states that the producer shall pay the Government a royalty on all minerals mined or produced from the land, regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

The producing area subject to royalties is described in Annex I, of the Amended Contract as follows:

The land referred to in Article 2 of the contract consists of the following unpatented lode claims, all recorded in the White Pine County Recorder's Office, Ely, Nevada:

Claim	Book	Page
Silver Bell (easterly 1/2 of claim)	96	276
Silver Bell No. 1	96	277
Wedge (southerly 1/2 of claim)	134	207
Pot Pie No. 1 (southerly 1/2 of claim)	128	377

and that part of the West 1/2 of the Silver Bell claim that contributes ore from Objective Area No. 1 (see attached Map C-1107)

The contract was completed January 27, 1955, and the total cost of the contract, together with the Government 75% participation is as follows:

	Cost	Government Participation 75%
Cost of Contract	$165,512.67	$124,134.50

The sum of $3,943.01 has been received by the Finance Officer, covering royalty repayments on tungsten ore sales, made during the period August 14, 1954 to March 1, 1955. This leaves an unpaid balance of $120,191.49 due on the Government Loan.

III SCOPE OF AUDIT AND FINDINGS

The audit was limited to determining the accuracy and propriety of royalty repayments, received by the Finance Officer, covering royalty repayments on tungsten ore sales during the period August 14, 1954 to March 1, 1955, and a determination that all indicated sales of tungsten ore subject to royalty repayments under the exploration contract, for which settlement sheets had been released, have been properly accounted for.

The extent of the audit and the findings follows:

Conference with Examining Engineer

Conference with the Examining Engineer, U. S. Bureau of Mines,

during the audit disclosed the following:

Crude tungsten ore has been occasionally stockpiled at the mine, and at a later date has been transferred to the sorting plant adjacent to the mine and the resultant sorted product shipped to the Bauer, Utah plant of the Combined Metals Reduction Company, for treatment. The rejected crude ore from the sorting plant is stockpiled at the mine for possible treatment at a later date if considered economically advisable.

As the A. I. A. Mines Company maintain their records on an accrual basis, it is the company's policy to estimate the value, at the end of each month for any crude tungsten ore, that was stockpiled at the mine, and set up the estimated inventory value in their books. The end of the month estimated inventory of crude tungsten ore is reversed during the succeeding month, therefore this estimated inventory has no direct bearing on the ore shipped from the mine to Bauer plant for treatment, or settlement statements on which royalties are based. The January 31, 1955 estimated inventory, was established as follows:

WO_3 0.40% x 80% at $46.00	=	$ 14.720
Less Treatment charge		6.000
Value per ton		$ 8.720
600.000 Dry Tons at $8.720	=	$5,232.00
Less: Freight, Hauling, Assay etc		4,118.46
Net Mining Revenues		$1,113.54
Less: Royalties		
Stopper & Allen	$24.56	
DMEA 1 1/2%	16.70	41.26
Net - Min. Rev. After Royalties		$1,072.28

The above estimated January 1955 inventory calculations were established for financial statement purposes only, and the figures were reversed during February 1955.

Other than one shipment of ore to Minerals Engineering Company, Ely, Nevada, the settlement statements are based on Combined Metals Reduction Company "Custom Ore Schedule", which shows the following prices:

Grade of Ore	Price per STU WO_3
Less than 0.299% WO_3	None
0.30 to 0.999% WO_3	$46.00
1.00 and higher % WO_3	$47.00
Charges	
Treatment	**Per dry ton**
Less than 50 tons per month	$ 8.00
More than 50 tons per month	$ 6.00
Sampling and assaying $10.00 per lot of ore	

A review of the ore production, selling and assay methods was made during the course of the audit, all of which was considered to be adequate, and this contention is further supported by "Check Sheet of Accompanying Engineer", which forms part of this audit report.

It was agreed that the operator was producing and shipping tungsten ore in a reasonably efficient manner to insure an adequate recovery.

Audit of Settlement Statements

A complete review was made of all settlement statements, and the following schedule prepared, which forms part of this report.

Schedule of Royalty Repayments

The Schedule of Royalty Repayments was prepared from the finance office records, and verified to the certificates of deposit, and the total royalty repayments for the period August 14, 1954 to March 1, 1954, in amount of $3,943.01, was in agreement with the finance office ledger account. This amount was also verified in detail to the operator's general ledger account No. 60-2-412-002 Development Cost. The verification of the settlement statements, included the calculations of gross lbs. shipped, less moisture, to obtain the net lbs. shipped, and verifying gross value calculations, together with the verification of deductible items, such as freight, haulage and assays, also the inspection of prices.

Audit of Operator's Records

The operator maintains a general ledger and subsidiary records for the exploration project activities, including the supporting records on royalty repayments to DMEA. A summary of the transactions pertaining to crude tungsten ore shipped from the Minerva Mine to the Combined Metals Reduction Company Plant at Bauer, Utah, including one lot shipped to Minerals Engineering Company, Ely, Nevada, during the period August 14, 1954 to March 1, 1955, is as follows:

18 lots shipped			
Wet Tons		5,642.833	
Dry Tons		5,505.218	
Gross Value			$117,833.11
Less:			
Freight	$13,103.61		
Hauling - Truck	19,250.09		
Loading - cars	117.50		
Assaying & sampling	332.00		32,803.20
Net Subject to Royalty			$ 85,029.91
Royalties Paid to DMEA			$ 3,943.01

The above summary was compiled from settlement statements, detailed in audit work papers, which had been checked to the operator's general ledger accounts. The net amount of $85,029.91 subject to royalties, was verified to Mining Revenue Account, and the royalties paid in amount of $3,943.01 was verified to royalty payments charged to the Development Cost Account in the general ledger.

The Mining Revenue Account in the operator's ledger showed a total of $77,888.17 as compared with the amount of $85,029.91, subject to royalties as shown in this audit report. The difference of $7,141.74 represents trucking charges of $7,089.24 and car loading charges of $52.50 which had been paid direct by the M. I. A. Mines Company. The aforementioned charges were disallowed on lots 1, 2, 4, 5 and 6 when computing royalty settlements. This was due to the M. I. A. Mines Company paying the charges direct, whereas according to Title 32A- National Defense Appendex, DMSA Order - 1 Amended, Section 10 Repayment by operator, paragraph (e) states that only the buyer can deduct such charges from the settlement statement.

During the course of the audit, an examination was made of paid freight bills, and invoices covering trucking charges, loading cars and assaying.

When shipments of ore first started, the crude tungsten ore was transported from the Minerva Mine by truck to Delta, Utah and loaded into freight cars for reshipment to the Combined Metals Reduction Company Plant at Bauer, Utah. There was a carloading charge of $2.50 per car at Delta, Utah, which was paid to Bell Hill Mining Co., for use of loading ramp. This shipping procedure was discontinued at the end of November 1954, and during November and December 1954, one lot of crude tungsten ore was shipped from the Minerva Mine by trucks to the Minerals Engineering Company, Ely, Nevada for treatment and settlement. Other than this one lot of ore shipped to Ely, Nevada, all ore shipments continue to go forward to the Bauer, Utah Plant, however, the ore is presently being shipped from the Minerva Mine by trucks to Pioche, Nevada and loaded into freight cars for reshipment to Bauer, Utah. There is very little difference between the freight and hauling charges via Delta, Utah and freight and hauling charges via Pioche, Nevada. The operator stated they had better control over shipments routed out of Pioche, Nevada. After a discussion with the Executive Officer and the U. S. Bureau of Mines, Examining Engineer, it was agreed that the Bauer, Utah Plant of the Combined Metals Reduction Company, was the most logical plant to treat the ore from the Minerva Mine.

Assays were performed by Crimson and Nichols of Salt Lake City at $5.00 per lot, and umpire assays were performed by the Union Assay of Salt Lake City at $8.00 per lot. A sampling charge of $10.00 per lot was made by the Combined Metals Reduction Company, which was in accordance with their Custom Ore Price Schedule.

During the course of the audit, an examination was made of the Combined Metals Reduction Company, Bauer Plant ore production records, which showed the tons of crude tungsten ore milled each month. The settlement statements of the N. T. T. Mines Company were verified to this production record and no errors were discovered.

At the Caselton Plant Office, Hoche, Nevada, the operator maintains a record of ore shipments, which include copies of bills of lading, freight car weight certificates, and copies of all settlement statements. During the audit a visit was made to the Caselton Plant Office and an examination was made of the aforementioned documents, which were found to be in order.

IV CONCLUSIONS

The audit has confirmed the accuracy and propriety of the royalty repayments received by the Finance Officer for the period August 14, 1954 to March 1, 1955. It has also determined that all indicated sales of crude tungsten ore subject to repayment royalties under the exploration contract, for which settlement statements have been released, have been properly accounted for.

In addition to royalty payments made to [illegible], the operator is also making royalty payments to Stopper, Stopper and Allen, owners of the property.

George Mavor
George Mavor
Auditor

April 20, 1955

SCHEDULE OF ROYALTY REPAYMENTS
[illegible] MINES COMPANY
CONTRACT NO. [illegible]-181, [illegible] T. [illegible]-26[illegible]

CERTIFICATE OF ROYALTY			SETTLEMENT SHEETS		
Date	No.	Amount	Date	No.	Amount
			[illegible] Gold Mines, [illegible], [illegible]		
2-4-55	40	326.00	1-31-55	73	$ 326.00
			[illegible]		
9-2-54	7	652.27	6-14-54	1	$ 23.30
			6-14-54	2	-0-
			6-14-54	4	297.22
			8-24-54	5	20.24
			8-14-54	6	311.51
9-17-54	9	511.64	8-30-54	7	185.45
			9-8-54	8	326.19
			ADJUSTING SETTLEMENT		To 1, 2, 4, 5, 6, 7 and 8
10-4-54	13	740.56	9-27-54	1	104.14
			9-27-54	2	7.15
			9-27-54	4	187.91
			9-27-54	5	93.75
			9-27-54	6	42.19
			9-27-54	7	(3.[illegible])
			9-27-54	[illegible]	(2.03)
			9-15-54	9	290.01
10-19-54	16	119.95	10-11-54	12	119.95
12-14-54	29	1,531.98	Not dated	10	475.03
			10-21-54	13	18.95
			11-4-54	15	105.34
			11-30-54	16	12.09
			10-15-54	6-A	917.07
3-21-55	45	59.21	2-21-55	17	- -
			2-14-55	18	43.17
			3-1-55	19	16.64
Total Comb. Metals Product. Company		$3,516.21			$3,516.21
Grand Total		$3,943.01			$3,943.01

A detail of royalty payments is filed as part of my audit working papers.

Department of the Interior
Defense Minerals Administration
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Check Sheet of Accompanying Engineer

Operator's Name ~~M. I. A. Mines Company~~

Address ~~218 Felt Building~~

~~Salt Lake City, Utah~~

Exploration Contract No. ~~Idm-E481~~ Docket No. ~~DMEA-2688~~

Date ~~April 1, 1955~~

	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?	X	
2. (a) Does Operator co-mingle production subject to DMEA royalties with exempt production?		X
(b) If so, do you consider the allocation of the co-mingled 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?	X	
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. Comment on any item 2 to 6 if answer is No.

Glenn G. Gentry

Glenn G. Gentry
Mining Engineer

67958

Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Co.
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

April 1, 1955

1. Crude, mine ore has occasionally been stockpiled at the mine and at a later date has been transferred to the sorting plant and the resultant sorted product shipped to the Bauer, Utah plant of the Combined Metals Reduction Co. for treatment. The rejected crude ore from the sorting plant is stockpiled at the mine for possible treatment at a later date if considered economically advisable.

Glenn G. Gentry
Mining Engineer

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION II
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SAN FRANCISCO, CALIFORNIA

INTERIOR
JUL 12 1955
SOLICITOR

Sec.
Holliday
Hoffman
"Appd. Sol. Off."
Nelson
Kilsgaard
Geehan
Johnson

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

To: M.I.A. Mines Company,
a joint venture consisting of:
Combined Metals Reduction Company and
American Zinc Company of Tennessee
218 Felt Building
Salt Lake City, Utah

Pursuant to the provisions of Amended Exploration Project Contract No. Idm-E481, dated January 27, 1953, as amended, (Docket No. DMEA 2680), 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:

Tungsten, in the form of scheelite, occurs in ore shoots in quartz veins that cut through limestone of Middle Cambrian age. Drifting, crosscutting, raising, diamond drilling, and churn drilling have indicated a substantial quantity of tungsten ore.

THE UNITED STATES OF AMERICA

By [signature]
Administrator, Defense Minerals
Exploration Administration

Dated: JUL 1 8 1955

cc: Docket
Code 400 Mr. Martin
Code 110 Mr. Johnson
Code 800 Mr. Chambers
Adm. Read. File
Field Team, Reg. 2
Finance Officer

cc: C. A. Fredell, Act. Dir., EP
Thor Kiilsgaard, USGS
R. W. Geehan, USBM
Robt. Holliday, USBM
Operating Committee
Mr. Robt. F. Stopper, le
Mr. Edw. G. Stopper, les
Martha R. Allen, lessor

FARutledge/ls
7/11/55

400

DEFENSE MINERALS EXPLORATION ADMINISTRATION

CONTRACT ADMINISTRATION AND AUDIT DIVISION

AUDIT CERTIFICATE

2688

I have examined the records and transactions of:

M.I.A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and American Zinc Company of Tennessee
218 Felt Building
Salt Lake City, Utah

WSM

pertaining to Exploration Project Contract No. Idm-2481, Docket No. DMEA-2688, dated January 27, 1953, including amendments No. 1, 2 and 3, and Amended Contract dated January 27, 1953, including Amendment No. 1, for the months of March 1953 to January 1955, inclusive, covering a project of exploration for tungsten, located in White Pine County, Nevada, commonly known as the Minerva Tungsten Mine.

My examination was made in accordance with generally accepted standards applicable in the circumstances.

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

Total cost as billed by contractor		$173,136.1[illegible]
Less: Proceeds from property disposition		5,887.3[illegible]
Net claimed costs		$167,248.80
Exceptions (see Audit Report for details)		
Disallowances	$23,359.81	
Less: Additional costs allowed	21,623.48	1,736.13
Total accepted costs		$165,512.67

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 One Hundred Twenty-Four Thousand One Hundred Thirty Four and 50/100 Dollars:

** $124,134.50 **

is valid and proper.

This certificate is issued on the provision 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.

George Mavor
George Mavor
Auditor

Audit

April 28, 1955

I INTRODUCTION

During the periods November 5 to 9, 1953, July 21 to 27, 1954 and March 1 to 4, 1955, a final audit (covering operations for the months of March 1953 to January 1955, inclusive) was made of the records and accounts pertaining to Exploration Project Contract No. Idm-E481, Docket No. DMEA-2688, dated January 27, 1953, including Amendments No. 1, 2 and 3, and Amended Contract dated January 27, 1953, including Amendment No. 1 with the:

M.I.A. Mines Company
a joint venture consisting of
Combined Metals Reduction Company
and
American Zinc Company of Tennessee,
218 Felt Building
Salt Lake City, Utah

covering a project for the exploration of tungsten, located in White Pine County, Nevada, commonly known as the Minerva Tungsten Mine.

The control accounting records under this contract are located in the office of the Treasurer of the M.I.A. Mines Company, 218 Felt Building, Salt Lake City, Utah. The source documents for payrolls, material and other charges, are maintained in the offices of the Combined Metals Reduction Company, Caselton Plant, Pioche, Nevada.

During the course of the audit, this auditor consulted the following officers and employees who were in the following locations:

Caselton Plant, Pioche, Nevada

Frank H. Anderson, Office Manager
Paul Gemmill, General Superintendent

218 Felt Building, Salt Lake City, Utah

O. F. Burton, Treasurer
Clyde Stevenson, Accountant

Their cooperation and assistance greatly facilitated the audit.

This audit is based on the terms and estimated costs as set forth in Exhibit "A" of the Amended Contract, and Amendment No. 1.

II GENERAL INFORMATION ON RECORDS

The accounting records for this project are Co-mingled with the Combined Metals Reduction Company operations at the Caselton Plant, Pioche, Nevada, however all charges to the exploration project can be readily identified by cost account classification numbers assigned to the operations of the M.I.A. Mines Company. At the end of each month the Caselton Plant Office prepares a series of journal vouchers covering the plant operations, which includes the M.I.A. Mines Company. These journal vouchers are then forwarded to the Combined Metals Reduction Company Office in Salt Lake City, Utah for further review and reconciliation of the monthly transactions involved, and subsequently entered in the general ledgers of the various enterprises.

A general ledger is maintained for the M.I.A. Mines Company at 215 Felt Building, Salt Lake City, Utah, and after the above referred to journal vouchers have been received and reconciled, then the items applicable to the exploration project are entered in the general ledger control account No. 412-11. The balances shown in this account were verified during the course of the audit and found to be in agreement with the "Totals to Date" columns of the Operator's Monthly Report and Voucher prepared on Form MF-104.

All hourly rate employees for the exploration project are on the Caselton Plant payroll and all salaried employees are paid direct by Combined Metals Reduction Company, Salt Lake City, Utah. The checks for hourly employees are drawn by Combined Metals Reduction Company on the Nevada Bank of Commerce, Pioche Branch, Pioche, Nevada, and the bank statements are sent direct each month to the Combined Metals Reduction Company, Salt Lake City for reconciliation. After reconciliation the cancelled payroll checks are stored at Bauer, Utah. All checks are countersigned by Combined Metals Reduction Company officials.

Most of the material used on the exploration project is drawn from the Caselton Plant storeroom by requisitions and billed by the Combined Metals Reduction Company at the end of each month.

The operator also issues checks in payment of certain material purchases and sundry costs. These checks are drawn on the Walker Bank Company - M.I.A. Mines Company, Joint Venture Account. This is a separate bank account maintained for this project.

In addition to the payment of payrolls and furnishing material, the Combined Metals Reduction Company also bills the operator at the end of each month, for operating equipment rental, sampling and analysis, truck transportation, technical and accounting services.

Commencing with the month of February 1954, it was necessary for the operator to prorate certain expenses, due to dual operations, whereby costs could not be directly attributable to DMEA operations as there was no method of measuring diesel generated air or power and other surface operations. This procedure was allowable under the terms of the contract, and set forth on page 13, in Exhibit "A" of the Amended Contract. The method of distribution was based on a percentage of straight time hours for DMEA work to the total company and DMEA hours. A further explanation of this procedure is set forth under Item (2) Labor and Supervision in the narrative of this Report.

The costs of this contract are on an actual cost basis, including independent contracts for the months of March 1953 to May 1954, whereas from June 1954 to January 1955, the costs were charged to the project at agreed unit rates for work to be performed by the operator and stipulated in Amendment No. 1 of the Amended Contract.

The Company's accounts are audited after the close of each calendar year by (Wells, Baxter and Miller, Salt Lake City, Utah) a certified public accounting firm.

III SCOPE OF AUDIT AND FINDINGS

The audit was limited to ascertaining the accuracy, propriety and validity of the costs as shown in the "Totals to Date" column of Form MF-104, Operator's Monthly Report and Voucher, for the month of January 1955. The extent of the audit and the findings under each of the "Items of Cost" follows:

(1a) Independent Contracts $49 470.09

All charges under this category were verified to invoices, cancelled bank checks and contract terms. The audit also disclosed that the costs shown under this item on May 1954 MF-104, as compared to the costs properly chargeable, and allowable, under the terms of the contract to be:

Silver Bell Mine

		Charged	Disallowed	Allowable
(a) Churn Drilling				
Drilling 1,350 ft. @ $5.00		$6,700.00		$6,700.00
(b) Rehabilitate Shaft and Construck Skip Pocket				
Rehabilitate Shaft $	$1,800.			
Construct Skip Pocket	500.	2,300.00		2,300.00

Silver Bell Mine (Continued)

(c) Drifting					
Drifting 500 ft. @ 26.00	$13,000.00				
Timbering 17 ft. @ 4.00	68.00	$13,068.00			$13,068.00
Drifting 113.5 ft. @ 30.00		3,405.00	3,405.00		
(d) Bulldozing					
Rental 47 hrs. @ $6.50	305.50				
Transportation	239.62	545.12			545.12
Scheelite Chief Mine					
(e) Diamond Drilling					
Drilling 1,110.0' @ 3.15	$ 3,496.50				
Drilling 29.3' @ 3.55	104.02				
Reaming 26.0' 1.75	45.50				
Cementing & Lost Time	135.95	$ 3,781.97			3,781.97
(f) Drifting					
Drifting 992.5' @ $20.00		19,850.00			19,850.00
Drifting 63.0' @ $30.00		1,890.00	1,890.00		
(g) Raising					
Raising 270.5' @ $31.00		8,385.50	8,385.50		
(h) Lay Track, Air & Water Lines					
Completed 2,071' @ .75	$ 1,553.25				
Less overage 171' .75	128.25				
Maximum 1,900' @ .75		1,425.00			1,425.00
(i) Straighten and Widen Adit					
Completed 4,020 cu.ft. @ .50	2,010.00				
Less overage 420 cu.ft. .50	210.00				
Maximum 3,600 cu. ft. .50		1,800.00			1,800.00
Totals Independent Contracts		$63,157.50	$13,680.50		$49,470.09

Item (a) for churn drilling was performed by Combined Metals Reduction Company, and the work was performed without any written agreement, however, the rate of $5.00 per foot was in accordance with contract terms and did not exceed the allowable maximum.

Item (d) for bulldozing was performed by Combined Metals Reduction Company, and covered costs of access roads to churn drill sites for drilling to Objective Areas 2, 3 and 6, and were allowable under terms of the contract, with an "allowable maximum" under stage I of $240.00 and stage II, $360.00.

Item (e) for diamond drilling was performed by Howard L. Knightsen Contractor, in accordance with bid dated October 10, 1953, and did not exceed the rate of $5.00 per foot or the "allowable maximum" of $11,052.25 set forth in Amended Contract.

Item (b) (c) (f) (g) and (h) above, were performed in accordance with agreement dated June 22, 1953 between M.I.A. Mines Company and Centennial Development Company and the rates specified therein. Annex 1 of the original contract, which was the original quotation for work to be performed by Centennial Development Company, now becomes null and void, for the reason that all work was performed and paid under the conditions set forth in agreement dated June 22, 1953, and did not exceed the "allowable maximums" as specified in the Amended Contract.

Item (i) for $1,800.00 covering cost of straightening and widening adit requires explanation as an acceptable cost of the contract, and after discussion with H. C. Miller, Executive Officer, it was his opinion the cost should be allowed, based on the following facts:

> "Due to gauge of battery trammer and mine cars available for the project, being 24" in place of 18", it was necessary to slab slightly more mine rock from the walls of the 1700 foot adit, that was estimated at time of application, when estimated amount was 3,000 cu. ft. Actually, 4,020 cu. ft. were slabbed off in widening and straightening the adit. The Centennial Development Company did the slabbing at a cost of .50 cents a cu. ft. or a total cost of $2,010.00. Contract allowed .50 cents for estimated 3,600 cu. ft. for the job or allowable maximum of $1,800.00. Therefore, Operator absorbed the difference of $210.00. It was to the advantage of the Government that a 24" gauge track was used in lieu of 18" gauge track."

The disallowances shown above for drifting at Silver Bell Mine $3,405.00, drifting at Scheelite Mine, $1,890.00 and raising at Scheelite Chief Mine, $8,385.00, aggregating $13,680.50 covers costs charged to the contract on a footage basis during the months of February to May 1954, inclusive. This procedure did not conform to the contract covering work performed by the operator on a direct labor basis, as the contract states under footnote 4, Item (1) Independent Contracts of Exhibit "A", that any work performed by the operator would be charged on a cost basis. The actual labor costs for drifting and raising during the period February to May 1954, inclusive, are accounted for and discussed under Item (2) Labor and Supervision in the narrative of this Report.

(1b) Agreed Unit Rates $45,143.91

Amendment No. 1 of the Amended Contract allowed certain work to be performed by the operator during the months of June 1954 to January 1955, inclusive, which can be accounted for as follows:

	Rate Per Ft.	Charged Ft.	Charged Amt.	Disallowed Ft.	Disallowed Amt.	Allowable Ft.	Allowable Amt.
Diamond Drilling	$ 5.00	632.5	$ 3,162.50			632.5	$ 3,162.50
Drifting	35.00	1,115.7	41,219.50	62.0		1,177.7	41,219.50
Raising	35.00	67.5	2,362.50	45.73	1,600.59	21.77'	761.91
Totals			$46,744.50		$1,600.59		$ 45,143.91

Under the terms of Amendment No. 1, the "allowable maximum" for raising was 21.77 feet at $35.00 per foot amounting to $761.91. The excess footage of 45.73 feet at $35.00, amounting to $1,600.59 has been disallowed.

The allocation of the work performed under Amendment No. 1, can be further identified as follows:

	Scheelite Chief Mine			Silver Bell Mine		Total	
	Rate Per Ft.	Ft.	Amt.	Ft.	Amt.	Ft.	Amt.
Diamond Drilling	$ 5.00	632.5	$ 3,162.50			632.5	$ 3,162.50
Drifting	35.00	1,115.7	39,049.50	62.0	2,170.00	1,177.7	41,219.50
Raising	35.00	21.77	761.91			21.77	761.91
Totals			$42,973.91		$2,170.00		$45,143.91

(2) Labor and Supervision $21,031.77

The payroll records for the period March 1, 1953 to May 31, 1954 were examined, and during the course of the audit a substantial test of time cards and cancelled payroll checks was made. The audit also disclosed that the costs shown under this item on May 1954 MF-104, as compared to the costs properly chargeable, and allowable, under the terms of the contract to be:

Labor and Supervision

Labor	Charged	Add'l Costs	Disallowed	Allowable
Labor - Topman Mech.	1,506.90	$	$	$ 1,506.90
Drifting - Silver Bell Mine				
Labor		2,903.42		2,903.42
Scheelite Chief Mine				
Labor		956.45		956.45
Raising - Scheelite Chief Mine				
Labor	883.35	14,590.87	6,789.22	8,685.00
Total Labor	$ 2,390.25	$18,450.74	$6,789.22	$14,051.77

	Charged	Add'l Costs	Disallowed	Allowable
Supervision				
R. H. Godbe-Engr. 284 da.@ 20.00	$5,680.00			$5,680.00
R. G. Lee -Engr. 8 da.@ 25.00	200.00			200.00
Total Supervision	$5,880.00	-0-	-0-	$5,880.00
Technical Services				
C. Blackborn, Engr. 6 da.@ 20.00	$ 120.00			$ 120.00
O. E. Shrader, Engr. 47 da.@ 20.00	940.00			940.00
K. Anderson, Engr. 2 da.@ 20.00	40.00			40.00
P. Gemmill, Geologist 21 da.@ 30.00	630.00		630.00	-0-
Total Technical Services	$1,730.00	-0-	$ 630.00	$1,100.00
Total Labor and Supervision	$10,000.25	$18,450.74	$7,419.22	$ 21,031.77

The labor for topman-mechanic in amount of $1,506.90 was an allowable cost of the contract, and payroll records were examined during the course of the audit for charges made to this labor classification.

The drifting and raising costs had been incorrectly charged to the contract on a footage basis for the months of February to May 1954 inclusive, and these footage costs have been disallowed under Item (1) Independent Contracts. The actual labor performed during the period mentioned is accounted for in the following:

1954	Drifting Silver Bell Mine	Drifting Scheelite Chief Mine	Raising ~~Drifting~~ Silver Bell Mine
January	$ -	$ -	$ 883.35
February	-	-	2,135.05
March	1,535.38	-	4,287.23
April	1,070.18	-	4,988.74
May	297.86	956.45	3,179.85
Total	$ 2,903.42	$ 956.45	$ 15,474.22

The drifting costs of $2,903.42 and $956.45 are included with Independent Contract costs of $13,000.00 and did not exceed the "allowable maximum" of 1034.8 ft. at $26.00 = $26,904.80, as allowed under stage 11 of the contract. However, the raising costs under stage I of the contract exceeded the "allowable maximum" of 290 ft. at $30.00 = $8,700.00 based on 289.5 ft. of completed drifting to May 31, 1954 and the disallowance is accounted for as follows:

Raising - Stage I

Direct Labor	$15,474.22
Less: Allowable Maximum 289.5 ft. @ $30.00	8,685.00
Amount Disallowed	$ 6,789.22

The hourly wage rates paid for labor were made in accordance with Union Contracts, between the Combined Metals Reduction Company and the United Steel Workers of America, C.I.O. Union. Most of the drifting labor was paid at an hourly rate, whereas part of the labor for raising was paid on a bonus contract footage basis. The hourly and footage rates were examined during the course of the audit. The Amended Contract calls for a two compartment raise, whereas the operator constructed a three compartment raise, however, the disallowance set forth above in amount of $6,789.22 would take care of the additional cost and no further exception was made.

The additional labor costs also had the effect of increasing the expenses prorated on a straight time hourly basis for the months of February, to May 1954 inclusive. The change in percentage rates are as follows:

	1954			
	Feb.	March	April	May
Old Rate	36%	59%	36%	31%
Revised Rate	51%	67%	52%	33%

The additional costs due to the increased rates are accounted for as follows:

Item No.	Description	Add'l Costs
(3)	Diesel Fuel-Power	278.49
(3)	Materials and Supplies	81.48
(4)	Rental Surface Equipment	78.00
(4)	Depreciation	206.32
(7)	Repairs to Equipment	152.87
(7)	Sampling and Analysis	15.12
(7)	Pickup Transportation	118.93
(7)	Heavy Materials	11.20
	Total additional costs	$ 942.41

The straight time hours were verified and the revised percentage rates checked. The additional costs are included and explained under each of the above "Items of Cost" in the narrative of this Report.

The cost of supervision in amount of $6,000.00 did not exceed the "allowable maximum" for one supervising engineer at $600.00 per month for 13 months or a total of $7,800.00. The cost of technical services $1,100.00 did not exceed the "allowable maximum" for one engineer at $100.00 per month for 13 months or a total of $1,300.00. The disallowance of $630.00 covering technical services rendered by P. Gemmill, exceeded the "allowable maximum" of employing one engineer at $100.00 per month, and after discussing with Mr. Gemmill it was agreed to withdraw all charges for his services.

(3) Operating Materials and Supplies $25,108.77

The following materials and supplies charged to the exploration project were obtained from the following sources:

Combined Metals Reduction Co. (Misc.Material)	$ 21,596.51
Contennial Development Co. (Drill Steel & Bits)	3,512.26
Total	$ 25,108.77

The audit disclosed that the costs shown under this item on the May 1954 MF-104, as compared to the costs properly chargeable, and allowable, under the terms of the contract to be:

	Charged	Add'l Costs	Less: Sale of Property	Allowable
Drill Steel & Bits	$ 4,674.14	$	$	$ 4,674.14
Timber, Incl. Ties	3,008.13			3,008.13
Explosives	46.54	1,305.50		1,352.04
Pipe	3,435.21		1,202.32	2,232.89
Track	4,458.34	*(363.34)	1,638.00	2,457.00
Diesel Fuel-Power	4,971.83	278.49		5,250.32
Vent tubing	1,780.10		534.03	1,246.07
Sub-Total	22,374.29	$ 1,220.65	$3,374.35	$20,220.59
Miscellaneous				
Conduit Wire & Cable	$ 3,493.60	$	1,397.44	2,096.16
Elec. Switch	199.46		59.84	139.62
Gas, Oil & Grease	970.53			970.53
Oxyg. & Accet.	136.60			136.60
Nuts, Bolts, Washers, etc.	1,463.79	81.48		1,545.27
Total Miscellaneous	$ 6,263.98	$ 81.48	$1,457.28	$ 4,888.18
Total Materials & Supplies	$28,638.27	$1,302.13	$4,831.63	$25,108.77

* Disallowed ($363.34)

The proceeds from sale of property listed above, totaling $4,831.63 can be accounted for as follows:

	Cost	Salvage Rate	Salvage Amount
39.0 Tons Rail	$ 4,095.00	40%	$ 1,638.00
4800 ft. 1" Pipe)			
2050 ft. 2" Pipe)	3,435.21	35%	1,202.32
2479 ft. 3" Pipe)			
2171 ft. 12" Ventube	1,780.10	30%	534.03
Power Cable, Wire, etc.	3,493.60	40%	1,397.44
Electric Switch	199.46	30%	59.84
Totals	$ 13,003.37		$ 4,831.63

As all of the above material was in place on the operator's mining property, it was more advantageous to the Government to accept the offer of $4,831.63, from the operator, rather than dismantle the property, for sale on a bid basis.

The offer of $4,831.63 was accepted by the Executive Officer under date of April 15, 1955, and waiver in settlement of property issued April 15, 1955.

The material and supplies obtained from the Combined Metals Reduction Company in amount of $21,596.51 listed above, were issued by requisitions drawn on the Caselton Plant storeroom. The Combined Metals Reduction Company accounting procedure for Material control is well organized and the system includes purchase orders, receiving reports and invoices, together with a systematic recording in stock record cards of all material movements. The storeroom also maintains a purchase order file by vendor's name and a purchase order master file by P.O. number which has all of the documents attached, which include the purchase orders, shipping notices, receiving reports, freight charges and invoices.

The requisitions issued for materials and supplies used on the project, are prepared, priced and amounts extended by warehouse clerk, the receipt of the material is signed by workman and approved by foreman. The requisitions are dated but not numbered. The requisition shows the account to be charged and the requisitions chargeable to the exploration project are maintained in a separate file. At the end of each month a schedule is prepared from the requisitions, and lists each item of material issued, showing the quantity, description, price and amount. This schedule is certified as being correct by the superintendent of the project and approved by three officials of the Caselton Plant.

An average inventory price is used when pricing material requisitions and the method used is to recompute the inventory card prices as new purchases are made. During the course of the audit, prices were traced from the stock record cards to the material purchase invoices in order to verify the prices used on material charged to the exploration project.

The material furnished in amount of $3,512.26 by Centennial Development Company was a necessary cost of operation and acceptable under the terms of the contract.

All of the above materials and supplies amounting to $25,108.77, were acceptable costs to the contract, and the only "allowable maximum" item was track in amount of $4,095.00, which was set forth in Exhibit "A" of the Amended Contract as follows:

Page 7	Stage 1	Mat'l & Supplies	12 tons at $105.00	$ 1,260.00
Page 9	Stage 2	Mat'l & Supplies	5 tons at $105.00	525.00
Page 7	Stage 1	Rehab. & Repairs	19 tons at $105.00	1,995.00
Page 8	Stage 2	Rehab. & Repairs	3 tons at $105.00	315.00
	Total "allowable maximum" track			$4,095.00

During the month of March 1953, the operator purchased track and only claimed the "allowable maximum" as follows:

30 Tons 30# Rail complete with splice bars and bolts	at $140.731	$4,221.93
Rental of Trucks, transporting rail from Caselton to Minerva Mine		139.50
Cost to operator		$4,361.43
Excess cost not claimed		266.43
"Allowable Maximum"		$4,095.00

All track purchased in amount of $4,095.00 was charged to Item (3) Materials and Supplies, in order to have the proper distribution and accountability of such material. During the month of May 1954, the operator included the cost of track in amount of $363.34 on the MF-104 in error, which has been disallowed due to exceeding the "allowable maximum" of $4,095.00 for track.

The additional cost of $1,305.50 for explosives, is an allowable cost of the contract for the reason that during the months of February to May 1954, inclusive, the operator had charged in error the cost of raising and drifting on a footage basis and therefore did not charge for the cost of explosives, however, as heretofore described, the operator performed this work, which has been adjusted to a labor basis under Item (2), Labor and Supervision, in this audit report, and therefore the cost of explosives is a proper charge to the contract. An examination of these powder costs was made during the course of the audit.

The additional cost for diesel fuel-power $278.49, and Miscellaneous supplies, $81.48 is an acceptable cost to the contract. These charges are adjustments covering expenses prorated between DMEA and company operations on a straight hourly basis and heretofore described. The adjustment was due to the disallowance of drifting and raising charged on a footage basis,

and substituting labor, as the work was performed by the operator. The additional straight time hours for this work had the effect of increasing the percentages for prorating the cost of diesel fuel-power and miscellaneous supplies chargeable to the DMEA project.

(4) Operating Equipment $4,993.56

All charges for operating equipment were examined and the rates, together with method of computing allowable charges, were verified to the contract, and the audit disclosed that the costs shown under this item on the May 1954 MF-104, as compared to the costs properly chargeable, and allowable, under the terms of the Amended Contract to be:

	Charged	Add'l Costs	Disallowed	Allowable
Rental	$ 1,278.00	$78.00	$156.00	$1,200.00
Depreciation	3,579.24	214.32		3,793.56
Totals	$ 4,857.24	$ 292.32	$156.00	$4,993.56

The rental charge of $1,200.00 covers rental of surface equipment at the Silver Bell Shaft and includes hoist house, headframe, bin, truck, cars, skips and miscellaneous equipment supplied by the operator at $300.00 per month for 4 months. The additional costs of $78.00 was brought about by the additional straight time hours which increased the percentages for distribution purposes as heretofore described, and the disallowance of $156.00 was made in order to adjust the total rental charge to 4 months at $300.00, which did not exceed the "allowable maximum" of $1,500.00 as set forth in Exhibit "A" of the Amended Contract.

The depreciation charges of $3,785.56 can be accounted for as follows:

Item	Deprec. Value	Rate 1/60 Per Mo.	No. of Mos.	Deprec.
1 - Battery Trammer	$6,900.00	$115.00	8 (a)	$ 912.00
1 - Compressor	7,146.00	119.00	11	1,309.00
10 - Mine Cars	1,200.00	20.00	8	160.00
3 - Mine Cars	360.00	6.00	6	36.00
1 - Diesel Elec.Gen.	2,400.00	40.00	10	440.00
1 - Fan	850.00	14.17	5	70.85
2 - 5HP Fans	720.00	12.00	(b)	78.00
1 - Diesel Elec. Gen.	5,154.52	85.91	10	859.10
1 - Gaso Drive Hoist	1,199.00	20.00	6	120.00
1 - Portable Joy Comp.	7,540.00	125.65	6	753.90
2 - Water Pres. Tank	600.00	10.00	7	70.00
				$4,808.85

Less: Depreciation charged to Company Operations based on percentage of Straight Time Hours:

February 1954	$ 252.74	
March 1954	231.95	
April 1954	362.06	
May	382.86	1,229.61

Total May 1954 MF-104 $ 3,579.24

Add: Additional Depreciation Costs for February to May 1954 inclusive, based on percentage of straight time hours, due to additional labor costs for same period, omitted in error by operator 214.32

Total allowable Depreciations $ 3,793.56

Depreciation Explanations

(a) 1 - Battery Trammer 8 mos. @ $115.00		$920.00
Charged by operator		912.00
Difference not adjusted		$ 8.00
(b) 2 - 5 HP Fans 6 mos. @ $12.00		$ 72.00
1 - 5 HP Fan 1 mos. @ 6.00		6.00
Total		$ 78.00

A review of the operator's records, indicates the values used for depreciation purposes are fair market values.

(5) New Buildings, Improvements, etc. $1,838.30

A review of the charges under this classification, showed that the costs were comprised of the following items:

Labor Mechanics		$ 985.38
Board		364.00
Materials & Supplies		341.08
1 Compressor Building and 1 Water Tank		525.00
1 Fuel Tank 6 x 20		600.00
Total Cost		$3,315.96
Less: Overage not claimed $421.96		
Proceeds, sale of property	1,055.70	1,477.66
Net cost		$1,838.30

An examination of payroll records was made during the audit, covering labor charges in amount of $985.38. The board item of $364.00 represented the amount paid to Mrs. George M. Davis, Cook, during the period March 18 to 31, 1953, 13 days at $28.00 per day, covering the cost of cleaning up cabin,

furnishing cooking equipment and food, for mechanics living at mine site, during initial rehabilitation period. The materials and supplies in amount of $841.08 were furnished from Caselton Plant storeroom by requisitions, and included such items as:

Lumber	$ 69.41
Corrugated Iron	81.70
Cement	65.55
Reinforced Mesh	34.10
Oxygen & Acetylene	18.70
Pipe	234.15
Gate Valves	43.39
Plug Valves	42.78
Nuts, Bolts, Washers, Nails, etc.	251.00
Total Mat'ls & Supplies	$ 841.08

The net cost of structures, claimed by the operator, did not exceed the "allowable maximum" of $3,350.00, as set forth in Exhibit "A" of the contract, and the cost of the structures, together with the proceeds from sale of property, can be accounted for as follows

	Claimed by Operator	Less: Salvage Rate	Less: Salvage Amount	Net Claim by Operator
1 Fan House	$ 150.00	45%	$ 67.50	$ 82.50
1200 ft. Power Line	-0-	-	-	-0-
1 Compressor-Power Bldg.	1,500.00	35%	525.00	975.00
1 Fuel Tank	600.00	45%	270.00	330.00
1 Water Tank	644.00	30%	193.20	450.80
Totals	$2,894.00		$1,055.70	$ 1,838.30

The 1200 foot power line listed above, was not completed by the operator.

As all of the above buildings and equipment, were in place on the operator's mining property, it was more advantageous to the Government to accept the offer of $1,055.70 from the operator, rather than dismantle the property, for sale on a bid basis. The offer of $1,055.70 was accepted by the Executive Officer under the date of April 15, 1955, and waiver in settlement of property, issued April 15, 1955.

(7) Miscellaneous $17,926.27

The audit of miscellaneous charges included an examination of payrolls, invoices, requisitions, cancelled bank checks and other supporting data pertaining to payroll taxes, compensation insurance and transportation mileage charges.

The audit disclosed that the costs shown under this item on the May 1954 MF-104, as compared to the costs properly chargeable and allowable under the terms of the contract to be:

	Charged	Add'l Costs	Disallowed	Allowable
Repairs-Maintenance	$5,037.54	$ 152.87	$	$ 5,190.41
Sampling & Analysis	624.21	15.12		639.33
Payroll Taxes	322.03	383.90	6.60	699.33
Liability Insurance	735.67	532.93	33.36	1,235.24
Pickup Transportation	2,340.17	118.93		2,459.10
Road Maintenance-Winter	2,400.00			2,400.00
Heavy Mat'l. Transportation	674.85	11.20		686.05
Supplying Water	2,691.81			2,691.81
Accounting Services	2,025.00		100.00	1,925.00
Totals	$16,851.28	$1,214.95	$139.96	$17,926.27

The repairs and maintenance costs in amount of $5,215.41 are identified as follows:

Repair Item	Material
Compressor	$ 21.52
Air Hose	37.59
Mine Cars	60.26
Hoist	24.76
Air Drill	538.59
Ventube	102.47
Elec. Locomotive	62.02
Mucker	331.66
Diesel Elec. Generator	36.91
Repair Parts furnished by Centennial Development Co.	549.47
Other Miscellaneous Material	315.33
Total Material	$2,079.67
Add: Maintenance Labor	3,110.74
Total Repairs & Maint.	$5,190.41

The additional costs of $152.87 was brought about by the additional straight time hours, which increased the percentages for distribution purposes as heretofore described. During the course of the audit an examination was made of time cards and payrolls covering maintenance labor in amount of $3,110.74.

The sampling and analysis in amount of $639.33 can be accounted for as follows:

March 1953 to Jan. 1954 258 samples @ $2.00	$ 516.00
Feb. 1954 - 20 samples @ $2.00= $40.00 x 36%	14.40
March 1954 - 13 samples @ 2.00= 26.00 x 59%	15.34
April 1954 - 17 samples @ 2.00= 34.00 x 36%	12.24
May 1954 - 40 samples @ 2.00 = 80.00 x 31%	24.80
387 sample sacks	41.43
Total May 1954 MF-104	$ 624.21

	$ 624.21
Add: Add'l costs for Feb. to May 1954, inclusive, based on percentage of straight time hours, due to add'l labor costs for same period, omitted in error by operator	15.12
Total	$ 639.33

The charges for payroll taxes and compensation insurance were examined and the rate applicable to the operator's payroll were as follows:

Payroll Tax Rates	1953		1954	
Federal Old Age Benefit	1.5%		2.0%	
Federal Unemployment	.3%		.3%	
Nevada Unemployment	1.0%	2.8%	1.0%	3.3%
Compensation Insurance Rates				
Nevada Industrial Commission	3.25%		3.25%	
Pioche Mutual Benefit Ass'n. Hospital Division	1.32%	4.57%	1.32%	4.57%

Payroll taxes are exempt on any one employee earning over $3,600.00 for Federal Taxes, and $3,000.00 for State Taxes. During the period June to December 1953, the Combined Metals Reduction Company used an average payroll tax rate, which included exempt salaries as part of divisor, and the procedure had the result of reducing payroll tax rates during that period. The agreements for compensation insurance were examined during the course of the audit.

The additional payroll taxes $383.90 and Liability Insurance $532.93 was due to the additional labor for drifting and raising during the period of February to May 1954, and computed as follows:

		P/R Tax
Labor $10,407.21 @	3.3%	$343.44
Labor 1,254.31 @	3.226%	40.46
Total P/R Tax		$383.90
		Comp. Insurance
Labor $11,661.52 @	4.57%	$532.93

The disallowance of payroll taxes $6.80 and liability insurance $33.36 was applicable to the technical service disallowance of $630.00 and the accounting service disallowance of $100.00.

The pick-up truck transportation is made up as follows:

March 1953 to January 1954

Truck No. 20	640 miles @ .09	$ 57.60
Truck No. 22	2080 miles @ .09	187.20
Truck No. 44	1600 miles @ .09	144.00
Truck No. 46	15200 miles @ .09	1,368.00
Truck No. 53	160 miles @ .09	14.40
J.Hulse-Private auto	765 miles @ .09	68.85
Sub-total	20445	$ 1,840.05

Add: Proportion on S/T hourly basis

Feb.'54	2,696 miles @ .09	$242.63x36%	87.35
Mch.'54	3,878 miles @ .09	349.02x59%	205.92
Apr.'54	3,353 miles @ .09	301.77x36%	108.64
May'54	3,520 miles @ .09	316.80x31%	98.21
Total May 1954 (Redistribution of Costs)			$2,340.17

Add: Add'l costs for Feb. to May 1954 inclusive, based on percentage of s/t hours, due to add'l labor costs for same period, omitted in error by operator 118.93

Total allowable pick-up transportation $ 2,459.10

The above pick-up transporation costs were verified to monthly reports during the course of the audit.

The road maintenance for winter operations in amount of $2,400.00 was "an allowable maximum" as set forth in Exhibit "A" of the contract. The Combined Metals Reduction Company, billed the operator $400.00 each month, and a review of these charges are as follows:

Centennial Development Co. Invoices

Month	Inv. Date		Amount	
Nov. 1953	12-8-53	Rent of Crawler Tractor	400.00	
Dec. 1953	1-10-54	Rent of Crawler Tractor	400.00	
Jan. 1954	2-2-54	Rent of Crawler Tractor	400.00	$1,200.00

Combined Metals Reduction Co., Direct Charges

Feb. 1954	3-1-54	Rent of Tractor No. 3	400.00	
Mar. 1954	4-1-54	Rent of Tractor No. 3	400.00	
Apr. 1954	5-1-54	Rent of Tractor No. 3	400.00	1,200.00
Total cost of Winter Road Maintenance				$ 2,400.00

The Centennial Development Company charges for November and December 1953, and January 1954, were based on a verbal agreement with the Combined Metals Reduction Company, whereby the Centennial Development Company would furnish the crawler tractor at $400.00 per month, and the Combined Metals Reduction Company would furnish the labor, which would be reimbursed by Centennial Development Company. This labor amounted to 244 hours at $2.5625 per hour, totaling $625.25. During the months of February, March and April 1954, the Combined Metals Reduction Company Tractor No. 3 and the charges for the use of this tractor are as follows:

Rent of Tractor No. 3

133 hours at $6.50	$ 864.50
Cost of Tfr. Tractor, Caselton to Mine	129.00
Return Cost Tractor, Mine to Caselton	110.00
Standby Time	96.50
Total Rent of Tractor-3 months	$1,200.00

The 244 hours charged to Centennial Development Company, together with the above 133 hours for tractor No. 3, were verified to the time cards, and a complete examination was made of the remaining charges to road maintenance. After compiling the above costs, same were discussed with the Bureau of Mines, Examining Engineer, and the Executive Officer, and they were of the opinion that the cost of $2,400.00 was reasonable and necessary to perform the contract, therefore it was agreed that the $2,400.00 was an acceptable cost of the contract.

The heavy material transportation cost was made up of the following cost items.

Rented GMC Stake Truck, in lieu of mileage	28 hrs. at $3.00	84.00
Moving Garage onto Foundation at Minerva Mine		75.00
Hauling from Caselton to Minerva	9 loads at $25.00	325.00
Truck No. 18 960 miles @ .14		134.40
Add: Proportion on s/t hourly basis		
Feb.'54	320 miles @ .14 $44.80x36%	16.13
Mch.'54	160 miles @ .14 22.40x59%	26.43
May '54	480 miles @ .14 67.20x31%	13.89
Total May 1954 (Redist. of Costs)		$674.85
Add:	Add'l costs for Feb. to May '54 inclusive, based on percentage of s/t hours, due to add'l costs for same period, omitted in error by operator	11.20
Total allowable Heavy Mat'l. Transp.		$686.05

The rental of Truck $84.00 and moving garage $75.00 was performed by outside trucking firms during March 1953, at the beginning of project operations. The cost of hauling heavy material, 13 loads at $25.00 per load, or a total of $325.00, was considered an acceptable cost of moving heavy material. In discussing these items with H. C. Miller, Executive Officer, it was concluded the type of transportation charged to the project costs, was performed in the interest of the Government, and are an acceptable cost of the project. The Amended Contract shows the estimated cost of transporting heavy supplies by company truck at .14¢ per mile as follows:

Stage 1	84.00 x 8 mos.	$ 672.00
Stage 2	84.00 x 5 mos.	420.00
Total		$1,092.00

The actual cost of transporting heavy material in amount of $686.05 is considerably less than the estimated amount of $1,092.00.

The cost of supplying water in amount of $2,691.01 was computed on the basis of $244.71 for 11 months from July 1953 to May 1954, and was allowable under the terms of the Amended Contract, which reads as follows:

Supplying Water to Project, Stage 1, 8 mos. @ $244.71	$ 1,957.65
Supplying Water to Project, Stage 2, 5 mos. @ 244.71	1,223.55
Total	$ 3,181.20

The above amount of $3,181.20 was established by Amendment No. 1 of the Original Contract, and the justification stated:

> "Operator requested a change in his contract to permit him to drill a well to supply his exploration activities. Contract allows him $3,181.20 to haul water and with that amount of money he states he can drill a well and increase the efficiency of his operations. This Amendment allows the operator to use any practical method he desires for supplying water and does not restrict the method of hauling."

The Operator maintains a cost record of the water well which furnishes the water, and as of Jan. 3, 1955, the water well account showed a total cost of $6,581.93, which included the cost of drilling, pump, pipe and other well costs. In view of the above Amendment No. 1, it was the Executive Officer's opinion that the well costs as charged to the project in amount of $2,691.01 were reasonable and a necessary cost of the project, therefore no exception was taken to the method of furnishing water by the Operator.

The accounting service charge of $ 1,925.00 represents part time accounting service paid to the following employees of the Combined Metal Reduction Company.

March	1953	J. Argentos	150.00
April	1953	J. Argentos	-0-
May	1953	F.H.Anderson	50.00
June	1953	F.H.Anderson	75.00
7/1/53-5/30/54		"	
	11 mos.	$ 150.00	1,650.00
Total			$ 1,925.00

The above amount of $ 1,925.00 is within the "allowable maximum" of $ 1,950.00 as per Exhibit "A" of the Amended Contract. The disallowance of $ 100.00 was due to the operator charging $ 200.00 per month for December 1953 and January 1954, whereas the Amended Contract shows an "allowable maximum of $ 150.00 per month.

IV CONCLUSIONS AND RECOMMENDATIONS

The audit also disclosed that the status as of January 27, 1955, of "allowable maximum" under this contract was as follows:

Item	Maximum	Total Costs	Balance
	STAGE I		
Independent Contracts			
Straighten & Widen Main Adits	$ 1,800.00	$ 1,800.00	$ -0-
Rehabilitate Main Adit	1,425.00	1,425.00	-0-
Drifting	19,850.00	19,850.00	-0-
Drift Timbering	420.00	-0-	420.00
2 Compartment Raise	8,700.00 (a)	8,685.00	15.00
Bulldozing	240.00	218.05	21.95
Churn Drilling	3,698.50	3,698.50	-0-
Diamond Drilling	11,052.25	3,781.97	7,270.28
Agreed Unit Rates			
Drift and/or Crosscut	$ 10,570.00	$ 10,570.00	$ -0-
Diamond Drilling	820.00	820.00	-0-
Raising	761.91	761.91	-0-
Personal Services			
Supervising Engineer	4,800.00	4,800.00	-0-
Engineer	800.00	800.00	-0-
Operating Material & Supplies			
Rail	1,995.00	1,197.00	798.00
Operating Equipment			
Equipment Rental	-0-	-0-	-0-
Depreciation	12,672.00	2,522.99	10,149.01
New Bldgs.Improvements, etc.			
Fan House	150.00	90.00	60.00
Power Line	456.00	-0-	456.00

Item	Maximum	Total Costs	Balance
Compressor, Power & Whse. Bldg.	$ 1,500.00	$ 1,050.00	$ 450.00
Fuel Tank incl. Installation	600.00	360.00	240.00
Water Tank incl. Installation	644.00	450.80	193.20
Miscellaneous			
Road Maintenance	2,400.00	2,400.00	-0-
Bookkeeping	1,200.00	1,200.00	-0-

STAGE II

Independent Contracts	$	$	$
Rehabilitation of Shaft	1,800.00	1,800.00	-0-
Construction of Skip Pocket	500.00	500.00	-0-
Drifting	26,904.80 (b)	16,859.87	10,044.93
Drift Timber	200.00	68.00	132.00
Churn Drilling	3,001.50	3,001.50	-0-
Bulldozing	360.00	327.07	32.93
Agreed Unit Rates			
Drift and/or Crosscut	30,649.50	30,649.50	-0-
Diamond Drilling	2,342.50	2,342.50	-0-
Personal Services			
Supervising Engineer	3,000.00	1,080.00	1,920.00
Engineer	500.00	300.00	200.00
Operating Material & Supplies			
Rail	2,100.00	1,260.00	840.00
Operating Equipment			
Equipment Rental	1,500.00	1,200.00	300.00
Depreciation	6,037.00	1,270.57	4,766.43
Miscellaneous			
Bookkeeping	750.00	725.00	25.00

(a) The cost of $8,685.00 for 2 compartment raise, under Stage I, represents direct labor performed by operator.

(b) The cost of $16,859.87 for drifting, under Stage II, is made up of work performed by independent contractors $13,000.00 and direct labor of $3,859.87 performed by operator.

For further details on (a) and (b) listed above, see Item (2) Labor and Supervision in the narrative of this Report.

This audit has disclosed that all costs, as charged to this project, including the additional costs allowed and itemized under Items (2) Labor and Supervision, (3) Material and Supplies, (4) Operating Equipment and (7) Miscellaneous, with the exception of the disallowances itemized under Items (1) Independent Contracts, (2) Labor and Supervision, (3) Materials and Supplies, (4) Operating Equipment, (7) Miscellaneous and Salvage received from disposal of property, itemized under Items (3) Materials and Supplies and (6) New Buildings, Improvements, etc., of the preceding section of this Report, are reasonable and proper under the terms of the Amended Contract.

The adjustments between items of Costs, as shown on the January 1955 MF-104, the additional costs allowed, the recommended disallowances, proceeds from sale of property, and approved amounts, are summarized as follows:

	Totals Jan. MF-104	Distribution Corrected	Add'l Costs Allowed By Audit	Disallowed By Audit	Proceeds Sale of Property	Allowed By Audit
[1a] Independent Contracts						
Diamond Drilling	$ 6,544.47	$ 3,[illegible].97	$	$	$	$ 3,78[illegible].97
Churn Drilling	6,700.00	6,700.00				6,700.00
Straighten & Widen Adit	[illegible],800.00	[illegible],800.00				[illegible],800.00
Rehab. Silver Bell, Incl. Skip Pocket	2,300.00	2,300.00				2,300.00
Drifting	79,432.50	38,2[illegible]3.00		6,295.00		32,9[illegible]8.00
Raising	[illegible],63[illegible].3[illegible]	8,385.50		8,385.50		-0-
Lay Track Air & Water Lines	[illegible],425.00	[illegible],425.00				[illegible],425.00
Bulldozing	-0-	545.[illegible]2				545.[illegible]2
[1b] Agreed Unit Rates						
Diamond Drilling	-0-	3,[illegible]62.[illegible]0				3,[illegible]62.[illegible]0
Drifting	-0-	4[illegible],219.50				4[illegible],219.50
Raising	-0-	2,362.50		[illegible],600.39		[illegible]6[illegible].9[illegible]
[2] Labor and Supervision						
Labor	[illegible],506.90	2,390.25	18,450.74	6,789.22		[illegible]4,05[illegible].[illegible]
Supervision	6,420.00	5,880.00				5,880.00
Technical Services	[illegible],[illegible]90.00	[illegible],[illegible]30.00		630.00		[illegible],[illegible]00.00
Bookkeeping	2,025.00	-0-				-0
[3] Operating Mat'ls & Supplies						
Drill Steel	4,394.85	4,[illegible]74.[illegible]4				4,[illegible]74.[illegible]4
Timber, Incl. Ties	2,332.[illegible]	3,008.[illegible]3				3,008.[illegible]3
Explosives	[illegible]46.54	[illegible]46.54	[illegible],305.50			[illegible],352.04
Pipe	[illegible],326.[illegible]0	3,43[illegible].2[illegible]			[illegible],202.32	2,232.[illegible]9
Track	4,458.34	4,458.34		363.34	[illegible],638.00	2,45[illegible].00
Diesel Fuel-Power	4,97[illegible].83	4,97[illegible].83	2[illegible].49			5,250.32
Vent Tubing	[illegible],[illegible]80.[illegible]0	[illegible],780.[illegible]0			534.03	[illegible],246.07
Misc. Supplies	6,407.4[illegible]	3,263.98	8[illegible].46		[illegible],457.28	4,888.[illegible]8
[4] Operating Equipment						
Bulldozing and Transportation	545.[illegible]2	-0-				-0-
Rental Surface Equip. Silver Bell	[illegible],2[illegible]8.00	[illegible],278.00	[illegible]78.00	[illegible]56.00		[illegible],200.00
Depreciation	3,5[illegible]9.24	3,579.24	2[illegible]4.32			3,793.56
[5] Initial Rehab. & Repairs	2,803.95	-0-				-0-
[6] New Bldgs., Improvements, etc.	2,894.00	2,894.00			1,055.70	[illegible],838.30
[7] Miscellaneous						
Repairs to Equip. & Maint. Labor	5,082.54	5,03[illegible].54	[illegible]52.87			5,[illegible]90.4[illegible]
Sampling & Analysis	624.2[illegible]	624.2[illegible]	5.[illegible]2			639.33
Payroll Taxes	322.03	322.03	383.90	6.60		699.33
Liability Insurance	735.6[illegible]	735.67	532.93	33.36		[illegible],235.24
Pickup Transportation	2,384.06	2,340.[illegible]7	[illegible]8.93			2,459.10
Road Maintenance-Winter	2,400.00	2,400.00				2,400.00
Heavy Mat'l. Transportation	-0-	674.85	[illegible].20			686.05
Supplying Water	3,327.[illegible]7	2,69[illegible].8[illegible]				2,69[illegible].8
Bookkeeping	-0-	2,025.00		[illegible]00.00		[illegible],925.00
Office & Engr. Supplies	25.8[illegible]	-0-				-0-
Totals	$ [illegible]3,3[illegible]0.[illegible]3	$ 73,[illegible]36.[illegible]3	$ 2[illegible],623.48	$ 23,359.6[illegible]	$ 5,88[illegible].33	$ [illegible]55,5[illegible]2.6[illegible]

At the conclusion of the audit, the findings were discussed with Paul Grimmill, General Superintendent and Frank H. Anderson, Office Manager.

George Mavor
Auditor

April 20, 1955

Docket Copy

AMENDED
EXPLORATION PROJECT CONTRACT
N. I. A. MINES COMPANY
DOCKET NO. DMEA-2688

AMENDMENT NO. 1

The United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and the N. I. A. Mines Company, a joint venture consisting of Combined Metals Reduction Company and American Zinc Company of Tennessee are parties to Amended Exploration Project Contract Idm-2481 (Docket No. DMEA-2688) executed October 25, 1954, and effective January 27, 1953, (hereinafter called the "Contract"). The parties desire to formalize their previous informal agreements concerning changes in the locations of part of the exploration work and concerning the basis of payment for some of the work.

NOW THEREFORE, it is agreed that:

(1) Effective as of June 1, 1954, Exhibit "A" of the contract is amended as follows:

EXHIBIT "A"

Description of the Work

The work consists of two stages, which may be performed simultaneously. The Objective Areas, referred to below, are indicated on Map C-1107, attached to the Amended Contract, and Map B-877, attached hereto and made a part hereof. Map B-877 indicates all work performed beginning with June 1, 1954, except that the locations of the drill holes are not shown.

All work performed prior to June 1, 1954, is subject to the provisions for said work set forth in Exhibit "A" attached to the Amended Contract, and the Government will contribute to the actual costs of said work on the basis of the categories of costs set forth in said Exhibit "A".

All drifts, crosscuts, and raises driven after June 1, 1954, shall be timbered as necessary and shall have cross-sectional dimensions not less than 5 feet by 7 feet in the clear of timber.

Stage 1

The work under this stage is divided into two phases.

PHASE 1

Phase 1 of this stage consists of that work set forth in Exhibit "A" of the Amended Contract that was completed prior to June 1, 1954, and is as follows:

(1) Purchase, transport to and install on surface a compressor, power and warehouse building; and provide and install one water tank and fuel tanks.

(2) Rehabilitate the main adit in the Scheelite Chief Mine, including laying track and installing air, water, and power lines. The adit shall be straightened and widened only to the extent necessary to complete the proposed exploration in an efficient and workmanlike manner.

(3) Objective Area 1

(a) Drive a drift 147 feet southeasterly on the intermediate level.

(b) Diamond drill not to exceed 709.5 feet in this objective area.

(4) Objective Areas 2 and 3

(a) Bulldoze the necessary roads to 4 churn-drill sites. Churn drill 4 holes to an aggregate total depth of 739.7 feet.

(b) Extend the main adit S. 80° E. for 275 feet.

(5) Objective Area 4

(a) Advance the main adit S. 80° E. an additional 570.5 feet.

(b) Diamond drill not to exceed 550.5 feet in this objective area.

(c) Drive a 2-compartment raise 289.5 feet.

PHASE 2

Phase 2 of this stage consists of that work performed beginning with June 1, 1954, and is as follows:

(1) Extend the sublevel drift off Raise 45-15D a distance of 302.0 feet in an easterly direction.

(2) Diamond drill two holes aggregating 164.0 feet.

(3) Raise approximately 22.0 feet from the sublevel drift under item (1) of this Phase 2.

Stage II

The work under this stage is divided into two phases.

PHASE 1

Phase 1 of this stage consists of that work set forth in Exhibit "A" of the Amended Contract that was completed prior to June 1, 1954, and is as follows:

(1) Erect headframe, bin, and hoist house, and lay necessary track on surface at Silver Bell shaft, all on Company account at no cost to the Government.

(2) Rehabilitate Silver Bell shaft to 3rd level, retimbering where necessary, including laying track, and installing air, water, and power lines.

(3) Install skip pocket on 3rd level of Silver Bell shaft.

(4) Objective Area 4

From the 650-foot sublevel off the Chief-Silver Bell raise, drift westerly 63.0 feet.

(5) Objective Area 5

Drift 800 feet easterly on the 3rd level of Silver Bell shaft.

(6) Objective Area 6

(a) Bulldoze the necessary roads to churn-drill sites. Churn-drill 3 holes aggregating 600.3 feet.

(b) Extend the 3rd level drift of the Silver Bell shaft an additional 413.5 feet.

PHASE 2

Phase 2 of this stage consists of that work performed beginning with June 1, 1954, and is as follows:

(1) Objective Areas 3 and 4

(a) On the 650-foot level of the Silver Bell mine, extend the level 345.8 feet in a westerly direction from Raise 43-24D.

(b) Diamond drill six holes aggregating 289.5 feet from the above workings.

(c) On the 650-foot level of the Silver Bell mine, extend the level 218.1 feet in an easterly direction from Raise 43-24D.

(d) On the 600-foot level of the Silver Bell mine drift westerly 132.0 feet from Raise 43-24D.

(e) On the 600-foot level of the Silver Bell mine drift easterly 99.8 feet from Raise 43-24D.

(f) Diamond drill two holes totaling 179.0 feet from the workings under (d) above.

(g) On the 500-foot level of the Silver Bell mine drift 18 feet westerly from Raise 43-24D.

(2) Objective Area 6

Extend the 3rd level drift of the Silver Bell mine easterly an additional 62.0 feet.

Estimated Costs of the Project

(Article 6 of the Contract Form indicates items of cost that are maximum. Any additional maximum is indicated by an asterisk)

Actual Costs of work set forth in Exhibit "A" of the Amended Contract that was completed prior to June 1, 1954

Costs of Phase 1, Stage I, subject to audit $ 85,773.74*

Costs of Phase 1, Stage II, subject to audit	$ 40,408.35*	
		$126,856.09*

Fixed Unit Costs

The Government will contribute to the costs of the work requirements listed below on the basis of the fixed unit costs specified therefor, as they accrue, in lieu of actual costs. The fixed unit cost includes all costs of the work whatsoever, except that all buildings, fixtures, equipment, or other items to the cost of which the Government has contributed may be used in connection with the work performed after June 1, 1954, without charge to the Operator, but the cost of maintenance and repair of said property during the period of performance shall be borne solely by the Operator without contribution by the Government.

Stage I

PHASE 2

Drift and/or crosscut 302.0 feet @ $35.00/ft.	$ 10,570.00	
Diamond drill 164.0 feet @ $5.00/ft.	820.00	
Raise 21.77 feet @ $35.00/ft. extended to	761.91	
		$12,151.91

Stage II

PHASE 2

Drift and/or crosscut 875.7 feet @ $35.00/ft.	$ 30,649.50	
Diamond drill 468.5 feet @ $5.00/ft.	2,342.50	
		$32,992.00
		$45,143.91

SUMMARY

Estimated Cost of Stage I	$ 97,985.65*
Estimated Cost of Stage II	73,478.36*

Estimated Total Cost of Project $171,400.00*

Government participation @ 75% $128,550.00*

(2) Notwithstanding the provisions of Article 6 of the Contract form, the Government will contribute to the fixed unit costs set forth in Exhibit "A" in lieu of actual costs.

This amendment shall not be construed to increase the estimated total cost of the project nor the aggregate total amount which the Government may be required to contribute.

Executed this 2nd day of March, 1955.

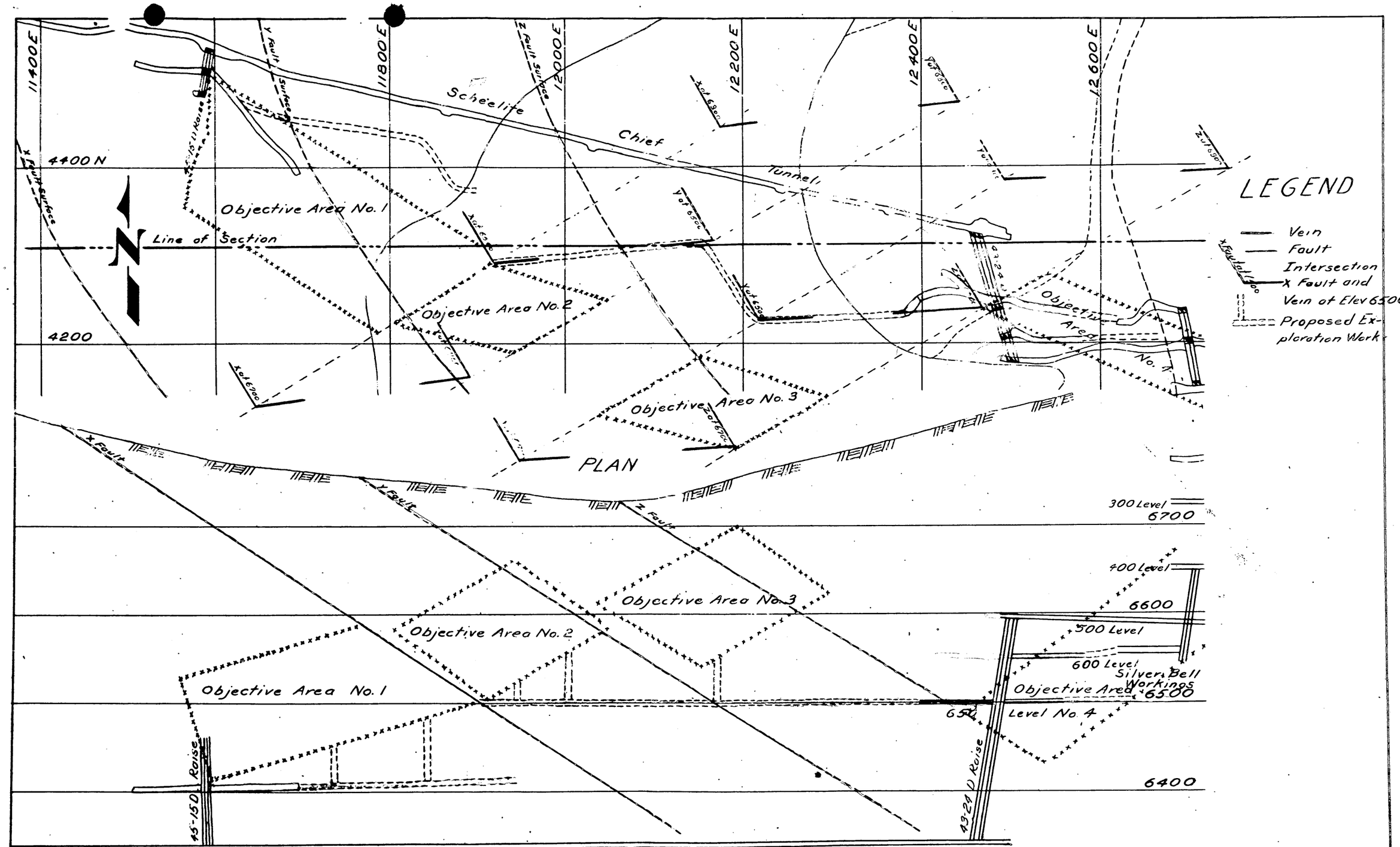
THE UNITED STATES OF AMERICA

By C. W. Mitteedorf
Administrator, Defense
Minerals Exploration
Administration

Robin
H. S. Blair
Rutledge
Martin
Talbot
Selfridge
H. Johnson

M. I. A. MINES COMPANY

By [illegible]
President



REFERENCES	Base Maps D.M. Lemmon U.S.G.S.	WORK	DRAWN Schrader	8-1-54	COMBINED METALS REDUCTION CO.
	C-1107		TRACED		Pioche, Nevada
			CHECKED R.G. Lee	8-2-54	
			APPROVED		

MINERVA TUNGSTEN PROPERTY
EXPLORATION PROPOSALS
Scheelite Chief and Silver Bell Mine Areas

SCALE 1" = 100'

B-877

Docket copy

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

FEB - 1 1955

MF-200
(Revised June 1954)

Docket No. DMEA - 2683

Commodity Tungsten

Contract No. Idm-E 481

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
AMENDED
EXPLORATION PROJECT CONTRACT[1]

It is agreed xxxxx of the 27th day of January, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] M. I. A. Mines Company, a joint venture consisting of Combined Metals Reduction Company and American Zinc Company of Tennessee, whose mailing address is 213 Felt Building, Salt Lake City, Utah, hereinafter called the "Operator," as follows: This contract amends and supersedes an earlier contract of the same date.

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200), the attached Exhibit "A," Annex I, and .....

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of White Pine, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] lessee of [5] ..... in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] ....., [7] ..... recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: .....

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

of the land (lessor, seller, optionor, etc.), are attached as follows: Owner's Consent to Lien of Robert F. Stopper, Edward D. Stopper, and Martha R. Allen

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 8, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 8(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of tungsten. The work to be performed is described in Exhibit "A." The Operator on or before XXXXXXXX has XXX shall commence the work, and on or before January 27, 1955 (unless the Operator's obligation to prosecute the work is terminated—see Article 10) shall either have completed the work or shall have incurred allowable costs (see Article 6) in a sum not less than the estimated total allowable cost set forth in Exhibit "A."

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Independent contracts.*—To the extent that the allowable costs are estimated in Exhibit "A" with express reference to performance by independent contractors on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations), the work may be so performed; but if the reference in Exhibit "A" to any such independent contract requires the Government's approval thereof, payments under such contract will not be allowable costs unless the Government gives its written approval of the contract. Any such independent contract shall refer to some specific and identifiable part of the work, and shall be subject to all of the pertinent terms and conditions of this exploration contract; but the Government shall not be considered a party thereto, and its rights under this contract, including the right to terminate its contributions, shall not be affected thereby. Regardless of the provisions of any such independent contract and regardless of the Government's approval thereof, the Government will participate in payments to the independent contractor only on account of work performed in accordance with the provisions of this exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable.

(c) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—The estimated total allowable cost of the project, set forth in Exhibit "A," is the sum of $171,400.00. The Government shall contribute 75 percent of the allowable costs as they are incurred in a total sum not in excess of $128,550.00: *Provided,* That until the Operator has rendered to the Government his final report, and any final 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 10 percent of the estimated total cost of the work or not in excess of the amount of the Government's contribution to the cost of property which is or may become subject to disposal as provided in Article 9(c), whichever is greater. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 7(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. "Costs incurred" mean costs that have been paid or have become due and payable, or that in the opinion of the Government have become an obligation. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Estimated costs.*—(a) *Categories of costs.*—The allowable costs of the work to which the Government shall contribute are limited to those that are direct, reasonable, necessary, and that are estimated in Exhibit "A" by categories as specified in this article. If any category or subcategory is omitted from the estimate of costs, or if the word "none" is annexed to the listing thereof, costs under such category or subcategory are not allowable. Any excess over any estimate which is indicated as the maximum of any category, subcategory, or item, either as to requirement or related cost, and any excess over the estimated total allowable cost of the work, shall not be allowable. Any excess over the estimate of any category, subcategory, or item, either as to requirement or related cost, not indicated as a maximum shall be allowable within the limit of the estimated total allowable cost of the work. To the extent that excesses over maximums other than the estimated total allowable cost of the work may be necessary for the performance of the work, the Operator shall incur such excesses for his own account without contribution by the Government; but except for any such necessary excesses in categories, subcategories, or items thereunder the Operator is not obligated to incur more than his agreed percentage of the estimated, total allowable cost of the work.

To the extent specified in this article or in Exhibit "A" the following categories, subcategories, and elements thereof are maximums; but if not so specified either here or in Exhibit "A" they are not maximums, and may be exceeded within the limit of the estimated total allowable cost of the work:

CATEGORY (1)—INDEPENDENT CONTRACTS.—Work to be performed under independent contracts (see Article 4(b)). The estimated total amount of this category and the estimated cost of each unit of work for performance under an independent contract are maximums.

CATEGORY (2)—PERSONAL SERVICES.

Subcategory (a)—Supervision.—All elements of this subcategory (number of supervisors, periods of employment, rates of pay, and total) are maximums.

Subcategory (b)—Technical services.—All elements of this subcategory (number of technicians, periods of employment, rates of pay, and total) are maximums.

Subcategory (c)—Labor.

CATEGORY (3)—OPERATING MATERIALS AND SUPPLIES.—Includes such items as drill bits and steel, explosives, fuel, pipe, power, small tools costing less than $50 each, timber, track.

CATEGORY (4)—OPERATING EQUIPMENT.

Subcategory (a)—Rental.—The number of each object to be rented [6 mine cars, 1 truck], the rate of rental [$100 per month, $5 per hour], and the total of this subcategory are maximums.

Subcategory (b)—Purchases.—The estimated total of this subcategory is a maximum.

Subcategory (c)—Depreciation.—All elements of this subcategory (time periods, rate of depreciation, and subcategory total) are maximums.

CATEGORY (5)—INITIAL REHABILITATION AND REPAIRS.—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

Subcategory (a)—Initial rehabilitation and repairs of existing buildings, fixtures, and installations (exclusive of mine workings).—The estimated total of this subcategory is a maximum.

Subcategory (b)—Initial rehabilitation and repairs of operating equipment.—The estimated total of this subcategory is a maximum.

CATEGORY (6)—NEW BUILDINGS, FIXTURES, AND INSTALLATIONS (EXCLUSIVE OF MINE WORKINGS).—Estimates under this category include all requirements and related costs, such as labor, materials and supplies, and supervision at a rate not higher than provided for in Category (2), and shall not be duplicated under any other category. The estimated total of this category is a maximum.

CATEGORY (7)—MISCELLANEOUS.—Repairs and maintenance (other than initial) of operating equipment, analytical work, prints and other reproductions, accounting, Operator's share of payroll taxes, liability insurance covering employment, travel, communications, and any other items of requirement or cost that do not fall within any of the first 6 categories.

THE ESTIMATED TOTAL ALLOWABLE COST of the work is a maximum.

(b) *Nonallowable costs.*—The following costs are not allowable for contribution by the Government:

(1) *Costs of the land,* such as rental, depreciation, depletion, or other cost of acquiring, owning, or holding possession;

(2) *Indirect costs,* such as general overhead, corporate management, interest, taxes (other than payroll and sales taxes), insurance (other than liability insurance covering employment), damages to persons, damages to property (other than necessary repairs or replacements of equipment or other property used in the work);

(3) *Previous work* performed or costs incurred before the date of this contract; and

(4) *Deferred payments.*—Any costs incurred by the Operator under any rental-purchase agreement, installment-purchase agreement, or any agreement for the purchase of goods under the provisions of which payment of the full purchase price is deferred more than 90 days from the delivery of the goods; unless the purchase agreement is approved by the Government in writing.

(c) *Reductions in costs.*—The Operator shall account for and give the Government credit for any incidental benefits, credits, or money received in the ordinary course of business in prosecuting the work (as by salvage or sale of materials or equipment, furnishing of room or board, furnishing of power or services to third persons, rebates or discounts on purchases, etc.), in the same ratio in which the Government contributes to costs; and such amounts shall be treated as a reduction in costs incurred so that they are available for use within the limit of the original estimated total cost. This provision does not apply to receipts from production which are subject to the Government's percentage royalty under the provisions of Article 9.

ARTICLE 7. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. If the Government elects to audit said records and accounts relating to the exploration work by certified public accountant, it may do so as a cost of the work to which the Operator shall contribute. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government. If work under this contract is carried on in conjunction with any other operations, or if labor, supervision, services, materials, supplies, equipment, facilities, or other requirements for carrying on the work are also used in connection with other operations, the costs shall be segregated and accounted for on a basis and by methods and accounts that are satisfactory to and approved by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing detailed costs incurred during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and costs incurred for each type of work; and (3) a Narrative Report of the work performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and related costs incurred.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records, or accounts.

ARTICLE 8. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 7) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten 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.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value therof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½)

percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 9. *Interests in purchased property.*—(a) *Title and ownership.*—All costs under this contract shall be incurred by the Operator in the Operator's own name and for the Operator's own account; but any property acquired to the cost of which the Government contributes shall belong to the Operator and the Government jointly in proportion to their respective contributions, although title thereto shall be taken in the name of the Operator.

(b) *Preservation of property.*—Until the final disposal of any property in which the Government has an interest the Operator shall preserve and protect same for the best interest of the Government, any reasonable and necessary costs thereof to be treated as an allowable cost of the project. After the completion of the work or termination of the Government's obligation to contribute, or when such property is not in use for or needed for the work, the Operator shall neither use it without the written consent of the Government nor without paying a reasonable rental to be fixed by the Government for its interest.

(c) *Disposal of property.*—Upon the completion of the work or termination of the Government's obligation to contribute to costs, or when the property is no longer needed for the work, the Operator shall promptly dispose of salable or salvageable property in which the Government has an interest 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 or the Government at a price at least as high as could be obtained from others, unless the Government in writing waives its interest in any such property. Without advance approval of the sales price by the Government the Operator shall not sell at any price any item of property the cost of which was more than $500, and shall not sell at less than 25 percent of the purchase price any item of property which cost $500 or less. The Government, in lieu of approving the sales price for any such item, may itself purchase the item at the best price which the Operator is able to obtain or himself cares to give. Property remaining upon any termination of the work shall be considered in groups or categories (such as drill steel, or explosives, or pipe, or rails), and if the original cost of the remaining unexpended portion of any such group or category is less than $50, the Government waives its interest therein. If necessary to accomplish the disposal of any item the Operator shall dismantle and sever it from the land, the cost thereof to be treated as a cost of the project.

(d) *Default of the Operator re disposal.*—If within 90 days after the completion of the work or termination of the Government's obligation to contribute to costs, or after the property is no longer needed for the work, or after such further time as the Government may in writing allow, the Operator has failed to sell or otherwise liquidate or dispose of any property in which the Government has an interest, the Government, at any time prior to final settlement under the contract, may pursue one of the following two courses: (1) the Government, by written notice to the Operator, may place upon such property what in its opinion is a fair valuation thereof, not in excess of the cost less 1.66 percent per month from the

date such property was purchased under this contract to the termination of said 90-day period; and such property shall thereupon be considered and accounted for as having been purchased by the Operator at the valuation so fixed by the Government; or (2) the Government may enter and take possession of such property wherever it may be found, and remove and dispose of it for the joint account of the parties.

ARTICLE 10. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon: (1) the Government shall be free of all obligation to contribute to costs not then incurred other than such as may be allowable under the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon: (1) the Government shall be relieved of all obligation to contribute to costs not incurred when the notice was given, other than such as may be allowable by the provisions of the contract as necessary and incidental to winding up, reporting, and accounting; and (2) the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 10 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 11. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 12. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 13. *Changes and added provisions.*—

Executed in sextuplicate the ~~day and year first above written~~ 25 day of October, 1954.

THE UNITED STATES OF AMERICA

By O. Mitchendorf
Administrator, Defense Minerals
Exploration Administration

Selfridge
Chandler
Johnson
Martin

M. I. A. MINES COMPANY
(Operator)

By [illegible]
Member Executive Committee

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—70617-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 1 1955

AMENDED EXPLORATION PROJECT CONTRACT
M. I. A. MINES COMPANY
DOCKET NO. DMEA-2688

ANNEX I

The land referred to in Article 2 of the contract consists of the following unpatented lode claims, all recorded in the White Pine County Recorder's Office, Ely, Nevada:

Claim	Book	Page
Silver Bell (easterly 1/2 of claim)	96	276
Silver Bell No. 1	96	277
Wedge (southerly 1/2 of claim)	134	207
Pot Pie No. 1 (southerly 1/2 of claim)	128	377

and that part of the West 1/2 of the Silver Bell claim that contributes ore from Objective Area No. 1 (see attached Map C-1107).

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB - 1 1955

AMENDED EXPLORATION PROJECT CONTRACT
M. I. A. MINES COMPANY
DOCKET NO. DMA-2688

EXHIBIT "A"

Description of the Work

The work consists of two stages, which may be performed simultaneously. The Objective Areas, referred to below, are indicated on Map C-1107, attached hereto.

Stage I

Time Schedule: 0 - 15 months

(1) Purchase, transport to and install on surface a compressor, power and warehouse building; and provide and install one water tank and fuel tanks.

(2) Rehabilitate the main adit in the Scheelite Chief Mine, including laying track and installing air, water, and power lines. The adit shall be straightened and widened only to the extent necessary to complete the proposed exploration in an efficient and workmanlike manner.

(3) Objective Area 1. Drive a drift[1] 147 feet southeasterly on the intermediate level. (See attached Map C-1112.)

Diamond drill not to exceed 709.5 feet from intermediate level "A" to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole are subject to the approval of the Government. (See attached Map C-1112.)

1/ The drifts, crosscuts, and raises shall be driven approximately 5' by 7' in the clear. However, the Operator, at his election, may drive larger drifts or crosscuts, and may drive 3-compartment raises, provided that the extra costs thereof shall be at the Operator's sole expense. In such event the basis of proration between Operator and Government shall at all times be subject to the approval of the Government, and costs involved in such proration will be disallowed by the Government to the extent that they are disapproved by the Government.

(4) Objective Areas 2 and 3.

Step 1 - Bulldoze the necessary roads to 4 churn-drill sites. Churn drill 4 holes to an aggregate total depth of 739.7 feet. The location, direction, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

Step 2 - This step will depend upon the results of Step 1 under this item and shall be subject to the prior approval of the Government. Extend the main adit[2/] S. 80° E. direction for approximately 275 feet from its present face. (See attached Map C-1112.)

(5) Objective Area 4.

Step 1 - Advance the main adit [2/] S. 80° E. an additional 570.5 feet. (See attached Map C-1112.)

Step 2 - Diamond drill 2 holes, each approximately 200 feet in length, up to the Objective Area. The location, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

Step 3 - This step will depend upon the results of Step 2 and is subject to the prior approval of the Government. Drive a 2-compartment raise [2/] approximately 290 feet to the Objective Area. (See attached Map C-1112.)

Step 4 - Explore the area below the favorable ore horizon drilled in Step 2 with 6 diamond drill holes with an aggregate length of approximately 900 feet. The location, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

Stage II

Time Schedule: 15 - 21 Months

(1) Erect headframe, bin, and hoist house, and lay necessary track on surface at Silver Bell shaft, all on Company account at no cost to the Government.

2/ See footnote 1.

(2) Rehabilitate Silver Bell shaft to 3rd level, retimbering where necessary, including laying track, and installing air, water, and power lines.

(3) Install skip pocket on 3rd level of Silver Bell shaft.

(4) Objective Area 5. Drift 3/ 200 feet easterly on the 3rd level of Silver Bell shaft.

(5) Objective Area 6.

Step 1 - Bulldoze the necessary roads to churn-drill sites. Churn drill 3 holes aggregating approximately 600.3 feet in depth. The location, direction, attitude, and length of each hole shall be determined by the Operator subject to the prior approval of the Government.

Step 2 - This step will depend upon the results of Step 1 and is subject to the prior approval of the Government. Extend the 3rd level drift3/ of the Silver Bell shaft an additional 300 feet easterly.

Step 3 - This step will depend upon the results of Steps 1 and 2 and is subject to the prior approval of the Government. Extend the 3rd level drift3/ of the Silver Bell shaft an additional 150 feet easterly. (See attached Map C-1112.)

(6) Objective Area 4.

Step 1 - From the 6500-foot sublevel off the main Chief-Silver Bell raise, drift westerly approximately 200 feet.

Step 2 - This step will depend upon the results of Step 1 and the results of any diamond drilling under Steps 2 and 4 of item (5) Objective Area 4 under Stage I, and is subject to the prior approval of the Government.

Extend the 6500-foot sublevel drift westerly and/or crosscut an additional aggregate of approximately 184.8 feet.

3/ See footnote 1.

Estimated Costs of the Project

See Article 6 of the contract for statement of items that are maximum. Any additional maximums are indicated hereafter by asterisk.

The estimated cost of work to be performed under independent contracts, and the conditions under which it will be carried on, are based upon an "Agreement" dated June 22, 1953, by and between the M. I. A. Mines Company and the Centennial Development Company. A copy of this Agreement is contained in the Government's Docket No. DMEA-2688, and the Agreement is incorporated into this Exhibit "A" by reference for the purpose only of determining what the independent contractor must do and provide as distinguished from items to be furnished by the Operator.

Category (1) Independent Contracts 4/

Stage I

Straighten and widen main adit, 3600 cu. ft. of rock in place at $0.50/cu. ft.	$1,800.00
Rehabilitate main adit; lay track, install air, water, and ventilation pipes, 1900 ft. at $0.75/ft.	1,425.00
992.5 feet of drift at $20.00/ft.	19,850.00
120 feet of drift timbering at $3.50/ft.	420.00
290 feet of 2-compartment raise at $30.00/ft.	8,700.00

4/ The Operator may elect to do all or any part of the work under this category on Company account on an actual cost basis, in lieu of contract unit costs, provided that the actual costs for any item shall not exceed the maximum specified for that item under this category.

1 bulldozer, 20 hours at $12.00/hr. 5/	$ 240.00	
739.7 feet of churn drilling at $5.00/ft. 6/	3,698.50	
2,003.5 feet of diamond drilling at $5.50/ft. 6/	11,052.85	$47,165.75

Stage II

Rehabilitation of Silver Bell shaft to 3rd level. 7/	1,800.00	
Construction of skip pocket at 3rd level Silver Bell shaft, including all labor, supplies, materials, and all other costs	500.00	
1,034.8 feet of drift at $26.00/ft.	26,904.80	
50 feet of drift timbering at $4.00/ft.	200.00	
600.3 feet of churn drilling at $5.00/ft. 8/	3,001.50	
1 bulldozer, 30 hours at $12.00/hr. 9/	360.00	32,766.30

5/ The bulldozer costs include operator, fuel and oil, necessary supplies, repairs and replacement parts, and all costs.

6/ The costs of churn drilling and diamond drilling include labor and all machines and supplies necessary for the operation, and all other costs except water which will be furnished by the Operator.

7/ The requirement of Art. 4(b) for independent contracts on a unit-cost basis is waived as to this item.

8/ See footnote 6.

9/ See footnote 5.

Category (2) Personal Services

Stage I

(a) Supervision		
1 Supervising Engineer at $600.00/mo., 8 months	$ 4,800.00	
(b) Technical services		
1 Engineer, part time, at $100.00/mo., 8 months	800.00	
(c) Labor		
1 Topman, 1/2 day at $16.02/day, 8 months (includes overtime and fringe payments)	1,666.50	$ 7,266.50

Stage II

(a) Supervision		
1 Supervising Engineer at $600.00/mo., 5 months	3,000.00	
(b) Technical services		
1 Engineer, part time, at $100.00/mo., 5 months	500.00	
(c) Labor		
1 Topman, 1/2 day at $16.02/day, 5 months (includes overtime and fringe payments	1,041.50	4,541.50

Category (3) **Operating Materials and Supplies**

Stage I

Work Item (2)

19 tons of secondhand 30# rail at $105.00/ton 10/	$ 1,995.00*	
Pipe fittings	76.00	
760 ties at $0.75/each	570.00	
1,900 feet 1" black pipe at $0.12/ft.	228.00	
1,900 feet 3" black pipe at $0.74/ft.	1,406.00	
Drayage on pipe and fittings	95.00	$ 4,370.00

Work Items (3), (4), and (5)

12 tons of secondhand 30# rail at $105.00/ton 10/	1,260.00*
1,700 feet of 1" black pipe at $0.12/ft.	204.00
850 feet of 3" black pipe at $0.74/ft.	629.00
850 feet of 2" black pipe at $0.50/ft.	425.00
Pipe fittings	66.00
1,800 feet of 12" flexible vent tubing at $0.82/ft.	1,476.00
2,500 feet #4 - 3 conductor wire insulated for underground use at $1.00/ft.	2,500.00

10/ Estimated cost includes fish plates, bolts, and spikes.

Electric switches and transformer	$ 185.00	
Fuel and oil, 26 days per month, 16 hours per day, 8 months	3,536.00	
Drill steel and bits	2,500.00	
Tools and miscellaneous supplies	300.00	
480 Ties at $0.75 each	360.00	
35,000 feet timber at $117.00/M 11/	4,095.00	
Core boxes	180.00	
Drayage on pipe and fittings	83.00	
Explosives	1,120.00	$18,919.00

Stage II

Work Item (2)

3 tons of secondhand 30# rail at $105.00/ton 12/	315.00*	
300 feet 1" black pipe at $0.12/ft.	36.00	
300 feet 2" black pipe at $0.50/ft.	150.00	
200 ties at $0.75 each	150.00	
4,000 feet of timber at $117.00/M 13/	468.00	1,119.00

11/ Timber cost includes the costs of trucking to mine and framing.

12/ See footnote 10.

13/ See footnote 11.

Work Items (3), (4), (5), and (6)

5 tons of secondhand 30# rail, at $105.00/ton 14/	$ 525.00*	
900 feet of 1" black pipe at $0.12/ft.	108.00	
900 feet of 2" black pipe at $0.50/ft.	450.00	
Pipe fittings	37.00	
800 feet of 12" flexible vent tubing at $0.82/ft.	656.00	
400 feet #4 - 3 conductor wire insulated for underground use at $1.00/ft.	400.00	
Fuel and oil, 26 days per month, 16 hours per day, 5 months	2,210.00	
Drill steel and bits	2,100.00	
Tools and miscellaneous supplies	200.00	
200 ties at $0.75 each	150.00	
10000 feet of timber at $117.00/M 15/	1,170.00	
Drayage on pipe and fittings	47.00	
Explosives	2,000.00	$10,053.00

14/ See footnote 10.

15/ See footnote 11.

Category (4) Operating Equipment

(a) Rental 16/

Stage I

1 Battery trammer, $230.00/mo., 8 months	$ 1,840.00*	
10 - 20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 8 months	2,080.00	
1 Diesel-driven portable compressor at $505.00/month, 8 months	4,040.00	
1 Diesel-Electric Generator Set, 220-440 volts, at $400.00/mo., 8 months	3,200.00	
2 Ventilator fans at $17.00/each/ month, 8 months	272.00	
1 15-KW Diesel-Electric Generator set, 110-220 volts, at $150.00/mo., 8 months	1,200.00	
Water pressure tank, $5.00/mo., 8 months	40.00	$12,072.00

Stage II

3 - 20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 4 months	312.00	
1 Diesel-driven, portable compressor at $505.00/month, 5 months	2,525.00	
1 Diesel-Electric Generator set, 220-440 volts, $400/mo., 5 months	2,000.00	
1 Ventilator fan at $17.00/mo., 5 months	85.00	

16/ If any of the equipment under this category is furnished by the M. I. A. Mines Company, or an affiliated company, it is to be charged to the contract on a monthly depreciation value which is equal to 1/60 of its fair market value, instead of the rental values listed.

1 15-KW Diesel-Electric Generator set, 110-220 volts, $150.00/mo., 5 months	$ 750.00	
1 Gasoline-driven hoist at $85.00/mo., 4 months	340.00	
Water pressure tank, $5.00/mo., 5 mos.	25.00	
Surface equipment at the Silver Bell shaft to be erected and to be supplied by the Operator, includes hoist house, headframe, bin, truck, cars, skip, and miscellaneous equipment, $300.00/mo., 5 months	1,500.00	$ 7,537.00

Category (5) Initial Rehabilitation and Repairs

None

Category (6) New Buildings, Fixtures, and Installations

Fan house at collar of churn drill hole	$ 150.00*	
1,200 feet of power line at $0.38/ft.	456.00*	
Compressor, power, and warehouse building (To be bought and moved to adit site)	1,500.00*	
Provide and install fuel tanks	600.00*	
Provide and install 7,000-gallon water tank with pipe buried for winter weather	644.00*	$ 3,350.00

Category (7) Miscellaneous

Stage I

Repair parts and maintenance of equipment $550.00/mo., 8 months 17/	$ 4,400.00	
Assays, $50.00/mo., 8 months	400.00	
Road maintenance for winter, $400.00/mo., 6 months	2,400.00*	
Office and engineering supplies	200.00	
Compensation, employer's liability insurance, payroll taxes, etc., 8 months	1,100.00	
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/month, $99.00/mo., 8 months 17/	792.00	
Transportation of heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 600 miles/month, $84.00/mo., 8 months 17/	672.00	
Supplying water to project, 8 months at $244.71/mo.	1,957.68	
1 Bookkeeper-clerk, part time at $150.00/mo.*, 8 months*	1,200.00*	
Contingencies	1,181.80	$14,303.45

17/ The costs of repair, maintenance, and transportation are to be charged against the project only as incurred while the equipment is working on the project.

Stage II

Repair parts and maintenance of equipment, $550.00/mo., 5 months 16/	$ 2,750.00	
Assays, $50.00/mo., 5 months	250.00	
Office and engineering supplies	125.00	
Compensation, employer's liability insurance, payroll taxes, etc., 5 months	700.00	
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/mo., $99.00/mo., 5 months 18/	495.00	
Transportation of heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 600 miles/mo., $84.00/mo., 5 months 18/	420.00	
Supplying water to project, 5 months at $244.71/mo.	1,223.55	
1 Bookkeeper-clerk, part time, at $150.00/mo.*, 5 months*	750.00	
Contingencies	602.95	$ 7,316.50

16/ See footnote 17.

The Operator may elect to carry on simultaneously with the exploration work, development and production operations. In this event, the exploration work shall be carried on, as far as practicable, with equipment, materials, crews, and supervision separate and distinct from any other operations of the Operator, in order to avoid confusing the costs under this contract with any other costs. However, to the extent economically practicable, equipment (such as compressor and hoist), incidental labor, and supervision used in development and production operations may be used also for exploration, and the direct costs arising out of such use prorated between the operations, but the basis of such proration shall at all times be subject to the approval of the Government, and the costs resulting to the exploration project from such proration will be disallowed by the Government to the extent disapproved by the Government.

S U M M A R Y

Estimated Cost of Stage I	$108,066.70*	
Estimated Cost of Stage II	63,333.30*	
Estimated Total Cost of Project		$171,400.00
Government Participation @ 75%		$128,550.00

MF-203
(Revised July 1, 1954)

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/ [illegible]

[illegible]

[illegible]

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/ [illegible]

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

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 there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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.

(OVER)

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.

4. Changes and added provisions

The undersigned consents to all amendments of the contract. No changes.

Dated this 2nd day of November, 1954.

Robert F. Stopper [Seal]

Martha P. Allen [Seal]

Edward G. Stopper [Seal]

Docket Copy

EXPLORATION PROJECT CONTRACT
M. I. A. MINES COMPANY
DOCKET NO. DMEA-2688

AMENDMENT NO. 3

It is agreed this 23rd day of April, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and M. I. A. Mines Company, that Contract Idm-E481 (Docket No. DMEA-2688), dated January 27, 1953, as amended, is further amended, effective January 27, 1953, as follows:

1. Amendment No. 2 dated January 25, 1954, is cancelled and rescinded as of January 25, 1954.

2. Annex I, attached hereto and made a part hereof, is substituted for Article 9 of the contract form.

3. That part of the second sentence in Article 10 of the contract form starting with the word "Provided" is deleted.

4. In Article 3 of the contract form, delete the period "15 months," and substitute the period "21 months."

5. In line 2 of Footnote 1/ of Exhibit "A" attached to the contract form, delete the word "over-all."

6. In Exhibit "A," under the heading "Description of the Work," under "Stage I":

(a) Item (3) Objective Area 1 is amended to read as follows:

Drive a drift 1/ 147 feet southeasterly on the intermediate level. (See Map C-1112 attached to this Amendment No. 3.)

Diamond drill not to exceed 709.5 feet from intermediate level A, to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole are subject to the approval of the Government.

1/ Footnote reference is to Footnote 1/ of Exhibit "A" attached to contract.

(b) Item (4) Objective Areas 2 and 3, Step 1, is amended to read as follows:

Step 1 - Bulldoze the necessary roads to 4 churn-drill sites. Churn drill 4 holes to an aggregate total depth of 739.7 feet. The location, direction, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

(c) Item (4) Objective Areas 2 and 3, Step 2, is amended to read as follows:

Step 2 - This step will depend upon the results of Step 1 under this item and shall be subject to the prior approval of the Government. Extend the main adit in a S. 80° E. direction for approximately 275 feet from its present face. 1/

(d) Item (5) Objective Area 4, Step 1, is amended to read as follows:

Step 1 - Advance the main adit S. 80° E. an additional 570.5 feet. (See Map C-1112 attached to this Amendment No. 3.) 1/

(e) Item (5) Objective Area 4, Step 3, is amended to read as follows:

Step 3 - This step will depend upon the results of Step 2 and is subject to the prior approval of the Government. Drive a 2-compartment raise approximately 290 feet to the Objective Area. 1/

7. In Exhibit "A," under the heading "Description of the Work," under "Stage II":

(a) Item (4) Objective Area 5 is amended to read as follows:

Drift 200 feet easterly on the 3d level of Silver Bell shaft. 1/

1/ Footnote reference is to Footnote 1/ of Exhibit "A" attached to contract.

(b) Item (5) Objective Area 6, Step 1, is amended to read as follows:

Bulldoze the necessary roads to churn-drill sites. Churn drill 3 holes aggregating a total of 600.3 feet in depth. The location, direction, attitude, and length of each hole shall be determined by the Operator subject to the prior approval of the Government.

(c) Item (5) Objective Area 6, Step 2, is amended to read as follows:

Step 2 - This step will depend upon the results of Step 1 and is subject to the prior approval of the Government. Extend the 3d level drift of the Silver Bell shaft an additional 450 feet easterly. 1/

(d) The following new item of work is added:

Item (6) - Objective Area 4:

Step 1 - Extend the 5th level drift of the Silver Bell shaft approximately 200 feet westerly. 1/

Step 2 - This step will depend upon the results of Step 1 and the results of any diamond drilling under Steps 2 and 4 of item (5) Objective Area 4 and is subject to the prior approval of the Government. Extend the 5th level drift of the Silver Bell shaft and/or crosscut an additional aggregate of approximately 184.8 feet. 1/

8. In Exhibit "A," under the heading "Estimated Costs of the Project":

(a) Under the category "(1) Independent Contracts," under "Stage I":

1/ Footnote reference is to Footnote 1/ of Exhibit "A" attached to contract.

(1) Delete the item "1200 feet* 5' x 7' drift at $25.00/foot* - $30,000.00*"; and substitute the item "992.5 feet* of drift at $25.00/foot* - $24,812.50*."

(2) Delete the item "450 feet* of 2-compartment raise at $31.00/foot* - $13,950.00*"; and substitute the item "290 feet* of 2-compartment raise at $31.00/foot* - $8,990.00*."

(3) Delete the item "800 feet* of churn drilling at $5.00/foot* 6/ - $4,000.00*"; and substitute the item "739.7 feet* of churn drilling at $5.00/foot* 6/ - $3,698.50*."

(4) Delete the item "1300 feet* of diamond drilling at $5.50/foot* 6/ - $7,150.00*"; and substitute the item "2,009.5 feet* of diamond drilling at $5.50/foot* 6/ - $11,052.25*."

(5) Delete the subtotal "$59,165.00*" and substitute "$52,618.25*."

(b) Under the category "(1) Independent Contracts," under "Stage II":

(1) Delete the item "500 feet* of 5' x 7' drift at $30.00/foot* - $15,000.00*"; and substitute the item "1,034.8 feet* of drift at $30.00/foot* - $31,045.25*." (Rounded figure.)

(2) Delete the item "125 feet* of 2-compartment raise at $40.00/foot* - $5,000.00*."

(3) Delete the item "1500 feet* of churn drilling at $5.00/foot* 6/ - $7,500.00*"; and substitute the item "600.3 feet* of churn drilling at $5.00/foot* 6/ - $3,001.50*."

(4) Delete the subtotal "$30,410.00*" and substitute "$36,956.75*."

6/ Footnote reference is to footnote 6/ in Exhibit "A" attached to contract.

(c) Under the heading "Summary" (at the end of Exhibit "A"):

Delete the figures "$115,426.00*" and "$55,974.00*," respectively, and substitute the figures "$108,879.25*" and "$62,520.75*," respectively.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum" which is not specifically changed in this amendment.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense
Minerals Exploration
Administration

Ruton
Hoffland
Chamberlin

M. I. A. MINES COMPANY

By _____

DEPARTMENT
Defense Mineral
MAY 1 1 1954

EXPLORATION PROJECT CONTRACT
M. I. A. MINES COMPANY
DOCKET NO. DMEA-2688

ANNEX I

The following provisions are in lieu of Article 9 :

Repayment by Operator.--a. Certification.--If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after the Operator has rendered the final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Royalty on production.--The Operator, as principal, if the Operator is the producer, or as surety, if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, for a period of ten 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.

c. Basis for computation.--The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f.o.b. point); except, that charges of the buyer arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by the buyer, sampling and assaying to determine the value of the production sold, and freight paid by the buyer to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the

Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the raw ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

d. Unsold production.--If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

e. Percentages of royalty.--The percentages of the Government's royalty shall be as follows:

> One and one-half ($1\frac{1}{2}$) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half ($\frac{1}{2}$) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.
>
> (For instance: the royalty on an amount of five dollars ($5.00) per ton, would be one and one-half ($1\frac{1}{2}$) percent; on an amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

f. Lien for payment.--To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

g. Notice to purchasers.--The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

h. No obligation to produce.--Nothing in this contract is 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.

i. Government not obligated to buy.--Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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AMENDMENT NO. 3

Docket No. DMEA-2688 Mineral Tungsten

Exploration Project Contract 1Qm-181

Date of Contract January 27, 1953

Date of Amendment April 23, 1954

Operator E. Z. S. Mines Company

JUSTIFICATION

Operations at the mine showed the need and desirability of cancelling and recalculating Amendment No. 2, and of changing the plan of work as has been outlined in Amendment No. 3. It was to the Government's as well as to the Operator's best interests that the above be done.

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

Docket copy

EXPLORATION PROJECT CONTRACT
N. I. A. MINES COMPANY
DOCKET NO. DMEA-2688

AMENDMENT NO. 2

It is agreed this 25th day of January, 1954, that Contract Idm-2481, Docket No. DMEA-2688, dated January 27, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and N. I. A. Mines Company, as amended, is further amended, effective November 21, 1953, as follows:

1. In Exhibit "A", under the heading "Description of the Work":

(a) Under Stage I, Item (3) Objective Area 1:

Delete "Drive a drift[1] 100 feet southeasterly on the intermediate level A"; and

Substitute "Drive a drift[1] 147 feet southeasterly on the intermediate level, then drift[1] 78 feet to a point indicated by proposed diamond drill holes and approved by the Government."

(b) Under Stage I, Item (3) Objective Area 1, the following work is added:

"Diamond drill not to exceed 817.9 feet from intermediate level A, to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole is subject to the approval of the Government."

(c) Under Stage I, Item (4) Objective Areas 2 and 3, Step 2:

Delete "Crosscut southeasterly 250 feet"; and

Substitute "Crosscut southeasterly 125 feet."

(d) Under Stage II, Item 5, Objective Area 6, Step 1:

Delete "Churn drill 7 or 8 holes aggregating a total of approximately 1,500 feet in length"; and

Substitute "Churn drill 3 holes aggregating a total of 600.3 feet."

(e) In footnote "1/", delete the word "overall" appearing in the second line.

2. In Exhibit "A", under the heading "Estimated Costs of the Project":

(a) Under the category "Independent Contracts," under Stage I:

(1) Delete the item "1,300 feet* of diamond drilling at $5.50/foot*6/ - $7,150.00*"; and

Substitute "2,117.9 feet* of diamond drilling at $5.50/foot*6/ - $11,648.50*."

(2) Delete the subtotal "$59,165.00*"; and

Substitute the subtotal "$63,663.50*."

(b) Under the category "Independent Contracts," under Stage II:

(1) Delete the item "1,500 feet* of churn drilling at $5.00/foot*6/ - $7,500.00*"; and

Substitute "600.3 feet* of churn drilling at $5.00/foot*6/ - $3,001.50*."

(2) Delete the subtotal "$30,410.00*; and

Substitute the subtotal "$25,911.50*."

(e) Under the heading "Summary" (at the end of Exhibit "A"):

Delete the figures "$115,486.00*" and "55,974.00*"; and

Substitute the figures "$119,984.50*" and "51,475.50*," respectively.

3. Annex I, attached hereto, is substituted for Article 9 of the contract.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum" which is not specifically changed in this amendment.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Administrator, Defense Minerals Exploration Administration

Robin Hetland Talbot

M. I. A. MINES COMPANY

By _____

ANNEX I

The following provisions are in lieu of Article 9:

Repayment by Operator.--a. Certification.--If at any time the Government considers that a discovery or 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 final report and final account, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

b. Percentage royalty.--The Operator, or his successor in interest, shall pay to the Government a royalty on all minerals mined or produced from the land described in Article 2,--(1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification of discovery or development, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first, unless the Government waives its right to a royalty; or (2) if the Government makes a certification of discovery or development, for a period of ten years (or other period fixed by this contract) from the date of the contract, or until the total net amount contributed by the Government, without interest, is fully repaid, whichever occurs first. Said royalty shall be a percentage of the net smelter returns, the net concentrator returns, or other amounts realized from the sale or other disposition of any such production (including any bonuses, premiums, allowances, or other benefits), in whatever form disposed of, including ore, concentrates, or metal, as follows:

(a) One and one-half ($1\frac{1}{2}$) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(b) One and one-half ($1\frac{1}{2}$) percent of any such net amounts, plus one-half ($\frac{1}{2}$) 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 ($1\frac{1}{2}$) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half ($3\frac{1}{2}$) percent.)

c. Definitions.--As here used, "net smelter returns", "net concentrator returns", and "other 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 gross income from mining operations for percentage depletion purposes in income tax determination.

d. Lien for Payment.--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.

e. Notice to Purchasers.--The Operator shall notify any purchaser of the production of the Government's royalty interest, and shall authorize and direct the purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets; but failure or refusal by the purchaser to comply shall not relieve the Operator of liability to pay any royalty falling due.

f. No Obligation to Produce.--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.

AMENDMENT NO. 2

Docket No. [illegible]-2[illegible] Mineral Tungsten

Exploration Project Contract [illegible]

Date of Contract January 27, 1953

Date of Amendment January 25, 1954

Operator M. I. A. Mines Company

JUSTIFICATION

Operations under the contract to the time Amendment No. 2 was requested indicated the desirability of changing the exploration program and relocating some of the work to accomplish the best results. Our engineer and geologist concurred in the opinion that the operator's wishes were sound and should be approved by an amendment. Amendment No. 2, accordingly, was prepared as it was in the best interest of the Government to do so.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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[illegible]

Rec'd in 12/30/53

M. I. A. MINES COMPANY
EXPLORATION PROJECT CONTRACT IDM-E481
DOCKET NO. DMEA-2688

AMENDMENT NO. 1

Contract Idm-E481, dated January 27, 1953, Docket No. DMEA-2688, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and M. I. A. Mines Company, is amended as follows, effective July 1, 1953:

1. In Exhibit "A", Description of Work (2) Labor, Supervision, Consultants:

Under Stage I delete the item:

1 Topman at $16.02 per day, 8 months (includes overtime and fringe payments) $3,333.00

and substitute therefor:

1 Topman 1/2 day at $16.02 per day, 8 months (includes overtime and fringe payments) $1,666.50

Under Stage II delete the item:

1 Topman at $16.02 per day, 5 months (includes overtime and fringe payments) $2,083.00

and substitute therefor:

1 Topman 1/2 day at $16.02 per day, 5 months (includes overtime and fringe payments) $1,041.50

2. In Exhibit "A", Description of Work (7) Miscellaneous:

Under Stage I delete the item:

Transportation of water and heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 860 miles/month, $120.40/mo., 8 months 13/ $963.20

and substitute therefor:

Transportation of heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 600 miles/month, $84/mo., 8 months 13/

$672.00

Under Stage II delete the item:

Transportation of water and heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 860 miles/mo., $120.40/mo., 5 months 14/ $602.00

and substitute therefor:

Transportation of heavy supplies by company truck at $0.14/ mile (includes operating cost), estimated 600 miles/mo., $84/mo., 5 months 14/ $420.00

3. Under (7) Miscellaneous:

Add the following item under Stage I:

Supplying water to project, 8 months at $244.71 per month $1,957.65

and under Stage II add:

Supplying water to project, 5 months at $244.71 per month $1,223.55

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum."

Dated October 8, 1953

M. I. A. MINES COMPANY

By _____

THE UNITED STATES OF AMERICA

By _____
H. C. Miller
Executive Officer
DMSA Field Team, Region III

AMENDMENT NO. 1

Docket No. [illegible] Mineral [illegible]

Exploration Project Contract [illegible]

Date of Contract [illegible]

Date of Amendment [illegible]

Operator [illegible]

JUSTIFICATION

Operator requests a change in his contract to permit him to drill a water well for water to supply his exploration activities. Contract allows him $[illegible] to haul water and with that amount of money he states he can drill a well and increase the efficiency of his operations. This amendment allows the operator to use any practical method he chooses for supplying water and does not restrict the method to hauling.

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

I, R. K. Wall, certify that I am Assistant Secretary of American Zinc Company of Tennessee, a member of joint venture above named as Operator; that W. J. Matthews, Jr., who signed this contract in behalf of Operator, was then Secretary and Treasurer of said corporation; that said contract was by him duly signed in behalf of said corporation (and Operator) by authority of the governing body of said corporation, and is within the scope of its corporate powers.

R K Wall

I, C. M. Christenson, certify that I am Secretary of Combined Metals Reduction Company, a member of joint venture above named as Operator; that E. H. Snyder who signed this contract in behalf of Operator was then President of said corporation and a Member of the Executive Committee of the Operator; that said contract was by him duly signed in behalf of said corporation (and Operator) by authority of the governing body of said corporation, and is within the scope of its corporate powers.

C M Christenson

MF-300
(June 1951)
(Revised Feb. 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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DOCKET NO. DMEA [illegible]

COMMODITY Tungsten

Docket Copy
IDM-E 481

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

EXPLORATION PROJECT CONTRACT[1]

IT IS AGREED this 27th day of January, 1953 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and[2] K. I. A. Mines Company, a Joint Venture consisting of Combined Metals Reduction Company and American Zinc Company of Tennessee, 110 Felt Building Salt Lake City, Utah

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 Nevada, County of White Pine, described as follows:[3] The easterly one-half of Silver Bell claim, Book 96, Page 276; Silver Bell No. 1 claim, Book 96, Page 277; the southerly one-half of Wedge claim, Book 134, Page 267; the southerly one-half of Pat Pie No. 1 claim, Book 1[illegible], Page 37[illegible], and that part of the west one-half of the Silver Bell claim that contributes ore from objective area No. 1, see (Map C-1107), attached hereto and made a part hereof the Operator represents and undertakes:

(*a*) ~~That the Operator is the owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances, and the consent of the holder is attached:~~

(*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 thirty (30) 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 15 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.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—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 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated ~~amount to be paid~~ per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related ~~initial~~ allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—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.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[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*) The Government's payments in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred 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 costs incurred 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.

(*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 operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, 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 as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 75 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $128,550, which is 75 percent of $171,400.00, 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 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.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *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 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 10. *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 11. *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.

ARTICLE 12. *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. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* --

Executed in sextuplicate the day and year first above written.

~~M. I. A. Mines Company~~, a Joint Venture
(Operator)
COMBINED METALS REDUCTION COMPANY

By ______________ President

THE UNITED STATES OF AMERICA

By ______________
Administrator, Defense Minerals Exploration Administration

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.

AMERICAN ZINC COMPANY OF TENNESSEE
By ______________
SECRETARY & TREASURER.

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—66328-1

EXPLORATION PROJECT CONTRACT
M. I. A. Mines Company
DOCKET NO. DMEA-2688

EXHIBIT "A"

Description of the Work

The work consists of two stages, which may be performed simultaneously.

STAGE I

Time Schedule: 0 - 8 Months

(1) Purchase, transport to and install on surface a compressor, power and warehouse building; and provide and install one water tank and fuel tanks.

(2) Rehabilitate the main adit in the Scheelite Chief Mine, including laying track, and installing air, water, and power lines. The adit shall be straightened and widened only to the extent necessary to complete the proposed exploration in an efficient and workmanlike manner.

(3) Objective Area 1. Drive a drift[1]/100 feet southeasterly on the intermediate level A and drive a 2-compartment raise[1]/50 feet to the mineralized zone. (See Map C-1107 attached hereto.)

(4) Objective Areas 2 and 3.

Step 1 - Bulldoze the necessary roads to 4 churn drill sites. Churn drill 4 holes, each to an approximate depth of 200 feet. The location, attitude and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

1/ The drifts, crosscuts, and raises shall be driven approximately 5' x 7' over-all in the clear. However, the Operator, at his election, may drive larger drifts or crosscuts, and may drive 3-compartment raises, provided that the extra costs thereof shall be at the Operator's sole expense. In such event the basis of proration between Operator and Government shall, at all times be subject to the approval of the Government, and costs involved in such proration will be disallowed by the Government to the extent that they are disapproved by the Government.

Step 2 - This step will depend on the results of Step 1 and shall be subject to the prior approval of the Government. Extend, in a S. 80° E. direction, the main adit[2] for approximately 275 feet from its present face; crosscut southeasterly 250 feet;[2] and drive a 2-compartment raise[2] approximately 200 feet to the objective areas (See Map C-1107).

(5) Objective Area 4.

Step 1 - Advance the main adit[2] S. 80° E. approximately 575 feet additional (See Map C-1107).

Step 2 - Diamond drill 2 holes, each approximately 200 feet in length, up to the objective area. The location, attitude and length of each hole shall be determined by the Operator subject to the prior approval of the Government.

Step 3 - This step will depend on the results of Step 2 and shall be subject to the prior approval of the Government. Drive a 2-compartment raise[2] approximately 200 feet to the objective area.

Step 4 - Explore the area below the favorable ore horizon drilled in Step 2 with 6 diamond drill holes with a total aggregate length of approximately 900 feet. The location, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

STAGE II

Time Schedule: 8 - 13 months

(1) Erect headframe, bin, and hoist house, and lay necessary track on surface at Silver Bell shaft, all on Company account, at no cost to the Government.

(2) Rehabilitate Silver Bell shaft to 3rd level, retimbering where necessary, including laying track, and installing air, water, and power lines.

(3) Install skip pocket on 3rd level of Silver Bell shaft.

(4) Objective Area 5. Drift[2] 200 feet easterly on 3rd level of Silver Bell shaft, and drive a 2-compartment raise[2] approximately 50 feet to the objective area.

2/ See footnote 1.

(5) Objective Area 6.

Step 1 - Bulldoze the necessary roads to churn drill sites. Churn drill 7 or 8 holes aggregating a total of approximately 1500 feet in length. The location, attitude, and length of each hole shall be determined by Operator, subject to prior approval of the Government.

Step 2 - This step will depend on the results of Step 1 and shall be subject to the prior approval of the Government. Extend the 3rd level drift 3/ of the Silver Bell shaft an additional 300 feet easterly, and drive a 2-compartment raise 3/ 75 feet to the objective area.

Estimated Costs of the Project
(*Indicates allowable maximum)

(1) Independent Contracts 4/

STAGE I

Rehabilitate, straighten, and widen main adit, 1700 feet* at $0.60/cubic foot* of rock in place (estimated 3,000 cu. ft.)	$ 1,800.00*
Lay track, install air, water, and ventilation pipes, 1900 ft.* at $0.75/foot*	1,425.00*
1200 feet* 5' x 7' drift at $25.00/foot*	30,000.00*
120 feet* of drift timbering at $5.00/foot*	600.00*

3/ See footnote 1.

4/ The Operator may elect to do all or any part of the work under this category on Company account on an actual cost basis, in lieu of contract unit costs, and in such event, all schedules under Article 6(a) of the contract form are waived as to such work, provided that the actual costs for any item shall not exceed the allowable maximum specified for that item under this category.

450 feet* of 2-compartment raise at $31.00/foot*	$13,950.00*	
1 bulldozer, 20 hours* at $12.00/hr.*5/	240.00*	
800 feet* of churn drilling at $5.00/foot*6/	4,000.00*	
1300 feet* of diamond drilling at $5.50/foot*6/	7,150.00*	$59,165.00*

STAGE II

Rehabilitation of Silver Bell shaft to 3rd level, 18 days* at $100.00/day*	1,800.00*	
Construction of skip pocket at 3rd level Silver Bell shaft, including all labor, supplies, materials and all other costs	500.00*	
500 feet* of 5' x 7' drift at $30.00/foot*	15,000.00*	
50 feet* of drift timbering at $5.00/foot*	250.00*	
125 feet* of 2-compartment raise at $40.00/foot*	5,000.00*	
1500 feet* of churn drilling at $5.00/foot*6/	7,500.00*	
1 bulldozer, 30 hours* at $12.00 per hour*5/	360.00*	$30,410.00*

NOTE: The estimated costs of the underground work and the conditions under which it will be carried on are based upon Annex I, made a part of this Exhibit, which is a letter dated August 20, 1952, from the Centennial Development Company, Inc., of Eureka, Utah, to the Combined Metals Reduction Company, Pioche, Nevada. In any case of conflict between the provisions in Annex I, and the provisions of the contract form and Exhibit "A", the contract form and Exhibit "A" shall prevail.

5/ The bulldozer costs include operator, fuel and oil, necessary supplies, repairs and replacement parts.

6/ The costs of churn and diamond drilling include labor, and all machines, and supplies necessary for the operation, except water, which will be furnished by the Operator.

(2) Labor, Supervision, Consultants

STAGE I

1 Supervising Engineer at $600.00/month,* 8 months*	$ 4,800.00*	
1 Topman at $16.02 per day, 8 months (includes overtime and fringe payments)	3,333.00	
1 Engineer, part time, at $100.00/month*, 8 months*	800.00*	
1 Bookkeeper-clerk, part time, at $150.00/month*, 8 months*	1,200.00*	$10,133.00*

STAGE II

1 Supervising Engineer at $600/month,* 5 months*	3,000.00*	
1 Topman at $16.02 per day, 5 months (includes overtime and fringe payments)	2,083.00	
1 Engineer, part time, at $100.00/month* 5 months*	500.00*	
1 Bookkeeper-clerk, part time, at $150.00/month*, 5 months*	750.00*	6,333.00*

(3) Operating Materials and Supplies 7/

STAGE I

1[illegible] tons of secondhand 30# rail at $105.00/ton	1,260.00*
1700 feet of 1" black pipe at $0.12/foot	204.00
850 feet of 3" black pipe at $0.74/foot	629.00

7/ Any materials and supplies not included under this category are to be furnished by the independent contractors, except as otherwise provided in footnote 4.

850 feet of 2" black pipe at $0.50 per foot	$ 425.00	
Pipe fittings	66.00	
1,800 feet of 12" flexible vent tubing at $0.82 per foot	1,476.00	
2500 feet #4 - 3 conductor wire, insulated for underground, $1.00 per foot	2,500.00	
Electric switches and transformer	185.00	
Fuel and oil, 26 days per month, 16 hours per day, 8 months	3,536.00	
Tools and miscellaneous supplies	300.00	
480 Ties at $0.75 each	360.00	
35,000 feet timber at $117.00/M 8/	4,095.00	
Core boxes	180.00	
Drayage on pipe and fittings	83.00	$15,299.00*

STAGE II

5 tons of secondhand 30# rail, at $105.00/ton	525.00 *	
900 feet of 1" black pipe at $0.12/foot	108.00	
900 feet of 2" black pipe at $0.50 per foot	450.00	
Pipe fittings	37.00	
800 feet of 12" flexible vent tubing at $0.82 per foot	656.00	

8/ Timber cost includes the costs of trucking to mine, and framing.

400 feet #4 - 3 conductor wire insulated for underground, $1.00/foot	$ 400.00	
Fuel and oil, 26 days per month, 16 hours per day, 5 months	2,210.00	
Tools and miscellaneous supplies	200.00	
200 ties at $0.75 each	150.00	
10,000 feet of timber at $117.00/M 9/	1,170.00	
Drayage on pipe and fittings	47.00	$ 5,953.00*

(4) Operating Equipment

STAGE I

To be rented 10/

1 Battery trammer, $230.00/month, 8 months	1,840.00*	
10 - 20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 8 months	2,080.00	
1 Diesel-driven portable compressor, at $505/mo./8 months	4,040.00	
1 Diesel-Electric Generator, set 220 - 440 volts, $400.00/mo., 8 months	3,200.00	
2 Ventilator fans at $17.00 each per month, 8 months	272.00	

9/ See footnote 8.

10/ If any of the equipment under this category is furnished by the M. I. A. Mines Company, or an affiliated company, it is to be charged to the contract on a monthly depreciation value which is equal to 1/60 of its fair market value, instead of the rental values listed.

1 - 15-KW Diesel-Electric Generator set 110 - 220 volts, at $150/mo., 8 months	$ 1,200.00	
Water pressure bank, $5.00/mo., 8 months	40.00	$12,672.00*

STAGE II

To be rented 11/

3-20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 4 months	312.00	
1 Diesel-driven, portable compressor, at $505.00/mo., 5 months	2,525.00	
1 Diesel-Electric Generator set 220 - 440 volts, $400.00/mo., 5 months	2,000.00	
1 Ventilator fan at $17.00/mo. 5 months	85.00	
1 15-KW Diesel-Electric Generator set 110 - 220 volts, at $150.00/mo., 5 months	750.00	
1 Gasoline driven hoist at $85.00/mo., 4 months	340.00	
Water pressure bank, $5.00/mo., 5 months	25.00	
Surface equipment at the Silver Bell shaft to be erected and to be supplied by the Operator, includes hoist house, headframe, bin, truck, cars, skip, and miscellaneous equipment. $300.00/mo., 4 months	1,200.00	7,237.00*

11/ See footnote 10.

(5) **Rehabilitation and Repairs**

STAGE I

19 tons of secondhand 30# rail at $105.00 per ton 12/	$1,995.00*	
Pipe fittings	76.00	
760 ties at $0.75 each	570.00	
1900 ft. 1" black pipe at $0.12 per foot	228.00	
1900 ft. 3" black pipe at $0.74 per foot	1,406.00	
Drayage	95.00	$ 4,370.00*

STAGE II

3 tons of secondhand 30# rail at $105.00 per ton 12/	315.00*	
300 ft. 1" black pipe at $0.12 per foot	36.00	
300 ft. 2" black pipe at $0.50 per foot	150.00	
200 ties at $0.75 each	150.00	
4000 ft. of timber at $117.00/M y/	468.00	1,119.00*

(6) **New Buildings, Improvements, Installations**

STAGE I

Fan house at collar of churn drill hole	150.00*
1200 ft. of power line at $0.38 per foot	456.00*

12/ Price of rail includes fish plates, bolts, and spikes.

y/ See footnote 8.

Compressor, power, and warehouse (Building to be bought and moved to adit site)	$1,500.00*	
Provide and install fuel tanks	600.00*	
Provide and install 7,000 gallon water tank with pipe, buried for winter weather	644.00*	$ 3,350.00*

(7) Miscellaneous

STAGE I

Repair parts and maintenance of equipment $550/mo., 8 months 13/	4,400.00	
Assays, $50.00/mo., 8 months	400.00	
Road maintenance for winter, $400/mo., 6 months	2,400.00*	
Office and engineering supplies	200.00	
Compensation, employer's liability insurance, payroll taxes, etc., 8 months	1,100.00	
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/mo.,$99.00/mo., 8 months13/	792.00	
Transportation of water and heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 860 miles/month, $120.40/mo., 8 months 13/	963.20	10,255.20*

13/ The costs of repair, maintenance, and transportation are to be charged against the project only as incurred while the equipment is working on the project.

STAGE II

Repair parts and maintenance of equipment $550.00/mo., 5 months 14/	$ 2,750.00	
Assays, $50.00/mo., 5 months	250.00	
Office and engineering supplies	125.00	
Compensation, employer's liability insurance, payroll taxes, etc., 5 months	700.00	
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/mo., $99.00/mo., 5 months 14/	495.00	
Transportation of water and heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 860 miles/mo., $120.40/mo., 5 months 14/	602.00	$ 4,922.00*

(8) Contingencies

STAGE I	181.80

The Operator may elect to carry on simultaneously with the exploration work, development and production operations. In this event, the exploration work shall be carried on, as far as practicable, with equipment, materials, crews, and supervision separate and distinct from any other operations of the Operator, in order to avoid confusing the costs under this contract with any other costs. However, to the extent economically practicable, equipment (such as compressor and hoist), incidental labor, and supervision used in development and production operations may be used also for exploration, and the direct costs arising out of such use prorated between the operations, but the basis of such proration shall at all times be subject to the approval of the Government, and the costs resulting to the exploration project from such proration will be disallowed by the Government to the extent disapproved by the Government.

14/ See footnote 13.

S U M M A R Y

Estimated Cost of Stage I	$115,426.00*	
Estimated Cost of Stage II	55,974.00*	
Total Estimated Cost of Project		$171,400.00*
Government Participation @ 75%		$128,550.00*

HAROLD B. SPENCER, PRESIDENT
JAMES QUIGLEY, VICE-PRESIDENT
ROBERT E. WATT, SEC'Y-TREASURER

ANNEX I

CENTENNIAL DEVELOPMENT COMPANY, INC.

MINING CONTRACTORS

EUREKA, UTAH

August 20, 1952

Combined Metals Reduction Company
Pioche,
Nevada

Gentlemen:

Under the conditions outlined below, we would quote the following prices for drifting, raising and miscellaneous contract work at your Minerva Tungsten property.

1. 5 x 7 Drift at Chief @ $25.00 per foot

2. Timbering of same with 6 x 8' sets on 5' centers @ $ 5.00 per foot

3. Rehabilitation of Chief tunnel
   (a) Laying of 18" gauge track and installation of air and water pipe @ $ .75 per foot
   (b) Widening and taking out corners @ $ .60 per Cu. Ft. of rock in place.

4. Rebing in Chief Tunnel, including timbering and chutes as specified.
   (a) 5 1/2 x 11, two-compartment @ $31.00 per foot
   (b) 5 1/2 x 13, three-compartment @ $36.00 per foot

Our Company, as contractor, would provide and be responsible for the following items.

1. All labor, including insurance and payroll taxes, for the work, including hauling and dumping of waste or ore and maintenance of waste dump, and installation of track, pipe lines and timber as required.

2. Housing and boarding of said labor.

3. Explosives and blasting facilities, drill steel and bits, drilling machines and raise service hoists.

4. Repair and maintenance of all above items.

5. Installation only of fans and vent line.

Your Company, as Owner, would provide and be responsible for the following:

1. Compressed air, drilling water, electric power.

2. Battery tramming motor and mine cars.

3. Track, including ties, fittings and switches; air and water pipes; galvanized steel vent line; all delivered on portal dump.

4. Ventilating fan and power lead to same.

5. All timber, wedges and nails, including timber required for dump.

6. Operation of small tractor for snow removal.

In the case of the work at the Silver Bell I incline, bid prices and conditions would be as follows:

1. Rehabilitating shaft from collar to #3 or #4 Level, at Contractor's direct labor and supervision costs, including payroll insurance, taxes, and usual fringe benefits, plus a fixed fee of $20.00 per shift to cover camp and service expense, general overhead and profit. Extimated cost per shift would be $100.00.

2. Construction of skip pocket, including timbering, at ~~300~~ 305 level effective capacity of 150 cu. ft., at a flat price of $500.00

3. 5 x 7 drifting off shaft to a maximum distance of 500' from shaft, @ $30.00 per foot, with timbering, if required, @ $5.00 per foot.

4. Raising, including timbering and chutes

   (a) 5 1/2 x 11, two-compartment @ $40.00 per foot
   (b) 5 1/2 x 13, three-compartment @ $45.00 per foot

Contractor would provide all items as listed under the Chief drifting and raising conditions, plus hoisting labor.

Company would likewise provide as under the Chief work, less the battery tramming motor, but plus a gasoline driven hoist and a self-dumping skip and surface bin.

Contractor would carry on only one of the above projects at a time, and would work on a 2 shift per day, 6 days per week basis at all times. Estimated progress for drifting would be 300' per month; for raising 150' per month; for rehabilitation of Chief Tunnel, 3 weeks; for construction of loading pocket in Silver Bell I incline, 1 week; for rehabilitation of Silver Bell I incline to #3 level, 3 weeks.

We would be able to start work within 10 days after notice to proceed.

The above quotations are based on current wage scales and prices are subject to re-negociation in case of wage scale changes. We recently signed a one year contract with our union.

Very truly yours,

CENTENNIAL DEVELOPMENT COMPANY, Inc.

H B Spencer

H. B. Spencer, President

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 Nevada, County of Lincoln, described as follows: 1/ [illegible]

[illegible]

[illegible]

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/ [illegible]

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 any amendment thereof 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 production 3/ provided for under the terms of said exploration project contract, or any amendment thereof 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, 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 or any amendment thereof. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

4. The undersigned consents to all amendments of the contract.

Dated this _____ day of _____, 195 ___.

Robert F. Stopper [Seal]

Edward F. Stopper [Seal]

Martha R. Allen [Seal]

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 23 1953

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.

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.

COMBINED METALS REDUCTION COMPANY

P. O. BOX 150

SALT LAKE CITY 10, UTAH

September 4, 1952

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

Re: Application of M. I. A. Mines Co. for
Minerva Tungsten Mine, White Pine County, Nevada

Gentlemen:

We are enclosing herewith four copies of our application for the proposed exploration project at the Minerva Tungsten Mine, White Pine County, Nevada.

The application presents a proposal to do certain exploration work involving a total estimated expenditure of $190,940.00 within a period of 13 months from the starting date of the project, but reserves the right to extend this time limit to 24 months under specified conditions.

A corollary proposal is made on page 21 of this application under which ore might be mined while exploration is in progress. If so done this will require a proration of expenses between company mining and the exploration project. It is proposed that such prorations be made in the following manner;

1. To be Prorated on a Rock Ton (Ore plus Waste) basis

   Ore Tramming & Ore Transportation x
   Waste Tramming x
   Compressor & Power Units Operation
   Equipment Rentals & Maintenance
   Ventilation Expense x
   Road Maintenance x
   Water Supply Expense x

2. To be Prorated on a Man - Shift Basis:

   Supervision, including foremen and shift bosses x
   Camp Expense & Maintenance, including any boarding house deficit. - contractor
   All direct rock breaking expenses?
   Assaying - direct
   Engineering ✓
   Accounting

3. All churn and diamond drilling is to be considered an exploration expense.

Owner's Consent to Lien (undated)
Robert F. Stopper, Edward G. Stopper,
Marcha R. Allen

COMBINED METALS REDUCTION COMPANY

SHEET 2 DATE September 4, 1952 TO Defense Minerals Exploration Administration

Upon the approval and signature of the exploration contract which may result from this application the work will start on the project within ten days time.

Very truly yours,

Otto Herres

Otto Herres, Vice President
Combined Metals Reduction Co.
for
M.I.A. Mines Company, a joint venture of
Combined Metals Reduction Co. and
American Zinc Company of Tennessee

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. DMEA-2688
Metal or Mineral
Date Received 9-8-52
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:

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

(*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

For all answers see attached report

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

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

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it

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

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

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

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

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

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

5. *The exploration project.*—State the mineral or minerals for which you wish to explore .....

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

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

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

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

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

(*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)?

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

☒ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated September 4, 1952

M. I. A. Mines Company
(Applicant)

By Otto Herres

Otto Herres, Vice President
Combined Metals Reduction Co.
A joint venture with
American Zinc Co. of Tennessee

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

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

The following pages answer questions listed in form MF-103 (Revised April 1952), Application for Aid for an Exploration Project.

1. Name of Applicant

(a) M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

(b) Combined Metals Reduction Company/American Zinc Company of Tennessee joint venture account licensed to do business as M. I. A. Mines Company

(c) Not applicable

(d) Combined Metals Reduction Company
218 Felt Building
Salt Lake City, Utah

American Zinc Company of Tennessee
1600 Paul Brown Building
St. Louis, Missouri

The operation will be conducted under the management of the Combined Metals Reduction Company whose officers are:

E. H. Snyder - 218 Felt Building, Salt Lake City, Utah
President and General Manager

Otto Herres - 218 Felt Building, Salt Lake City, Utah
Vice President

C. M. Christensen - 218 Felt Building, Salt Lake City, Utah
Secretary

O. F. Burton - 218 Felt Building, Salt Lake City, Utah
Treasurer

Allan Hoover - 865 Orlando Road, Pasadena, California
Director

Jeremiah Millbank, Jr. - 44 Wall Street, New York, N. Y.
Director

George W. Snyder - 218 Felt Building, Salt Lake City, Utah
Director

S. S. Arentz - Pioche, Nevada
Manager, Nevada Operations

2. General

General statement regarding application. No questions that require answering.

3. Applicant's Property Rights

(a) The land upon which the exploration will take place consists of unpatented lode claims as follows:

Silver Bell (easterly 1/2 of claim)
Silver Bell No. 1
Wedge (southerly 1/2 of claim)
Pot Pie No. 1 (southerly 1/2 of claim)

Location of these claims in relation to proposed exploration is shown on accompanying map.

(b) Minerva Tungsten Mine

(c) Lessee

(d) A copy of the lease agreement is attached.

(e) Not applicable.

(f) The unpatented claims are recorded in the White Pine County Recorders Office, Ely, Nevada, as follows:

Silver Bell	Book No. 96	Page 276
Silver Bell No. 1	Book No. 96	Page 277
Wedge	Book No. 134	Page 207
Pot Pie No. 1	Book No. 188	Page 377

4. Physical Description

The Minerva District was made a subject of study by the Geological Survey during its investigation of strategic minerals. Dr. Dwight M. Lemmon of the Survey was in direct charge of this work. His unpublished report "Tungsten Deposits in the Minerva District, White Pine County, Nevada" dated February, 1944, gives a detailed description of the property including location, history and production work by the Geological Survey and Bureau of Mines, geology, ore deposits, mines, ore reserves, etc. A copy of his written report is appended hereto.

(a) The above report fully describes mining and exploration operations conducted on the property to February 1944. Existing mine workings were mapped and production facilities fully described.

Mining operations were continued by Tungsten Metals Corp. until May 1945. Most of the ore mined in this period was from the Silver Bell mine (approx. 13,500 tons) and the balance from

the Scheelite Chief mine (approx. 6,500 tons).

The Minerva Scheelite (Robert Stopper et al) started operations during the latter part of 1948 and mined approximately 3,300 tons. This production was confined almost entirely to extension of already existing stopes in the Scheelite Chief mine.

The M. I. A. Mines Company had no interest in any of the above listed operations.

The mine workings for the most part are readily accessible for examination purposes.

(b) Record of Production

Table 1 of Dr. Lemmon's report lists production of tungsten ore and concentrate from mines of the Tungsten Metals Corp. from 1916 through Nov. 1943. This table together with data for the two subsequent periods of operation, as obtained from Nevada tax records, are detailed below:

TABLE I

Year	Tons of Ore	Units of WO_3	Value
1916	191	191	$ 7,651
1918	1,846	1,846	55,377
1937	6,400	6,036	158,916
1938	14,955	12,858	206,039
1939	19,617	9,396	146,216
1940	14,750	10,617	196,090
1941	10,160	13,599	226,128
1942	19,867	16,876	428,008
1943	15,718	8,507	253,878
	103,504	79,926	$1,678,303

Period Ending	Tons of Ore	Estimated Units of WO_3	Value
(Est. Dec. 1943)	1,225	700	$ 21,000
6/30/44	8,507	3,060	111,458
12/31/44	7,581	4,240	126,245
6/30/45	3,225	1,680	49,774
	20,538	9,680	$ 308,477
12/31/48	500	282	
6/30/49	415	234	
12/31/49	351	652	
6/30/50	254	453	
12/31/50	253	311	
6/30/51	351	391	
(Est. 6/30/52)	1,100	1,227	
	3,324	3,500	

Total Production to June 30, 1952

Tons of Ore	Units of WO_3
127,366	93,106

Ore Reserves

A summary of ore reserves as estimated by Dr. Lemmon as of December 1, 1943, are tabulated in Tables 2 and 3 of his report. As noted by asterisk at the bottom of Table 2, the reserves were partially depleted between December 1, 1943, and May 1945, during mining operations in the Silver Bell and Scheelite Chief mines by Tungsten Metals Corp. The actual depletion, of about 20,000 tons, has been estimated to affect Dr. Lemmon's estimate as follows:

Silver Bell Mine

Block C-1	6.5' Wide	3,500 Tons	1.0% WO_3	"Indicated Ore"
Block C-2	4.0' Wide	1,040 Tons	1.0% WO_3	"Indicated Ore"
Block C-3	6.5' Wide	9,000 Tons	1.0% WO_3	"Inferred Ore"

Scheelite Chief Mine

Block C-10	3'-7' Wide	4,000 Tons	0.75% WO_3	"Indicated Ore"
Block C-11	5.0' Wide	2,460 Tons	0.7 % WO_3	"Inferred Ore"
		20,000 Tons		

The ore mined from the latter part of 1948 to present date by Robert Stopper does not deplete the reserves of the Lemmon estimate. This ore was obtained primarily from mining along already existing stope edges in the Scheelite Chief mine.

(c) The geologic features, mineralization, type of deposit, etc. have best been described on Dr. Lemmon's report appended.

(d) The Minerva property is situated 77 miles from the Caselton Plant of the Combined Metals Reduction Company, 62 miles of which is over first class paved highway. The ore will be trucked to a tungsten mill to be erected in the immediate future at Caselton.

Adequate access roads are presently available.

Supply problems will be handled through existing warehouse and purchasing facilities of Combined Metals Reduction Co. at Caselton, Nevada

(e) Sufficient manpower will be made readily available to carry out the exploration proposals and probable concurrent mining operations after provision of adequate housing facilities at the mine to accommodate both single men and a few families.

Items of material, supplies and equipment will be made available from existing stocks or established purchasing facilities of the Company.

No water is available at the mines proper. Required water must be hauled a distance of approximately 2 1/2 miles.

Electric power is not available in the area. Diesel-electric generator units will be furnished to supply needed electric power, and a diesel powered compressor will supply compressed air.

5. The Exploration Project

(a) Exploration will be for tungsten in the form of scheelite ore.

(b) The proposed exploration work is to be confined to the Scheelite Chief and Silver Bell mines and adjoining areas.

For simplicity the objective areas have been numbered from 1 to 6 inclusive on accompanying map C-1107. This map consists of three parts as follows:

1. Plan Map - traced from surface map of Dwight M. Lemmon and Donald Wyant.

2. Vertical section taken normal to both bedding and faults enclosing intermediate blocks between Scheelite Chief and Silver Bell workings.

3. East-west vertical projection of Scheelite Chief and Silver Bell veins - by Lemmon.

Location of the objective areas both as to plan and elevation were determined as accurately as possible from existing data. Actual location of these objective blocks await exploration results. Proposals for exploration work are based on the depicted geometrical relationship as shown. Determination of location of objective areas by subsequent exploration will require modification of present proposals. In the aggregate, the amount of alternate work for necessary entrys will probably be equivalent.

OBJECTIVE AREA I

(Easterly portion of D. Lemmon Block C-11)

The most easterly stope in the Scheelite Chief mine is bounded along its easterly edge by a north-south fault having a relatively small displacement, both vertically and horizontally (to the south).

Entry to this block can best be attained by driving southeasterly from the present sub-level elevation to an intersection with the fissure and then raise to the block.

Estimated Drift - - - - - - - - - 100 feet
Estimated Raise to Ore - - - - 50 feet

OBJECTIVE AREAS 2 AND 3 (STEP 1)

Exploration to prove existance of these blocks in position shown can best be attained by use of shallow churn drill holes from the surface.

A minimum of four 200 foot churn drill holes collared at approximate elevation 6720 are estimated to be required.

Estimated Churn Drilling - - - 800 feet

OBJECTIVE AREAS 2 AND 3 (STEP 2)

Based on results of churn drilling (Step 1), drive cross-cut to south from the advanced main Chief adit, starting as shown at position of present face plus 275 feet more or less. This cross-cut will be driven a distance of about 250 feet to a raise position favorable for entry to blocks of both Objective Areas 2 and 3. Provide raise entry of 200 feet.

Estimated cross-cut - - - - - - 250 feet
Estimated raise - - - - - - - - - 200 feet

OBJECTIVE AREA 4 (D. LEMMON BLOCK C-4)

Proposed exploration for this block consists of advancing the main Chief adit from its present face a distance of 850 feet on a bearing of S. 80° E. Reasons for location of the drift along this alignment are as follows:

1. Raise entry to the objective block will be steep (± 70°) and facilitate mining operations.

2. Exploration of the fissure both at depth below the "favorable" horizon and for the objective block in the favorable horizon will be made possible by diamond drill holes at permissible angles.

Estimated Main Drift Drive - - 850 feet

Estimated diamond drilling
to Objective Area (two 200
feet holes) - - - - - - - - - - 400 feet

Estimated diamond drilling
to explore fissure at depths
below 6500 elevation. (Below
presumed position of probable

ore shoot to explore for
other possible ore shoots)

2 Holes @ 200' - - - 400'
2 Holes @ 150' - - - 300'
2 Holes @ 100' - - - 200'
900 feet

Estimated Raise - - - - - - - - - 200 feet

OBJECTIVE AREA 5

This area can best be explored by extending the third level of the Silver Bell mine to the east 200 feet through the fault segments, together with 50' of raise to reach the projected ore shoot.

Estimated Drift - - - - - - - - - 200 feet
Estimated Raise Entry - - - - - 500 feet
50'

OBJECTIVE AREA 6

The probable extension of the vein and possible ore shoot to the east under the alluvium in the next fault block can best be explored by churn drilling.

Estimated Churn Drilling - - - 1500 feet

Estimated Drift Entry From
Third Level of Silver Bell - - 300 feet

Estimated Raise Entry - - - - - 75 feet

SUMMARY OF PROPOSED EXPLORATION WORK (UNITS OF FEET)

	Initial Drift Rehabilitation	Aux. Drifts or Crosscuts	Main Drift	Raises	Churn Drilling	Diamond Drilling
Rehabilitation	1900[1]					
Obj. Area 1		100		50		
Obj. Area 2 & 3		250		200	800	
Obj. Area 4			850	200		1300
Obj. Area 5		200		50		
Obj. Area 6		300		75	1500	
	1900	850	850	575	2300	1300

1 Rehabilitation includes 1700 feet underground and 200 feet of track and pipe on surface. It also includes 3000 cubic feet of excavation for straightening adit and altering the portal.

Ore Mining Procedure

It is proposed to mine ore blocks by utilization of shrinkage stopes to effect an increase in production of ore per man-shift as compared with the open-stope, stull and staging, method here-to-fore employed. Adequate development work must of course be maintained ahead of mining operations. Reasonable success of the exploration proposals should assure continued mining operations under the proposed mining method.

Ore Value

It is proposed to install a sorting plant at the mine to upgrade ore prior to shipment to milling facilities at Caselton, Nevada.

The following figures are given to show value of a ton of ore of average grade after mining sorting, trucking, milling and lease royalty deductions:

Using 0.78% WO_3 ore and 0.1% discarded waste, upgrading by 50% to 1.17% WO_3 would require discarding 36.5% rock from the ore.

Estimated sorting cost per ton of waste	$ 2.00	
Mill recovery 1.17% less 0.2% assumed tails of .97 units		
Mill pay .97 units x $63.00/unit		$61.11
Mill Treatment	$ 8.00	
Trucking	3.50	
		11.50
Net Mill Returns		$49.61
Royalty of Average 10%		4.96
Mine Value per ton of sorted ore		$44.65
Mine Value per ton of mined ore ($44.65 x .635)		28.35
Ore Sorting per ton of ore mined ($2.00 x .365)		.73
Balance		$27.62
Mining and Development	$12.00	
Exploration	3.00	
		15.00
Net Income per ton		$12.62

(e) The preliminary work will start within 10 days from date of the project and is computed, in the following table, to be completed 13 months from starting date. However, herewith the right is reserved to perform the exploration project on a one shift basis and/or to discontinue operations in winter months during adverse weather conditions, so that the over-all time to complete the project may extend over a 24 month period.

ESTIMATED PROGRESS

1 Heading Crew/Shift 2 Shifts/Day 26 Working Days/Month

Months After Approval	Rehabilitation Chief Adit	Drift Footage	Raise Footage	Churn Drill Footage	Diamond Drill Footage
1	Purchase and installation of machinery and equipment at Company expense.				
				200 (2 & 3)	
2	1900' Drift[1]			350 (2 & 3)	
3		100 (1) 100 (4M)	50 (1)	250 (2 & 3)	
4		300 (4M)			
5		300 (4M)			
6		150 (4M) 150 (2 & 3 So.)			150 (4)
7		100 (2 & 3 So.)	100 (2 & 3)	100 (6)	450 (4)
8			100(2 & 3) 50 (4)	350 (6)	450 (4)
9			150 (4)	350 (6)	250 (4)
10	Rehabilitation Silver Bell Shaft and Loading Pocket			350 (6)	
11		200 (5)	50 (5)	350 (6)	
12		300 (6)			
13			75 (6)		

LEGEND

(1) Objective Area 1
(2 & 3) Objective Areas 2 and 3
(4M) Main Drive to Objective Area 4
(2 & 3 So.) So. Crosscut to Objective Areas 2 & 3
(5) Objective Area 5
(6) Objective Area 6

[1] Also includes 3000 cubic feet of excavation straightening curves and altering portal.

(d) The Combined Metals Reduction Company has been continuously engaged in conducting large scale non-ferrous mining and milling operations for a period of approximately 30 years.

E. H. Snyder, President and General Manager, is a technical graduate with approximately 40 years experience in the successful development and operation of mining and metallurgical operations.

S. S. Arentz, Manager, Nevada Operations, is a technical graduate with approximately twenty years experience in mining and metallurgical engineering and operation.

Paul Gemmill, General Superintendent of Nevada Mines, is a technical graduate with over twenty years experience in mining engineering, mine operating, and geological exploration.

Robert F. Stopper, Superintendent of Minerva Operations, is a technical graduate with over six years practical experience gained with the U. S. Geological Survey and operating the Minerva Mine as a lessee.

6. Estimate of Costs

(a) Independent Contracts - Accompanying this application and made a part thereof, is a letter from Centennial Development Company, Inc., Mining Contractors of Eureka Utah. In this letter, contract rates are quoted with specifications as to what the contractor furnishes. Our own estimates show that the bid prices are reasonable and our present plan is to contract the work. However, we reserve the right to perform the work specified either on company account or through another contractor for the same or less than the overall cost as computed from these quotations.

In all cases, three compartment raises are used in the estimates to provide ore and waste passes.

The cost of independent contracts according to the quotation attached will be as follows:

Rehabilitation:

Laying 18" gauge track and installing air and water pipe

1900 feet @ $ 0.75 $ 1,425.00

Straightening Chief Adit and Altering Portal

3000 Cubic Ft. @ $ 0.60 1,800.00

Chief Adit Work (Objective Areas 1, 2, 3, 4):

Drifting 1200 feet	@ $25.00	$30,000.00
Raising 450 feet	@ $36.00 (31)	16,200.00

Silver Bell Shaft
(Objective Areas 5,6)

Loading pocket at #3 Level		500.00
Rehabilitate shaft to #3 level 3 Weeks, (18 days)	@ $100/day	1,800.00
Drifting 300 feet	@ $50.00	15,000.00
Raising 125 feet	@ $45.00 (40)	5,625.00
		$72,350.00

Drift Timber
Mine workings have almost no timbered section. However, for the contingency that this work may encounter broken ground that requires timber, 10% timbered section is added.

1700 feet x 10% = 170'

170 feet x $5.00 — 850.00

Total Contract Cost Labor — $73,200.00

(b-c) Supervisory personnel required, consists of one superintendent, engineer-geologist and one foreman, who will be required in supervising the preliminary work, supervising exploration drilling, inspecting and measuring contract performance, supervising maintenance and operation of company-owned or rented equipment and keeping geologic mapping current.

Superintendent $600.00 per month 13 Months	$ 7,800.00	
Foreman $550 per month 13 Months	7,150.00	
		$14,950.00

Items of labor, operating materials and supplies not covered in the contract prices quoted under (a) above are estimated as follows:

REHABILITATION CHIEF ADIT:

Track (30 lb. rail 18" gauge)

Estimate for 30' of track

2 30 Ft. Rails	@ $12.15/ea.	$24.30	
2 pair fish plates	@ .88/pr.	1.76	
1 pound track bolts (5/8 x 3")	@ .19/lb.	.19	
5 pounds track spikes (1/8" x 3 1/2")	@ .28/lb.	1.40	
12 Ties (4" x 6" x 3'6") 7 Bd.Ft./tie x 12 = 84 Bd.Ft.	@ $105/M	8.82	
Trucking (Transportation)	@ $8.00/ton	4.00	
Cost of 30 Ft. of Track		$40.43	
Cost per foot			$1.35

Pipe Lines

1" Water Line	@ $ .12/ft.	$ .12	
3" Air Line	@ .74/ft.	.74	
Misc. Fittings	@ .04/ft.	.04	
Drayage	@ .05/ft.	.05	
Cost of Pipe per foot of drift			.95

Ventilation

12" Flexible Tubing @ $ .82/ft.
√650/1700 ft. x $ .82 = $ .31
or Average Cost per foot .31

Power Line

#4 3 Conductor 600 V @ $1.00/ft		1.00
Total Supplies/ft. drift		$3.61

Total Supplies for Rehabilitation of drift
1900 feet of drift @ $3.61/ft. $6,859.00

DRIFTING CHIEF ADIT:

Track

Cost per foot (See rehabilitation estimate) $1.35

Pipe Lines

Cost per foot (See rehabilitation estimate) .95

Ventilation

Cost per foot (See rehabilitation estimate) .82

Power Line

Cost per foot (See rehabilitation estimate) 1.00

Timber

1 Set of timber for 5' x 7' drift is computed at 311 board feet.

311 Bd.Ft. @($90.00/M + $15.00/M framing)	$32.66	
Trucking @ $12.00/M	3.73	
Cost timber per Set supplies	$36.39	
Cost per foot for timber	$ 6.83	5'6" centers

It is estimated 10% of drifting will require timbering

Timber per foot of drift	.68
Total Supplies per foot drift	$4.80

Total cost supplies
1200 Ft. drift
@ $ 4.80/ft. $ 5,760.00

RAISING CHIEF ADIT:

Pipe Line

Cost per foot (See rehabilitation estimate) $ .95

Ventilation

Cost per foot (See rehabilitation estimate) .82

Power Line

Cost per foot (See rehabilitation estimate) 1.00 why?

Timber

1 Raise Set of timber is computed at 296 bd. feet.

296 Bd. Ft. @ $105.00/M	$ 31.08		
Trucking @ 12.00/M	3.55		
Cost per 5 feet of Timber	$ 34.63		
5'4"			
Cost per foot		$6.50	
Total Cost Raise Supplies per foot		$9.27	
Total Cost supplies 450 feet of Raise			$4,171.00

BOTTOM RAISE STATIONS

Excavation 5-1/2' x 11' x 13' or 787cubic ft.
chute and raise station materials:

Timber required for 3-compartment raise station is computed at 1214 bd. ft. 3-compartment

1214 bd. ft. @ $105.00/M	$127.47	
Trucking @ 12.00/M	14.59	
2 Arizona type gates @ $25.00/each	50.00	
Total cost of supplies per raise station	$192.06	
Total cost of supplies for 4 raise stations		768.00

REHABILITATION SILVER BELL SHAFT

Supplies for repairing shaft

Power Line

Cost per foot (See rehabilitation estimate)	$1.00	1.00
Pipe Line		.95
Cost per foot (See rahabilitation estimate)	.95	.25
Signal System	.25	1.86
		4.06
Timber		5.4
		1.35
15 Board feet per foot of ~~drift~~ mach. @ $105.00/M	1.58	
Trucking @ $12.00/M	.18	
Total timber per foot of Incline	$1.86	
Track ?	1.35	

Total supplies for rehabilitation of Silver Bell Incline	$5.41		
Total supplies for 280 ft. Incline		$1515.00	
Total Supplies			$19,073.00

DRIFTING SILVER BELL MINE

Tra ek			
Cost per foot (See Rehabilitation Estimate)	$1.35		
Pipe Line			
Cost per foot (See Rehabilitation Estimate)	.95		
Ventilation			
Cost per foot (See Rahabilitation Estimate)	.82		
Power Line			
Cost per foot (See Rehabilitation Estimate)	1.00		
Timber			
Cost per foot (See Drifting Chief Adit)	.68		
Total Cost Supplies per foot of Drift	$4.80		
Total Cost Supplies 500 feet of Drift			$ 2,400.00

RAISING SILVER BELL MINE

Pipeline			
Cost per foot (See Rehabilitation Estimate)	$ .95		
Ventilation			
Cost per foot (See Rahabilitation Estimate)	.82		
Power Line			
Cost per foot (See Rehabilitation Estimate)	1.00	why?	
Timber			
Cost per foot (See Raising Chief Adit)	6.50		
Total Cost of Supplies per foot of Raise	$9.27		
Total Cost of Supplies 125 ft. Raise			$ 1,159.00

ADDITIONAL ITEMS OF REQUIRED WORK ARE ITEMIZED BELOW:

Churn Drilling

Based on drilling experience in similar ground the cost per foot of drill hole, including labor and operating materials, is estimated at $5.00 per foot.

2300 feet of drill hole at $5.00	$11,500.00	
Bulldozer (for roads to locations of churn drill holes) 50 hrs. @ $12.00/hr.	600.00	
Total Cost Churn Drilling		$12,100.00

Diamond Drilling

Estimated total cost per foot of diamond drill hole, including labor and operating materials is $5.50 per foot.

1300 1800 ft. drill hole @ $5.50	7,150.00
Total diamond drilling	$ 9,900.00

Fuel Consumption - Diesel Generators

100 gal/day x 26 days/mo x 13 mos = 33,800 gals @ $.17/gal	$ 5,746.00

Water

Estimated average consumption is 1500/gals day for camp, mine and drills

Water Haulage Costs

Topman 1/2 day @ $12.65	$ 6.33		
Fringe payments @ 26.54%	1.68		
Total labor	$ 8.01		
Fuel and Maintenance of Water Truck Day 2 round trips @ 750 gal/trip or 10 miles @ $0.14/mile	1.40		
Cost per day		$9.41	
$9.41/day x 26 days/mo x 13 mos			$ 3,181.00

Should be about 7¢/mi

Topman

1/2 day @ $8.01/day x 26 days/mo x 13 mos.	$ 2,708.00
	2,704.16

(d) OPERATING EQUIPMENT

Furnished by operator and suggest use of allowance as listed by Association of General Contractors General Price List, where adaptable.

1.	1 Battery Trammer @ $230.00 per mo. x 13 mos.	$2,990.00 ✓ 7,500.00
2.	10 Mine Cars @ $26.00/mo per car x 13 mos.	3,380.00 ✓ 3,000.00
3.	1 Diesel-driven Compressor @ $505.00/mo x 13 mos.	6,565.00 ✓
4.	1 Diesel Electric Generator @ $477.50/mo x 13 mos.	6,208.00 ✓ 5,500.00
5.	1 Main H oist (Silver Bell Shaft) @ $85.00/mo x 4 mos.	340.00 ✓
6.	2 Ventilator Fans @ $17.00 each/mo x 8 mos.	272.00 ✓
7.	Pickup Truck transporting men and materials, etc. Estimated 1100 miles per mo. @ $.09/mile x 13 mos.	1,287.00 ✓
8.	Service Truck for heavy supplies, etc. Additional - not previously included. Estimated 600 miles per mo. @ $.14/mile x 13 mos.	1,092.00 ✓
9.	Diesel Generator Set - 15KW - Camp Use @ $175.00/mo x 13 mos.	2,275.00 ✓ 21 K.W. 4,600.00
10.	Water Pressure Tank @ $5.00/mo x 13 mos.	65.00
11.	Rental on Surface Equipment at Silver Bell Mine - consisting of hoist house, headframe, bin surface truck, cars, skip, etc. (to be constructed or installed at Company expense) @ $300.00/mo x 4 mos.	1,200.00

Total allowance for operating equipment $25,674.00

Additional equipment and supplies that will be furnished by the Contractor are omitted in the above tabulation, as the contractor's Cost per Foot has been estimated to include these items.

(e) REHABILITATION AND REPAIRS TO EXISTING BUILDINGS, INSTITUTIONS, FIXTURES, AND MOVABLE OPERATING EQUIPMENT. NONE

(f) NEW BUILDINGS, IMPROVEMENTS AND INSTITUTIONS

Mine Ventilation

Provide fan-house at collar of churn drill hole together with required power line

Fan House Complete	$ 150.00
Power line (#10-3 Conductor) 1200 ft. @ $.38/ft	456.00
Labor	30.00
	$ 636.00

Combination Compressor - Power and Warehouse

Purchase present garage-coal house available from Pan American Mine, transport approximately 100 miles and modify to house above units	$1,500.00
Provide and install fuel tanks	600.00
Total	$2,100.00

Underground Power Line (Misc. Installation)

Switches	$ 150.00
Lighting Transformer	35.00
Labor	25.00
	$ 210.00

Water Storage

Provide and install 7000 gal. water tank. Installation will require tank to be partially buried in the ground encased with dirt and the pipe lines buried two feet to prevent freezing during winter months.

1 Used Tank	$250.00
Installation Tank and Pipe	250.00
1200 ft. 1-inch pipe @ $.12/ft	144.00
	$644.00

Total New Buildings, Improvements and Institutions $3,590.00

(g) MISCELLANEOUS

Equipment Maintenance

Equipment maintenance will largely be handled through Combined Metals Reduction Company's shops, and part of the time a maintenance man may be required on the job. In estimating equipment maintenance cost maintenance items comparable to this project were computed from Caselton operations for the first six months of 1952 and found to be 4.5% of total operating costs before general expenses. On this basis equipment maintenance is estimated at 4.5% x $181,856 or (above excludes heading equipment maintenance furnished by contractor) $ 8,175.00 $ 628/mo.

Assaying

Assaying is estimated at $50.00 per mo. x 13 mos. 650.00

Engineering

The superintendent will perform the necessary on-the-job engineering work. For drafting maps, preparing progress reports, drill records and other special engineering work, Combined Metals Reduction Company will make available one of their engineers at an estimated cost of $100.00 per month.

13 mos. @ $100.00/mo. 1,300.00

Road Maintenance

During winter months it will be necessary to keep a small Caterpillar-bulldozer at the property for cleaning snow from the roads. To minimize costs it is contemplated to arrange with a nearby mine operator a joint agreement for operating a bulldozer for this purpose. On this basis road maintenance is estimated to be:

$500.00 per mo. for seven winter months 3,500.00

Office - Accounting

Office records will be kept by the Combined Metals Reduction Company with time cards and supervisor's reports submitted from the mine. In estimating the cost of this service we have used the proportion that "Office Salaries and Expenses" bears to the total operating costs before general expenses at the Caselton Mine. For the first six months of 1952 this expense was 1.98% of the total operating costs before general expenses. On this basis the cost accounting records, etc. for the exploration is estimated at 2% of $181,856.00 for the 13 mo. period or $ 3,637.00 in summary 3634 $280/mo

(h) CONTINGENCIES None

RECAPITULATION OF ESTIMATED COSTS

(a) Independent Contractor		$73,200.00
(b-c) Labor Supervision, Operating Materials and Supplies		
Superintendent		
13 mos. @ $600.00	$7,800.00	
Foreman		
13 mos. @ $550.00	7,150.00	14,950.00
Rehabilitation Chief Adit		
Supplies		
1900 ft. of drift @ $3.61/ft.		6,859.00
Drifting Chief Adit		
Supplies		
1200 ft. of drift @ $4.80/ft.		5,760.00
Raising Chief Adit		
Supplies		
450 ft. of Raise @ $9.27/ft.		4,171.00
Bottom Raise Stations		
Supplies		
4 Stations @ $192.00/station		768.00
Rehabilitation Silver Bell Shaft		
Supplies		
280 ft. Incline Shaft @ $5.41/ft		1515.00
Drifting Silver Bell Mine		
Supplies		
500 ft. Drift @ $4.80½/ft.		2400.00
Raising Silver Bell Mine		
Supplies		
125 ft. Raise @ $9.27/ft		1159.00

Churn Drilling		
2300 feet @ $5.00/ft	$11,500.00	
Access Roads	600.00	
Total Churn Drilling		$12,100.00
Diamond Drilling		
1800 ft. @ $5.50/ft.		9,900.00
Fuel Consumption - Diesel Generators		5,746.00
Water		3181.00
Topman (Service Labor)		2,708.00
(d) **Operating Equipment**		25,674.00
(e) **Rehabilitation and Repairs to Existing Buildings, etc.**		None
(f) **New Buildings, Improvements and Installations**		
Ventilation	636.00	
Compressor - Power - Warehouse	2,100.00	
Underground Power, Misc. Installations	210.00	
Surfact Water Tanks	644.00	
Total New Buildings, etc.		3,590.00
(g) **Miscellaneous**		
Equipment Maintenance	8,175.00	
(Sub-Total Operating Costs $131,856.00)		
Assaying	650.00	
Engineering	1,300.00	
Road Maintenance	3,500.00	
Accounting	3,634.00	
Total Miscellaneous		$17,259.00
Estimated Total Cost of Project		$190,940.00

7. (a) The Company is prepared to furnish its share of the cost of the proposed project in accordance with the regulations on Government Participation.

(b) The proportionate share of the costs will be furnished by rental value of equipment owned plus balance in cash.

FOOTNOTE REGARDING JOINT USE OF EQUIPMENT AND FACILITIES

These estimates have been prepared on the basis of conducting the entire operation for exploration only over a period of 13 months. However, ore production will be commenced as soon as possible. When ore production starts, joint use of equipment, certain services and supervision will be involved, and cost distribution is proposed on the following basis:

Camp

Water and Power expenses that have been computed in the exploration project costs will be distributed on a man-shift basis.

Equipment Rental

Rental prices are for full use of the equipment listed; when use is divided between ore mining and exploration, costs will be divided in proportion to the respective operations according to rock tons produced.

Other Distributable Costs

Other distributable costs such as supervision, office expense and road maintenance will be proportioned on the basis of shifts worked between ore mining or Company development and the exploration project.

The foregoing estimates and general plan of exploration were prepared and approved by the persons whose signatures follow:

E. Steele McIntyre
Engineer

R. H. Godbe
Engineer-Geologist

Robert F. Stopper
Superintendent Minerva Operations

Paul Gemmill
General Superintendent of Nevada Mines

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 _____, 1952

M. I. A. Mines Company
(Applicant)

By_____

_____

_____

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.

UNITED STATES

DEPARTMENT OF THE INTERIOR
Geological Survey
Washington

TUNGSTEN DEPOSITS IN THE MINERVA DISTRICT, WHITE PINE COUNTY, NEVADA

By Dwight M. Lemmon

February 1944

ABSTRACT

The Minerva district is on the west slope of the Snake Range in eastern Nevada, near the Utah border. Scheelite occurs in ore shoots in quartz veins that cut through limestone of Middle Cambrian age. The only igneous rocks exposed in the area are dikes and sills of rhyolite, younger than the tungsten deposits. Of the seven veins known, five have been productive, and two of these are responsible for most of the district yield. Since the discovery of tungsten in 1915 until 1944, the district yielded 82,000 units of WO_3, sold for approximately $1,926,365. Except for about $63,000 worth produced in 1916-18, the major production has been since 1936. The average grade of ore has been nearly 1 per cent of WO_3, with a range from 0.5 per cent to 2.0 per cent or more. The quartz veins are as much as 30 feet in width, but the maximum width of ore has been only 10 feet, and the average nearer to 5 feet.

The veins, which strike east and dip north, are offset by many post-mineral normal faults with displacements as great as 400 feet. These faults disrupt ore shoots that were formerly continuous for pitch lengths of 900 feet or more.

On properties of Tungsten Metals Corp., reserves with 0.5 per cent or more of WO_3 were estimated in collaboration with the Bureau of Mines on December 1, 1943, at 1,200 tons of measured ore containing 900 units of WO_3, 15,320 tons of indicated ore containing 11,705 units, and 53,900 tons of inferred ore containing 42,195 units. Reserves with a grade less than 0.5 per cent of WO_3 amount to 9000 tons of indicated ore containing 3600 units. Reserves at other properties in the district were estimated at 400 tons of indicated ore containing 400 units, and 1,600 tons of inferred ore containing 1,600 units. In these estimates, no account is taken of entirely untested portions of veins that may be found, by future exploration, to contain additional tonnages perhaps equal to the total cited.

INTRODUCTION

Location

The Minerva district is near the Utah border in White Pine County, Nev., 45 miles southeast of Ely, which is on the standard gauge Nevada Northern Railroad (fig. 1). Minerva, the mill and townsite of Tungsten Metals Corp., at an elevation of 5,800 feet, is 1 mile south of Shoshone Post Office in Spring Valley, and is reached by a level dirt road extending 15 miles from surfaced U. S. Highway 93. The mines, in the lower portion of the Snake Range at elevations of 6,300 to 7,500 feet, are 2 to 5 miles from the mill.

History and Production

Although silver ore was discovered in 1869 at the Indian Silver mine, now included in the east portion of the Scheelite Chief vein, operations here and at Bromide Flat, east of the Hilltop vein, were not extensive; silver production was meagre, and the district was abandoned by 1876.1/ Scheelite was found in the veins in 1915 by C. E. Millick, A. C. Millick, and Jasper N. Fox, and mined on a small scale in 1916. The Nevada Scheelite Co. held the property in 1917, the Minerva Tungsten Co. in 1918. A 150-ton mill, located below the Chief mine, was completed in 1918 shortly before collapse of the tungsten market. Production for this period is unknown to the writer, but is believed to be less than $100,000 worth of concentrate valued at the high prices then prevailing; Nevada bullion tax records show production only in 1916, amounting to $7,651. 2/ Except for a small-scale leasing operation in 1932, the property was idle until 1936 when Tungsten Metals Corp. was organized. This company built the present 75-ton mill in 1936, and has developed the Scheelite Chief, Silver Bell, Oriole, West Everit, and East Everit mines (fig. 2). Production from these mines in the period 1937-43 inclusive was 121,467 tons, yielding 77,889 units of WO_3 sold for approximately $1,615,275 (see table 1). Elsewhere in the district, the Hilltop, Tony, Canary Yellow, and Zigzag mines have yielded about 2,200 units, making a total district production of 82,000 units.

Fig. 1 Index map of Nevada showing location of the Minerva district.

Fig. 2 Index map of the Minerva district showing principal veins and faults.

Table 1. Production of tungsten ore and concentrates from mines of the Minerva district, Nev. 1916-43.

1/Lincoln, F. C., Mining districts and mineral resources of Nevada: Nevada Newsletter Publishing Co., Reno, p. 254, 1923.

2/ Couch, E. F., and Carpenter, J. A., Nevada's metal and mineral production: University of Nevada Bull., Geology and Mining Series No. 38, p. 143, 1943.

Table 1. Production of tungsten ore and concentrate from mines of the Minerva district, Nev. 1916-43.

year	Tungsten Metals Corp. 1/			Hilltop mine 2/		
	Tons of ore	Units of WO_3	Value	Tons of ore	Units of WO_3	Value
1916	191 3/	191 3/	$ 7,651 3/			
1918	1,846 4/	1,046 4/	55,377 4/			
1937	6,400 5/	6,036 5/	158,916 5/			
1938	14,955	12,858	206,039			
1939	19,617	9,396	146,216			
1940	14,750	10,617 6/	196,090			
1941	10,160	13,599 7/	226,128 7/	1,126	1,677	$36,000
1942	19,867	16,876	428,008	450	429	11,462
1943	15,718	8,507	253,678	-	-	-
	103,504	79,926	$1,678,303	1,576	2,106	$42,262

1/ Data from Tungsten Metals Corp. except where noted. Includes production from Nevada Scheelite Co. (1916) and Minerva Tungsten Co. (1918).

2/ Data from Shoshone Mining Co.

3/ Value from Nevada tax records, University of Nevada Bull., Geology and Mining Series No. 38, p. 148, 1943. Units estimated from value, assuming a price of $40 a unit. Tonnage based on recovery of 1.0 per cent WO_3.

4/ Value from Nevada tax records, op. cit., p. 148. Units estimated from value, assuming a price of $30 a unit. Tonnage based on recovery of 1.0 per cent WO_3.

5/ Units from records of Tungsten Metals Corp.; value and tonnage from Nevada tax records, op. cit., p. 148.

6/ Includes production from re-treatment of tailings.

7/ Includes production from re-treatment of tailings, also 4,521 units of WO_3 contained in 2,082 tons of slime tailings sold for $18,243, net.

Field work by the Geological Survey

The writer, assisted by Donald Wyant, mapped most of the area during 3 months in the fall of 1940, and subsequently revised maps as development progressed in the mines. In 1942, Paul C. Bateman of the Survey assisted in underground mapping; in 1943, Konrad B. Krauskopf, aided by Robert F. Stopper, of the Survey, made a surface map of the Hilltop mine area.

Work by the Bureau of Mines

In the winter and spring of 1941, the United States Bureau of Mines core-drilled 34 holes totalling 6,932 feet on properties of Tungsten Metals Corp., and located the ore mined since then. Again, in the fall of 1943, the Bureau drilled 8 holes totalling 2,898 feet and located the westward continuation of the ore body in the Silver Bell mine. In each instance, plans for the drilling were laid out jointly by the writer and the project engineer, E. W. Newman in 1941 and E. . . Geehan in 1943, as part of a cooperative program of the Geological Survey and Bureau of Mines.

Acknowledgments

Tungsten Metals Corp., through its staff consisting of Paul J. Sirkegian, W. A. Trort, A. . . O'Connell, and W. E. Dunham, furnished records, surveys, board and lodging, and helpful assistance. Hadley E. Brenol contributed assays and other information about the Canary Yellow and Zigzag claims, entered into many stimulating discussions, and was a source of information about the other mines in the region.

GEOLOGY

Regional setting.

The Snake Range extends nearly 60 miles in a north-south direction and rises to over 13,000 feet in elevation. It is composed of (1) a great thickness of Paleozoic sedimentary rocks ranging from Cambrian through Carboniferous, (2) a central intrusive mass of late Mesozoic granitic rock exposed in Snake Creek and south of Osceola, and (3) a volcanic capping at the south end of the range in the Murphy Wash area. All the ore deposits known to the writer occur in the Cambrian sedimentary rocks or in the granitic intrusive, and none have yet been identified in the higher Paleozoic section, perhaps largely because of the distance of the upper rocks from the intrusive to which the mineralization is probably related. Gold and tungsten, with minor amounts of lead and silver, have been produced profitably in the range. The Minerva district with its tungsten production has first place in gross yield; the Osceola district with its gold and minor tungsten production has second place; and the Hub district, a former tungsten producer, third place.

The tungsten occurrences in the range are in veins or stockworks with quartz or calcite, or both, as gangue. No deposits of the contact-metamorphic type have been found. In general, either scheelite or

huebnerite or both occur in these deposits with quartzite or granitic wall rocks, but only scheelite occurs in the stratigraphically higher deposits with limestone wall rock. Narrow pegmatitic veins with quartz, feldspar, beryl, and scheelite have been found in the granite west of the old Bonita tungsten mine on Snake Creek. Minerva is the only tungsten district that made appreciable production between 1918 and 1944. Perhaps six other districts in the range were worked profitably at higher prices in 1916-18.

The sedimentary rocks on the west side of the Snake Range, from Osceola south past Minerva to the mouth of Murphy Wash, from oldest to youngest are the Lower Cambrian Prospect Mountain quartzite and Pioche shale, a Middle Cambrian limestone perhaps 2,000 feet thick, a Middle or Upper Cambrian shale probably 300 to 1,000 feet thick, the Ordovician Pogonip limestone and Eureka quartzite, and an overlying limestone which is perhaps also Ordovician. The rocks exposed are successively younger from Osceola southward: the Pioche shale appears at the mouth of Pole Creek 6 miles north of Minerva; the Pogonip limestone and Eureka quartzite are exposed south and east of Minerva. The veins at Minerva lie in the upper part of the Middle Cambrian limestone, so only this part of the stratigraphic section was studied in detail. No attempt was made to measure thicknesses outside of the mapped area.

Sedimentary rocks

At Minerva, the section mapped consists of about 1,000 feet of limestone overlain by at least 3000 feet of thin, platy limestone and shale. Faulting conceals the true thickness of the shale, which may be as much as 1,000 feet. The normal sequence above the shale is absent, for the shale is faulted against the middle part of the cherty Pogonip limestone of Ordovician age, probably many hundreds of feet above the base of the Pogonip. Below the Minerva section, massive, light- and dark-colored limestone beds with a total thickness estimated at 1,000 to 1,500 feet extend downward to the Pioche shale and Prospect Mountain quartzite. This part of the section is well exposed on Mt. Washington, 5 miles north of Minerva; the saddle between Mt. Washington and Mt. Lincoln is cut in the shale at the top of the Cambrian section at Minerva.

On the map of Tungsten Metals properties (fig. 3), the Cambrian limestone has been divided on the basis of lithology into 3 major units: the "Upper black limestone", Upper white limestone", and "Lower black limestone". On the map of the Hilltop mine (fig. 4), the lowest of these units, the "Lower black limestone", has been divided into 4 subunits. Although it is possible to choose major units that maintain rather constant thicknesses over distances of miles, the small units mapped at Minerva are somewhat more variable. In the sequence of limestones that

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Fig. 3. Geologic map of a portion of the Minerva district.

Fig. 4. Surface map of the Hilltop mine, Minerva district.

make up the Middle Cambrian, the units range from light to dark, massive to thin-bedded, dense to granular, not only down the dip but also along the strike of the beds. These lithologic variations are well illustrated by individuals beds on the beautifully exposed west face of Mt. Washington, north of Minerva. For an example from the Minerva district, the dense, massive unit mapped as "Upper white limestone" has a thickness of 30 feet at the Chief and Silver Bell mines, 180 feet in the east part of the Everit vein, 280 feet on the West Everit hill, and 180 feet at the Hilltop mine.

The following columnar section, starting with the youngest rocks, summarizes the lithologic units used in mapping the Minerva district:

Cherty limestone	Thickness not determined, but certainly several thousands of feet. Part of the Ordovician Pogonip. In fault contact with underlying shale.
Shale	Thickness at least 300 feet, perhaps 1,000. Thin, platy limestone beds with shale partings in the lower portion, argillaceous shale above.
Upper black limestone	Thickness 300 feet. Thin-bedded to flaggy, dark-gray limestone, gradational contact upward. Abundant stylolites present in drill cores of Silver Bell area.
Upper white limestone	Thickness 75 feet at Chief mine, 180 feet at East Everit, 280 feet at West Everit, 180 feet at Hilltop. Massive, very fine-grained, light-gray limestone with pinkish cast. Contains a few thin, lenticular beds of dark-gray limestone. Cliff forming. Marked at top by a distinctive bed of thinly banded, cross-bedded limestone 2 to 4 feet thick, a bed that is present throughout the district and elsewhere in the range at this position and serves as a stratigraphic marker.
Lower black limestone	Thickness at least 300 feet. Dark-gray limestone with some lighter beds; mottled, numerous algal beds. Bedding indistinct to good. At the Chief mine, 180 feet below the top of this unit, is a 30-foot bed referred to as the "lower white limestone", lithologically similar to the "Upper white limestone". In the mapped area surrounding the Hilltop mine, rocks equivalent to the "lower black limestone" have been further subdivided into the following distinctive units: "middle gray limestone", 50 feet thick; "thin-bedded limestone", 40 feet thick; "lower gray limestone", 100 feet thick; "lower white limestone", over 50 feet thick, base not exposed.

Igneous rocks

Rhyolite is the only igneous rock exposed in the Minerva district. It occurs northwest of the Silver Bell mine in sills 2 to 20 feet thick near the base of the shale; elsewhere it forms dikes as much as 25 feet thick that follow east-dipping faults. The dikes are most abundant in a zone across the center of the district extending from the Silver Bell mine to the Hillside mine. They were intruded after formation of the selenite veins, for they cut through the veins at the portal of the 4,900-foot level in the East Everit mine and at the Tony prospect, and elsewhere are occupy post-mineral faults that offset the veins. The silicification and ironstaining along some of the faults is probably related to the rhyolite, which may be allied to the flow rocks east of Empty Mesa at the south end of the Snake Range.

Structure

The rocks and veins of the Minerva area are disrupted by numerous faults that follow at least five different systems. Nearly all of these faults, even the low-angle ones, are normal faults; that is, the hanging wall has dropped with respect to the footwall. The few that show reverse movement have relatively small displacements.

Most of the faults can be placed in one of the following groups, listed from oldest to youngest:

1. Faults now occupied by quartz veins that strike N. 70° W. to N. 75° E. and dip 40° to 70° N. Although the hanging wall appears to have moved downward 30 to 75 feet, the true displacement cannot be determined, and the apparent displacement cannot always be differentiated from post-mineral movement along the veins (group 4).

2. Faults that strike north, dip from 75° E. to 75° W., and have displacements up to 20 feet.

3. Faults that strike N. 15° W. to N. 30° E., dip 13° to 60° E., and have displacements up to hundreds of feet.

4. Faults that strike east, dip 45° to 60° N., and frequently follow vein segments. Displacements are up to 50 feet.

5. Faults that strike north and dip 45° to 70° W. Displacements are up to 200 feet. Faults of this group are abundant at the front of the range west of the Everit vein, and also on the Zigzag claim.

The quartz veins occupy the oldest fault structures, and have been offset by most of the others. A few steep faults that cut across the vein structures are also pre-mineral, but they have had only small displacements

of probably not more than a few feet, and have only locally affected ore deposition. Most of the faults are post-mineral, demonstrated by the lack of quartz and scheelite in them, and by the disruption of formerly continuous ore shoots.

True displacements on all the faults except the oldest can usually be determined from the offsets of veins and stratigraphic units. It is essential to know the true displacement of veins, rather than the horizontal offset, to find continuations of ore shoots. The displacements on some of the larger faults, such as the Everit fault, change along the strike and dip because of the cumulative effect of subsidiary faults in the footwall.

Most of the faults are well exposed at the surface. The low-angle faults have topographic expression, for they repeat the massive, cliff-forming "upper white limestone"; the faults lie at the tops of cliffs, and from a distance resemble bedding, which is much less apparent. All the faults contain calcite veins or cemented breccia, from an inch to 6 feet or more in width. Some contain reddish-stained material, usually calcareous but sometimes siliceous; the siliceous material, which is very fine-grained and bears no resemblance to the quartz veins, is thought to be associated with the rhyolite.

Structure contours can be drawn with fair accuracy from the surface exposures of those faults that dip east at angles of 50° or less. The contours are curved, not straight, and in some instances appear to be "folded", with "fold axes" trending east. The Everit fault is a good example: it dips 13° E. where it offsets the Everit vein, and steepens to 45° within 500 feet north and south of the vein; the dip of the fault at the vein intersection persists for at least 500 feet downward into the East Everit mine. The curves in the faults probably represent the original fracture pattern, rather than subsequent folding, for the limestone beds are not similarly folded.

In the mapped areas, the bedding in the limestone strikes north to northwest and dips 12° to 45° SW. Folding within the different fault blocks is not pronounced, the attitudes within individual blocks being essentially similar. The exception to this generalization is outside the detailed map areas on the Zigzag and Calico claims, between the West Everit and Hilltop mines. On parts of these claims, and for half a mile northward, the beds have been folded and complexly faulted so that most of the beds dip to the east.

The contact between the "Upper black limestone" and overlying shale, in several exposures between the Chief and Everit veins, is marked by a red, silicified breccia 5 to 50 feet thick with limestone fragments up to 6 inches in size. One of the best exposures, north of the east limit of the Oriole vein, contains abundant fragments of vein quartz. Although this breccia is not yet adequately explained, it may represent an old bedding fault of unknown magnitude, perhaps one of the oldest faults in the district. The exposures of this contact are very poor except in these silicified areas.

ORE DEPOSITS

Extent and thickness of veins

Scheelite ore shoots occur in seven roughly parallel quartz veins occupying normal faults that strike east, dip 45° to 70°N., and are spaced at intervals of approximately half a mile. The Chief Extension, Scheelite Chief, Oriole, Everett, Lone Duck, and Canary Yellow veins are shown on figure 3, the Hilltop and Tony veins, which lie farther north, on figure 4.

The quartz veins range in width from a few inches to 30 feet, and in length from 1,000 to 4,000 feet. The quartz changes in thickness within short distances along strike or dip, and is in places distributed in a series of closely spaced, parallel fractures with horses of limestone. The vein outcrops are limited on the west by alluvium, and on the east by alluvium and shale through which the veins do not penetrate. No major veins have been found on the surface at stratigraphic horizons above the shale; it may be possible to follow the veins underground eastward beneath the shale capping.

The Chief vein has been traced for 550 feet west from the portal of the main adit, but none of the other veins have been explored beneath the alluvium. Frontal faults defining the range probably lie only a short distance west of the foothills; the possibility of discovering large segments of veins buried beneath the alluvium seems remote.

Mineralogy and grade of ore

The veins consist mainly of quartz and calcite with some scheelite and, in spots, traces of tetrahedrite, galena, silver halids, powellite, and cuprodescloizite. The scheelite concentrates are reported to contain as much as 4 ounces of silver to the ton, but this represents a high concentration ratio. The scarcity of associated minerals is indicated by the purity of the concentrates, which contain only traces of phosphorus, sulfur, and arsenic, and very little copper and molybdenum.

The quartz in the veins is white or tinged with greenish-yellow, coarsely crystalline, and usually massive, although a few small vugs can occasionally be found. The calcite in the veins and faults ranges in color from white through flesh-color to light reddish brown, suggesting several carbonate minerals, although calcite is dominant. The scheelite commonly occurs in coarse cleavages distributed through the quartz or aligned along fractures in the quartz. In some parts of the veins, notably in the Oriole mine and Tony prospect, the scheelite is distributed in very fine grains.

The grade of material mined in substantial quantities has ranged from 2.7 per cent or more of WO_3 down to 0.3 per cent. Local concentrations have contained as much as 10 or 20 percent of WO_3. All the ore milled by Tungsten Metals Corp. to the end of 1943 yielded an average of 0.76 units per ton, suggesting that the ore contained between 0.9 and 1.0 per cent of WO_3.

Ore shoots

The tungsten ore occurs in shoots of limited vertical extent but with remarkable lateral continuity, which is disrupted by post-mineral faulting. The quartz veins are nearly barren outside of the shoots, which occupy only a small part of the veins. The ore shoots rake westward roughly parallel to the bedding in adjacent limestone, and frequently lie on the footwall side of the vein; the widest ore stoped is about 10 feet, although the vein in which the ore occurs may be 20 to 30 feet wide. In the smaller veins, ore shoots as narrow as 1 to 3 feet have been stoped.

Each of the main veins worked appears to have a single main ore shoot, although the Everit vein contains remnants of an upper ore shoot, and both it and the Chief vein may yet prove to contain lower shoots in portions that have never been prospected. In the East Everit mine, the main shoot was mined for 80 to 130 feet along the dip of the vein, and for a pitch length of 650 feet; extensions to the east have not yet been found, but an extension to the west is known to continue another 240 to 400 feet, possibly more. In the Chief mine, the ore shoot has been mined for 80 to 140 feet along the dip, and for a pitch length of 900 feet. Mine development may ultimately prove that the ore shoots before faulting were essentially continuous through most of the length of these veins. Little is known about the ore shoots in other veins of the district, for they have not been extensively explored.

The main ore bodies in the Chief, Everit, Canary Yellow, Zigzag, and Hilltop mines occur at about the same stratigraphic horizon in the "Upper white limestone". The upper stope in the West Everit mine, and the surface stope in the East Everit mine east of the Everit fault, both lie higher stratigraphically in the "Upper black limestone". The ore shoot in the Silver Bell mine also lies at a higher horizon, but appears to rake downward to join the shoot in the Chief mine.

The walls of the veins are frozen to the limestone in most instances, and post-mineral surfaces of breakage lie within the veins. The wall rocks are unaltered regardless of the presence or absence of ore in the adjoining vein.

The occurrence of ore shoots and the brecciation in them show that the veins were formed by successive introductions of minerals, and that the ore forms were probably deposited in more porous portions of the veins. The massiveness of the "Upper white limestone" appears responsible for conditions favorable to scheelite mineralization. Perhaps slight changes in dip of veins where they cross limestone beds of different competence permitted development of crushed zones within the quartz, zones formed by continuous shearing along the vein. If this explanation be true, then other ore shoots may be discovered at greater depths in the vein wherever similar conditions prevail.

MINES

The veins in the Minerva district known to contain tungsten ore are held by Tungsten Metals Corp., Calico Tungsten Co., or Shoshone Mining Co. Of the many claims in the district, only seven are patented, all part of the Tungsten Metals group. Companies formerly active on some of these properties include Nevada Scheelite Co. (1916-17) (not to be confused with a different company which has operated under this name at Rawhide, Nev.), Minerva Tungsten Co. (1918), New Deal Leasing Co. (1940-41), Scheelite Leasing Co. (1941), and Virdot Development Co. (1941-42). These companies have all disbanded.

Tungsten Metals Corp.

Tungsten Metals Corp. owns the southern five of the seven known veins in the district. In addition to the seven patented claims (surveys 4485-A, 4486, and 4487) shown on the map (fig. 3), the group includes about 40 unpatented claims. Tungsten Metals Corp. also owns a 75-ton mill at Minerva. Custom ore from other properties has been accepted at this mill where all ore mined in the district since 1938 has been treated.

Scheelite Chief mine

The Scheelite Chief mine (see figs. 5 to 8) is in two major segments of the Chief vein, separated by the Chief fault. Both segments are developed from the 6,316-foot level, an adit 1,530 feet long. The west segment has three upper adits now largely stoped, a shaft near the portal of the main adit, and two short lower levels from the shaft. The east segment has a winze 30 feet deep below stope 1, with a sublevel from the bottom west to the Chief fault.

The west segment has been stoped from the portal of the adit to the Chief fault. Two small blocks of ore probably still remain west of the fault that terminates the 6,246- and 6,276-foot levels. Of seven holes drilled beneath the alluvium, only one, 550 feet west of the mine, found ore. The ore shoot in the intervening area may have been eroded away.

The east segment has been stoped above the main level for a length of 260 feet, and the level has been extended another 340 feet beneath the shoot. The quartz vein below the shoot is narrower, ranging from half a foot to 4 feet, and contains sporadic traces of scheelite.

Fig. 5. Map and vertical projection of the Scheelite Chief vein.

Fig. 6. Scheelite Chief mine, composite map.

Fig. 7. Scheelite Chief mine, vertical projection of west workings.

Fig. 8. Scheelite Chief mine, vertical projection of east workings.

Silver Bell mine

The Silver Bell mine (see figs. 9 and 10), in the east portion of the Chief vein, is worked to the fourth level through a shaft 365 feet deep on the incline (238 feet vertically). A winze, 84 feet on the incline, connects the fourth level with a short fifth level at a point 300 feet west of the shaft. The total level workings, largely concentrated on the third and fourth levels, amount to nearly 1,200 feet of drifts and crosscuts. Ore was stoped above the third level for a length of 140 feet, a width of 3 to 5 feet, and a height of 60 feet along the dip. A faulted westward extension of this ore body was being worked from the fifth level in October 1944. Possible extensions eastward beyond the shaft have never been investigated either by drilling or drifting, and should be sought by extending the third level east through the various fault segments.

Oriole mine

The Oriole vein is the least developed of the major veins in the district. It is opened at the west end in the Oriole mine by two short adits at a vertical interval of 80 feet (see figs. 11 and 12). The ore stoped consisted of very fine-grained scheelite in quartz, and averaged only 0.4 percent of WO_3. The width of ore ranged from 1-1/2 to 5 feet. The stopes mined are in offset segments of a single ore shoot, which could probably be readily followed eastward by extending the upper adit.

The outcrop of the vein is mostly barren except for some coarsely crystalline scheelite on the crest of the hill above the mine, and for low-grade mineralization in the first segment east of Chief Canyon. The only exploration east of the mine is by three shallow drill holes in two fault segments east of the canyon. Although the vein is not as strong at the surface as the Chief or Everit veins, it shows impressive widths of quartz, and might be productive in the future.

West Everit mine

Workings in the West Everit mine consist of two adits, a sublevel above the upper adit, two stopes, and several connecting raises (see figs. 14 to 16).

Fig. 9. Silver Bell mine, composite map.

Fig. 10. Silver Bell mine, vertical projection.

Fig. 11. Oriole mine, composite map.

Fig. 12. Oriole mine, vertical projection.

Fig. 14. West Everit mine, composite map.

Fig. 15. West Everit mine, vertical projection.

Fig. 16. West Everit mine, section along 11,350 E.

An adit 50 feet long on the west face of the hill dates from 1917. Two small ore bodies have been mined, both of excellent grade: one on the crest of the hill, the other in the lower adit. Both ore bodies are in the hanging wall of the West Everit fault, and are cut off by it. The upper ore shoot is a remnant, former extensions of which have been eroded away. The lower ore shoot, however, might have extensions below the West Everit fault. In spite of several hundred feet of exploratory work from the 6,800-foot level, the vein was not located. The work seems to have disproved the existence of any segment of appreciable size in the footwall of fault "A", which is parallel to the vein. The segment of vein exposed on the west side of the hill at 11,200 E., 9,400 N. is probably the same Everit vein and ore may be found in it below the 6,800-foot level.

The West Everit vein zone ranges in width from 5 to 50 feet, the vein branching into several parts with included layers of limestone. The maximum width of continuous quartz is 25 feet. Wherever drifts lie in the main vein, the full width of quartz is not exposed; so scheelite ore bodies may be missed by failure to crosscut.

The only ore remaining in the mine is between the upper stope and the West Everit fault in a fault sliver estimated to contain 1,200 tons. The fault segments west of the mine are too little known to permit any inference as to quantity of ore. Because of extreme faulting, the vein westward beneath the alluvium probably does not justify underground exploration.

East Everit Mine

The main development in the East Everit mine is from an adit 1,735 feet long at an elevation of 7,050 feet (see figs. 13 and 17-20). A raise connects with the surface from a point 1,035 feet inside the portal. A shorter adit, 150 feet lower, is used for ore transfer, and also for development of another fault segment.

Two ore shoots have been mined, probably correlatives of the two in the West Everit mine. The upper ore shoot is eroded away except for a small segment stoped at the surface above the Everit fault. The lower shoot cropped out only west of the Everit fault, but has been stoped most extensively east of the fault. Although drill hole 8 and the westernmost stope in the mine (that from the 6,900-foot level) yielded ore containing only about 0.5 percent of WO3, the ground has not been sufficiently tested to prove the absence of better ore. An adjoining segment of vein that crops out south of the portal of the 6,900-foot level is untested.

Fig. 13. Map and vertical projection of the Everit vein.

Fig. 17. East Everit mine, composite map.
Fig. 18. East Everit mine, vertical projection.
Fig. 19. East Everit mine, map of east extension.
Fig. 20. East Everit mine, section along 14,674 E.

The portion of the vein intersected near the face of the 7,050-foot level (at 14,100 E.) contains low-grade scheelite-bearing material at that point, but has not been explored upward to the surface, which is masked by debris. Beyond the face, five holes drilled from the surface in 1943 found no ore, but proved that the ore horizon lies considerably lower in this fault block. The thickness of quartz and the presence of scheelite in this part of the vein are encouraging for the eventual discovery of an ore shoot at greater depth.

The small vein that lies 150 feet north of the Everit vein contains several exposures of narrow but high-grade scheelite ore. One outcrop (at 13,150 E.) was mined in an open cut. Drill hole 2 (at 13,240 E.) intersected 5 inches of vein that assayed 7.53 percent of WO_3. High grade ore 8 inches wide has not been touched in an exposure at the east end of the vein (at 13,530 E.). The widths and tonnages available are unfavorable for company exploration, but the grade of ore might make portions of the vein attractive to a lessee.

Lone Buck vein

The Lone Buck vein, entirely unexplored, crops out for a length of 1,200 feet and ranges in width from a few inches to 4 feet. Two channel samples cut by the Bureau of Mines in 1941 indicate a block of ore (between 14,200 E. and 14,260 E.) 60 feet long, 1.8 feet wide, and averaging 1.74 percent of WO_3; indicated ore along the rake west to the nearest fault amounts to 220 tons. The vein shows little promise of productivity, for the only ore exposed is in this block, which is a small and inaccessible remnant of a shoot.

Calico Tungsten Co.

The Calico Tungsten Co., a partnership between Hadley L. Brandl and Stanley Poitler, owns three unpatented claims on a single vein; the Canary Yellow, Calico, and Digging claims. Except for surface cuts, work has been concentrated at the Canary Yellow mine.

Canary Yellow mine

The Canary Yellow mine is developed by an 85-foot crosscut adit at a 100-foot drift on the vein, and a raise to the surface 35 feet above (see fig. 21). The vein in the drift shows 1-1/2 feet of ore containing more than 1 percent of WO_3 for a drift length of 60 feet. On the surface directly over the portal of the adit, Brandl and Poitler sampled the vein at 10-foot intervals for a length of 130 feet over widths of 1-1/2 to 6 feet, and obtained assays ranging from 0.09 to 4.[illegible] percent [illegible], averaging more than 1.0 percent. From the raise, 37-1/2 tons mined by Tungsten Metals Corp. yielded only 27 units of WO_3, an average of 0.[illegible]2 unit [illegible] ton.

Fig. 2 . Canary Yellow mine, [illegible] projection of workings.

Although the ore in the drift and raise is poorer than that at the surface, better ore may lie west of the workings if the surface body is part of a shoot that rakes westward. The ore in the drift may represent a lower shoot. With this interpretation, the upper shoot, with an average width of 2 feet, is estimated to contain 400 tons of indicated ore that will average more than 1.0 percent of WO_3; the lower shoot, 1-1/2 feet wide and averaging 1.0 percent, may contain at least 600 tons of inferred ore if it continues 260 feet along the rake to the faults limiting this segment of vein. No estimate can be made of the possibilities of the vein eastward, for the vein is unexplored and ore is not exposed at the surface, although the vein outcroppings continue 1,000 feet east of the mine.

Zigzag and Calico claims

The Zigzag and Calico claims lie on the west end of the same vein as the Canary Yellow mine, but are separated from it by half a mile of alluvial cover. The vein on these claims, faulted even more than is normal to the district, is broken into fragments 20 to 200 feet long, some of which contain ore at the surface. The only workings are a few open cuts from which Brunel and Feitler mined 18 tons of ore that yielded 20 units of WO_3. The width of vein ranges from 1 to 4 feet. Inasmuch as ore at the surface has not been profitable to mine because of the small size of fault segments, it is doubtful if ore present in other segments but not exposed can be mined profitably unless the price of tungsten exceeds $30 a unit.

Shoshone Mining Co.

The Shoshone Mining Co., a partnership among J. J. O'Connell, W. L. Trent, J. E. Brinton, and Horace Bath, owns the Hilltop group of six unpatented claims known as the Hilltop, Tony, Tony No. 1, Tony No. 2, Tony No. 3, and Tony No.4. The claims were operated in 1940-41 by the New Deal Leasing Co., in 1941 by the Scheelite Leasing Co., and in 1942 by the Virdot Development Co. The Tony prospect was operated by Tungsten Metals Corp. for a short time in 1940-41. Most of the production has come from the Hilltop mine, which yielded at least 2,105 units of WO_3.

Hilltop mine

The Hilltop mine is developed by a main adit at an elevation of 7,066 feet, by a short adit at 7,120 feet, and by several open cuts (see figs. 4, 22, and 23). The 7,066-foot level has about 690 feet of drifts and crosscuts, three stopes, and three raises to the surface. This level is connected with an ore bin at the end of the road, 600 feet lower, by a single span, jig-back aerial tram 1,150 feet long.

Fig. 4. Surface map of the Hilltop mine.

Fig. 22. Map and vertical projection of the Hilltop mine.

Fig. 23. Hilltop vein, map of main level with section.

The Hilltop vein is narrow, with surface widths of 1/2 to 3 feet. In the stope east of the crosscut adit, the vein flattened and widened to 8 feet of good ore between the level and the surface 35 feet above. Neither the drift level with 1-1/2 feet of quartz nor the surface with 1 foot of quartz gave any indication of the intervening wide ore body. The stopes west of the adit were narrow, the ore being a foot or less in width although of high grade.

Hardly any ore remains in sight, although a few tons could still be underhanded beneath the level and stopes. The raise at the east end of the workings has some ore in the roof; so there may be ore in the 50 feet of unexplored ground up to the surface. The largest block of potential ore is in the vein segment beyond the west face of the 7,066-foot level, beneath the upper adit. All told, perhaps 1,000 tons of 1 to 2 percent ore might be found in these untested blocks with very little additional exploration.

Tony prospect

The Tony prospect is explored by a 225-foot adit, a raise to the surface, and several surface pits. The vein strikes north and dips east, and is in this respect unique among the tungsten-bearing veins of the district. The vein outcrop extends for nearly 200 feet along the strike; Continuations of the same vein-fault to the north and south contain no quartz or scheelite, although calcite filling, common to post-mineral faults of the district, is present. Scheelite mineralization for widths of 1 to 3 feet extends for about 100 feet on the surface, but no comparable mineralization is present in the adit. The scheelite is extremely fine-grained. Only 32.5 units of WO_3 was recovered from 159 tons of ore milled in 1941, a yield of about 0.2 percent. No commercial ore is now exposed, and only a few tons that contain 0.2 to 0.5 percent are visible.

Two narrow veins on Tony No. 2 claim west of the section corner contain a few crystals of coarse scheelite, but the exposures are not encouraging enough to warrant exploration.

RESERVES

The mines of the Minerva district rarely have more than a few tons of measured ore, and seldom have more than a few thousand tons of indicated ore. As in many other tungsten mines, indicated, not measured, ore is mined. Consequently, an estimate of ore reserves must be primarily an interpretation of unexplored areas based on past experience. The writer believes that the total reached in the following tabulation is conservative, and less than the expectable future production of the district. Individual blocks inferred, however, may vary materially from the estimate given.

The structural complexity of the ore bodies necessitates considerable dead work in exploration. Development in the mines has never been far enough ahead to permit continuous milling at capacity. In the 6 years from 1938 to 1943, the tonnage produced annually ranged from 10,160 to 19,867, and

never approached the mill capacity of 27,000 tons. The added mining and milling cost involved in operating at capacity would be slight, and the net profit from such operation would be much greater.

Under operating conditions in 1943, the grade of ore mined (yield of 0.54 percent of WO_3) was the minimum that could be handled profitably at a market price of $30 a unit. Ore that would mill out at 0.75 percent (the average yield from past production) presumably could have been worked at $21.00 a unit. The cost of production in both instances could be reduced substantially by operating the mines at capacity.

The district reserves are summarized by mines in table 2. The reserve figures are broken down into blocks within individual mines in table 3. The only measured ore is blocked out in the east workings of the Chief mine by a winze, sublevel, and raise. The indicated ore is in blocks that have been tested by drill holes or partially explored by drifts and raises. The inferred ore, which constitutes the bulk of the reserve, is inferred largely on geologic evidence as to continuity of ore shoots. Estimates of grade are based mainly on the yield from ore mined in the past.

In addition to the estimates enumerated, it is expected that future prospecting will discover other ore bodies in the Oriole vein, unexplored for 2,600 feet east of the Oriole mine, and in the Chief vein, which extends at least 400 feet east of the Silver Bell shaft. Although these areas have not yet been tested by drilling or underground workings, they probably contain ore bodies similar to those mined elsewhere in the veins, where production has amounted to about 23 tons per foot of vein explored along the strike. This additional tonnage might be on the order of 70,000 tons averaging 0.3 percent of WO_3.

Table 2. Summary by veins of ore reserves in the Minerva district.

Table 3. Reserves within mines of the Minerva district, distributed into ore blocks.

Table 2. Summary, by mines, of ore reserves in the Minerva district. December 1, 1943.

Ore commercial under present conditions

Grade 0.5 percent WO_3 or higher

	Measurable		Indicated		Inferred*		Inferred**	
	Tons	Units	Tons	Units	Tons	Units	Tons	Units
Scheelite Chief***	1,200	900	6,200	4,590	17,000	12,000		
Silver Bell***			4,540	4,540	18,300	15,975		
East Everit			4,400	2,200	2,400	1,920	15,000	11,100
West Everit					1,200	1,200		
Lone Buck			200	375				
Canary Yellow			400	400	600	600		
Hilltop					1,000	1,000		
	1,200	900	15,760	12,105	40,500	32,695	15,000	11,100

Ore marginal under present conditions

Grade less than 0.5 percent WO_3

	Indicated	
	Tons	Units
East Everit	5,200	2,080
Oriole	3,800	1,520
	9,000	3,600

* Inferred with reasonable assurance on basis of nearby workings.

** Inferred by geologic reasoning, unconfirmed by workings in the immediate vicinity.

*** Reserves partially depleted between December 1, 1943 (the date of this estimate) and May 1945. Most of the ore mined in this period was from the Silver Bell mine, some from the Scheelite Chief mine.

Table 3. Reserves within mines of the Minerva district, distributed into ore blocks. December 1, 1943*

Location		Width	Measurable ore			Indicated ore			Inferred ore		
Mine	Block	in feet	Tons	% WO_3	Units WO_3	Tons	% WO_3	Units WO_3	Tons	% WO_3	Units WO_3
Scheelite Chief*	C-6	3	..	..	..	1,200	0.7	840	..	..	..
	C-7	3	..	..	..	..	..	..	400	0.6	960
	C-8	2.5	..	..	..	..	..	..	300	0.8	240
	C-9	4	1,200	0.75	900	..	..	..	..	..	..
	C-10	3-7	..	..	..	5,000	0.75	3,750	..	..	..
	C-11	5	..	..	..	..	..	..	16,000	0.7	11,200
			1,200		900	6,000		4,590	17,000		12,000
Silver Doll*	C-1	6.5	..	..	..	3,500	1.0	3,500	..	..	..
	C-2	4	..	..	..	1,040	1.0	1,040	..	..	..
	C-3	6.5	..	..	..	..	..	..	9,000	1.0	9,000
	C-4	5	..	..	..	..	..	..	9,300	0.75	6,975
						4,540		4,540	18,300		15,975
Oriole	C-1	2.5	..	..	..	1,000	0.4	400	..	..	..
	C-2	2.5	..	..	..	2,800	0.4	1,120	..	..	..
						3,800		1,520			
West Everit	E-7	3	..	..	..	..	..	..	1,200	1.0	1,200
East Everit	E-1	5	..	..	..	..	..	..	3,000	1.5	1,500**
	E-2	5	..	..	..	4,400	0.5	2,200	..	..	..
	E-3	5	..	..	..	1,800	0.4	720	..	..	..
	E-4	5	..	..	..	3,400	0.4	1,360	..	..	..
	E-5	5	..	..	..	..	..	..	2,400	0.5	1,200
	E-6	5	..	..	..	..	..	..	12,000	0.8	9,600**
						9,600		4,280	17,600		13,500
Lone Buck		1.8	..	..	..	220	1.74	375	..	..	..
Canary Yellow		2.0	..	..	..	400	1.0	400	..	..	..
		1.5	..	..	..	..	..	..	600	1.0	600
Hilltop		1.5	..	..	..	..	..	..	1,000	1.0	1,000

* Reserves partially depleted between December 1, 1943 (the date of this estimate) and May 1945. Most of the ore mined in this period was from the Silver Doll mine, some from the Scheelite Chief mine.

** Inferred by geologic reasoning, unconfirmed by workings in the immediate vicinity.

THIS AGREEMENT made and entered into this 26 day of January, 1952, by and between [illegible] and MARTHA E. ALLEN, parties of the first part, hereinafter referred to as "lessors", and [illegible] Utah Corporation, qualified in the State of Nevada, parties of the second part, hereinafter referred to as "lessee";

WITNESSETH

[illegible]

The property subject of this agreement is situated in Minerva Mining District, County of White Pine, State of Nevada, and consists of the following named unpatented and patented lode mining claims, to-wit:

Name of Claim	Book and Page of Records County Recorder's Office, White Pine County, Nevada	
Scheelode No. 3	123	3[illegible]
Scheelode No. 6	[illegible]	[illegible]
Chief Extension No. 1	123	378
Chief Extension	123	[illegible]
Scheelode No. 7	123	[illegible]
Scheelode No. 6	123	[illegible]
Scheelode No. 5	123	[illegible]
Scheelode No. 1	123	345
Scheelode No. 2	[illegible]	[illegible]
Scheelode No.	126	[illegible]
Scheelode No. 10	126	154
Scheelode No. 11	[illegible]	155
Scheelode No. 12	[illegible]	156
Scheelode No. 13	128	[illegible]
Scheelode No. 17	128	[illegible]
Scheelode No. [illegible]	128	[illegible]
Scheelode No. 15	128	[illegible]
Scheelode No. 16	128	[illegible]
Scheelode No. 15	[illegible]	[illegible]
Scheelode No. 14	[illegible]	[illegible]
Oriole No. 3	123	[illegible]
Oriole No. 4	[illegible]	[illegible]
Oriole Fraction	[illegible]	[illegible]
Oriole No. 5	123	[illegible]
Everit No.	[illegible]	[illegible]
Everit No. [illegible]	[illegible]	[illegible]
Everit No. [illegible]	[illegible]	[illegible]
Everit Extension	[illegible]	[illegible]
Extension No. 1	123	[illegible]
Extension No. 2	123	[illegible]
Extension No. 3	[illegible]	[illegible]
Lone Rock	[illegible]	[illegible]
Lone Rock No. 1	[illegible]	[illegible]
Giant	[illegible]	[illegible]
Giant No. 1	[illegible]	[illegible]

Name of Claim	Book and Page of Mineral County Recorder's Office, White Pine County, Nevada	
Diana No. 2	128	485
Diana No. 1	128	482
Diana No. 4	128	486
Diana No. 5	128	487
Everit No. 7	128	204
Silver Bell	96	275 ✓
Silver Bell No. 1	96	277 ✓
Pot Ole	128	376
Pot Ole No. 1	128	377 ✓
Big Button	109	184
Button Section	134	205
[illegible]	134	207 ✓
Silver Bell No. 2	134	[illegible]
Silver Bell No. 3	134	223
Everit [illegible] No. 4487	107	93 to 95
Everit No. 4 " No. 4487	107	93 to 95
Everit No. 3 " No. 4487	107	93 to 95
Everit No. 1 " No. [illegible]	107	[illegible]
Diana No. 3 " No. [illegible]	107	[illegible]
Diana No. 2 " No. [illegible]	107	[illegible]
Indian Chief " No. 4475-A	107	95 to 97
Everit Willett " No. 4475-A	107	95 to 97

[illegible] have a lease and option agreement from the Trustees of Dangerous [illegible] Corporation describing the above named claims and other property, Lessors desire to make arrangements to exercise their option and acquire title to the properties therein described.

Now, therefore, in consideration of the premises and of the sum of Ten Thousand Dollars paid by Lessee to Lessors, receipt whereof is hereby acknowledged, and of the terms, conditions and covenants herein stated to be kept and performed by the parties respectively, it is agreed:

1. Lessors hereby sell to Lessee the option to lease, on the terms and conditions hereinafter stated the hereinbefore described lode mining claims, the subject of this agreement.

(a) Within thirty days after the date hereof Lessors will furnish to Lessee the opinion of competent counsel as to [illegible] claims and any step of the steps necessary to give Lessee to exercise the option and complete the purchase [illegible] Lessee [illegible] option

agreement. Within sixty days from the date hereof if lessee is satisfied with the title [illegible] by lessors and if lessee then decides to exercise the foregoing option, it will pay to the [illegible] of the lessors, [illegible] the sum of seventy [illegible] ($76,000.00) dollars, with interest as to said sum [illegible] such thereof as may be necessary to the success of lessee's corporation to complete the purchase contemplated by lessors' option agreement and obtain deed for the remaining twenty percentum, [illegible] balance to lessors.

[illegible] During the option period lessee shall have rights of entry into and upon said property for examination, surveying and sampling purposes.

c. Notwithstanding the exercise of the option by lessee [illegible] without further notice by [illegible] other lessors, the hereinafter stated provisions of lease from lessors to lessee shall be effective.

[illegible] lessors do hereby demise, lease and let unto said lessee the property subject to this [illegible] as above described, to have and to hold with [illegible] for a term of twenty-five years from the [illegible] hereof, unless sooner terminated or [illegible] as herein provided, however, the lessors [illegible] portion of the [illegible] claim, [illegible] No. 44[illegible]-A, but only from actual [illegible] boundary line running through the mine on the main level parallel to the [illegible] line of said claim [illegible], however, that the lease shall have an case-[illegible] over, [illegible] upon [illegible] prior for all [illegible] in [illegible] under this lease.

[illegible] will go into possession of said property and will so [illegible] for the [illegible] on an average of [illegible] than fifty [illegible] per

month, provided that labor performed in any month in excess of the said minimum requirement may be applied to satisfy the minimum in any subsequent month; and provided further that at all events Lessee shall each year do and perform annual assessment work required by Federal law to prevent forfeiture of said claims or any thereof; said assessment work to be completed and proof of labor made and filed by Lessee in the office of the County Recorder of White Pine County, Nevada, on or prior to the first day of June in each year.

5. All work to be done by Lessee shall be done in good minerlike fashion, properly securing the ground wherever necessary and with a view to the preservation of said property for future mining operations.

6. All ores mined by Lessee under this agreement shall be sold by Lessee on the best corporative terms obtainable by either party, or at Lessee's option may be treated by Lessee in its own treatment plants; provided, however, that if Lessee takes any ore for treatment other than tungsten ore, it will purchase it on terms no less favorable to Lessors than the best bona fide terms of sale obtainable by Lessors and submitted to Lessee for material of the same general character, and in the case of tungsten ores taken and treated by Lessee the "gross" value shall be calculated by multiplying the WO_3 content of the crude ore, less 0.2% (4 units per ton), by the average price per unit of WO_3 quoted by the Engineering and Mining Journal, less $2.00 per unit, for the month in which the ore is delivered to Lessee's plant for the WO_3 contained in domestic scheelite concentrate, U.S.P. specifications containing 60% WO_3.

9. Lessee shall pay to Lessors royalty on the "net mine value" hereinafter defined of all ores produced and marketed or purchased or treated by Lessee calculated at percentages set forth below, based on the U.S.P. Consumers Price Index

for moderate income families in large cities (adjusted varies to 186.6.

(a) For ores with "net mine value" of $45.00 per ton or more the royalty shall be ten percent (10%).

(b) For ores with "net mine value" of $20.00 or less the royalty shall be five percent (5%).

(c) For ores with "net mine value" greater than $20.00 and less than $45.00 the royalty shall be five percent (5%) plus an additional percentage resulting from multiplying five percent (5%) by the quotient obtained by dividing the amount by which the actual "net mine value" exceeds $20.00 by $25.00.

For example,

Assume net mine value of $32.50 -

Royalty would be 5% plus 5% $\frac{12.50}{25.00}$ = 7.5%

8. The "net mine values" set out in the above paragraph determining the percentage of royalty shall vary up or down as the W.P.S. Index varies above or below 186.6.

"Net mine value" of ores shall mean the gross returns paid by the purchaser of the ore less treatment, transportation (including transportation taxes), sampling and smelting charges, except in case of tungsten ore treated by the issuer the "net mine value" shall be the "gross value" arrived at as specified above less transportation costs (including transportation taxes) from the mine to the Casalton mill and treatment charge of $8.00 per ton of crude ore, based on present shift rate of mill operator at Casalton, namely $14.27, and said treatment charge shall vary at the rate of ten cents per ton for each $1.00 per shift up or down variation in the rate of mill operator above or below $14.27.

9. Royalty shall be due and payable to Lessors within sixty days after sale of crude oil, and within sixty days after delivery to Lessee for transportation by Lessee, the $74,000.00 presently and heretofore paid by Lessee to Lessors shall represent and be advanced royalty and until the earned royalties as hereinabove defined amount to the sum of $140,000.00, Lessee shall pay to Lessors one-half thereof and take credit for the remaining one-half against the advance royalty of $74,000.00.

10. Lessee shall be solely responsible for all labor, materials, supplies and equipment furnished for its operations, and shall keep the demised premises free and clear of encumbrances and mechanic's liens.

11. Lessee will indemnify and save harmless Lessors of and from all its liability, cost and expense that may arise out of damage or injury to persons or property occurring in the operations of Lessee under this agreement, but Lessee shall be notified of the commencement of any suit and shall have the right to defend the same.

12. Lessors will execute and furnish to Lessee notices of non-liability of Lessors and Lessee will post and keep posted on the demised premises the said notices and will file duplicate original of such notice with affidavit attached thereto showing such posting of the original notices, all in accordance with Section 3743, N.C.L., 1929.

13. Lessee will also comply with all the laws, rules and regulations of the State of Nevada and of the United States affecting the operations, all at its own expense.

14. During the life of this agreement Lessee will pay all property taxes levied upon the demised premises and provide evidence for exemption from tax payment as provided by Nevada laws. Oil taxes based upon production shall be prorated

and said by Lessors and Lessee in proportion to their respective interests.

15. Lessors or their agents may at all reasonable times enter upon and into the leased premises for the purpose of inspecting, surveying and sampling.

16. Upon termination of this agreement in any manner Lessee shall have the right of removal of all equipment, machinery, tools and supplies placed on the leased premises by it, such right of removal to be exercised within ninety days after such termination, but no trees or timbering shall be removed.

17. In the event said Lessee applies to the Federal Government for financial assistance in connection with Lessee's operations hereunder, Lessors will assist and cooperate with said Lessee by executing any and all instruments necessary thereunto or required by Regulation No-5, dated April 6, 1951, and promulgated by Defense Minerals Administration of United States Department of the Interior, or a similar government assistance program that mortgages only the ore for a period not to exceed ten (10) years.

18. Lessee may relinquish its rights under this agreement by serving upon Lessors a thirty day written notice of its intention so to do and returning the leased premises to Lessors and paying to Lessors all accrued obligations for royalty. Thereafter Lessee shall have no further liability under this contract.

19. Time is of the essence of this agreement and if Lessee fails to keep and perform the conditions herein stated to be by it kept and performed, then at the option of Lessors this agreement may be terminated, provided that Lessors shall first serve upon Lessee a thirty day written notice setting forth the default or omission complained of, and if such default or omission is not remedied or is not in the process of being remedied within

said period, then this agreement shall become null and void; and in such event Lessors shall retain as liquidated damages all rentals theretofore paid to Lessor.

20. Commencement of this contract by lessee is excused so far as caused by act of God, war, accident, fire, unavailability of labor or materials, or acts of the public authorities.

21. This agreement shall in all things be binding upon and inure to the benefit of the parties hereto and their respective successors, assigns and personal representatives.

IN WITNESS WHEREOF the said parties hereto have caused this instrument to be duly executed this the day and year first above written.

Robert F. Stopper

Edward G. Stopper

Martha P. Allen

COMMERCIAL WHITE SPRINGS COMPANY

By P. F. Stopper
President

ATTEST:

M. Gustafson
Secretary

State of Nevada, }
County of White Pine. } ss.

On this 12 day of January, 1972, personally appeared before me, a Notary Public in and for said County and State, ROBERT F. STOPPER, known to me to be the person described in and who executed the foregoing instrument, who acknowledged

to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Mary Taylor
Notary Public

My Commission Expires: 4/7/53

State of California }
County of Los Angeles } ss.

On this 10 day of January, 1952, personally appeared before me, a Notary Public in and for said County and State, EDWARD G. BOSTON, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Alma R. Webb
Notary Public

My Commission Expires:

State of California }
County of Los Angeles } ss.

On this 10th day of January, 1952, personally appeared before me, a Notary Public in and for said County and State, MARTA F. ALBA, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that she executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Alma R. Webb
Notary Public

My Commission Expires:

State of Utah }
County of Salt Lake } ss.

On this 26th day of January, 1952, personally appeared before me, a Notary Public in and for said County and State, C. J. Snyder, known to me to be the President of the corporation that executed the foregoing Instrument, and upon oath did depose that he is the officer of said corporation as above described; that he is acquainted with the seal of said corporation, and that the seal affixed to said instrument is the corporate seal of said corporation; that the signatures to said instrument were made by the officers of said corporation as indicated after said signatures, and that the said corporation executed the said instrument freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS THEREOF, I have hereunto set my hand and affixed my official seal the day and year last abo e written.

Notary Public

My Commission Expires:

(10 and 1ncl)

dited

Certified 7.18.55

W ANALYSIS SHEET - DMEA PROJECT

Analysis as of 4/5/55
Incl. Voucher for Dec. 1954

M.I.A. MINES COMPANY

e NEVADA

Commodity Tungsten

☒ Actual Cost

☒ Agreed Unit Costs

Docket No. DMEA 2688

Idm-E No. 481

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting			2.698.7	97,257.01	97,257.01
Raising			348.5	19,697.18	19,697.18
Shafts					
Winzes					
Drilling (Specify) CHURN			1,340.0	6,700.00	6,700.00
Drilling (Specify) DIAMOND			1,606.8	6,922.77	6,922.77
Surface Excavation					
Underground Excavation					
Roads and Trails				2,945.12	2,945.12
Operating Equipment ~~Purchased~~ RENTAL - DEPR.				4,887.24	4,337.90
Surface Rehabilitation & Repairs					
Underground Rehabilitation				8,531.57	8,531.57
New Building, Improvements, etc.				2,894.00	2,894.00
Other (Specify) ACCT. ANALYSIS. TRANSP. SUPERVISION				17,028.74	16,227.12
Totals				166,833.63	165,512.67

104-A. DEC. 1954
PROJECT COMPLETED

AUDIT APRIL 26, 55.

Prepared by DLC

Final Sheet

☐ Audited

☐ Certified

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of 12/23/54
Incl. Voucher for Sept. 1954

☒ Actual Cost

☐ Agreed Unit Costs

Name M. I. A. MINES COMPANY

Docket No. DMEA-268

State NEVADA

Commodity TUNGSTEN

Idm-E No. 481

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	2,027.3	91,355.73	2,698.7 ~~2,271.2~~	97,257.01 ~~90,574.48~~	
Raising	290.0	14,707.42	348.5 ~~289.5~~	19,697.18 ~~19,405.30~~	
Shafts					
Winzes					
Drilling (Specify) CHURN	1,340'	10,960.52	1,340.0	6,700.00 ~~9,373.54~~	
Drilling (Specify) DIAMOND	2,009.5'	18,074.04	1,606.8 ~~1,237.3~~	4,922.77 ~~5,586.51~~	
Surface Excavation					
Underground Excavation		818.31			
Roads and Trails		979.53		3,241.32	
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation		10,574.00		8,531.57 ~~9,396.40~~	
New Building, Improvements, etc.		3,350.00		3,184.79	
Other (Specify) ACCOUNTING ANALYSIS TRANSPORTATION ROAD MAINTENANCE, HAULING		20,640.45		9,202.29	
Totals		171,400.00		147,938.63	

104 & 104A SEPTEMBER 1954

WORK COMPLETED.

Prepared by RLC

Preliminary sheet

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
555 Battery Street
San Francisco 11, California

May 21, 1963

OFFICIAL FILE COPY
O. M. E.
RECEIVED MAY 27 1963

DATE		
5/27	409	800
		120
	Received	500
		220

Memorandum

To: Chief, Division of Field Operations, OME, Washington, D. C.

From: Acting Field Officer, OME, Region II

Subject: Docket No. 2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to your memorandum of November 30, 1962, requesting report of final field expiration inspection on the subject property.

A visit was made to the Minerva Tungsten Mine on May 10, 1963, to obtain information about the mine. The property is inactive, and as far as is known, there were no production during 1961, 1962, or 1963. It is owned by Combined Metals Reduction Co.

The fixtures and machinery from the five buildings on the property have been removed several years ago. A churn drill is on the property and is operated once a year to validate their assessment work.

Their primary objective in their drilling is to test the limestone beddings in the Pioche district.

Miss Augusta Nealon
For: Paul V. Fillo

CC:

Chief, Division of Field Operations, OME, Washington, D. C.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Furnish	500
4/10	Talbot	800
	Lefgren	120
4/11	Johnson	110
4/4	Fumich	100
		220

APR 11 1963

M. I. A. Mines Company
P. O. Box 130
Salt Lake City, Utah

Re: DMEA-2488 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Amended Contract Ldm-2481

Gentlemen:

By the terms of the subject Amended Exploration Project Contract, as amended, and the certification of discovery or development dated July 18, 1955, all minerals mined or produced from January 27, 1953, to January 27, 1963, were subject to the Government's royalty as set forth in said amended 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

MMerrithew/mm
4/10/63
cc: Director's Reading File
Region II (2) w/ copy of Form 63 to Combined Metals Reduction Company dated 3/25/63
CA&A Division
Docket
Code 500
Robert F. Stopper, Shoshone Post Office, Via Ely, White Pine Co.,Nev.
Edward G. Stopper, c/o Robert F. Stopper
Martha R. Allen, " " "

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
	Arnold	500
4/10	Talbot	800
	Selbridge	120
4/11	Johnson	110
4/11	Furnich	100
		220

APR 11 1963

Mr. Robert F. Stopper
Shoshone Post Office
Via Ely, White Pine County
Nevada

Re: DMEA-2683 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Amended Contract Idm-2481

Dear Mr. Stopper:

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

This correspondence relates to the Owner's Consent to Lien form executed by you under the Defense Minerals Exploration Administration program.

Sincerely yours,

George Furnich, Jr.

Director

Enclosure

MMerrithew/mm
4/10/63
cc: Director's Reading File
Region II (2)
Docket
Code 500

Identical letter also mailed to:
Martha R. Allen
Edward G. Stopper

8623

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

March 25, 1963

Re: DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Combined Metals Reduction Company
P. O. Box 150
Salt Lake City, Utah

Gentlemen:

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 on this we shall be able to release the Government lien against production from the property in question.

Sincerely yours,

W. R. Griswold, Chief
Division of Minerals

OFFICIAL FILE COPY
O. M. E
RECEIVED APR 5 1963

DATE		
4/5		8.00
4-5		100
4/5		110
	Griswold	500

Royalty expired 11/27/63

MME Form 63
Revised 3-62

DMEA-2688
Idm-E481

REQUEST FOR INFORMATION ON CERTIFIED PROJECT AND PROJECT UNDER ROYALTY AGREEMENT

1. From August 2, 1962, to January 27, 1963, ~~Since~~ was ~~xxxxx~~ 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 ☑

2. From August 2, 1962, to January 27, 1963, ~~Since~~ was ~~xxxxx~~ there ~~been~~ any production from the land subject to the contract? Yes ☐ No ☑

   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 ☐

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

Disposition of Material	Quantity	Value

Submitted by:

Name [signature] Title Secy-Treas

COMBINED METALS REDUCTION CO.

Address P. O. Box 150
SALT LAKE CITY, UTAH

Date APR 1 1963

4511

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

555 Battery Street
San Francisco 11, California

OFFICIAL FILE COPY
O. M. E
RECEIVED DEC 12 1961

DATE	INITIALS	CODE
12/12	[illegible]	800
		~~500~~
	glm	~~500~~
		220

December 7, 1961

Memorandum

To: Mr. E. D. Talbert, Acting Chief,
Contract Administration and Audit Division
Office of Minerals Exploration
Department of the Interior
Washington 25, D. C.

From: Acting Field Officer, OME, Region 11

Subject: DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Amended Contract Idm-E 481

Pursuant to your request of November 28, 1961, we enclose the original and one copy of the Check Sheet of the Examining Engineer on Form 22, on the subject property, dated December 7, 1961.

George H. Holmes, Jr.

George H. Holmes, Jr.

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

DEC 13 1961

Memorandum

To: Acting Field Officer, Region II

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

Subject: DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

The original and two copies 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.;
(b) One copy for the Operator; and
(c) One copy for your files.

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

Enclosures

EDTalbert/ama 12-13-61

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

43683

MME Form 7
(10-58)

OFFICIAL FILE COPY

Date	Surname	Code
		220

NOV 28 1961

Memorandum

To: Acting Field Officer, Region II

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

Subject: DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Amended Contract Idm-8481

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, except for annual assessment work, since May 1956. If this is so, please confirm by an appropriate statement under item 8 of MME Form 22.

EDTalbert/ama 11-28-61

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

43683

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
555 Battery Street
San Francisco 11, California

OFFICIAL FILE COPY O. M. E. RECEIVED DEC 7 1959		
DATE	INITIALS	CODE
12-7	gad	220
"	[illegible]	110
"	C.E.B.	800
12-8	~~Hoch~~ Smith	500
		225

December 3, 1959

Memorandum

To: Operating Committee, OME, Washington, D. C.

From: Executive Officer, OME Field Team, Region II

Subject: Interim Inspection Report Cofd Projects

Attached are four copies of Interim Report on

Docket No. 2688 MIA Mines

Contract No. Idm-E 481

Commodity Tungsten

Operator Combined Reduction Co. and American Zinc

Property Minerva Tungsten Mine, White Pine County, Nevada

By H. K. Stager, U.S.G.S.

Dated November 17, 1959

W. F. Dietrich

W. F. Dietrich
Executive Officer
OME Field Team, Region II

Attachments

Copy to: H. K. Stager, U.S.G.S.
A. C. Johnson, Reno, Nevada
Finance Officer, Region II
File

Annual Report of Certificate of Project Grandfather

OFFICIAL FILE COPY
O. M. E.
RECEIVED DEC 7 1959

DATE	INITIALS	CODE

Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California

Memorandum December 1, 1959

To: W. F. Dietrich, Executive Officer, OME Field Team, Region II

From: H. K. Stager, U. S. Geological Survey

Subject: Exploration drilling at the Minerva Tungsten Mine, DMEA-2688, Contract Idm-E481, White Pine County, Nevada

On November 17, 1959, while in Ely, Nevada on other DMEA business, I was informed of activity at the Minerva Tungsten mine and inasmuch as this is a certified project I made an inspection trip to the property.

Except for annual assessment work the mine has been idle since May 1956 and no ore has been mined or sold. The assessment work for this year consists of a ten-inch diameter, vertical, churn-drill hole that is being drilled in the canyon several hundred feet northeast of the mine camp. The hole is being drilled by Combined Metals Reduction Company and American Zinc. Mr. M. J. Fullerton, of Combined Metals Reduction Company, is the driller. At the time of the inspection the hole was 400 feet deep. Except for a five foot thick quartz vein cut at about 100 feet the entire hole is in gray "St. Lawrence" limestone. The target of the drilling is the CM limestone bed in the Pioche shale near the intersection of the Scheelite Chief vein. The Operators are interested in the possible occurrence of a beryllium ore body similar to that at the Mt. Wheeler mine (10 miles to the north) or a lead-zinc replacement ore body of the Pioche type. Estimated depth to the CM

limestone bed in this area is about 1,000 to 1,200 feet. The driller did not believe that the Operators plan to drill the entire hole this year but would complete about 500 feet and then leave the drill idle, on the hole, through the winter and finish drilling it in the spring or summer of 1960.

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

AUG - 7 1956

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Royalty Audit
M. I. A. Mines Company
Contract No. Idm-F481
Docket No. DMEA-2688

Dear Mr. Mavor:

Receipt is acknowledged of your Third Royalty Audit Certificate and Report covering the above-cited project.

The report is acceptable and normal distribution may be effected.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
August 6, 1956

Copy to: Docket
Admr. Reading File
Mr. Chambers

DOCKET
SURNAME

400

Selfridge

MAY 1 8 1956

Mr. Spangler Richer, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-2481

Dear Mr. Richer:

Reference is made to your memorandum of April 27, 1956, and a related memorandum of the same date from Glenn G. Gentry in answer to our letter of April 20, 1956, regarding royalty payments at the subject project. We agree with the recommendation, in the last paragraph of your memorandum, for more frequent field audits made by the auditor accompanied by the inspecting engineer.

We agree with you that the captioned contract does not authorize the Government to direct that the Operator produce, or sell to a specified buyer. However, article 8(d) confers certain rights on the Government with respect to "Unsold products", and article 8(h) requires that the Government be furnished copies of the settlement sheets. In connection with the exercise of these rights, it is appropriate for the Government to review the settlement sheets and ask reasonable questions about them.

The M.I.A. property is being mined by an Operator with an excellent background of mining experience, and this particular operation is a relatively small one for it, but we have enough similar projects to justify evaluating this one in more than a routine way.

Without going into an item-by-item discussion of Mr. Gentry's memorandum, we should mention the possibility that the sorted ore discarded at the mine or at the mill may have recoverable value in the future. If Stopper installs a sink-float plant the cut-off grade will be affected.

R.G.S.

For an operation of the present type we would be interested in knowing:

1. Tons mined, with sample grade

2. Tons discarded from hand sorting, with sample grade

3. Tons milled

4. Tons tailings, with sample grade.

We would also appreciate having a few examples of mill records covering milling of ore lots in which DMEA had an interest.

Our question concerning the mixing of concentrates was brought up by Lot No. 10 (Shippers Lots. No. 1-119 and 1-109) whereof 45 percent paid royalty to DMEA.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SLB)

J.L. Chapman
ABMcMahon/fec / 5/15/56

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

APPROVED:

/s/ Robert W. Geehan (SLB)

Member, Bureau of Mines

Thor H. Kiilsgaard (SLB)

Member, Geological Survey

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

Air Mail

1605 Evans Avenue
Reno, Nevada

April 27, 1956

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

RECEIVED
APR 30 1956

Attached are two copies of a memorandum by Glenn G. Gentry made as a result of your letter of April 20, 1956 regarding royalties on subject contract.

It would seem that the problems involved are principally based on the assumption that one tailing sample taken over a short period of time may be representative of the total DMEA ore tails that have been todate discharged to the dump. To clarify this, we can have the dump sampled the next time Mr. Gentry visits the project.

We do not know of any reason why the concentrates must be shipped by the operator to any certain buyer, but we do not believe that the contract gives the Government authority to arbitrarily compel the operator where to ship his product. We would appreciate having your suggestions on this point or any of the other questions.

I believe most problems of this kind can be resolved by more frequent on site audits by the auditor in company with one of our inspecting engineers'.

S. Ricker

Attach.

BUREAU OF MINES
WASHINGTON, D. C.

APR 30 9 32 AM '56

S. Ricker, Executive Officer, DMEA Field Team, Region II

April 27, 1956

Glenn G. Gentry, Mining Engineer, Region II, DMEA

Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

1. This office has no detailed data on the tonnage and WO_3 content of each lot of ore put through the Stopper mill. The Operator takes car samples and has a record of daily production of crude ore, which then passes over a sorting belt before final tonnage is shipped to the mill. A tonnage estimate of heads is made by mill operator from belt samples, but we have never been furnished this data.

2. Only one sample of tailings was secured on December 13, 1955 from the tailing discharge at that particular time. As no head sample was taken, it is not possible to determine the exact recovery. It will be necessary to pipe sample the tailing pond in order to secure a general average of the WO_3 content. The Operator's plans for the retreatment of these mill tailings are unknown. As a matter of information, these tailings are stockpiled on ground owned or controlled by Robert Stopper and his associates.

3. Mr. Stopper has generally considered his WO_3 recovery to average between 70 and 80 percent. Additional details can be secured from the Operator and from the mill records.

RECEIVED
APR 30 1956

4. To the best of my knowledge, the Operator sells to the best obtainable market. Some zinc and lead minerals are present, and these are penalized. (See copy of Purchase by C. W. Jones, dated 3/18/5[illegible] attached to report by George W. Mayor, dated 12/15/55)

5. I understand that scheelite concentrate produced from Minerva mine crude ore is kept separate from other ores processed by Mr. Stopper.

Crude ores from the Minerva mine and the Stopper property are milled separately, and the resulting concentrates are separate shipments.

On March 30, 1956, this office was advised that concentrate shipments were now being made to the Minerals Engineering Company, Salt Lake City, Utah, as Mr. C. W. Jones of Bishop, California had discontinued purchasing such concentrate.

Glenn G. Gentry

Glenn G. Gentry

DOCKET
SURNAME
400 Chapman
Martin
Chambers
Selfridge
Fleming
Mittenbergy

APR 2 0 1956

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Ricker:

Reference is made to the Interim Report of April 16, 1956, on the above noted project, by Glenn G. Gentry, Mining Engineer, which raises the following questions regarding the operation and royalty settlements:

1. It would assist us in reviewing returns if we could have data on the tonnage and WO_3 content of each lot of ore shipped to the Stopper mill.

2. The analysis provided by Mr. Gentry indicates that the tailings will run about 0.25 percent WO_3, but possibly the Operator plans to retreat this comparatively high grade product.

3. If the ore averages 0.60 to 0.75 percent WO_3, with the above tailings the recovery is between 58 and 66 percent, which appears to us to be somewhat low.

4. Please advise us whether the concentrates must be shipped to a buyer at a lower base price ($61.25) and cannot be sold to the Government by the Operators at the mill for $63.00 per unit.

5. We note that some shipments of concentrates have been mixed with other concentrates from the Stopper mill. We believe this practice might be questioned and should be avoided if possible.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JB)

APPROVED:

/s/ Robert W. Geehan (JB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JB)
Member, Geological Survey

P. S. May we have your comments.

RGS

TLCHAPMAN:foc 4-16-56
cc to: Docket
Code 400
Admr. Read. File

cc to: Oper. Comm.
FT. REG. II
R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

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

DEC 21 1955

Mr. George Mayer
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-E409, DMEA-2482
Raymond-Combined Mines Co.
and
Idm-E481, DMEA-2688
M.I.A. Mines Company
Royalty Audits

Dear George:

Receipt is acknowledged of your letter dated December 15, 1955, in which you furnished the information regarding the above-cited projects as requested in my letter of November 29, 1955.

In view of the above you are advised that the royalty audits covering these two contracts are acceptable and normal distribution may be effected.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

AMAlley/ama
December 21, 1955

Copy to: Docket - DMEA-2482
Docket - DMEA-2688
Admr. Reading File
Mr. Chambers

R.C.G.

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

Fisher

DEC 19 1955

Mr. George Mayer
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-E481, DMEA-2688
N.I.A. Mines Company
2nd Royalty Audit Report

Dear George:

Receipt is acknowledged of your letter dated December 13, 1955, with which you submitted rewritten page 5 applicable to Second Royalty Audit Report on the subject company.

The name of the company shown in the heading of the tabulation has been corrected by changing the word "Method" to "Metals" and the revised page has been placed in the copies of your audit report.

As previously advised acceptance of this report is being held in abeyance pending submission of the supplemental information as requested in the third paragraph of my letter of November 29, 1955, in reference to Contract No. Idm-E409, Docket No. DMEA-2482, Raymond-Combined Mines Company.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

CEFisher/wb
December 16, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.L.

Talbert

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

DEC -2 1955

Mr. George Mayer
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-E481, DMEA-2688
M. I. A. Mines Company

Dear Mr. Mayer:

Receipt is acknowledged of the Washington copies of your Second Royalty Audit Report and Certificate covering the referenced project.

Acceptance of this Report and Certificate is being held in abeyance pending submission of the supplemental information as requested in the third paragraph of my letter of November 29, 1955, in reference to Contract No. Idm-E409, Docket No. DMEA-2482, Raymond-Combined Mines Co.

There is, however, one point in this Audit Report which appears to require clarification. On page 4, the amount of $72,665.11 is shown for net sales of tungsten concentrates to C. W. Jones. This same figure also is stated on pages 6 and 7 as representing the value of concentrate sales. On page 5, however, in discussing the calculation of the royalty, the amount of $26,710.22 is shown for sales of concentrates.

Possibly this latter figure was used only as an illustration of the calculation and is an example of a single settlement sheet. If this is the case, a re-write of this page to clarify the point is suggested.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/ama
December 2, 1955

Copies to: Docket
Admr. Reading File
Mr. Chambers

IN REPLY REFER TO:

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

RECEIVED
SEP 28 1955

September 27, 1955

Re: DMEA 2688, Idm-E481
M.I.A. Mines Co.
Minerva Tungsten Mine
White Pine Co., Nevada
$165,512.67 - Tungsten

Memorandum

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

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

Subject: Review of Field Team Final Report.

The contract set up in January 1953 allowed for the expenditure of $171,400. Actual costs were $165,512.67. During the time the contract was in force (completed January 31, 1955) and up to June 30, 1955, production amounting to $104,939.70 (gross) was achieved, and operations were continuing. Royalty in the amount of $10,433.54 had been paid, or 8.45% of the amount accrued.

The examiners estimated the reserves, resulting from DMEA exploration as of January 31, 1955, to be:--

Classification	Tons	Est. % WO_3	Block No.
Measured Ore	250	0.80	C-22
Indicated "	5,060	0.75	C-23, C-26
Inferred "	7,380	0.75	C-20, C-21
Stockpiled at mine	600	0.40	C-24, C-25
Totals	13,290 tons at 0.735 = 13.290 x 14.70# = 195,363 lbs. or 9,768.1 units.		

The total production of the Scheelite Chief and Silver Bell mines is not given. The longitudinal section would suggest that the ore in the reserve blocks is roughly equal to that removed as shown by the stoped areas.

I concur with the recommendation of the examiners and the Field Team that a certificate of discovery be issued.

N. E. Nelson

N. E. Nelson

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

RECEIVED
JUL 25 1955

1605 Evans Avenue
Reno, Nevada

July 22, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Attached are copies of letters addressed to Edward G. Stopper, Robert F. Stopper and Mrs. Martha R. Allen relative to Certification of a Discovery or Development on above subject exploration contract. This is in accordance to your letter of July 19, 1955.

S. Ricker

Attach.

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

400

DOCKET SURNAME
Rutledge
Martin
Talbut
Nelson
Kilsgaard
Geehan
Johnson

Mailed in field.

INTERIOR DEPT.
JUL 12 1955

JUL 22 1955

SOLICITOR

Mr. Robert F. Stopper
Shoshone Post Office
Via Ely, White Pine County,
Nevada

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-2481 (Amended)

Dear Mr. Stopper:

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 M.I.A. Mines Company by Robert F. Stopper, Edward G. Stopper, and Martha R. Allen under a certain indenture dated January 26, 1952. Said property was also referred to in the "Owner's Consent to Lien" forms executed by the same lessors named above.

Also enclosed is a copy of our letter to M.I.A. Mines Company.

Sincerely yours,

C. O. Mittendorf
Administrator

FARutledge:fee
8-11-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. II
Messrs. Johnson - Code 110
Chambers - Code 800
Geehan, USBM
Holliday, USBM
Kiilsgaard, USGS

Enclosure

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

400 DOCKET SURNAME
Rutledge
Martin
Talbert
Nelson
Kulsgaard
Geehan
F. Johnson

Mailed in field.

JUL 22 1955

INTERIOR DEPT.
JUL 12 1955
SOLICITOR

Mrs. Martha R. Allen
c/o Robert F. Stopper
Shoshone Post Office
Via Ely, White Pine Co.,
Nevada

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-Eh81 (Amended)

Dear Mrs. Allen:

Transmitted herewith for your information is a copy of the certification fo 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 M.I.A. Mines by Robert F. Stopper, Edward G. Stopper, and Martha R. Allen under a certain indenture dated January 26, 1952.

Also enclosed is a copy of our letter to M.I.A. Mines Company.

Sincerely yours,

C. O. Mittenderf

Administrator

FARUTLEDGE:fec 7-11-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. II
Messrs. Johnson - Code 110
Chambers - Code 800
Geehan, USBM
Holliday - USBM
Kiilsgaard - USGS

Enclosure

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

DOCKET SURNAME

400 Rutledge
Martin
Talbert
Nelson
Kilsgaard
Geehan
Johnson

Mailed in field.

JUL 22 1955

~~JUL 19 1955~~

INTERIOR DEPT.
JUL 12 1955
SOLICITOR

Mr. Edward G. Stopper
c/o Robert F. Stopper
Shoshone Post Office
Via Ely, White Pine County,
Nevada

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-Eh81 (Amended)

Dear Mr. Stopper:

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 M.I.A. Mines Company by Robert F. Stopper, Edward G. Stopper, and Martha R. Allen under a certain indenture dated January 26, 1952. Said property was also referred to in the "Owner's Consent to Lien" forms executed by the same lessors named above.

Also enclosed is a copy of our letter to M.I.A. Mines Company.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:foc 7-11-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. II
Messrs. Geehan, USBM
Holliday, USBM
Kiilsgaard, USGS
Chambers - Code ~~110~~ 800
Johnson - Code 110

Enclosure

DOCKET:
Rutledge
Martin
Talbert
Nelson
Kilogaard
Clerk
Johnson

400

JUL 19 1955

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

INTERIOR DEPT.
JUL 12 1955
SOLICITOR

Re: Docket No. DMEA 2688-Tungsten
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-2481 (Amended)

Gentlemen:

Transmitted herewith is a certification of discovery or development issued under the amended contract dated January 27, 1953.

By the terms of the Exploration Project Contract, the Amended Exploration Project Contract, and of the certification, all production from the lands described in the amended contract, as amended, from the date of the Exploration Project Contract is subject to the Government's percentage royalty as set forth in the amended contract until the sum of $124,134.50 is paid or until January 27, 1963, whichever occurs first.

Payments should be made to Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada. Checks should be payable to the Defense Minerals Exploration Administration. The purchaser should be advised to deduct the royalties from the amount due on each shipment and forward check direct to the Executive Officer. Royalty payments to the Government should be accompanied by suitable evidence, such as copies of settlement sheets, showing quantity and grade of the products sold, the name of the purchaser, and the price and charges certified to be correct by the purchaser.

You are requested to notify Mr. Ricker 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. Ricker at 6-month intervals that no production has been made, when that is the case.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge/ls
7/11/55

Enclosure

cc: Docket
FT, Reg. 2
Thor Kiilsgaard, USGS
cc: Code 400-Mr. Martin

cc: 3 lessors

cc: Code 800-Mr. Chambers

cc: Adm. Read. File
Operating Committee
R. W. Geehan, USBM
Robt. Holliday, USBM
Code 110-F.E.Johnson

R.G.M.

DOCKET
SURNAME

Rutledge
Martin
Talbot
Holliday
Nelson
Johnson

400

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

INTERIOR DEPT.
JUL 12 1955
SOLICITOR

JUL 19 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-Eh81 (Amended)

Dear Mr. Ricker:

Enclosed are copies of a certification of discovery or development for the above-noted property and of related correspondence.

Please ascertain the correct addresses of the owners and forward their respective copies.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee (WB)

Enclosure

APPROVED:

/s/ Robert W. Geehan (WB)
Member, Bureau of Mines

Thor H. Kiilsgaard (WB)
Member, Geological Survey

FARutledge:foc 7-11-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. II
Messrs. Johnson - Code 110
Chambers - Code 800
Geehan, - USBM
Holliday - USBM
Kiilsgaard - USGS

R.C.G.

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

DOCKET SURNAME
400 Rutledge
Martin
Talbot
Nelson
Kulsgaard
Geehan
Johnson

INTERIOR DEPT.
JUL 12 1955
SOLICITOR

JUL 19 1955

Mr. Clarence A. Fredell, Acting Director
Materials Division
Emergency Procurement Service
General Services Administration
Washington 25, D. C.

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-Eh81 (Amended)

Dear Mr. Fredell:

Enclosed is a copy of a certification of discovery or development for the above-noted project.

When we receive the final reports from the operator and Field Team, we shall supply such data as have accompanied the transmittal to the Materials Division, Emergency Procurement Service, of previous certifications.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:foc
7-11-55
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. II
Messrs. Geehan, USBM
Enclosure
Holliday, USBM
Kiilsgaard, USGS
CHAMBERS- Code ~~112~~ 800
Johnson - Code 110

P.C.J.

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

JUL 1955

Memorandum

To: The Administrator, DMEA
Attention: G. C. Selfridge

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-2688 (Tungsten), M.I.A. Mines Company, Contract No. Idm-E481

In a memorandum to the Administrator dated June 23, a copy of which was sent to this office, Mr. Selfridge discusses the liability for royalties under the subject contract. He says:

> "This is to cite an example which illustrates a possible weakness in special cases in our exploration contracts";

and winds up the memorandum with the following sentence:

> "It would seem under our present contracts that ore from any major discovery could be bought on a custom basis by a corporation formed solely for beneficiating it."

This last conclusion does not follow from the facts of the case Mr. Selfridge refers to, but even if it did this would not indicate a weakness in our exploration contracts. To be sure, our contract forms require the royalty to be paid on the gross proceeds from production sold, and this of course contemplates bonafide sales of the production. It would not add anything to the contract to provide expressly that the sales must be bonafide, or that the operator cannot sell the production to himself.

Should one of our operators, to avoid the higher royalty on concentrates, organize a corporation to do nothing but mill the ore which is subject to the Government's royalty, all of the stock of the new corporation being wholly owned by our operator, this probably would not be a

bonafide transaction, and the Government might well ignore it for the purpose of computing royalty on production. In other words, the Government might view any milling of ore under these circumstances as being done by the operator himself, in spite of the fact that the milling would be done in the name of the new corporation which was formed for that particular purpose.

On the other hand, an operator under a DMEA contract is not precluded from organizing a corporation for the purpose of going into the business of milling ore. Such a corporation could purchase the production which is subject to the Government's royalty along with other production, and the royalty would be computed on the purchase price of the ore regardless of the fact that the operator owns or has an interest in the corporation which does the milling. The principal concern of the Government is to see that the purchase price of the production upon which its royalty is based is the reasonable value of the production for this purpose.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor,
Defense Minerals

JLHofflund:gjb

Copy to: DMEA Docket
Sol. Docket
G. C. Selfridge
J. L. Hofflund (2)
J. D. Parriott
Chron. File

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

RECEIVED
JUL 1 1955

1605 Evans Avenue
Reno, Nevada

July 7, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Attached are four copies of Operator's final report on above subject docket. Attached also are four copies of Field Team's final report by Glenn G. Gentry, Bureau of Mines and H. K. Stager, Geological Survey in which it is recommended that a certificate of discovery be issued.

Roscoe Smith and I concur in the recommendation.

S. Ricker

Attach.

Rec'd by Oper Cont 7-15-55
DMEA

BUREAU OF MINES
WASHINGTON, D. C.

JUL 11 10 03 AM '55

COMBINED METALS REDUCTION COMPANY

CASELTON PLANT PIOCHE, NEVADA

RECEIVED
JUL 12 1955

April 4, 1955.

Mr. S. Ricker
Executive Officer
D.M.E.A. Field Team, Region III
1605 Evans Avenue
Reno, Nevada

Re: Final Report on Project Docket No. D.M.E.A.-2688, M.I.A. Mines Company - Minerva Tungsten Mine White Pine County, Nevada Contract No. Idm-E 481 (Amended)

Dear Mr. Ricker:

In compliance with article 7-B of the above referred contract, the following is the final report upon completion of the D.M.E.A. exploration project.

Location of Project

The Minerva Tungsten Mine is located 45 miles southeast of Ely on the west slope of the Snake Range in White Pine County. The mine is at an elevation of 6300 feet and is reached by a gravel road extending from U. S. Highway 93 easterly to the mine, a distance of approximately 14 miles.

Work of Project

On January 27, 1953 an Exploration Project Contract at the Minerva Tungsten Mine was entered into between the Defense Mineral Exploration Administration (Government) and the M.I.A. Mines Company, a joint venture consisting of Combined Metals Reduction Company and American Zinc Company of Tennessee (Operator) 218 Felt Buidling, Salt Lake City, Utah.

Discription of work under this project was specified in Exhibit "A" of the contract and later amendments.

Work on the project was started shortly after the contract was signed and completed January 31, 1955.

The following is a detail of work performed under the contract.

Constructed and installed:

One - Compressor - power and warehouse building.
One - Water storage tank.
One - Fuel storage tank.
One - Fan house.

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1955 APR 7 AM 8:38

RENO, NEVADA

COMBINED METALS REDUCTION COMPANY

SHEET 2 DATE April 4, 1955 TO S. Ricker

Rehabilitated and installed:

1624.0 feet of rehabilitation in Scheelite Chief Adit installing rails, air lines, water lines and electric power cable.

Drifting - Reference - Map D-1229 and D-1228

Extending Scheelite Chief Adit	845.5'
Extending Intermediate Sublevel	449.0'
Driving 650 West Sublevel	408.8'
Driving 650 East Sublevel	218.1'
Driving 600 West Sublevel	116.5'
Driving 600 East Sublevel	115.3'
Extending 500 West Level	18.0'
Driving 300 East Level - Silver Bell	675.5'
Total Drifting	2,846.7'

Raising

Driving 43-24D Raise from end of Scheelite Chief Adit to 500 Level Silver Bell.	289.5'
Driving up from Intermediate Sublevel	30.5'
Driving up near end of 300 East Level - Silver Bell.	37.0'
Total Raising	357.0'

Churn Drilling

7 - Churn drill holes, aggregate total depth 1,340.0'
(See monthly reports for location & log of each hole)

Diamond Drilling

19 - Diamond drill holes, aggregate total depth. 1,771.8'
(See monthly reports for location, attitude and log of each hole)

Cost of Project

Operation	Unit	Jan. 31, 1955 Costs to Date $	Jan. 31, 1955 Units to Date	Jan. 31, 1955 Unit Cost to Date $
Drifting	Ft.	102,437.01	2,846.7	35.98
Crosscutting				
Raising	Ft.	19,994.68	357.0	56.01
Drilling: Core	Ft.	7,747.77	1,771.8	4.37
Churn	Ft.	6,700.00	1,340.0	5.00
Roads and Trails		2,945.12		
Supervision & Technical		7,610.00		

COMBINED METALS REDUCTION COMPANY

SHEET 3 DATE April 4, 1955 TO S. Ricker

Operation	Unit	Jan. 31, 1955 Costs to Date $	Jan. 31, 1955 Units to Date	Jan. 31, 1955 Unit Cost to Date $
Bookkeeping		2,025.00		
Sampling & Analysis		624.21		
Taxes & Insurance		1,057.70		
Operating Equipment:				
Rental & Depreciation		4,857.24		
Initial Rehabilitation and Repairs		8,531.57		
New Buildings, Improvements, etc.		2,894.00		
Transporting Men and Supplies		5,711.83		
		$ 173,136.13		
Contract Amount		$ 171,400.00		
Government Participation 75%		$ 128,550.00		

Geology:

All exploration work under this project was performed on or near the Scheelite Chief Tungsten vein in the upper part of the Cambrain Limestone.

According to Dwight M. Lemmon*, on basis of lithology, three major limestone units exist in the mine working area. (1) The "Upper Black Limestone", about 300 feet thick, dark to gray and thin bedded limestone; (2) the "Upper White Limestone", 60 to 75 feet thick, massive, light gray, marked at top by a distinctive bed of thinly banded, cross bedded limestone 2 to 4 feet thick; (3) the "Lower Black Limestone" about 300 feet thick, dark to gray.

The Scheelite Chief Fissure is one of the early east-west striking faults dipping 55° to the north, which was later filled with quartz. The scheelite mineralization was later introduced in fractures and brecciated zones in the quartz filled fissure. However, most of the ore shoots occur in the scheelite chief fissure where it passes through the "Upper White Limestone".

Several systems of north-south striking faults have cut the scheelite chief fissure into a series of fault-segments having displacements from a few feet to several hundred feet. These structural combinations present a complex exploration problem.

For detail geology of each drift and raise under the exploration project, see monthly report and attached maps.

---

* Tungsten Deposit in the Minerva District. By Dwight M. Lemmon, Feb., 1944.

COMBINED METALS REDUCTION COMPANY

SHEET 4 DATE April 4, 1955 TO S. Ricker

Estimated Ore Reserves Resulting from Exploration Project:

The following tabulation and section D-1222 show estimated ore reserves as of January 31, 1955.

Classification	Tons	Estimated % WO_3	Location (See Section D-1222)
Measured Ore	250	0.80	Block C-22
Indicated Ore	5060	0.75	Blocks C-23, C-26
Inferred Ore	7380	0.75	Blocks C-20, C-21,
Stockpile at Mine	600	0.40	/C-24, C-25.

The following is M.I.A. Mines Co. production during the life of the Exploration Project.

Mill Lot No.	Mine Lot No.	Dry Tons	% WO_3 Per Ton	Units WO_3
1 to 17 (Inclusive)	1 to 77 (Inclusive)	5,229.724	0.748	3,913.974

The past history of the Minerva district, like other small tungsten mines, indicate that they rarely have more than a few hundred tons of measured ore and seldom have more than a few thousand tons of indicated ore, therefore, indicated ore is mined, or in other words, an exposed ore face is followed up by mining to where it pinches down, too narrow for economical mining or is cut off by faults.

Estimates of ore reserves of this type of deposits is very difficult, but interpretation of unexplored areas based on past experience in the district must be taken into consideration.

Estimated Salvage Value to Operator of Material & Supplies used under Exploration Contract - Government 75% - Operator 25%

Quantity	Description	Cost to Project $	Present Condition	% Valuation to Operator	Salvage Value to Operator $
39.0 Tons	Rails	4,095.00	Fair	40%	1,638.00
4800 Ft.	1" Black Pipe)				
2050 Ft.	2" Black Pipe)	3,435.12	Fair	35%	1,202.32
2479 Ft.	3" Black Pipe)				
2171 Ft.	12" Vent Tubing	1,780.10	Fair-Poor	30%	534.03
3000 Ft.	Power Cable	3,493.60	Fair	40%	1,397.44
	Electric Switches	199.46	Fair-Poor	30%	59.84
1	Fan House	150.00	Fair	45%	67.50
1	Compressor-Power Bldg.	1,500.00	Fair	35%	525.00
1	Fuel Tank	600.00	Fair	45%	270.00
1	Water Tank	644.00	Fair	30%	193.20
		Total Salvage Value to Operator			$ 5,887.33
		Government @ 75%			$ 4,415.50

COMBINED METALS REDUCTION COMPANY

SHEET 5 DATE April 4, 1955 TO S. Ricker

Attached Maps D-1229, D-1228 and Section D-1222 is a part of this report.

Very truly yours,

Reginald G. Lee

Reginald G. Lee
Supt. of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

RECEIVED
JUL 12 1955

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

FINAL REPORT

DMEA 2688, Contract Idm-E481 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

by

Glenn G. Gentry
Mining Engineer
U. S. Bureau of Mines

Harold K. Stager
Geologist
U. S. Geological Survey

June 30, 1955

Reviewed by
DMEA OPERATING COMMITTEE
7-15-55
(date)

Field Team Final

RECEIVED
JUL 1 3 1955

CONTENTS

	Page
Introduction	1
Summary	1
Conclusions and Recommendations	2
The Project	2
Expenditures	8
Equipment	8
Production	9
General Geology	11
Ore Deposits	12
Sampling	13
Ore Reserves	13

ILLUSTRATIONS

Figure 1. Index map

Figure 2. Vertical projection of the Scheelite Chief Vein

INTRODUCTION

The Minerva Tungsten mine, also known as the Scheelite Chief and Silver Bell mines, White Pine County, Nevada, was partly rehabilitated and explored by the M.I.A. Mines Company, 218 Felt Bldg., Salt Lake City, Utah, in cooperation with the Defense Minerals Exploration Administration under contract Idm-E481 dated January 27, 1953. Work was started February 27, 1953, and completed January 31, 1955.

SUMMARY

The objective of the work was to locate and explore scheelite-bearing quartz veins by churn drilling from the surface and by diamond drilling, drifting, crosscutting, and raising from existing underground workings.

The following exploration work was performed under DMEA contract:

Drifting:	2,846.7 feet
Raising:	272.27 "
Churn drilling:	1,350.0 "
Diamond drilling:	1,771.8 "
Total accepted cost:	$165,512.67
Government's share of the cost:	$124,134.50

As a result of this exploration work new ore bodies were disclosed in both the Scheelite Chief and the Silver Bell mines and the two mines were connected by a raise.

During the contract the operators produced and shipped a total of 5,229.724 dry tons of tungsten ore, containing 3,913.975 units of WO_3 and returning a net value at the mine of $83,315.67. Royalties

paid to the Government from the above shipments have amounted to $3,883.20. The weighted average of all shipments is 0.748 percent WO_3.

CONCLUSIONS AND RECOMMENDATIONS

Additional exploration and development is justified, either with private capital or with Government financial assistance. The additional exploration and development should include the extension of the Scheelite Chief adit eastward to explore an unknown area between the present face of the adit and the Silver Bell shaft. Additional exploration and development is also justified by extending the 300 and 400 levels eastward from the Silver Bell shaft. Diamond drilling and raising is also recommended in favorable locations from the above levels.

It is recommended that DMEA certify that the project was successful and that the Government is entitled to royalties from production. Economic production is feasible by careful mining methods. The installation of a milling plant near the portal of the Scheelite Chief adit would reduce expenses and enable the applicant to mine and mill a lower grade crude ore.

THE PROJECT

The exploratory work was justified by the past production of the mines and by ore bodies inferred to be in faulted but unexplored segments of the vein.

Work completed under the contract is as follows:

Stage 1

Work set forth in Exhibit "A" of the contract and completed prior to June 1, 1954:

Item 1 - Compressor, power and warehouse building purchased, transported and installed. Size: 36.5 ft. wide X 24.5 ft. long X 8 to 10 ft. high, covered with second hand corrugated sheets, and having concrete floor under the compressor and generator.

Item 2 - Rehabilitation of the main adit in the Scheelite Chief mine, including track, air, water, and power lines. Linear feet of adit widened - 1624 (3600 cu.ft.)

Item 3 - Objective area 1

(a) Drifting completed southeasterly on the intermediate level A:	147.0 ft.
(b) Diamond drilling: Holes 4-5-6-7	399.3 ft.

Item 4 - Objective areas 2 and 3

Bulldozed roads to four churn drill sites and churn drilled holes 1-2-3 and 4 - Total:	739.7 ft.
Extended the main adit of the Scheelite Chief	275.0 ft.

Item 5 - Objective area 4

Advanced the main adit of the Scheelite Chief	570.5 ft.
Diamond drilled holes 1-2-3 - Total:	550.8 ft.
Two-compartment raise completed	289.5 ft.

Additional items authorized by amendments:

Extension of sublevel drift off raise 45-15D in an easterly direction	302.0 ft.
Diamond drilling, holes 12-13	164.0 ft.
Raise from sublevel drift 44-17D	22.0 ft.

Stage 2

Work set forth in Exhibit "A" of the contract and completed prior to June 1, 1954:

Item 1 - Constructed headframe, bin and hoist house, and installed track on the surface at the Silver Bell shaft. This work was all done on company account and at no cost to the Government.

Item 2 - Completed the rehabilitation of the Silver Bell shaft to the third level, timbered where necessary, including laying track and installing air, water and power lines.

Item 3 - The installation of a skip pocket on the third level of the Silver Bell mine was not required and was not done.

Item 4 - Objective area 5

Completed drifting easterly on the third level of the Silver Bell shaft, a distance of	200.0 ft.

Item 5 - Objective area 6

(a) Completed bulldozing necessary roads to churn drill sites and drilled holes 5-6-7 to a total depth of	600.3 ft.
(b) Completed extending the third level drift of the Silver Bell shaft, in an easterly direction, for an additional	413.5 ft.

Item 6 - Objective area 4 (authorized by amendment)

Completed drifting in a westerly direction off the Chief-Silver Bell raise on the 650 sublevel, a distance of	63.0 ft.

Work authorized by amendment and performed beginning June 1, 1954:

Objective areas 3 and 4

(a) On the 650-foot level of the Silver Bell mine; completed extending the level in a westerly direction from raise 43-24D, a distance of	345.8 ft.

(b) Completed diamond drilling six holes from the above workings (holes 10-11-16-17-18-19) totaling 289.5 ft.

(c) On the 650-foot level of the Silver Bell mine; completed extending the level in an easterly direction from raise 43-24D, a distance of 218.1 ft.

(d) On the 600-foot level of the Silver Bell mine; completed extending the level in a westerly direction from raise 43-24D, a distance of 132.0 ft.

(e) On the 600 level of the Silver Bell mine; completed extending the level in an easterly direction from raise 43-24D, a distance of 99.8 ft.

(f) Completed drilling two diamond drill holes from workings under (d) above.
2 drill holes - 14 and 15 179.0 ft.

(g) On the 500 foot level of the Silver Bell mine; completed extending the drift in a westerly direction from raise 43-24D, a distance of 18.0 ft.

Objective area 6

Completed extending the 3rd level of the Silver Bell mine, in an easterly direction, a distance of 62.0 ft.

Summary of churn drilling:

Hole No.	Date Started	Date Completed	Depth Ft.	Collar Elevation Ft.	Coordinates North	Coordinates East	Size of Hole Ft.	Location Objective Area (See contract map and operator's final report map)
1	4-20-53	5-22-53	277.7	6714.4	4253.8	11856.7	4-3/4	2 & 3
2	5-26-53	6-2-53	90.0	6709.5	4178.3	11888.0	"	"
3	6-4-53	7-8-53	127.0	6722.1	4228.4	11977.0	"	"
4	7-11-53	8-15-53	245.0	6736.0	4313.1	12122.0	"	"
5	8-20-53	9-16-53	166.0	6920.6	3993.3	13350.3	"	6
6	9-19-53	10-13-53	191.0	6932.6	4009.7	13441.4	"	6
7	10-16-53	11-17-53	243.3	6956.5	4039.3	13594.8	"	6
	Total		1340.0 Ft.					

Summary of diamond drilling (underground):

Hole No.	Date Started	Date Completed	Depth Ft.	Angle	Course	Collar Elev.	Size	Location (See operator's final report map)
1	11-8-53	11-16-53	125.7	+45°	N5°W	6343.8	AX	Chief adit
2	11-16-53	11-25-53	175.8	+75°	S25°E	6344.0	"	"
3	11-28-53	12-10-53	249.3	+70°	S13°W	6344.35	"	"
4	12-12-53	12-17-53	86.1	+5°	N5°E	6408.0	"	Chief - sublevel
5	12-17-53	12-22-53	74.0	+70°	N5°E	6411.50	"	"
6	12-22-53	12-24-53	48.6	+40°	N15°E	6411.0	"	"
7	12-28-53	1-15-54	190.6	+50°	S85°E	6410.0	"	"
8	1-21-54	1-26-54	87.7	Horiz.	N55°E	6341.30	AX+ EX	Chief adit
9	1-27-54	2-7-54	222.5	-45°	N5°E	6337.30	"	"
10	6-2-54	6-5-54	58.0	+3°	N10°W	6502.0	EX	650 level - East
11	6-7-54	6-10-54	40.0	+3°	S7°W	6502.0	"	"
12	10-22-54	10-26-54	82.0	+65°	N50°E	6423.0	"	Chief - sublevel
13	10-27-54	10-29-54	82.0	+40°	N50°E	6422.0	"	"
14	11-24-54	11-30-54	116.0	+9°	North	6555.0	"	600 level - West
15	11-30-54	12-6-54	63.0	+5°	S30°W	6555.0	"	"
16	12-7-54	12-8-54	26.5	+6°	South	6504.0	"	650 level - West
17			79.0	+3°	S18°W	6503.0	"	"
18			43.0	+5°	S28°W	6504.0	"	"
19			43.0	+3°	S3°W	6503.0	"	"
	Total		1892.8 Ft.					

Expenditures

Total expenditures allowed by the contract: $171,400.00

Expenditures reported by the operator:

Drifting	$102,437.01
Raising	19,994.68
Diamond drilling	7,747.77
Churn drilling	6,700.00
Bulldozing roads	2,945.12
Supervision and technical	7,610.00
Bookkeeping	2,025.00
Sampling and analyses	624.21
Taxes and insurance	1,057.70
Rental and depreciation	4,857.24
Rehabilitation and repairs	8,531.57
New buildings and improvements	2,894.00
Transporting men and supplies	5,711.83
Total cost billed by operator	$173,136.13
Less sale of property	5,887.33
Net claimed costs	$167,248.80
Disallowances $23,359.61	
Additional costs allowed. 21,623.48	1,736.13
Total accepted cost	$165,512.67
Government's share at 75%	$124,134.50

Equipment

In his final report the operator estimated the salvage value of equipment owned jointly by the Government (75%) and the Operator (25%) to be $5,887.33, of which the Government's interest was $4,415.50. The equipment was inspected and the estimate was considered to be a fair appraisal. The Government's interest was sold to the operator for $4,415.50 and payment was received.

The project has been audited and all obligations have been paid.

Production

During the period of the exploration contract, and as the result of the exploration work, the operators mined and shipped the following tonnage of scheelite ore:

Date Recd. at Mill	Mill Lot No.	Mine Lot No.	% WO_3	Dry tons	Units WO_3	Net Mine value	DMEA Royalty
5-5-54	1	1,2,3	0.59	193.460	114.141	$ 2,568.90	$ 128.44
5-10-54	2	4,5	0.33	144.504	37.786	476.80	7.15
7-28-54	4	6 to 14	0.67	587.805	393.829	9,702.58	485.13
8-3-54	5	15,16,17	0.53	224.439	118.953	2,433.14	113.99
5-17-54	6	18,19, 20,21	1.13	223.305	252.335	7,474.08	373.70
5-5-54	6A	22 to 27	1.62	394.243	638.674	18,341.31	917.07
8-12-54	7	28 to 32	0.69	310.029	207.710	3,637.87	181.89
8-21-54	8	33 to 38	0.89	365.295	314.154	6,483.10	324.16
8-30-54	9	39 to 46	0.68	502.547	341.732	5,800.28	290.01
9-8-54	10	47 to 52	1.10	350.569	385.626	9,560.62	478.03
9-24-54	12	53 to 59	0.63	409.494	257.981	3,998.26	119.95
10-7-54	13	60,61,62	0.56	117.869	99.607	1,263.59	18.95
10-18-54	15	63 to 69	0.62	451.094	279.678	4,233.41	105.84
10-25-54	16	70,71,72	0.47	203.114	95.464	805.75	12.09
12-12-54	*Ely,Nev.	73	0.61	508.298	310.062	6,535.98	326.80
2-7-55	17	74 to 77	0.31	213.689	66.244	---	Nil
			0.748	5,229.724	3,913.975	$83,315.67	$3,883.20

With the exception of Lot No. 73, which was shipped to the Minerals Engineering Company at Ely, Nevada, all of the ore was shipped to the Combined Metals Reduction Company mill at Bauer, Utah.

To upgrade the crude ore, the operators constructed during June and July of 1954 at their own expense, a crushing, screening and sorting plant near the portal of the Scheelite Chief adit and from the above date all ore was processed through the sorting plant prior to shipping to the mills. An approximate cost of $7.00 per ton for haulage has made it impossible to return a profit on any but the higher grades of ore. The construction of a concentration plant adjacent to the portal of the Scheelite Chief adit was recommended by the supervisors of the mine in order to eliminate haulage charges and to enable the operators to treat all ore mined. However, due to limited capital and the uncertainty of the future market for tungsten ores and concentrates, the applicant did not consider it advisable to install a milling plant.

On or about February 1, 1955 the American Zinc Company, represented by Mr. Richard Britton, assumed active charge of all operations at the Minerva Tungsten mine and since that date have continued to mine, produce and ship tungsten ore. From this production, the Government will continue to receive royalty payments.

GENERAL GEOLOGY

The Scheelite Chief and Silver Bell mines are in scheelite-bearing quartz veins that cut sedimentary rocks of Middle and Upper Cambrian age on the west flank of the Snake Range.

The oldest rock exposed in the mine area is a light to dark gray, mottled limestone with bedding ranging from indistinct to good. This unit is about 300 feet thick and is known locally as the Lower Black limestone.[1/] Northward in the range it is underlain by about 1,000 feet of "St. Lawrence" limestone which rests on Pioche shale and Prospect Mountain quartzite. Overlying the Lower Black limestone is a light gray to pinkish, massive limestone about 75 feet thick that is known as the Upper White limestone. Above this is about 300 feet of thin-bedded to flaggy dark gray limestone known as the Upper Black limestone. Overlying this unit and capping the ridges in the vicinity of the mines is a 300 foot thick shale unit consisting of thin platy limestone and shale beds.

Rhyolite occurs in sills from 2 to 20 feet thick near the base of the shale and in dikes up to 25 feet thick that follow east-dipping faults and cut the scheelite-bearing veins.

The sedimentary units all strike north or northwest and dip from 10 to 35 degrees southwest.

The area is broken by at least 5 different systems of normal faults in a complex pattern. Nearly all of the faults contain calcite veins or cemented breccia, but an east-striking set that dips 45 to 70°

1/ Lemmon, D. M., 1944, Tungsten Deposits in the Minerva District, White Pine County, Nevada: Open File Report, Strategic Minerals Investigations.

north also contains scheelite-bearing quartz and calcite veins, from a few inches to 30 feet wide. The premineral faults have displacements of a few feet to a maximum of 75 feet; post mineral faults have displacements up to 400 feet.

ORE DEPOSITS

The tungsten deposit at the Scheelite Chief and Silver Bell mines consists of a flatly raking ore shoot in a scheelite-bearing quartz vein in limestone.

The ore bodies that have been mined from the two properties were originally a single body about 4,000 feet long, 50 to 150 feet wide across the rake, and from a few inches to 30 feet thick. This body has been faulted, with both horizontal and vertical displacements, into numerous segments. These segments are from a few feet to 150 feet in length with an average width of about 90 feet across the rake and an average thickness of 4.7 feet.

The vein consists mainly of quartz and calcite with some scheelite. It is lenticular in character and in a short distance along the strike of the vein may change from a thick mass of solid quartz to a series of small stringers. The scheelite commonly occurs in coarse cleavages distributed through the quartz or aligned along fractures in the quartz. The tungsten content ranges from a trace to 20 percent WO_3 and, for the ore mined, averages about 0.8 percent . A large portion of the vein is barren. Scheelite occurs in an ore shoot in only a part of the vein both along its length and across its width. The ore shoot rakes westward at a low angle, usually roughly parallel to the bedding

in the limestone. In the Scheelite Chief mine the ore shoot is at or below the Upper White limestone but at the Silver Bell mine it is several hundred feet higher, stratigraphically, in the Upper Black limestone.

The vein has yielded about 40,000 tons of ore with an average grade of about 0.8 percent WO_3. Over 75 percent of this ore has come from the Scheelite Chief mine and the balance from the Silver Bell mine.

SAMPLING

Numerous samples were taken by the examining engineer during the inspections of the exploration work. However, the assay value represented by the automatic sample of the shipments listed, shows the average WO_3 content of the ore shipped to date.

ORE RESERVES

The operators have estimated the following ore reserves as having resulted from DMEA exploration and unmined as of January 31, 1955.

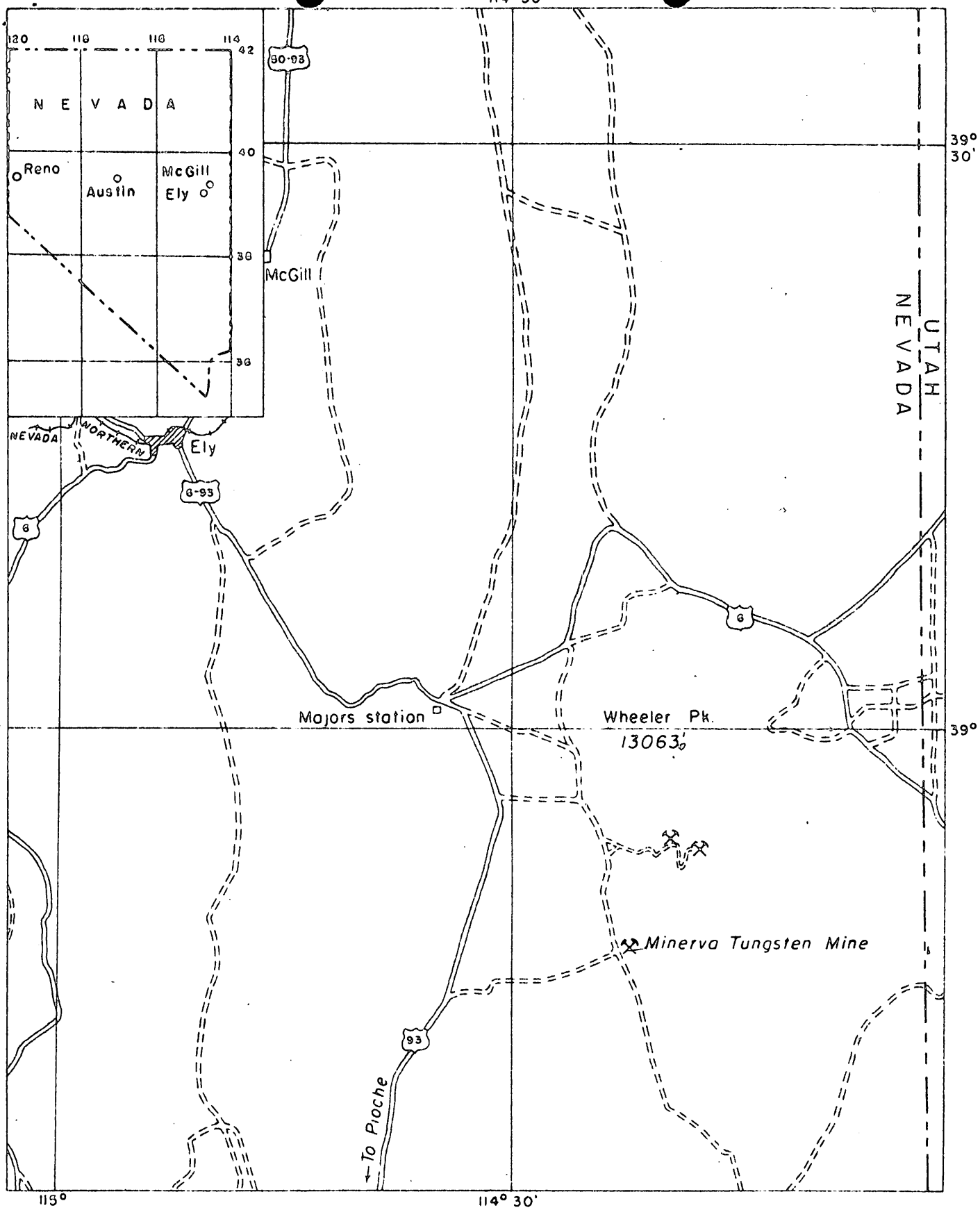
Classification	Tons	Estimated % WO_3	Location (Fig. 2)
Measured ore	250	0.80	Block C-22
Indicated ore	5,060	0.75	Blocks C-23, C-26
Inferred ore	7,380	0.75	Blocks C-20, C-21, C-24, C-25
Stockpiled at mine	600	0.40	

A study of the operators' maps, production records, assay reports and a comparison of the amount of stoped area (fig. 2), that has yielded the known production, with the size and grade of the reserve blocks postulated indicates that the estimates are conservative. The inferred ore in Block C-24 is somewhat speculative in that ore has not yet been discovered in the Upper White limestone in the Silver Bell mine although this is the most favorable horizon in the Scheelite Chief mine.

The operator is presently exploring Blocks Nos. C-20, C-21, and C-25 by diamond drilling and drifting and mining in Blocks Nos. C-23 and C-26. Future exploration should be aimed at the testing of the area of Block C-24 as well as the other faulted segments of the fissure in the Upper White limestone horizon.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Idm E-481 DMEA 2688
(TUNGSTEN)



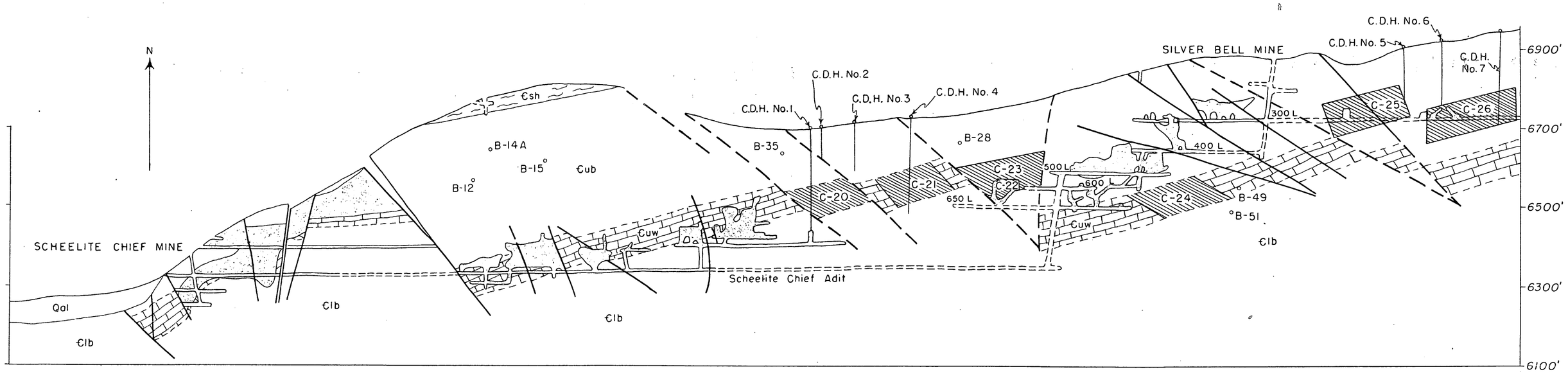
INDEX MAP OF NEVADA

0 5 10 MILES

Figure 1

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 2688
Idm E-481
(TUNGSTEN)



Geology shown on hangingwall of vein
From Company and U.S.G.S. maps

EXPLANATION

Qal — Alluvium

€sh — Shale

€ub — Upper black limestone

€uw — Upper white limestone

€lb — Lower black limestone

C-20 — Ore reserve block

Contact
Dashed where approximately located

Fault
Dashed where approximately located

Stope

Underground workings
Dashed where projected

VERTICAL PROJECTION OF THE SCHEELITE CHIEF VEIN
MINERVA DISTRICT, WHITE PINE COUNTY, NEVADA

200 0 200 400 Feet

Figure 2

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

(49) 201

1955 JUL 1 AM

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

WP013 PD=RENO NEV 1 803AMP=

=THE DEFENCE MINERALS EXPLORATION ADMIN=

INTERIOR BLDG=

RECEIVED JUL 1 1955

REURTEL JUNE 30TH 1955 DOCKET DMEA2688 MIA MINES CONTRACT IDM-E481 WORK COMPLETED JANUARY 31 OPERATORS REPORT DATED APRIL 4TH FIELD TEAM DEFINITELY RECOMMENDS CERTIFICATION ROYALTY PAYMENT THROUGH JUNE $7214.50 CONSERVATIVE OR RESERVE ESTIMATE 13000 TONS 0.75 PERCENT WO3 AS OF FEBRUARY 1=

=S RICKER=

30 1955 DMEA2688 MIA IDM-E481 31 3 $7214.50 13000 0.75 WO3 1=

JUL 1 1 03 PM '55
BUREAU OF [illegible]
MAIL ROOM
WASHINGTON, D. C.

DOCKET
Surname:

Rutledge
Hamilton
Selfridge
Johnson
Mitchell

JUN 30 1955

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

T E L E T Y P E

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Urlet June 27, 1955, Docket DMEA 2600, M. I. A. Mines Company, Contract Idm-1401. Wire date operator's report received by Field Team. If date prior to February 1, also wire Field Team's recommendations on certification.

George C. Selfridge

Chairman, Operating Committee

GCS

cc: Confirmation Copy

Docket
Adm. Read. File
Code 400
Oper. Committee
Thor Kiilsgaard, USGS
Robt. Holliday, USBM

FARutledge/ls
6/30/55

DMEA

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

RECEIVED
JUN 29 1955

AIR MAIL

1605 Evans Avenue
Reno, Nevada

June 27, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Reference is made to your letter of June 21, 1955 regarding final reports on above subject.

Final reports should be forwarded to Washington within 10 days. Operator's final report has been in our office for some time, but has been held awaiting the final report by our field team for comparative purposes.

S. Ricker

Selfridge.

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

JUN 3 1955

Memorandum

To: Administrator, DMEA

From: George C. Selfridge
Special Assistant

Subject: Royalties
Docket No. DMEA-2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-F481

This is to cite an example which illustrates a possible weakness in special cases in our exploration contracts. The subject contract covers a joint venture consisting of Combined Metals Reduction Company and American Zinc Company of Tennessee. Royalties have been paid on both ore and concentrate.

Ore is shipped by M.I.A. Mines Company to the Bauer mill of Combined Metals where it is purchased as custom ore. A settlement sheet dated May 19, 1955, shows that 1.33 per cent WO_3 ore is bought at 80 per cent of $47.00/unit or 59.68 per cent of its gross value at $63.00/unit. After milling charges, freight and hauling, and sampling are deducted, the Government receives a 5 per cent royalty on 40.06 per cent of the gross value of the ore calculated at $63.00/unit. In this particular case the Government received $170.90 and the lessors received $585.64, a ratio of 1:3.43, on a base royalty of 10 per cent and under additional lease terms and restrictions.

A settlement sheet dated May 13, 1955, shows that M.I.A. Mines Company shipped 5.3435 tons of 65.43 per cent WO_3 concentrate to Bishop, California, for which it was paid $61.25 a ton. This concentrate probably originated at the lessor's mill. After sampling and assaying charges were deducted, the Government received $1,067.35 in royalties while the lessors received $1,611.62, a ratio of 1:1.51, under the terms of their lease. While the settlement sheet shows that milling, sacks, and haulage amounted to $4,939.95, there are no data to indicate how many tons of ore were beneficiated to produce the 5.3435 tons of concentrate.

The figures cited above raise the question whether one member of several holding a DMEA contract as an entity should be allowed to

purchase the mine ore on a custom basis and benefit by deductions which are not allowed to the entity. Under contracts such as The Hecla Mining Company, Docket No. DMEA-3406 (Lead-Zinc-Copper), Contract No. Idm-8732, should a significant discovery be made, the ore could be sold on a custom basis to the Bunkerhill and Sullivan Mining and Concentrating Company, thereby reducing the Government's royalty. Under this contract Bunkerhill contributes toward the exploration costs, thereby acquiring an interest in the property, but is not a party to the exploration contract.

It would seem under our present contracts that ore from any major discovery could be bought on a custom basis by a corporation formed solely for beneficiating it.

George C. Selfridge (by ESF)
George C. Selfridge

GCSelfridge/esf
6/23/55
cc to: Docket
Admr. R. File
Messrs: J. L. Hofflund, Rm. 7351
Johnson
Chambers
Selfridge

DOCKET
SURNAME

400 Rutledge
Martin
Selfridge
Johnson
Middendorf

JUN 21 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Dear Mr. Ricker:

Exploration under the referenced contract was completed during January 1955 and a final audit was made April 20, 1955.

It would be appreciated if you would advise this Administration when the final reports of the Operator and Field Team may be expected.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

FARUTLEDGE;foc
6-17-55
cc to: Docket
Code 400
Admr. Read. File
Operating Comm.
FT. REG. II
Messrs. Holliday, USBM
Kiilsgaard, USGS

R.C.S.

Alley
Talbert

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

2688

JUN 16 1955

Mr. Lloyd H. Sjolander
Certifying Officer
Bureau of Mines
420 Custom House
555 Battery Street
San Francisco 11, California

Dear Mr. Sjolander:

Reference is made to your May Report of Strategic and Critical Minerals Exploration Program, Supporting Schedule for Monthly Report.

It is noted that you listed under the column headed "Repayments" an amount of $1,241.68 for Exploration Project Contract No. Idm-1481, Docket No. DMA-2688, M. I. A. Mines Company. However, this Division received only two certificates of deposit pertaining to this project, namely, C. D. No. 52 in the amount of $174.33, and C. D. No. 54 in the amount of $1,053.49, totaling $1,227.82, which makes a difference of $13.86.

It will be appreciated if you will forward a copy of the missing certificate of deposit so that our records will be complete.

Sincerely yours,

SIGNED

F. D. Talbert, Acting Chief
Contract Administration and
Audit Division

AMAlley/ama
June 16, 1955

Copy to: Docket
Admr. Reading File
Irene Smolders
Mr. Chambers

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

RECEIVED
JUN - 6 1955

420 Custom House
555 Battery Street
San Francisco 11, California

June 2, 1955

Air Mail

Mr. Jay L. Chambers, Chief
Contract Administration and
Audit Division
Defense Minerals Exploration
Administration
Interior Building
Washington 25, D. C.

Re: Idm-E481, DMEA-2688
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Chambers:

Reference is made to the last paragraph of your letter dated May 25, 1955, in which you call my attention to a correction to be made on Page 5 of subject audit report dated April 20, 1955. This correction has been made and field copies changed.

Would you please make the following additional changes on your copies of audit report. The third paragraph of Page 12, shows depreciation charges as $3,785.56, which should read $3,793.56. Also Page 23 shows the name of the General Superintendent as Paul Grimmell which should read Paul Gemmill. I have made the necessary changes on all field copies.

Sincerely yours,

"(SIGNED) GEORGE MAVOR"

George Mavor
Auditor

DMEA

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

Defense Minerals Administration
RECEIVED
MAY 12 1955

1605 Evans Avenue
Reno, Nevada

May 10, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)
(Royalty Payments)

Relative to settlement sheet of May 4, 1955 on royalty payment of $1,053.49 on above subject docket, I am attaching my letter of May 10, 1955 to the M. I. A. Mines Co.

Mr. Gentry gained the impression during his recent visit to the M. I. A. Mines Co.'s operations that since the American Zinc Company has taken active control of operations, arrangements have been made with Stopper, Stopper & Allen to improve their mill and handle M. I. A. ores.

I believe, however, that the Milling, Sacks and Haulage charges on settlement sheet of May 4, 1955 requires clarification and possible investigation by an auditor.

S. Ricker

Attach.

BUREAU OF MINES
WASHINGTON, D. C.

MAY 12 8 42 AM '55

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

Defense Minerals Administration
MAY 12 1955

1605 Evans Avenue
Reno, Nevada

May 10, 1955

Mr. O. F. Burton
Combined Metals Reduction Company
P. O. Box 150
Salt Lake City 10, Utah

Re: Docket No. DMEA-2688 - Tungsten
M. L. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Dear Mr. Burton:

Reference is made to your settlement sheets of May 4, 1955 with which you attached your check for $1,053.49.

In order that no conflict can arise relative to Article 8, Item (c) of your contract, will you please furnish us with a breakdown of your Milling, Sacks & Haulage item of $4,939.95.

Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

SRicker:gh
cc: Operating Committee, DMEA, Wash., D.C. (2)
Finance Officer, Region II
Geo. Mayor, Auditor, Reg. II
File

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

AIR MAIL

MAY - 2 1955

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-E481, DMEA-2688
M.I.A. Mines Company

Dear Mr. Mavor:

Receipt is acknowledged of your Audit Report and Certificate covering the above-cited Exploration Project Contract.

The Report is accepted and may be distributed in the usual manner.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
May 2, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

Rcd

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

APR 27 1955

Mr. George Mayor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Royalty Audit
Contract No. Idm-E481
Docket DMEA-2688
M.I.A. Mines Company

Dear Mr. Mayor:

Receipt is acknowledged of your First Royalty Audit Report and Certificate covering the above-cited Exploration Project Contract.

The Report is accepted and may be distributed in the usual manner.

Sincerely yours,

SIGNED
Jay L. Chambers, Chief
Contract Administration
and Audit Division

WBorovies/wb
April 27, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.J.

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

APR 26 1955

Mr. George Mayer
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idn-F481, Docket DMEA-2688
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Mayer:

Reference is made to your letter of April 20, 1955, in reply to mine of April 12, 1955, in connection with M.I.A. Mines Company ore shipments.

It appears that I did not make my point clear. I was not interested in getting a copy of the contract between M.I.A. Mines and Stoper and Allen. The purpose of my letter was to have you check to see whether there was a closer mill which could be used by M.I.A. Mines Company.

I know the reason why Stoper and Allen get a larger amount for their royalty than we do. It is because they have a contract with M.I.A. Mines to allow deduction for freight to the closest mill only. I judge from your communications that the closest mill is not now in operation; therefore M.I.A. Mines must bear the freight themselves to the further point in the case of Stoper and Allen, but do not have to bear it in their contract with the Government.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb 4-26-55

Copy to: Docket
Admr. Reading File
Mr. Chambers

RCh.

RMEA

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

1605 Evans Avenue
Reno, Nevada

April 15, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 - Amended

Attached are two copies of a letter of April 11, 1955 from Reginald G. Lee in which the M. I. A. Company make formal application to purchase the Government equity in equipment on above subject property; two copies of my reply of April 15, 1955 accepting their offer in behalf of the Government; and two copies of Form A - DISPOSAL OF GOVERNMENT'S INTEREST IN PROPERTY.

This has been discussed with Mr. George Mavor and we both believe the enclosed documents are in order.

S. Ricker

Attach.

Form a 1 cy 800
m + f cy to 400

COMBINED METALS REDUCTION COMPANY

April 11, 1955

Mr. S. Ricker, Executive Officer
D.M.E.A. Field Team, Region III
1605 Evans Avenue
Reno, Nevada

Dear Mr. Ricker:

This is our formal application to purchase the material listed on page 4 of "Final Report" D.M.E.A. - 2688, Tungsten Project M.I.A. Mines Co. Contract No. Idm-E 481 as follows:

Estimated Salvage Value to Operator of Material & Supplies used under Exploration Contract - Government 75% - Operator 25%

Quantity	Description	Cost to Project $	Present Condition	% Valuation to Operator	Salvage Value to Operator $
39.0 Tons	Rails	4,095.00	Fair	40%	1,638.00
4800 Ft.	1" Black Pipe)				
2050 Ft.	2" Black Pipe)	3,435.12	Fair	35%	1,202.32
2479 Ft.	3" Black Pipe)				
2171 Ft.	12" Vent Tubing	1,780.10	Fair-Poor	30%	534.03
3000 Ft.	Power Cable	3,493.60	Fair	40%	1,397.44
	Electric Switches	199.46	Fair- Poor	30%	59.84
1	Fan House	150.00	Fair	45%	67.50
1	Compressor-Power Bldg.	1,500.00	Fair	35%	525.00
1	Fuel Tank	600.00	Fair	45%	270.00
1	Water Tank	644.00	Fair	30%	193.20
		Total Salvage Value to Operator			$ 5,887.33
		Government @ 75%			$ 4,415.50

COPY

The present condition and value to operator was agreed upon by Mr. Gentry of U. S. Bureau of Mines and the M.I.A. Mines Co.

Please let us know if this is acceptable to you.

Mr. Gentry has requested a list of ore shipments made during the life of the Project, net mine value and royalty payments to D.M.E.A.

The attached sheet of tabulations list all such shipments, subject to any corrections that may be coming forth from our Salt Lake office.

Very truly yours,

Reginald G. Lee

Reginald G. Lee
Supt. of Mines

Date Received At Mill	Mill Lot No.	Mine Lot No.	Assay Value WO_3/Ton	Dry Tons	Units of WO_3	Total Net Mine Value $	BMEA Royalty $
May 5, 1954	1	1,2,3	0.59	193.460	114.141	2,568.90	128.44
May 10, 1954	2	4,5	0.33	144.304	37.786	476.80	7.15
July 28, 1954	4	6 to 14	0.67	587.805	393.829	9,702.58	485.13
Aug. 3,1954	5	15,16,17	0.53	224.439	118.953	2,433.14	113.99
May 17, 1954	6	18,19,20,21	1.13	223.385	252.335	7,474.08	373.70
May 5, 1954	6A	22 to 27	1.62	394.243	638.674	18,341.31	917.07
Aug. 12, 1954	7	28 to 32	0.69	310.029	207.710	3,637.87	181.89
Aug. 21, 1954	8	33 to 38	0.89	365.295	314.154	6,483.10	324.16
Aug. 30, 1954	9	39 to 46	0.68	502.547	341.732	5,800.28	290.01
Sept. 8, 1954	10	47 to 52	1.10	350.569	385.626	9,560.62	478.03
Sept. 24, 1954	12	53 to 59	0.63	409.494	257.981	3,998.26	119.95
Oct. 7, 1954	13	60,61,62	0.56	117.869	99.607	1,263.59	18.95
Oct. 18, 1954	15	63 to 69	0.62	451.094	279.678	4,233.41	105.84
Oct. 25, 1954	16	70,71,72	0.47	203.114	95.464	805.75	12.09
Dec. 12, 1954	#Ely	73	0.61	508.298	310.062	6,535.98	326.80
Feb. 7, 1955	17	74 to 77	0.31	213.689	66.244	-0-	nil
		TOTAL	0.748%	5,229.724	3913.975	$83,315.67	$ 3,883.20

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

1605 Evans Avenue
Reno, Nevada

April 15, 1955

Mr. Reginald G. Lee
Supt. of Mines
Combined Metals Reduction Co.,
Caselton Plant
Pioche, Nevada

Re: Docket No. DMEA-2688
Contract No. Idm-E481
M. I. A. Mines Co.

Dear Mr. Lee:

Reference is made to your letter of April 11, 1955 in which you make an offer of $4,415.50 for the material as listed below in which the Government has a 75 percent equity in the agreed salvage value. This will advise you that the Government will accept your offer.

Quantity	Description	Cost to Project	Present Condition	% Valuation to Operator	Salvage Value to Operator
					$
39.0 Tons	Rails	$4,095.00	Fair	40%	1,638.00
4800 Ft.	1" Black Pipe)				
2050 Ft.	2" Black Pipe)	3,435.12	Fair	35%	1,202.32
2479 Ft.	3" Black Pipe)				
2171 Ft.	12" Vent Tubing	1,780.10	Fair-Poor	30%	534.03
3000 Ft.	Power Cable	3,493.60	Fair	40%	1,397.44
	Electric Switches	199.46	Fair-Poor	30%	59.84
1	Fan House	150.00	Fair	45%	67.50
1	Compressor-Power Bldg.	1,500.00	Fair	35%	525.00
1	Fuel Tank	600.00	Fair	45%	270.00
1	Water Tank	644.00	Fair	30%	193.20
			Total Salvage Value to Operator		$5,887.33
			Government @ 75%		4,415.50

Very truly yours,

S. Ricker
Executive Officer
DMEA Field Team, Region II

SRicker:gh
cc: Finance
H. C. Miller
Operating Committee, DMEA, Wash., D.C. (2)
Geo. Mavor, Auditor, S.F.

DISPOSAL OF GOVERNMENT'S INTEREST IN PROPERTY

(FORM A)

To: Combined Metals Reduction Co.,
(M. I. A. Mines Co.)
P. O. Box 150
Salt Lake City 10, Utah

The United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, for a valuable consideration hereby sells, assigns, transfers and sets over to you all of its right, title and interest in all property acquired under Exploration Project Contract Idm-E481, Docket No. DMEA-2688, dated January 27, 1953.

Dated April 15, 1955 THE UNITED STATES OF AMERICA

By S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region II

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

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

APR 12 1955

Re: Idm-F481, DMEA-2688
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Mavor:

Reference is made to my teletype of April 7, 1955, in regard to the basis for calculating royalty used by M.I.A. Mines Company on the above-cited contract.

It would seem to me that Spangler Ricker, the Executive Officer, should determine whether or not there was a closer mill to which M.I.A. could send its ores for processing which would reduce the freight charges considerably. Would you mind discussing this matter with the Executive Officer?

I note that one shipment carries a freight cost of only $1,969.70 plus tax, while another one cost an additional $2,014.20 plus tax. It is apparent that Stopper & Allen refuse to allow the M.I.A. Mines to charge freight beyond the location of the first processing mill.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
April 12, 1955

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

R.C.R.

Contract Admin. & Audit Division

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

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

TELETYPE

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

APR - 7 1955

Reurlet to Swanson and his reply regarding royalty on Contract Idm-E481, Docket 2668, M.I.A. Mines Company. Do not issue certificate on royalty audit. Not satisfied with company methods. Letter follows.

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
April 7, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

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

APR - 4 1955

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-1481, DMEA-2688
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nev.

Dear Mr. Mavor:

Reference is made to your letter of March 29, 1955, in regard to the above-cited project.

It appears that your explanation for the accepted cost of winter road maintenance is sufficient for its allowance in your audit.

In regard to the manner in which you should state the work done under Amendment No. 1, your suggestion is correct. Under Category 1, Independent Contracts should be listed as (1) a. and Agreed Unit Costs should be reported as (1) b.

I believe this should clear the way for final settlement of this contract.

Sincerely yours,

SIGN

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
April 4, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.S.

DMEA

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

1605 Evans Avenue
Reno, Nevada

Memorandum

March 22, 1955

To: Operating Committee, DMEA, Interior Building, Washington 25, D.C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (amended)

Reference is made to your letter of March 3, 1955 in which you forwarded the original and five copies of Amendment No. 1 to the above subject contract.

The contract has been executed on the part of the Operator and one copy retained for his files. Distribution has been made of Finance Office and Field Team copies, and the original and two remaining copies are being returned to you herewith.

I have instructed our finance office to make partial payments on outstanding MF-104 vouchers, withholding $6,026.88 until final audit has been completed.

S. Ricker

Attachments

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

MAR 10 1955

Mr. George Mayor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-E481, DMEA-2688
M.I.A. Mines Company

Dear Mr. Mayor:

Reference is made to your letters of March 2 and March 4, 1955, in regard to the above-cited contract.

I believe my teletypes of March 8 and 9 will answer your letter of March 2. Under the provisions of those teletypes, approximately $6,000.00 would be withheld to cover liquidation of property, and provide a stimulant for the company to submit a final report on project findings.

In regard to the letter of March 4, your explanation of the water cost is accepted. It appears to me, however, that you have no evidence at all of the cost of road maintenance. The figure of $2,400.00 does seem reasonable, but the company should be able to support this figure by giving the number of days for bulldozing or other expenses related to road maintenance. Since the Combined Metals Reduction Company is, in effect, a part or whole owner of the M.I.A. Mines, a submission of a bill for this work with no supporting evidence is not sufficient to allow its payment.

Returning to your comments on the settlement of the inventory in your letter of March 2, it appears to me that this matter should be settled by the office of the Executive Officer for the Region.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChamber/wb
March 10, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.B.

Contract Admin. & Audit Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25

Defense Minerals Exploration Admin.
DXX401(01) Revolving Fund,
Defense Production Act, Interior (Allocated
Revolving Fund to the Office of Secretary)

TELETYPE

MAR 9 - 1955

Mr. George Mayor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Since Combined Metals has a direct interest in the M.I.A. Mines contract, E481, DMEA-2688, advise withholding from payment additional $1,000.00, making a total of $6,000.00, until further evidence of cost of road maintenance is provided.

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wh
March 9, 1955

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

R.C.S.

Departme[illegible] of the Interior

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

Defense Minerals Exploration Admin.
1/X4401(01) Revolving Fund,
Defense Production Act, Interior (Allocated
Working Fund to the Office of Secretary)

TELEGRAM

Selfridge
Chambers
Fitzsimons
Martin
Mathews

MAR 9 - 1955

MR. SPANGIER RICKER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION II
U. S. BUREAU OF MINES
RARE AND PRECIOUS METALS EXPERIMENT STATION
1605 EVANS AVENUE
RENO, NEVADA

RE CHAMBERS' TELEGRAM MARCH 8, 1955, M.I.A. CONTRACT IDM-E481, DOCKET DMEA-2688. ADVISE WITHHOLDING FROM PAYMENT ADDITIONAL $1,000.00, MAKING A TOTAL OF $6,000.00, UNTIL FURTHER EVIDENCE IS SUBMITTED FOR COST OF ROAD MAINTENANCE AND UNTIL FINAL OPERATOR'S REPORT RECEIVED.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE (GCS)

J L Chambers/wb
March 9, 1955

Copy to: Docket
Admr. Reading File
Operating Committee
Confirmation
Mr. Martin
Mr. Chambers

R.C.M.

Contract Admin. & Audit Division

UNITED STATES Defense Minerals Exploration Admin.
DEPARTMENT OF THE INTERIOR 14X4401(01) Revolving Fund,
DEFENSE MINERALS EXPLORATION ADMINISTRATION Defense Production Act, Interior (Allocated
WASHINGTON 25, D.C. Working Fund to the Office of Secretary)

Telegram

MAR 8 - 1955

MR. O. F. BURTON, TREASURER
COMBINED METALS REDUCTION COMPANY
P. O. BOX 150
SALT LAKE CITY 10, UTAH

REUR LETTER MARCH 4, 1955. MAVOR HAS BEEN NOTIFIED THAT UPON RECEIPT OF SIGNED AMENDMENT AUTHORIZING FINAL WORK TO BE PAID ON AGREED UNIT COST BASIS BALANCE DUE YOU WILL BE PAID LESS SUM FOR FINAL SETTLEMENT AS DETERMINED BY EXECUTIVE OFFICER.

(Signed) J. L. Chambers

JAY L. CHAMBERS, CHIEF
CONTRACT ADMINISTRATION
AND AUDIT DIVISION

JLChambers/wb
March 8, 1955

Copy to: Docket - DMEA-2688, E481
Admr. Reading File
Spangler Ricker, Region II
Mr. Martin
Mr. Mavor
Mr. Chambers

R.C.S.

Contract Admin. & Audit Division

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

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

Telegram

Martin

MAR 8 - 1955

MR. SPANGLER RICKER, EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION II
U. S. BUREAU OF MINES
RARE AND PRECIOUS METALS EXPERIMENT STATION
1605 EVANS AVENUE
RENO, NEVADA

OR $5,000.00

MAVOR SUGGESTS THAT $4,000.00/BE WITHHELD FROM M.I.A. MINES CONTRACT IDM-E481, DMEA-2688, PENDING MATERIAL AND EQUIPMENT SETTLEMENT. IF AGREEABLE TO YOU PAYMENT TO THE COMPANY, LESS $4,000.00, MAY BE AUTHORIZED UPON RECEIPT OF SIGNED AMENDMENT NOW PENDING.

(Signed) J. L. Chambers

JAY L. CHAMBERS, CHIEF
CONTRACT ADMINISTRATION
AND AUDIT DIVISION

JLChambers/wb
March 8, 1955

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

R.S.S.

Contract Admin. & Audit Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25

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

Martin

MAR 8 - 1955

TELETYPE

Mr. George Mavor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Upon receipt of amendment signed by operator you may authorize payment due, less $4,000.00 or $5,000.00 if approved by Ricker, on Contract E481, M.I.A. Mines.

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
March 8, 1955

Copy to: Docket - DMEA-2688
Admr. Reading File
Confirmation
Mr. Martin
Mr. Chambers

R.G.S.

400

DOCKET
Surname:
Rutledge
Martin
Jacobs
Selfridge
Johnson
Whitenday

MAR 3 - 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
420 Custom House, 555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Dear Mr. Ricker:

Enclosed are the original and five copies of a proposed amendment, Amendment No. 1, to the above-referenced amended contract signed by the Administrator for the Government.

If the terms and conditions of this proposed amendment are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

If any part of this proposed amendment does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies of the proposed amendment are to be returned to this office, together with the proposed changes for consideration.

Please note that the subject amendment does not authorize all of the work reported by the Operator but only that amount for which funds were available.

It is suggested in closing out this contract that sufficient funds be withheld to protect the Government's equity in installations.

Sincerely yours,

George C. Selfridge (JHB)
Chairman, Operating Committee

Enclosures

APPROVED:

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

E. L. Newcomb (JHB)
Member, Geological Survey

cc: DOCKET
FT, REG. II
CODE 400
ADM. READ. FILE
OPER. COMMITTEE
W. McINNIS, USBM
T. KIILSGAARD, USGS

RCS.

ledge/ls
/55

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

FEB 21 1955

Mr. George Mayor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Idm-F481, DMFA-2688
N.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Mayor:

Reference is made to your letter of February 4, 1955, accompanied by preliminary audit report for the period March 1953 to May 1954.

You bring up the question as to whether an interim audit should be issued for this period and a report of review issued upon receipt of an amendment to the amended contract. I think it would be just as well to omit the interim report and to issue a final report upon receipt of the amendment, which is now being processed in the Washington Office.

The preliminary audit as submitted is satisfactory as a whole. I would like to call your attention to a few minor things which need to be adjusted.

On pages 4 and 6 under item (i) you state that the allowable maximum for straightening and widening the adit is 3,000 cu. ft. at 60 cents per cubic foot or a total of $1,800.00. It should be 3,600 cu. ft. at 50 cents per cubic foot or a total of $1,800.00.

On page 7, next to the last paragraph, you indicate that the labor for the top man mechanic is an allowable maximum. The contract does not make this item an allowable maximum.

On page 9, first paragraph, please insert the following after the fourth word: "due to the Operator's performing drifting and raising work on his own account rather than under a subcontract."

On page 13, second paragraph, the allowable maximum properly should be shown as $1,500.00 (5 months at $300.00 per month), and not $1,200.00 (4 months at $300.00 per month).

R.C.H.

On page 19, third paragraph, there appears to be no statement as to your determination that the actual cost of road maintenance was $2,400.00 as claimed. It is true that the contract allowed $2,400 but the Operator must prove that he spent $2,400.00 for this work.

On page 21, paragraph one and two, you do not explain how you arrived at the cost of $244.71 per month for water. You did indicate, however, that this figure was on some basis of proration, and that the contract allowed this much. The item was an estimate, not a fixed cost. The question arises in my mind as to what part of the cost of drilling the well, purchase of pump and water main should be charged to exploration. Are these permanent improvements which the company will use after completion?

You probably would have found the above items when you reviewed your work before making the final report, but they are pointed out here to save you some time. There may be others which we have overlooked. A number of questions could be raised in regard to subcontract work done by the parent company. Generally, in cases of this kind we audit the records of the parent company. The engineers, however, believe that this is a very reasonable cost and I am inclined to go along with them on this point. However, I do think you should discuss the matter with the Executive Officer and get a statement from him on this point.

I am returning your preliminary report under separate cover.

In connection with this contract it has come to the attention of this Division that royalty repayments thereunder have been somewhat inconsistent insofar as the computations and deductions are concerned. Therefore it is desired that you schedule a royalty audit at your earliest convenience.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
February 21, 1955

Copy to: Docket
Admr. Reading File
Mr. Chambers

DOCKET
Surname:
Rutledge
Martin

Acting Assistant Solicitor,
Defense Minerals

February 18, 1955

Chief, Iron and Ferro-Alloys Division, DMEA

Preparation of Amendment No. 1
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Transmitted herewith is the rough draft of an amendment, Amendment No. 1, to the Amended Contract, for your use in preparing the final draft.

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

Attachment

cc: Docket
Adm. Read. File
Code 400

FARutledge/ls
2/18/55

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 11 1955

AXXXXXXX-113K

XDXXXXXX-114K SW113-WAF SFF 67 I-BOM

SAN FRANCISCO CALIF 2-10-55 423P

GEORGE C. SELFRIDGE, CHAIRMAN

OPERATING COMMITTEE, DEFENSE MINERALS EXPLORATION ADMINISTRATION

INTERIOR BLDG. WA

REURTT DOCKET DMEA 2688, M. I. A. CONTRACT IDM-E481. RAISING 48-18B RAISE SUBLEVEL 8.5 FEET. DRIFTING 45-15D RAISE SUBLEVEL 38.0. 300 LEVEL EAST DRIFT SILVER BELL 62.0 FEET. 650 LEVEL WEST DRIFT SILVER BELL 48.0 FEET. TOTAL DRIFTING 148 FEET. DIAMOND DRILLING 650 WEST DRIFT HOLES 17, 18, 19. TOTAL 165 FEET. THIS FOOTAGE IN AGREEMENT WITH MAVOR'S LETTER FEBRUARY 4 TO CHAMBERS.

S. RICKER EXECUTIVE OFFICER DMEA FIELD TEAM, REGION II

2688 IDM-E481 48-18B 8.5 45-15D 38.0 300 62.0 650 48.0 148 650 17 18 19 165 4

S 426P

FEB 11 10 03 AM '55
BUREAU OF MINES
MAIL ROOM
WASHINGTON D.C.

DOCKET
Surname:
Rutledge
Martin
Selfridge
Johnson
Mitchendorf

FEB 1 0 1955

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

T E L E T Y P E

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
420 Custom House, 555 Battery Street
San Francisco 11, California

Re Docket DMEA 2688, M. I. A. Mines Company, Contract Idm-2401, Amended. Please teletype location and footages of exploration completed under contract in January 1955.

George C. Selfridge

Chairman, Operating Committee (NB)

cc: Docket
FT, Reg. 2
Code 400
Adm. Read. File
Oper. Committee
W. McInnis, USBM
T. Kiilsgaard, USGS

FARutledge/ls
2/10/55

B.C.S.

DOCKET
SURNAME

400 Rutledge
Martin
Selfridge
Fitzmaurice
Mitchell

FEB 7 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-2681 (Amended)

Dear Mr. Ricker:

Reference is made to the subject docket and the copies of the executed amended contract recently received from your office.

Through our oversight, no date of execution was inserted on the last page of the contract. Therefore it would be appreciated if you would have October 25, the date the Administrator signed, inserted on the three copies of the amended contract now in the field. These are the operator's copy, the Field Team's copy, and the Finance Officer's copy.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

APPROVED:

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

Thor H. Kiilsgaard
Member, Geological Survey (JHB)

PARutledge:foc
2-4-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG.II
W. McInnis, USBM
T. H. Kiilsgaard, USGS

DOCKET
Surname:
Rutledge
Wynton
Selfridge
Woodworth
Hefferman

FEB 4 1955

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund, Defense
, 420 Custom House, 555 [redacted], Interior
(Allocated Working Fund to the
Office of the Secretary)

T E L E T Y P E

Spangler Ricker, Executive Officer
DMEA Field Team, Region II, 420 Custom House, 555 Battery Street,
San Francisco 11, California

Re Docket DMEA 2588, M. I. A. Mines Company, Contract Idm-E481, and ourtt December 2, 1954. Please forward MF-104A forms (Operator's Unit Cost and Progress Report) and the operator's narratives received in your office since those for September 1954. See second paragraph of first Special Notice in Minutes No. 192, Operating Committee, dated March 20, 1953.

George C. Selfridge
Chairman, Operating Committee

cc: CONFIRMATION-FT, Reg. 2-S. F.
Code 400
Docket
Adm. Read. File
Oper. Committee
W. McInnis, USBM
T. Kiilsgaard, USGS

FARutledge/is 2/3/55

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Copy retained 400

February 4, 1955

Air Mail

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Pursuant to your teletype of February 4, 1955, regarding subject docket we are attaching copies of Operator's MF-104A forms and narrative reports for the months of October, November, and December.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: Finance Office, Region II

Copy retained 400

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration

FEB - 1 1955

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 28, 1955

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481 (Amended)

Attached are the original and two copies of the above-cited amended contract signed by E. H. Snyder, Member Executive Committee, M. I. A. Mines Company. The other copies have been properly distributed.

Relative to the contract, your attention is called to Mr. George C. Selfridge's letter of January 11, 1955, to us, and to our letter to Mr. C. O. Mittendorf dated January 13, 1955, and our letter of January 19 to Mr. Selfridge.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachment

Copy to: A. C. Johnson, Reno (With copy of contract)
Finance Officer, Region II (With Copy of contract)
Roscoe Smith, USGS
George Mavor

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

Defense Minerals Administration
RECEIVED
JAN 20 1955

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Air Mail

January 19, 1955

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to your letter of January 11, 1955, regarding the status of proposed amended contract on above-cited project.

I am afraid that I had been somewhat confused about this contract and the action we were expected to take until I received Mr. W. S. Martin's report on his recent trip to our region. This report arrived on January 10 and it was not until I had reviewed it on January 12 that I noticed the results of his meeting with the officials of the Combined Metals Reduction Company. It would seem that the final understanding with the operators was that a further amendment, allowing a unit cost as requested, would be considered in Washington after the proposed amended contract was executed.

The proposed amended contract was sent to the operators while Mr. Martin was here so that he could discuss it directly with them. My last notation is regarding a telephone conversation with Sam Arentz on November 22, 1954, at which time I advised him to send copies of the amended contract to Mr. Gemmill so that Mr. Martin could discuss it with him during his visit at Castleton.

I had the impression that the amended contract might possibly be rewritten and did not realize that I had a false understanding until I read Mr. Martin's report of his visit with Mr. Gemmill and Mr. Arentz.

We have, in the meantime, not received the executed copies of the amended contract and no action whatsoever has been taken. I am sending a letter to the operators today bringing their attention to what Mr. Martin considered the final understanding as to the execution of the contract. A copy of my letter is attached.

If there is anything else we can do here to hasten a settlement of the M. I. A. problem, please inform us.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachment

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 19, 1955

Air Mail

Combined Metals Reduction Company
P. O. Box 150
Salt Lake City 10, Utah

Re: Docket No. DMEA-2688 - Tungsten
H. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Gentlemen:

Reference is made to my letter of November 17, 1954, relating to the above-subject docket. The original and five copies of a proposed amended contract for an exploration program at the subject property were attached to the letter.

It was my understanding that as a result of your discussion with Mr. W. S. Martin on November 25, 1954, Washington would await execution of the amended contract before preparing an amendment authorizing requested changes in the exploration program.

It would be appreciated if you would advise us what action is being taken regarding execution of the amended contract.

Sincerely yours,

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Copy to: DMEA, Washington, D. C.

Roscoe Smith, USGS

DOCKET
Surname:
Martin
Newcomb
Hadors
Selfridge
Wilkinson
Westenley

C

WSMartin
Ext. 5285

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

JAN 19 1955

TELETYPE

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
San Francisco, California

Reurlet January 13 asking if provisional payment should be made for October and November vouchers, Docket DMEA 2688, M.I.A. Mining Company. We are awaiting your reply ourlet January 11 before giving any instructions.

George C. Selfridge
Chairman, Operating Committee (GCS)

cc: DOCKET
FT, REG. II - San Francisco
CODE 400
ADM. READ. FILE
OPER. COMM.
T. KIILSGAARD, USGS
R. W. GEEHAN, USBM

WSMartin/ls
1-18-55

R.C.B.

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Air Mail

January 13, 1955

Memorandum

To: C. O. Mittendorf, Administrator, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

We are holding MF-104 vouchers on the above-subject contract for the months of October and November aggregating $11,475.00.

Are we authorized to continue to make payments subject to final audit before securing Amendment No. 4?

S. Ricker
Executive Officer
DMEA Field Team, Region II

Copy to: Finance Officer, Region II

DOCKET
Surname:

Rutledge
Martin
Selfridge
Johnson
Mottenoff

400

JAN 11 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region III
420 Custom House, 555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Ricker:

Reference is made to the subject docket and to our letter of October 25, 1954, which transmitted to you a proposed amended contract for execution by the operator.

Please determine the present status thereof and advise us, as we are awaiting its execution before preparing an amendment authorizing requested changes in the exploration program.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Copy to: Docket
FT, Reg. 3
Code 400
Oper. Comm.
Admin. Read. File
T. Kiilsgaard, USGS
R. W. Geehan, USBM

FARutledge/ls
1-10-55

R.C.S.

400 Docket

2688
M.I.A.
P.7

December 15, 1954

MEMORANDUM

To: Administrator, DMEA

From: Chief, Iron and Ferro-Alloys Division

Subject: Inspection of selected projects in Region III (November 16 - 26, 1954)

The subject trip had the following more or less related purposes:

(1) To allow an engineer from the Washington office:
  (a) To see some typical DMEA projects, and
  (b) To meet and recognize some of the every-day problems of the field engineers and geologists.

(2) To help maintain cordial relations through personal conversations:
  (a) With DMEA project operators, and
  (b) With executives and members of DMEA field teams.

(3) To allow first-hand observation of a few properties covered by new applications having such features as:
  (a) Unusual geologic occurrences, or
  (b) Exploration programs that include essential workings which could, however, also be expected to serve subsequently as mine development openings.

Four of the proposed inspections were omitted:

(1) Helmke, Thomas, and Janssen - Docket DMEA 3407, Chromium,
(2) The Brownstone Mining Co. - Docket DMEA 3455, Tungsten,
(3) Wm. L. Peterson, et al. - Docket DMEA 3478, Manganese, and
(4) Valle's Mining Syndicate - (Contract Idm-E678) Docket DMEA 3261, Nickel.

Travel plans previously made by the Field Team prevented any visit to the first property named above, but during a luncheon at the Engineers' Club in San Francisco with Messrs. Helmke, Janssen, and S. Rieker, we learned that the Owner's Consent to Lien forms required for the proposed contract had already been forwarded to Washington.

Snow and road conditions at the time prevented the second proposed inspection. The third had just been visited by Mr. Glenn G. Gentry, who will recommend only a limited amount of surface work. The fourth had been listed tentatively, but conversation with Mr. Roscoe Smith indicated that all work at the property had stopped and the operator had no desire or intention to drill any additional footage.

The time schedule for the trip is given below:

Date Nov.	Travel	Projects visited	DMEA Docket
16	Washington, D. C., to San Francisco, Calif.	-	-
17	At San Francisco	Office of S. Ricker	-
		Office of H. C. Carlisle (Wah Chang)	3512
		Office of George Mayor	2688
18	San Francisco, Calif., to Grass Valley, Calif.	Idaho-Maryland Mill, and Brunswick Mine and Mill	3347
19	At Reno, Nevada	Office of A. C. Johnson	-
20	Reno to Eureka, Nevada Eureka to Ely, Nevada	Nigant Mine (Hogle Bros.)	3395
21	Ely to Mt. Wheeler, Nevada	Mt. Wheeler Mine	2082
		Stopper Mill	-
22	Ely to Minerva Mine, Nevada Minerva Mine to Castleton, Nevada Castleton to Pioche, Nevada	Minerva & Silver Bell mines	2688
		Office of P. Gemmell (M.I.A. Mining Co.)	2688
23	Pioche to Tem Piute, Nevada Tem Piute to Glendale, Nevada	(Lincoln Mine [Wah Chang]	3512
		(X.Z. Mine [Lorry M.Freg]	3273
24	Glendale to Riverside, Nev. Riverside to Las Vegas, Nev. Las Vegas to Salt Lake City, Utah	Key West Mine	3479
25	At Salt Lake City, Utah	Office of J. D. Williams (Mt. Wheeler Mines, Inc.)	2082
		Office of S. S. Arentz (M.I.A. Mining Co.)	2688
26	Salt Lake City, Utah, to Washington, D. C.		

The most gratifying feature of the trip was the whole-hearted cooperation of Mr. Spangler Richer and the DMEA Field Team.

My plane left Washington at noon Tuesday and arrived at San Francisco shortly after dinner that evening. On Wednesday morning, after we reviewed some correspondence which Mr. Richer had held at the San Francisco office for discussion, he accompanied me to call on Mr. Henry C. Carlisle, who shares offices at 315 Montgomery Street with Ira B. and Peter Jarolemen and Rogers Peale.

Mr. Carlisle had the necessary Wah Chang mine plans and sections and showed us ore reserve and production figures that substantiated the need for prompt and extensive exploration at the Black Rock Mine, but especially at the Lincoln Mine. There were some questions not covered at our morning meeting and we returned to conclude our conference in the afternoon.

At the Engineers' Club, as previously mentioned, Mr. Helmes talked about his project and reported that Owner's Consent to Lien forms had been obtained after some temporary difficulty. With another group at an adjoining table was Mr. W. Church Holmes, manager of Sunshine Mining Company's Exploration Division, and we took the opportunity to speak to him later, although Sunshine has now relinquished its interest in the Garnet Tungsten Mine (our docket DMEA 2020). On the way out we thanked Mr. Granville B. Burden for arranging to have not only the manager and mine engineer but also his consulting geologist present at Grass Valley during my proposed visit.

These seemingly inconsequential meetings are believed to be typical examples of the close but informal contacts that can be maintained most easily with mining company managements from an office in San Francisco. It should be recognized, however, that our Executive Officer, Region III, with a geological staff operating out of Menlo Park, California, and a mine engineering staff operating out of Reno, Nevada, faces operational difficulties that would not occur, for example, in Region II. There the same two divisions of the Field Team are within a mile or so of each other; furthermore, the Executive Officer, Region II, has his own office in one of these divisions in Spokane, Washington.

Thursday morning, as planned before my arrival, Mr. Roscoe Smith, drove me to Grass Valley. On the way, there was an excellent opportunity to discuss a number of DMEA projects and problems.

Immediately upon arrival we went underground at the Brunswick Mine of the Idaho-Maryland Co. (Docket DMEA 334/-Tungsten). With us were mine staff members: Edmond F. Lawrence, Geologist; Neil Whiting, Engineer and Mine Superintendent; Sam Veale, Mine Foreman; and the Safety Engineer.

The route was:

Down Brunswick Shaft to 800 Level;

Up and down a raise to see scheelite showings on, or dipping into footwall of stope on 19 Vein closest to the Union Hill area;

Down a raise to 900 Level;

Down and up a raise to see showings in stope on 45 Vein;

Down a raise to 1000 Level to see showing in 35 D and 12 XC (site of raise proposed on basis of sampling only, but insufficient information on dips and strikes of tungsten stringers and veinlets);

Down a raise to 1100 Level to see best showings on 44 Vein;

Return to surface.

Without asking about the mine ore reserves or costs, we were told that 3 feet of $3.00 ore is not worth stoping. One possible limitation on our proposed exploration program is the reluctance of the mine management to hoist any avoidable waste rock. By choice, waste is dumped into old stopes as fill, but few such areas are available below the 1100 Level convenient to the prospective DMEA drives. The maps available in Washington are lacking in several respects desirable for making a sound choice here of any alternative exploration workings:

(1) Geology is not shown;
(2) Development is not up to date;
(3) Stoped areas are not all shown; and
(4) Areas of caved hanging wall over old open stopes are not indicated.

The maps do not show how much minor rehabilitation would be required in such worked-out areas as might be used now for access to a project area. Pencilled "Manway Open" signs, and many other indications of an active mine safety department were in evidence. However, where raises came up on the hanging wall side, or close to the center of some drifts we walked through, the admonition was "Keep on the footwall," or "Walk on the track," because the planks laid for a walkway were obviously affected by rot. In at least one place, we walked over recently fallen ground. Some of the ladders and stulls in the manways seen, especially the wet ones, might require replacement or maintenance.

The Brunswick Mill, visited next, has a jaw crusher followed by a Traylor cone and jigs, with hutch product to Wilfley tables and overflow through Ball mills and Classifiers in closed circuit to two banks of flotation cells. The proposed new scheelite section, designed by Western Machinery Company to be cut in or out as the mill feed shifts between tungsten rich and tungsten poor ore reserve blocks, will have a conditioner followed by flotation, using a bank of cells now idle in the mill.

On our way out, we stopped at the Idaho-Maryland Mill where the experimental equipment was installed for testing purposes after May 30, 1953, when an earlier application, Docket DMEA 2783, was denied. All the mill feed for such tests had to be trucked from the Brunswick shaft. The new flexible proposal, with the milling at only one shaft, seems deservedly to have met with no question.

Mr. Ricker picked me up at Colfax, California; we drove to Reno, Nevada, and arrived shortly after dark. Friday morning we called on Mr. A. C. Johnson, Chief, at the new Reno office of the Mining Division, Region III, Bureau of Mines. Four engineers in that division who have previously worked at least part time on DMEA examinations and reports - Messrs. W. T. Benson, R. R. Trengrove, F. J. Kiebelt, and G. H. Holmes, Jr. - are now assigned to research or related non-DMEA work. All but Holmes, who was in the field, were at the office.

The Bureau of Mines, as we were informed, has no more exploration projects in that area, although some DMEA work is now being done at or near former Bureau of Mines project sites. In such cases, if DMEA issues a certification of discovery or development, any public announcement thereof might well mention the earlier work, especially if the results of the same earlier work helped to establish our justification for exploration programs at those sites.

Messrs. M. W. Jones, B. M. Shoaban, and J. D. Warne, three of the four engineers on DMEA work, were out in the field. Mr. Glenn G. Gentry, who had returned the evening before from a 2000-mile trip, cheerfully agreed to take me in his car as far as Las Vegas, Nevada, and to introduce me to the DMEA operators whom we were to meet on the way. After our schedule had been planned to take advantage of the then open roads, and follow a route that would take us through the highest summits first, Mr. Johnson made as many of my necessary appointments as he could by telephone. The other appointments we made later from points along the route.

Leaving Reno Saturday morning, we reached Eureka at lunch time and our telephone call caught Mr. Roger M. Caywood, mine superintendent for two Eagle Eyes properties, at home at the Diamond Mine (Consolidated Eureka Mining Co., Docket DMEA 2992-Lead-Zinc). We met at the turnoff to Route 20, east of Eureka about 10 miles on U. S. 50, and drove south to the Minnie Mine, on the Gibellini property (Docket DMEA 3395 - Nickel, Manganese). We went down the 300-foot inclined shaft which has run off into the hanging wall shaft and saw the 30-foot crosscut being driven from the shaft bottom toward the ore zone. A 4-inch stringer of what was said to be good manganese

had already been encountered in the face of the crosscut. We also went into an earlier adit driven from a portal perhaps 10 feet lower than the shaft collar and cutting a mineralized zone visible for at least 50 feet, although there was no way to determine the true width. The ore for the shipment described in the application was gophered from workings beside and below the adit. The new crosscut is being driven at a labor contract of $13.50 per foot. Three men, one on the hoist and two below, making about $24.00 each per day, and a boy whose day's pay comes out of their contract price, work on each of two shifts, breaking about 6 feet per shift with an 11-hole round which they then muck out with a machine. Carbide bits and jackhammers with an air feed are used. Augur type steel was tried, but was entirely unsuited to the work. They work 6 days per week. The operator lets them ride the power wagon to and from work or gives them 5 gallons of gas per day if they choose to drive their own cars. Giving the gas is more economical for the management.

Inasmuch as the operator has returned without execution the contract provided by DMEA, we had no official status, but we were shown all the courtesy that any visitor could expect. My only comment was that the work being done seemed eligible for exploration assistance under our program and that DMEA would be glad to consider any reasonable proposals for revising the first proposed contract. Presumably the problem of obtaining Owner's Consent to Lien influences the applicant's opinion of the relative advantages of doing the work with or without DMEA aid.

Shortly after dark we reached Ely, Nevada, and tried, without success, to make an appointment with Mr. James D. Williams to see the Mt. Wheeler Mine (Docket DMEA 20-2-Tungsten). For the record, his telephone numbers are: Office, 409 Felt Building, Salt Lake 22-0535; and home, 13[illegible] South 5th East, Apt. 310, Salt Lake [illegible]-2397.

Information reached us, however, that the mine was working that week end and on Sunday we found the foreman, Lew Yelland, and a miner threading pipe at the Pole adit portal, with two more miners in the Pole heading. In the company's jeep we drove the short distance to the North adit and inspected the work there. It was recognized that your letter of November 16, 1954, advised Mr. Williams the work accomplished to October 25, 1954, would be accepted as substantial compliance with the work required by the contract. Mr. Gentry's lamping, however, showed about 2 feet of good scheelite at one point in the west wall of the lateral. Accordingly, Mr. Yelland was told that a few rounds driven to determine whether this last ore showing has any appreciable continuity, would be allowable

work against the contract funds remaining if the operator cared to comply that much more closely with the terms of Amendment No. 4, Exhibit "A", Stage III(b) of Contract Idm-8246.

Meantime the crew in the Pole adit advance had blasted and we did not go all the way into the heading. Instead an inspection was made of the broken ore on the floor of, and ore showing in the walls and face of, the East drift and stope off No. 5 North lateral, source of the best production found by this DMEA project. The ore seemed to be pinching down into the floor as the drift advanced, and apparently sorted ore only was shipped from the workings examined. On top of the broken ore was one piece noticed to contain an unexploded dynamite cartridge from a missed hole, or perhaps from a hole loaded to the collar, as it seems to be the district custom to use no tamping material. Generally speaking, however, everything about the project is well kept up and in good order; consequently, a visitor is most likely to receive a favorable impression of the operation.

Because of snow, the jeep trail from the Pole adit portal to the lead showings on the St. Lawrence fissure was impassible; some of the turns are reportedly so tight that the jeep must be backed once or twice to get around. By taking a road that turns easterly from the north-south road that connects the Stopper Mill and the Mineral Mine, we were able to drive about 2 miles up Lawrence Canyon. Beyond that the road up the canyon rapidly became more steep and narrow and the washouts were deeper.

The Stopper Mill treats about 25 tons per day of scheelite ore from the Canary Yellow Mine. The flow sheet, includes picking belt, crusher, trommel, screens, rod mill, and two Wilfley tables. A home-made jig, or perhaps more properly a hindered settling device, for which the mill helper, Mr. Martin Lintsch, has applied for patent, followed each table and scalped a unit or one and one-half units per day of scheelite out of the slimes. The device was about the size of a shallow desk drawer and had a head motion improvised from a household washing machine. Mr. Robert Stopper had offered to treat the Minerva ore on a toll basis, but his terms were not accepted.

On Monday we visited the Minerva Mine of the M.L.A. Mining Co. (Docket DMEA 2688-Tungsten), and saw most of the DMEA project work, accompanied by Mr. R. G. Lee, engineer and Mine Superintendent, and Mr. Jim Mulse, Mine Foreman. The trip through the Scheelite Chief adit was made in the ore train as far as the 43-24-D raise; up that ladderless raise in the steel bucket, which holds two men; to and from each

DMEA 2688

end of three levels, each driven on the vein both ways from the raise; and then from the top of the raise and through an old stope along the Silver Bell 400 level to the Silver Bell shaft, where we were hoisted to surface. Our visit concluded with an inspection of the sorting plant where two men up-graded the product under black light by picking waste from the hummer screen oversize off a moving belt.

Mr. Gentry lamped any workings which he had not inspected previously and in at least one instance picked up, in place in the wall behind the heading, a showing of scheelite that had been assumed to be no more than a layer of fine ore thrown against barren rock. A round or two will be taken out to determine what extent the showing has.

During our inspection a timberman came to Mr. Lee and asked for [illegible] X [illegible] timbers for a chute. The answer was that there were plenty of 10 X 10's available, but only a few [illegible] X [illegible]'s and that these were needed at Castleton. The timberman said that [illegible] X [illegible]'s were heavy enough for the job, but that if he could not get them he would use 10 X 10's. This seems to be characteristic of the project. The operator is doing an excellent mine development job while successfully completing our exploration project.

The operator is incurring non-reimbursable costs in two ways. Certain raise work, for an example of the first such way, is frankly recognized as stope preparation and is not charged to the DMEA project, nor will any request be made for inclusion of such work in our project. Other project work, for an example of the second way, is being completed either on a scale or with a permanence that is not necessary so far as the exploration program itself is concerned. Inasmuch as the allowable costs in the contract were not set up to include any work not directly required for exploration alone, the operator's share of the total cost in such instances is more than 25 percent of the actual cost.

That evening after driving to Pioche, we called at the Combined Metals Reduction Company office at Castleton and talked to Mr. Paul Gessmill and Mr. H. G. Lee about the proposed amended contract and further proposed amendments to the D.M.E.A. contract. The conversation was far from a success, and proved clearly that the longer a misunderstanding about a contract is allowed to go uncorrected the more awkward can be the results. Mr. Frank Anderson, the accountant, was not available for the meeting.

On Tuesday we drove to Tempiute to inspect the project north of the Lincoln Mine covered by the application of Wah Chang Mining Company, Docket DMEA 3512-Tungsten. Neither Mr. J. J. Strutzel, Jr. (whose phone number is 6911, Bishop, California) nor Mr. George Reed were present, but we discussed the proposed project with Mr. C. M. Dice, Executive Vice President, Mr. Robert Kirthman, Mine Superintendent, and the company's geologist, Mr. Armand R. Santoire. After reviewing the geologic surface plan, we visited the adit, which had then been driven about 80 feet from the portal. A relatively short tunnel, with one end about 50 feet from the adit portal, will have its other end about 40 feet above and 50 feet from the mill.

Subsequently an inspection of the open cut at the outcrop of the Lincoln showed that a typical plan of the ore body can be seen in the pit floor, while a typical cross section is exposed in the south end of the pit and the steep hillside below the north end. Topographic considerations limit stringently the choice of a center line for the adit. The best line for minimum length with adequate backs and closeness to the projected position of the potential ore zones northeast and northwest of the Lincoln, is also almost inevitably the best line for a haulage adit from the Lincoln to the existing mill.

An inspection of the Y. Z. Mining Company project (Docket DMEA 3273-Tungsten) indicated strongly that the Lincoln mineralization is persistent toward the south and could well be expected because of its intensity to persist toward the northeast or northwest, or both. Finding water for a mill could easily become a greater problem to Mr. Lory M. Free than finding more tungsten ore, but he told us he is interested in doing further exploration work to determine whether the vertical continuity of the ore is on any such scale as the horizontal extent. His workings are at a higher elevation than the active part of the Lincoln and his additional exploration would have a good probability of success.

That afternoon we drove to Glendale and on Wednesday morning went to Riverside, where we met Mr. A. F. Carper and accompanied him to the Key West Mine of Key West Nickel & Copper Corporation (Docket No. DMEA 3479-Nickel). The regular DMEA field examination had already been completed, with the report in preparation, and we, therefore, made our inspection brief. The general information obtained will be useful to us in Washington when the Field Team's recommendations are received here.

Wednesday afternoon we reached Las Vegas. Mr. Gentry expected by hard driving all the next day to be back in Reno in time for his Thanksgiving dinner. Thanks to a cancellation, there was a seat for me on an evening plane that reached Salt Lake City, Utah, at midnight.

Mr. James D. Williams of Mt. Wheeler Tungsten Mines came down to his office to meet me Thursday morning, and we discussed what had been seen at his DMEA project and what had been said to his foreman there, as mentioned above. He then arranged in the illuminated viewer a few pairs of air photos, selected from the many made of the same claims by Mr. F. A. Laylander, to show especially the upper part of Lawrence Canyon.

The offices of Combined Metals Reduction Company are also in the Felt Building and Mr. Sam S. Arentz (whose home address is 1300 Orchard Drive, Salt Lake City, telephone 87-3197) came in to talk about the proposed amended M.I.A. Mining Company's contract. We had already discussed the matter at some length by telephone from the above-mentioned meeting at Castleton, and he had talked afterwards to Mr. Gemmill and to our Washington office. Our meeting was short and amicable. The final understanding was that a further amendment, allowing a unit cost as requested, would be considered here after the proposed amended contract was executed.

Many flights had been cancelled because of the holiday, but a 2:00 a.m. plane brought me back to Washington just before lunch time Friday.

Generally speaking, no one should count on being able to duplicate the foregoing trip in the same amount of time at this season of the year. Any rough weather at all could have delayed us or made road conditions difficult during the 1200 miles of automobile travel. No amount of good weather would have helped much had the Field Team not been so thoroughly cooperative. Finally, it seems appropriate to express my great satisfaction at having had the pleasant personal associations which were incidental to the official purposes of the trip.

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

Docket

DEC 20 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

December 15, 1954

Memorandum

To: Defense Minerals Exploration Administration
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Royalty Payments

Relating to above subject, we are enclosing copies of settlement statements on the following contract:

Name of Operator - M. I. A. Mines Company

Contract No. - Idm-E481

Docket No. - DMEA-2688

Number of Settlements - 4

Amount of Royalty - $614.91

S. Ricker
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to: A. C. Johnson, Reno (With Attachments)
Finance Officer, Region III

Interior Department

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

DOCKET
SURNAME
Rutledge
Martin
Selfridge
Wattendorf

TELETYPE

DEC - 2 1954

SPANGLER RICKER, EXECUTIVE OFFICER, DMEA FIELD TEAM, REGION III, SAN FRANCISCO 11, CALIFORNIA

RE DOCKET DMEA 2688, M.I.A. MINES COMPANY, CONTRACT IDM-2481. PLEASE EXPEDITE OUR RECEIVING OPERATOR'S MONTHLY REPORT AND VOUCHER FOR MONTHS OF JUNE, JULY, AUGUST, AND SEPTEMBER 1954. WE WOULD ALSO APPRECIATE RECEIVING COPIES OF SAME REPORTS FOR OCTOBER AS SOON AS CONVENIENT AND FOR NOVEMBER WHEN AVAILABLE.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE (245)

FARUTLEDGE:fec
12-2-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III - (Confirmation)
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

R.C.G.

C

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

Mr. George Mayor
DMEA Auditor
420 Custom House
555 Battery Street
San Francisco 11, California

DEC - 2 1954

Re: Docket No. DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Mayor:

On November 29, 1954 the Administrator advised the Executive Officer of Region III to pay the June, July, August, and September 1954 vouchers (Form MF-104) submitted by the Operator of the above-cited project. These payments were to be provisional and subject to adjustment after audit.

Prior to the telegram the Administrator had signed Amendment No. 4 for submission to the Operator. The chief purpose of this amendment was to clarify the provisions of the contract. When the Operator has signed this amendment it is proposed that another amendment will be approved which will place the work on an agreed unit cost basis and probably extend the program somewhat. The date has not been decided at which the agreed unit cost will be effective. Before this decision can be made the Washington Office needs some information which you probably have or will have in your audit.

Therefore, I am requesting that when the Operator has signed Amendment No. 4 that you review your audit through May 31, using Amendment No. 4 as the basis for such a review and submit your audit as soon as possible to me. It will not be necessary to put the audit report in final form if in doing so it will unduly delay the receipt of it in Washington. After we have obtained the information from the audit it could be returned to you for final completion, if necessary.

Sincerely yours,

JLChambers/wb 12-2-54

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Copy to: Docket
Admr. Reading File
Mr. Ricker, Region III
Mr. Martin
Mr. Chambers

R.C.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED

420 Custom House
555 Battery Street
San Francisco 11, Calif.

November 29, 1954

Mr. S. S. Arentz
Combined Metals Reduction Company
P. O. Box 150
Salt Lake City 10, Utah

Re: Docket No. [illegible]A-2688 - Tungsten
M. T. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-[illegible]481 (Amended)

Dear Mr. Arentz:

Relative to above subject project, we are pleased to advise you that [illegible]-104 vouchers for June, July, August, and September 1954 are being processed for payment. Such payments are of course subject to subsequent audit.

Sincerely yours,

S. Ricker

S. Ricker
Executive Officer
DMEA Field Team, Region III

Copy to: DMEA, Washington, D. C.
L. H. Sjolander

Interior Department

XXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXX

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

DOCKET
SURNAME

Rutledge
Martin
Chandler
Johnson
Kulsgaard
Hedges
Selfridge

T E L E T Y P E

NOV 29 1954

Spengler Richer, EXECUTIVE OFFICER, DMEA FIELD TEAM, REGION III, SAN FRANCISCO 11, CALIFORNIA

RE DOCKET DMEA 2688, M.I.A. MINES COMPANY, CONTRACT IDM-E481. YOU ARE AUTHORIZED AND REQUESTED TO PAY PROVISIONALLY REFERENCED OPERATOR'S MF-104 VOUCHERS FOR JUNE, JULY, AUGUST, AND SEPTEMBER 1954. OPERATOR SHOULD BE ADVISED THAT SUCH PAYMENTS ARE SUBJECT TO SUBSEQUENT AUDIT.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

FARUTIEDCE:foc
11-29-54

cc to: DOCKET
CODE 400
ADM. READING FILE
Operating COMM.
FT. REG. III (CONFIRMATION)
R. W. GREHAN, USBM
THOR H. KIILSGAARD, USGS

R.G.S.

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

November 24, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

In response to your letter of November 12, 1954, relative to royalty payments on above subject contract, we are enclosing settlement sheets for $2,024.42 which cover payments through October 19, 1954.

We hope to make arrangements with the Bureau of Mines Finance office so that royalty settlement sheets can be forwarded to you more promptly in the near future.

S. Ricker
Executive Officer
DMEA Field Team, Region III

Attachments

Copy to: Finance Officer, Region III
George Mavor

copy retained in 401

COMBINED METALS REDUCTION COMPANY

Defense Minerals Administration
DMEA
NOV 26 1954

November 24, 1954

Mr. S. Ricker, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Tungsten Mine
Contract No. Idm-E-481

Dear Mr. Ricker:

Enclosed herewith are the MF-104's for the months of June, July, August and September 1954, as previously submitted. In a phone conversation with Mr. Mittendorf this morning he indicated that he was sending you authorization to make payment on these vouchers pending completion of an amendment to the revised contract establishing the contract on a unit basis.

We greatly appreciate your cooperation and hope that the matter can finally be straightened out in the near future.

Mr. Martin spent a day at Pioche going over the matter with Mr. Gemmill and his staff and I expect to see Mr. Martin here in Salt Lake City tomorrow.

Very truly yours,

S. S. Arentz

SSA: m

cc: Mr. C. O. Mittendorf
Mr. E. H. Snyder
Mr. O. F. Burton
Mr. Paul Gemmill

BRASS

There are many types of brass, with varying proportions of zinc and copper. While the composition of brass may range from 5 per cent zinc and 95 per cent copper to 50 per cent zinc and 50 per cent copper, the average brass contains about 30 per cent zinc and 70 per cent copper. Other special purpose brasses contain small amounts of lead, tin, aluminum, iron or manganese in addition to the zinc and copper.

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NUMBER 6 OF A SERIES

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400

DOCKET
Surname:
Rutledge
Martin
Chamberlin
Selfridge
Motherwell

NOV 12 1954

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688-Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Ricker:

Reference is made to the payment of royalty under the subject contract. We have received no settlement sheets covering shipments of tungsten ore by the referenced operator since those covering the first six lots. Our letter to Mr. Miller dated September 3, 1954, indicated an additional $456.14 was due in royalty on these shipments above the $652.27 already paid, because the buyer had deducted loading and trucking charges reportedly paid by the operator and, therefore, not properly deductible.

It would be appreciated if you would advise what action has been taken in this matter since Mr. Miller's letter of September 20, 1954, to Mr. H. E. Swanson, Chief Clerk, Ore Settlement Department, Combined Metals Reduction Company, and why we have not received settlement sheets covering the more recent royalty payments. According to our Audit Division, royalty payments through October 19 under the subject contract totaled $2,024.42.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Approved:

J. H. Hedges

Member, Bureau of Mines (JHB)

E. L. Newcomb

Member, Geological Survey (JHB)

FARutledge/ls
11-10-54

cc: Docket File
FT, Reg. 3
Code 400
Oper. Comm.

cc: J. Read. File
. W. Geehan, USBM
Thor Kilsgaard, USGS
Code 800

DOCKET
Surname:
Martin
Kulsgaard
Hedges
Selfridge
Johnson

Interior Dept.
Defense Minerals Exploration Administration

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

OCT 27 1954

T E L E T Y P E

To: H. C. Miller, Executive Officer, DMEA Field Team, Region 3
San Francisco, California

Reurtt October 20, Proposed Amended Contract Idm-4401, Docket DMEA 2600, M. I. A. Mines Company, mailed October 22.

George C. Selfridge
Chairman, Operating Committee

Field Team, Region 3
cc: Thor Kiilsgaard, USGS
docket
Code 400
Adm. Read. File
Oper. Comm.
R. W. Geehan, USBM

WSMartin/ls
10/27/54

R.C.H.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 27 1954

XDXXXXXX-130K SW133-WAF SFF 57 I-BOM

SAN FRANCISCO CALIF 10-26-54 430P

GEORGE C. SELFRIDGE, CHAIRMAN, OPERATING COMMITTEE

DMEA INTERIOR BLDG WA

RE DOCKET DMEA-2688 - TUNGSTEN, M. I. A. MINES COMPANY, CONTRACT NO. IDM-E481. RE: OPERATOR'S REQUEST OF AUGUST 3 AND 12 FOR AMENDMENT NO. 5. WE ARE HOLDING UNPAID OPERATOR'S JUNE, JULY AND AUGUSTVOUCHERS ON WHICH THE CHARGES ARE IN ACCORDANCE WITH OPERATOR'S REQUEST. OPERATOR PHONED ASKING IF AMENDMENT NO. 5 COULD BE EXPEDITED AND VOUCHERS PAID. WHEN MAY WE EXPECT THE AMENDMENT?

H. C. MILLER EXECUTIVE OFFICER, DMEA FIELD TEAM, REGION III

DMEA-2688 M.I.A. IDM-E481 3 12 5 5

CT 436P

OCT 27 8 26 AM '54
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D. C.

400
DOCKET
SURNAME
Martin
Chamber
Guhan
Newcomb
Selfridge
Gilman

OCT 25 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Enclosed are the original and five copies of a proposed amended contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Exhibit "A" (14 pages), Annex I (1 page), and two maps.

The subject amended contract has been prepared to simplify the administration of the referenced contract. If the terms and conditions of this proposed amended contract are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made, subject to the attachment of Owner's Consent to Lien executed by Robert F. Stopper, Edward G. Stopper, and Martha R. Allen.

If any part of this proposed amended contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies are to be returned to this office, together with the proposed changes for consideration.

With reference to our letter of July 20, 1954, please note that this amended contract does not change payment for work completed from actual to agreed unit costs or authorize any changes in location of the exploration since the transfer of the 384.8 feet of drifting on the fifth level of the Silver Bell shaft to the 650 foot level.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GHB)

Enclosures

APPROVED:

J. H. Hedges

Member, Bureau of Mines (GHB)

Thor H. Kiilsgaard

Member, Geological Survey (GHB)

FARutledge:foc 10-19-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

R.C.G.

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

October 14, 1954

Memorandum

To: The Administrator, DMEA

Attention: Mr. W. S. Martin

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA-2688, M. I. A. Mines Company Amended Contract

Reference is made to your memorandum to me of September 24 with regard to proposed Amendment No. 4 to the subject contract.

Attached hereto is an amended contract intended to be used in lieu of proposed Amendment No. 4, and which will replace the existing contract and all amendments thereto. I find it impracticable to make this complex matter plain in anything but an amended contract rather than an amendment to the existing contract.

The suggested Amendment 4 is impracticable because it was impossible or at least very difficult to correlate the estimates of cost with the various items of work to be performed. This was true particularly with respect to the category "Operating Materials and Supplies," part of the estimates for which were set up under the title "Rehabilitation and Repairs." That title was not designed for underground workings but for surface installations of various kinds. All of the estimates for materials and supplies are now set up under that title and related to the various "work items" in the description of the work.

By setting the agreement forth in an amended contract rather than an amendment of the existing contract, the necessity for referring to various existing amendments, annexes, and the relations between them is obviated. I checked the amended contract in draft form with Mr. Rutledge before putting it in this final form.

JLHofflund/emd
Copy to: DMEA Docket
Solicitor's Docket
W.S.Martin (2)
Attachments 8

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

J.L.Hofflund chron.

400

DOCKET
SURNAME
Martin
Geehan
Newcomb
Selfridge
Kjelmann

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: DMEA 2688 - Tungsten
M.I.A. Mines Co.
Contract No. Idm-E481
and
DMEA 2919 - Tungsten
Strawberry Tungsten Mines, Inc.
Contract Idm-E619

Dear Mr. Miller:

This will acknowledge receipt of your letter of September 17, 1954, asking why it is necessary to send out letters to the various operators under your own signature instead of merely transmitting copies of our letters to you.

Without having seen what copies you sent out, we can say only that the copies sent you of our letters to you usually show such matters as: 1. distribution; 2. initiating engineer; and 3. when letter was first written. In some instances where several revisions are necessary, the date on which the letter is finally sent may be considerably later than that first date.

If you did not send to the operator one of the tissue copies of our letter to you, you presumably sent Verifax copies of the original. The objection in that case is that the original is signed by the several members of the Operating Committee. This is another instance where we do not wish to have internal Government procedure made public.

Sincerely yours,

George C. Selfridge (EST)
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

WSMartin/foc 9-27-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III
R. W. Geehan, USBM
Thor H. Kiilsgaard, USGS

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 27, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to memorandums dated August 24 and 27 concerning an amendment to the subject contract.

Mr. A. C. Johnson is now in receipt of a letter from Mr. Paul Gemmill, Manager, Nevada Operations, Combined Metals Reduction Company concerning his requests dated August 3 and 12 for an amendment to the contract.

Mr. Gemmill writes that work at the mine is continuing in line with his request even though no amendment has been given the company to date. Also, the work done has been vouchered on the Company's July and August 1954 MF-104 vouchers but cannot be paid for until the requested amendment is prepared and signed.

Mr. Gemmill desires information on whether the amendment will be approved.

I will appreciate any information you can give me so as to be able to tell Mr. Gemmill where he stands in relation to his request.

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

Copy to: A. C. Johnson, Reno
Roscoe Smith, USGS

400

Docket
Surname
Rutledge
Martin

September 24, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Amended Contract
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to your memorandum of September 15, 1954, on the subject contract, to Mr. W. S. Martin, and the more recent conference with Messrs. Chambers, Talbert, Hafflund, Martin, and Rutledge in Mr. Chambers' office regarding the proposed amendment No. 4 to Contract No. Idm-E481, M. I. A. Mines Company.

During this conference it was agreed that the proposed amendment would be rewritten as an amended contract. Unit costs were to have an allowable maxima but all costs were to be on an actual cost basis with most of the categories waived. However, further review of the matter indicated that this would defeat the purpose of the contract as written.

The rough draft of the proposed amended contract including copy of the Subcontract Agreement, therefore, is returned for your use in preparing a final draft of an amended contract.

It is suggested that the transfer of the word "Rehabilitate" from the first item under Stage I, Independent Contracts, Estimated Costs of the Project, to the second item of the same category could prevent any difficulties of correlating the work specified with the estimated costs thereof.

FARutledge:foc
cc to: Docket
Code 400
Adm. Reading File

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

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 23, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to your letter of September 10, 1954, under the subject docket, requesting custom milling schedules on tungsten ore.

We are enclosing information on purchase schedules from the following companies:

Hillside Mining & Milling Company
The Twining Laboratories
C. W. Jones
U. S. Vanadium Company
Getchell Mine, Inc.
Toiyabe Mining & Milling Company

We have requested a schedule from the Combined Metals Reduction Company and will send you a copy as soon as it arrives. In the meantime, we are enclosing a statement that was released by that Company about one year ago, as well as copies of their settlement sheets on 5 lots of ore.

Truck haulage rates range from 5 to 12 cents per ton miles depending on class of road, regularity of shipments, and tonnage. Railroad rates depend on the value of the ore.

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

Attachments
to Code 400

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

Defense Minerals Administration
RECEIVED
SEP 24 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 20, 1954

Mr. H. E. Swanson
Chief Clerk
Ore Settlement Department
Combined Metals Reduction Company
P. O. Box 150
Salt Lake City 10, Utah

Re: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-3481

Dear Mr. Swanson:

We acknowledge your letter dated September 15, 1954, in reply to our letter of September 10 informing you of additional royalty due covering shipments of Lots 1, 2, 4, 5, and 6 of tungsten ore by the M. I. A. Mines Company.

We note the statement in your letter that "When our tungsten program gets smoothed out, all transportation payments will be made by Combined Metals Reduction Co." and that you desire that DMEA reverse its decision citing additional royalties due.

It will not be possible for us to reverse our decision and we shall expect a check for $456.14 promptly from you for royalty due on the above-cited shipments.

Sincerely yours,

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

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS
Finance Officer, Region III

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

400

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 21 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 17, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

WSM

From: Executive Officer, DMEA Field Team, Region III

Subject: Your teletype dated September 17, 1954

Reference is made to your teletype dated September 17, 1954, concerning correspondence dated September 3, 1954, directed by this office to E. I. A. Mines Company, Docket DMEA-2638, and letter of September 10 to Albert J. Jenssen, President, Strawberry Tungsten Mines, Inc., Docket DMEA-2919.

As I interpret your wire, Verifax copies of letters from you should never be sent out when information desired by you is to be obtained. Rather, the substance of your letter should be included in a letter prepared by us and sent out over the signature of the Executive Officer. I presume that you mean by "signature of Executive Officer" that in my absence from the office, Mr. S. Ricker may sign for me as Executive Officer as was done on the transmittal letters to the above two cited companies.

In other words, direct copies of your letters should never be sent out by this office, but their substance may be incorporated in our letters and sent out over my signature or that of the party acting for me. I am certain there must be a reason for this or else you would not request that procedure, but it certainly does not tend to cut down on the very burdensome paper work involved in carrying out our DMEA work.

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

Copy to: Roscoe Smith, USGS
S. Ricker, San Francisco

DOCKET
Surname:

Interior Dept.
Defense Minerals Exploration
Administration
[illegible] providing fund
[illegible] production [illegible]
Interior (Allocated [illegible]
to the Office of [illegible])

SEP 17 1954

[illegible] TYPE

[illegible] R. C. Miller, DMEA Executive Officer, [illegible]
San Francisco, California

[illegible] to Continental Mining
Company, Docket [illegible] -Tungsten [illegible] I.A. Mining Company.
([illegible] a copy of our letter of
[illegible] inter-office correspondence [illegible]
[illegible] office stocks [illegible]
[illegible]

[illegible] to [illegible] Mining, Inc.,
Docket [illegible].

George C. Selfridge

Chairman, Operating Committee

cc: Confirmation to FT, Reg. 3

Docket DMEA 2919
Docket DMEA 2688
Code 400
Operating Committee (copy to Code Member)
Adm. Reading File

WSMartin/ls
9-16-54

R.C.S.

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

SEP 15, 1954

Defense Minerals Administration
RECEIVED
SEP 15 1954

Memorandum

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

From: Acting Assistant Solicitor, Defense Minerals

Subject: M.I.A. Mines Company, Docket No. DMEA 2688, Contract No. Idm-E481

Reference is made to your memorandum to me dated August 16 to which is attached a rough draft of an "Amended Contract" for our use in preparing a final draft. Before he left on vacation, Mr. Rubin prepared this matter in the form of an "Amendment No. 4" rather than as an "Amended Contract" which you seem to have had in mind. The matter could be accomplished either by an Amendment No. 4 or by an amended contract, but I am inclined to revert to your original thought and prepare a completely amended contract. In either case, it is necessary to have your aid in restating the matter. Therefore, pursuant to our conversation of yesterday, I return to you herewith your draft of amended contract accompanied by the draft of "Amendment No. 4" which Mr. Rubin had prepared. I will detail herewith the matters that need your attention:

1. As the matter is now stated, it is difficult to correlate the work specified with the estimated costs thereof. One element of the work (Stage I (2)) is to "rehabilitate the main adit . . . including laying track, and installing air, water and power lines." This is estimated, I believe, under the first two items of the category "Independent Contracts", but the first item of estimate reads:

> "Rehabilitate, straighten, and widen main adit, 3,600 cu. ft.* of rock in place at $0.50/cu ft.*"

The second item reads:

> "Lay track, install air, water, and ventilation pipes, 1900 ft.* at $0.75/ft.*"

The contract would be much easier to understand if the items of estimate were set forth in the same terms as the items of

DMEA Docket

description of work. For instance, I surmise that this item of estimate should be set forth somewhat as follows:

<u>Rehabilitation of the main adit</u>

Excavate 3,600 cu. ft.* of rock in place at $0.50/cu ft.*	$1,800.00*
Lay track, install air, water, and ventilation pipes, 1,900 ft.* at $0.75/ft.*	1,425.00*

Similarly, I believe you should check through the description of the work and correlate each item of estimate to each item of described work.

2. The costs are estimated under the usual seven categories, the first of which is "Independent Contracts." All of the work described in the specifications, except a few minor items, apparently is estimated under this category, and yet the total of this category is only about half of the estimated total cost of the project. I gather, therefore, that the elements of the work estimated under the category "Independent Contracts" actually refer only to the labor for the performance of these elements, exclusive of all of the various elements of cost estimated under the other six categories. To make this clear, it is necessary that an explanatory note should be attached to the category "Independent Contracts" somewhat as follows:

> All or any of the work above described may be performed under independent contracts or by the operator itself, as the operator may elect. The estimated cost of those elements of the work set forth under this category is exclusive of those elements of cost which are estimated under categories (2), (3), (4), (5), (6), and (7) following this category, and no part of the cost of the work or requirement included under an independent contract shall be allowed also under some other category. To the extent that work is not let for performance under any independent contract, the schedules for estimating the cost thereof, provided for in Article 6(a), are waived except insofar as such costs are now estimated in categories (2) to (7), inclusive. Work performed under allowable independent contracts will be contributed to

on the basis of the unit costs provided for in independent contracts, and allowable costs incurred for work or requirements not included in independent contracts will be contributed to on the basis of actual costs, some of which are estimated in categories (2) to (7), inclusive, and the estimates for the rest of which are waived.

3. It is my understanding that an independent contractor quit the work and that the operator has been carrying on for his own account since January on an actual cost basis. I do not know if it is important to establish the exact cut-off points between the work performed under independent contract and that being performed by the operator. At least, if the cut-off points are not established it will be difficult to compare the actual costs incurred with the amount of work accomplished on an actual cost basis to ascertain if the costs are reasonable.

I understand that this contract has presented various difficulties in accounting and auditing, and although the foregoing may seem complex and difficult, I believe it is necessary to give it careful consideration if the administration of the contract is to work out smoothly. I suggest that this memorandum and any further draft of an amendment be checked with the Contract Administration and Audit Division before it is returned to this office.

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachment

JLHofflund:bbh 9-15-54

Copy to: Solicitor's Docket
Admr. R. File
DMEA Docket

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

Defense Minerals Administration
RECEIVED
SEP 14 1954

420 Custom House
555 Battery Street
San Francisco 11, California

September 10, 1954

Combined Metals Reduction Company
218 Felt Building
Salt Lake City, Utah

RE: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-2481

Gentlemen:

Relative to the above project, we are enclosing a copy of a letter of September 3 which we have received from the DMEA Operating Committee regarding settlement sheets on lots 1, 2, 4, 5 and 6, dated August 14, 1954.

Very truly yours,

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

Enclosure

Copy to: Finance Officer, Region III
DMEA - Washington

400

DOCKET
Surname:
Rutledge
Martin
Selfridge
Jeffrey
Muttendorf

SEP 10 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688-Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the custom milling at the Bauer plant of Combined Metals Reduction Company of ore produced under the subject contract.

It will be appreciated if you will obtain for us the tungsten buying schedule for the above-named mill, and also send us copies of the buying schedules for the mill at Bishop and the other custom tungsten mills currently operating in California and Nevada. Please also give us whatever information you have available covering truck and railroad freight rates for the corresponding hauls.

We are interested in making a comparison of the probable royalty the M. I. A. ore would pay if shipped elsewhere.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Approved:

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

Thor H. Kiilsgaard
Member, Geological Survey (JHB)

cc: DOCKET
ADM. READING FILE
CODE 400
OPER. COMMITTEE
FIELD TEAM, REG. 3
R. W. GEEHAN, USBM
THOR KIILSGAARD, USGS

FARutledge/WSMartin
9-10-54

R.C.G.

400

Docket
Surname

Rutledge
Martin
Jackson
Selfridge
J. H. Hedges
Thor H. Kiilsgaard

SEP 3 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the settlement sheets from the Combined Metals Reduction Company covering shipments of tungsten ore by the M. I. A. Mines Company as follows: Lots 1, 2, 4, 5, and 6, dated August 14, 1954.

The Government's percentage royalty paid under these settlement sheets is insufficient. The buyer, Combined Metals Reduction Company, has deducted certain charges before calculation of the Government's royalty that are not properly deductable. These have been indicated on the face of the referenced settlement sheets by "(a)" and consist of loading and trucking charges to the shipping point that apparently were prepaid by the Operator.

A summary of the royalty paid, corrected royalty, and royalty due follows:

LOT	PAID	CORRECTED	DUE
Lot 1	$ 23.30	$ 128.44	$105.14
Lot 2	0.00	7.15	7.15
Lot 4	297.22	485.13	187.91
Lot 5	20.24	113.99	93.75
Lot 6	311.51	373.70	62.19
Total	$652.27	$1,108.41	$456.14

Sheets showing calculation of the above royalties are attached.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosure

APPROVED:

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

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

FARUTLEDGE:foc 9-2-54
cc to: Docket
Code 400
Adm. Reading File
cc to: Oper. Comm.
FT. Reg. III
R. W. Geehan, USBM
Thor H. Kilsgaard, USGS

E. I. A. MINES COMPANY
Contract No. Idm-E481
Royalty Calculations

Lot 1

193.460 tons @ $15.712/ton	$3,039.64
less $470.74	- 470.74
Net proceeds	$2,568.90
$2,568.90 / 193.460 tons $13.28/ton	
Royalty @ 5%	$128.44

Lot 2

114.504 tons @ $6.144/ton	$703.51
less $226.71	- 226.71
Net proceeds	$476.80
$476.80 / 114.504 tons $4.16/ton	
Royalty @ 1½%	$ 7.15

Lot 4

587.305 tons @ $18.656/ton	$10,966.09
less $1,263.51	- 1,263.51
Net proceeds	$ 9,702.58
$9,702.58 / 587.305 tons $16.51/ton	
Royalty @ 5%	$485.13

Lot 5

224.439 tons @ $13.504/ton	$3,030.82
less $497.68	- 497.68
Net proceeds	$2,533.14
$2,533.14 / 224.439 tons $11.29/ton	
Royalty @ 4½%	$113.99

Lot 6

223.305 tons @ $36.488/ton		$8,147.95
less $673.87		- 673.87
	Net proceeds	$7,474.08
$\frac{\$7,474.08}{223.305 \text{ tons}}$	$33.47/ton	
	Royalty @ 5%	$373.70

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

Air Mail

August 27, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Attached is a copy of a memorandum from Mr. A. C. Johnson dated August 26, 1954, concerning the suggestion in my memorandum to you dated August 24 that easterly extensions from the 43-24D raise on both the 650 and 600 level of the Minerva mine did not seem necessary unless the drift driven first did not discover ore.

Mr. Johnson explains the reason why both drifts should be allowed. I believe, on the strength of what Mr. Johnson wrote, that consideration in amending the contract should be given to the company's wishes and I am quite certain Mr. Smith will concur.

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

Attachment

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

COPY

1605 Evans Avenue

August 26, 1954

Memorandum

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

From: Chief, Mining Division, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Co., Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Reference is made to your memorandum of August 24 to Mr. George C. Selfridge relative to the work proposed at the Minerva Mine in White Pine County, Nevada.

It is noted that you and Mr. Smith have taken exception to the proposed easterly extension of the 650 foot level from the 43-24 D raise.

Ordinarily one level would accomplish the work in exploring the objective Area No. 4 but at the time of Mr. Gentry's last visit to the property the vein on the 650 foot level had split, one segment striking in a northeast direction and one in a southwest direction. The proposed drift on the 600 foot level from the 43-24 D raise is to determine the location of the above mentioned southwest segment of the mineralization in the fissure and whether or not the top of the ore shoot has been reached. Also there are several small faults striking northwest by southeast that could offset an ore body. The 600 foot level will give information on the attitude of the mineralization on this level and it will also assist in determining the rake of the ore shoot.

The proposed work is good exploration.

/s/ A. C. Johnson

CC: Mr. R. M. Smith, USGS

Talbert
Chambers

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

Mr. H. C. Miller
Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: DMEA-2588, Idm-E481
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Miller:

Enclosed herewith is check no. 56495, voucher no. D7789, dated August 16, 1954, issued by the Combined Metals Reduction Co., Salt Lake City, Utah, to cover royalty payments on the referenced Exploration Project Contract. Three copies of each of the applicable settlement sheets (Lots 1, 2, 4, 5, and 6) are attached thereto.

This check was mailed by the smelter to the Executive Officer, DMEA Field Team, Region IV, Denver, Colorado. It is suggested that you advise the Combined Metals Reduction Company as to the address that checks covering royalties under this contract should be forwarded.

The Washington copies of the settlement sheets have been retained and forwarded to the Iron and Ferro Alloys Division of the Administration.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

Enclosures

EDTalbert/ama
August 24, 1954

Copy to: Combined Metals Reduction Co.
218 Felt Building
Salt Lake City, Utah
Mr. W. H. King, Exec. Off.
DMEA Field Team, Region IV

Mr. Martin
Docket
Adm. Read. File
Mr. Chambers

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

August 24, 1954

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

By letter dated August 3, 1954, from Mr. Paul Gemmill, Manager, Nevada Operations, Combined Metals Reduction Company, to A. C. Johnson, supplemented by a letter to Mr. Johnson dated August 12, 1954, also from Mr. Gemmill, M. I. A. Mines Company is requesting not only an amendment converting its contract to a unit cost basis and a time extension, but an entirely new change of program.

Two copies of each of Mr. Gemmill's letters are attached, plus two copies of a memorandum dated August 19, 1954, from Mr. Johnson to me.

The figure $45,716.00 quoted in Mr. Gemmill's August 3 letter is substantially correct. Mr. Mavor has furnished me with the following:

Audit Costs - Claimed		$126,391.63
Less - Disallowed	$21,759.02	
Plus Add'l. Costs	21,623.48	
Net Disallowance		135.54
Allowable Costs 5/31/54		$126,256.09
Amount of Contract		$171,400.00
Unexpended 5/31/54		$45,143.91

The figure $45,143.91, of course, is subject to Washington office audit.

You will note that Mr. Johnson recommends approval of the Company's request. Mr. R. M. Smith and I went over the request this morning and concluded that the proposed program is sound and should be approved with possibly one exception. The Operator has proposed an easterly extension of the 650 level from the 43-24 D raise, and an easterly extension of the 600 level from that same raise. It seems to us that one or the other would be enough to explore Objective Area No. 4 unless the first work done does not find ore.

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

Attachments

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

1605 Evans Avenue
xxxxxxxxxxx

August 19, 1954.

Memorandum

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

From: Chief, Mining Division, Region III

Subject: Docket DMEA-2688 - Tungsten
M.I.A. Mines Company, Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Enclosed are five copies of a proposed amendment to contract No. Idm-E481, M.I.A. Mines, Company, Minerva Tungsten, White Pine County, Nevada, dated August 3, 1954. This request for amendment was held on my desk until Mr. Gentry returned from an inspection trip in that area. Amendment has been further clarified by a letter dated August 12 from Mr. Paul Gemmill that justifies the work that was asked under the proposed amendment. Five copies of this letter accompanies request for amendment No. 5.

On a recent visit there for auditing of the books of the above mentioned company, Mr. Mavor probably intimated that the contract could be changed to a unit basis. At the present time, it is on a semi-unit basis in which the company receives $25. to $30. a foot for their drifting, however, they are also allowed to claim for bookkeeping, supervision, transportation and rental of equipment.

They have requested that the unit basis for the raising, drifting and crosscutting be $35. a foot. Their cost to date indicates that the unit basis for this work is around $36.68 a foot, so the proposed $35. a foot for the work would be reasonable.

The amendment also calls for expending the balance of their funds for further prospecting on the property. The prospecting or exploration is more or less in the same area that was designated in the original contract. In the event that the amendment is approved, it would allow the company to expend their present balance of approximately $45,756. for further exploration of the mineralized fissures in areas specified in the contract.

Map No. B-877 attached to the applicant's request for amendment No. 5 itemizes the new exploration work in the following locations:

Operator's Project No.	Location	Footage Requested	Footage Completed	Uncompleted
No. 1	Westerly extension of drifting off main Scheelite Chief raise on the 650 level	630.0 ft.	236.3 ft.	393.7 ft.
No. 2	Easterly extension of drifting off main Scheelite Chief raise on the 650 level	115.0 ft.	164.7 ft.	
No. 3	Easterly extension of drifting above the intermediate level off Raise 45-15-D	290.0 ft.	70.0 ft.	220.0 ft.
No. 4	Easterly extension of drifting off main Scheelite Chief raise on the 600 level	145.0 ft.		145.0 ft.
No. 5	Easterly extension of drifting on the 300 level of the Silver Bell shaft	36.0 ft.		36.0 ft.
		1216.0 ft.	471.0 ft.	794.7 ft.
Raising:	Above Project No. 1	115.0 ft.		115.0 ft.
	Above Project No. 2	110.0 ft.		110.0 ft.
		1441.0 ft.	471.0 ft.	1019.7 ft.

The exploration outlined on the applicant's map amounts to 1441.0 feet and will, therefore, be 135 feet in excess of the footage requested. However, the exploration program is expected to be governed by geological conditions and could not exceed the 1306 feet of drifting @ $35. per foot.

As you will note from the conversion to a unit basis that has been made by Mr. Lee, under item 2 of his letter he states that a maximum of 10% of the total footage may be converted to diamond drilling footage at a ratio of 7:1 or seven feet of diamond drilling for one foot of drifting, raising or crosscutting. This would mean that they are charging $5. a foot for diamond drilling which is reasonable.

The exploration work they have outlinedwould give considerable information on the mineralization at the property and it would also increase the chances of paying back the Government loan. Under the circumstances, I recommend that it be given approval.

A. C. Johnson

Encls.

August 3, 1954.

Mr. A. C. Johnson
Chief Mining Division, Region XII
U. S. Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Minerva DMEA Contract

Dear Mr. Johnson:

Recently, Mr. George Mavor was with us completing his audit of the Minerva DMEA Project through May 31st.

Mr. Mavor's audit will show that our balance of funds for that date totals $45,716.

Our company operation has grown so that there are technical difficulties in seggregating DMEA costs from company costs and numerous supply and service costs have been apportioned on the basis of percentage of direct labor time distribution.

In the course of our discussions, we suggested to Mr. Mavor that we would like to convert the balance of funds to a straight unit cost basis which would greatly simplify our reports as well as eliminate further detail audits. He saw no reason why this conversion could not be made if the time of conversion coincides with an audit date. We have therefore held up our June report to request coversion to a unit cost basis as of June 1st.

Mr. Lee has prepared the attached formal request for amendment which includes conversion to a unit cost basis, a time extension and a map showing the proposed exploration work.

The unit cost of $35.00 per foot for drifting and raising is considered by us to be low enough so there will be no question about approval. For supporting information, please refer to the May, 1954 "Operator's Unit Cost and Progress Report" which shows drifting cost to date of $61,217.51 for 1669, feet of drifting. Mr. Mavor's audit will show $2,165.13 of this total to be disallowed and $1,305.50 additional cost for powder allowed, or a net reduction of $859.63. Thus, the allowed direct face cost will show as $60,357.88 and calculate $36.16 per foot. This cost does not include the various indired costs such as supervision and technical, bookkeeiping, sampling and analysis, taxes and insurance, rental and depreciation, transporting men and supplies. Your attention is also directed to the fact that half of

the drifting (845.5 ft.) was performed on the main chief adit level at a lower direct cost than sub-level or Silver Bell work and all of the work now proposed will be on sub-levels.

I hope the above explanation, coupled with our accompanying application will suffice in overcoming any difficulty in converting to unit cost basis prior to the completion of work previously set forth in our contract as stated in your letter to me dated June 30th, 1954. Mr. Mavor stated that another audit would otherwise be required and we thought the method proposed would avoid a gap in the continuity of DMEA work.

Sincerely yours,

Paul Gemmill, Manager
Nevada Operations

cc: Mr. A. C. Johnson (5)
EHS
OFB
RGL
File

August 2, 1954

Mr. A. C. Johnson
U. S. Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Docket No. DMEA 2688
Contract No. IDM-E 481

Dear Mr. Johnson:

It is hereby requested that consideration be given to the following proposed Annex and Amendment to the above referenced exploration contract.

1. The following items in Annex 2 are in lieu of article 6, Docket No. DMEA 2688, allowable cost of project.

Annex 2

The cost of the project in which the Government will participate are limited to the following:

(a) Thirty five dollars ($35.00) per foot of advance of drifts, crosscuts and raises. No other cost to be added or subtracted.

2. The following Amendment No. 5 to further amend contract IDM-E 481, (Docket No. DMEA-2688) as follows:

(a) Total aggregated number of feet of drifting, crosscutting and raising shall not exceed 1306.18 feet @ $35.00 per foot or a total cost of $45,716.19. A maximum of 10% of the total footage of 1306.18 feet may be converted to diamond drill footage at a ratio of 7:1 or seven feet of diamond drilling is equal to one foot of drifting, crosscutting or raising. Total aggregated feet of exploration work as defined above shall be expended in objective areas 1,2, 3 and 4 as shown on attached map B-877, subject to approval of Bureau of Mines field representative.

(b) In Article 3 of the contract form, delete the period "15 months" and substitute the period "30 months".

(c) This amendment to be known as Amendment No. 5 of Contract IDM-E 481 (Docket No. DMEA-2688), dated January 27, 1953; is in lieu of and shall supersede and replace Exhibit "A" and amendments 1, 2, 3, 4 of exploration contract IDM-E 481 (Docket No. DMEA-2688).

Annex No. 2 or Amendment No. 5 shall not be construed to increase the estimated cost of the project or the aggregated total amount which the Government may be required to contribute.

Early approval of modification of the contract on basis outlined above effective June 1, 1954 is respectfully requested.

Very truly yours,

Reginald G. Lee

Reginald G. Lee

cc: Mr. A. C. Johnson (5)
BHS
~~SGA~~ OFB
PG
File

August 12, 1954.

Mr. A. C. Johnson
Chief Mining Division, Region III
U. S. Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Minerva DMEA Contract

Dear Mr. Johnson:

Since we sent in our request for Amendment No. 5, I have talked with Mr. Gentry of your field team. He suggested that the proposals in our application be further explained from a geological viewpoint in order to demonstrate that all work outlined should be classed as exploration and no part as development.

The following discussion is divided into work proposed in further exploration of blocks labled "Objective Area" 1, 2, 3 and 4 as roughly outlined on our Map C-1107 submitted with our original application and prepared by R. H. Godbe; or as now outlined on our Map B-877 submitted with our current application for revision and prepared by O. E. Schrader. These maps are only intended to show the approximate position of possible areas in which ore might be discovered. As work progresses, new information will change our interpretation so that the course of exploration headings will have to be altered, subject to approval of the DMEA Field team.

Objective Area 1

Work previously performed was successful in locating the chief vein above the 65 ft. sub-level and an ore block is now being mined between two minor faults which includes the vein in locations intersected by diamond drill holes No. 5 and No. 6, both of which showed good values.

The exploration is outlined to reach the continuation of the chief vein east of the present stope area. Diamond drill hole No. 7 intersected the vein some distance above the level and showed some mineralization. The amount of exploration work shown for this area is an arbitrary proportion of the total 1306 feet requested and may actually consist of a greater proportion of raising to drifting.

Drifting on the vein would explore for possible ore below the ore shoot and all raising would be in unexplored ground. Any faulting encountered would require cross-cutting to reach the vein.

Objective Areas No. 2 and No. 3

Work in this area has already been approved in Amendment No.3 to our contract and is based on information from surface churn drilling together with fissure and fault projections. The present application and proposals shown would simply increase the amount of work from the 384.8 feet allowed to whatever proportion of the 1306 feet that would be required to explore for and locate ore in objective areas 2 and 3. Work would be subject to change on locating the actual position of faulting and variations would be subject to approval by the field team.

When drifting west from 43-24D raise encounters the first major fault, labled fault "Y" on map B-877, we may find that the geometry favors some diamond drilling to objective area 2. Therefore we have asked that the contract permit conversion of some of the overall footage to diamond drilling.

Objective Area No. 4

At the time of preparing our original application, it was assumed that the raise driven to connect with the Silver Bell No. 5 level would expose commercial grade ore in objective area 4 extending down from the Silver Bell stopes.

The vein as exposed adjacent to the raise did show suffient mineralization to demonstrate that the ore bearing zone had been located but did not show commercial ore. Exploration drifts had to be started east on the 6500 Elevation (650 level) and 50 ft above. Extension of these headings has been included as part of the exploration because this work is necessary to demonstrate the existance of commercial grade and quantity within objective area 4.

I hope the above discussion will serve to fill the omission in our application.

Sincerely yours,

Paul Gemmill

Paul Gemmill, Manager
Nevada Operations

cc: Mr. A. C. Johnson (5)
EHS
OFB
RGL
File

MF-201
(June 1951)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the holder of a mortgage, claim, lien, or encumbrance identified and described as follows*:

.....

.....

upon that certain parcel of ground described in a certain Exploration Project Contract dated

....., 195...., between .....

.....,

and the United States of America;

NOW, THEREFORE, the undersigned does by these presents subordinate all of his right, title, and interest in said mortgage, claim, lien, or encumbrance to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights under the provisions of said mortgage, claim, lien, or encumbrance; and

The undersigned agrees to commit no act nor assert any right, title, or interest under said mortgage, claim, lien, or encumbrance that might contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this ..... day of ....., 195....

.....

*Include date of the instrument, and if recorded, book, page, and county of record.

U. S. GOVERNMENT PRINTING OFFICE 16—64581-2

400

DOCKET
SURNAME
Rutledge
Martin

INTERIOR DEPT
AUG 17 1954
SOLICITOR

August 16, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Amended Contract
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-2481

Transmitted herewith is a rough draft of a proposed amended contract for your use in preparing the final draft.

Copies of the maps referred to in the proposed amended contract are enclosed.

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

Enclosure
FARUTLEDGE:foc
8-16-54
cc to: Docket
Code 400
Adm. Reading File

AMENDED
EXPLORATION PROJECT CONTRACT
M. I. A. Mines Company
Docket No. DMEA 2688

ANNEX I

WHEREAS, the parties to this amended contract are also parties to Contract No. Idm-E481, Docket No. DMEA 2688, dated January 27, 1953, as amended, hereinafter called the "Prior Contract"; and

WHEREAS, the work program under the "Description of the Work" has been altered by numerous amendments; and

WHEREAS, the unit costs for work under "Independent Contracts" as set forth in the Prior Contract were superseded by an Agreement dated June 22, 1953, between the M. I. A. Mines Company and the Centennial Development Company, a copy of which is attached hereto and made a part hereof;

NOW THEREFORE, to simplify the administration of the contract and authorize the revised unit costs for work under independent contracts, it is mutually agreed that:

1. Effective as of January 27, 1953, the Prior Contract is amended and superseded by this amended contract, which shall govern all the rights and obligations of both parties.

2. The Operator hereby releases and agrees to save harmless the Government from all claims and demands arising out of the Prior Contract, except as otherwise herein provided.

3. The Government's claim and lien for percentage royalty and all other terms and conditions of the original contract shall be controlled by the terms and conditions of this amending and supplementing contract.

ANNEX XX

"Royalty Provisions"

A G R E E M E N T

THIS AGREEMENT made and entered into as of the 22nd day of June, 1953, by and between the M. I. A. MINES COMPANY, not incorporated, authorized to do business in Nevada, party of the first part, hereinafter referred to as "Company", and the CENTENNIAL DEVELOPMENT COMPANY, a Utah corporation, party of the second part, hereinafter referred to as "Contractor".

WITNESSETH:

The Company holds under agreement and lease certain mining property situated in Minerva Mining District, County of White Pine, State of Nevada, and is desirous to have certain exploration work done in accordance with Exploration Project Contract Docket No. DMEA 2688 and Contractor is qualified and willing to do said work upon the terms hereinafter stated.

NOW THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00) to Contractor paid, receipt of which is hereby acknowledged, and of the agreement of the parties by them respectively to be kept and performed, it is hereby agreed as follows:

1. (a) CONTRACTOR AGREES to rehabilitate the main adit in the Scheelite Chief mine, including straightening and widening as designated, laying track, and installing air and water lines; for which the Company will pay $.50 per cubic foot of rock in place removed to the waste dump and $.75 per lineal foot of completed track, air, and water line installation.

(b) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Scheelite Chief mine on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty Dollars ($20.00) per lineal foot of drift advance and $3.50 per lineal foot for installation of Company furnished 6 x 8 feet sets on 5 foot centers.

(c) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartments (5 1/2 x 13 feet) raises and install timber and chutes as specified in the Scheelite Chief mine at location and inclination designated by the Company; for which the Company will pay Thirty Dollars ($30.00) per lineal feet for 5 1/2 x 11 ft. rock section complete with timber installed, and Thirty-four dollars per lineal foot for 5 1/2 x 13 ft. rock section complete with timber installed.

(d) CONTRACTOR AGREES to rehabilitate the inclined shaft at the Silver Bell mine to the third level at direct labor and supervision costs plus a fixed fee of Fifteen Dollars ($15.00) per shift.

(e) CONTRACTOR AGREES TO construct a skip pocket, including timbering, with an effective capacity of 150 cubic feet at the third level of the Silver Bell mine for a flat price of Four Hundred Dollars ($400.00).

(f) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Silver Bell mine to a maximum of 500 feet from the shaft on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty-six Dollars ($26.00) per lineal foot of drift advance and $4.00 per lineal feet for installation of Company furnished 6 x 8 feet sets on 5 feet centers.

(g) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartment (5 1/2 x 13 feet) raises and install timber and climbs as specified in the Silver Bell mine at location and inclination designated by the Company; for which the Company will pay Thirty-eight Dollars ($38.00) per lineal foot for 5 1/2 x 11 ft. rock section complete with timber installed, and Forty-two Dollars ($42.00) per lineal foot for 5 1/2 x 13 feet rock section complete with timber installed.

II (a) COMPANY AGREES to provide for use in the development without cost to the Contractor:

1. One Gardner-Denver mucking machine Model 9.
2. One Sullivan mucking machine Model HL-3.
3. Ten mine cars.
4. Coppus fans, 5 HP, as needed for adequate ventilation.
5. One storage battery locomotive complete with charger.
6. One 360 cubic foot compressor (Ingersoll Rand Model 75, GMC Diesel Motor Model 4031C), complete with air receiver and 3 inch air line to portal of Scheelite Chief adit.
7. Diesel Generator Set - 15 KW.
8. One Sullivan Hydrojib.
9. One "motor feed" - Joy LW-6-A.
10. One drifter - Joy T300.
11. One drifter - Joy T350.
12. One stoper - Gardner-Denver R91.
13. One jackleg - Thor Model 63A.
14. One jackhammer - Thor Model 3B.

15. Two Jackhammers - Thor Model 75.

16. One jackhammer shall - Thor Model 75

17. Mechanics and electricians' services and repair parts for repair and maintenance of all above equipment

18. Rail and fittings, pipe and fittings, vent lines and accessories, timber, wedges, nails, as needed, all delivered at the portal as required by the Contractor.

19. Greases and oils for all equipment.

20. Air and water hoses for the headings.

21. Raise service hoists as required.

22. Power line to electric fans as required.

23. Operation of small tractor for snow removal as required.

24. Gasoline driven hoist (or equivalent) plus fuel for same, surface bin with dumping arrangement and skip at the collar of the Silver Bell incline.

25. Compressed air, drill water, and electric power as required including fuel and maintenance.

26. To sell to the Contractor at cost plus 10% such supplies and shop service as he may require, but entirely at the Company's convenience.

III (a) CONTRACTOR AGREED to supply or provide:

1. All labor and supervision, including insurance and payroll taxes, and housing and boarding of same.

2. Haul and dump waste or ore and maintain waste dump.

3. All explosives and blasting facilities.

4. Installation of fans and vent lines.

5. Operation of all surface plant equipment, including compressors, diesel electric generators, battery charges, and hoists.

6. Small tools as required in drill headings.

(b) CONTRACTOR AGREES To commence work immediately and to continue at a rate of at least two machine shifts per day for no less than six days per week.

(c) CONTRACTOR AGREES to perform the work in an efficient and minerlike manner, and to conform with applicable rules and regulations government safety and sanitation in mines.

(d) CONTRACTOR AGREES to provide labor and/or supervision, at Contractor's cost, for additional items of work as may be required in fulfilling the Company's Exploration Project Contract with the government.

(e) CONTRACTOR AGREES to co-ordinate its operations with any concurrent Company mining operations for maximum efficiency of both parties.

(f) CONTRACTOR AGREES to carry, at its expense, workmen's Compensation and Occupational Disease Disability Compensation Insurance covering its employees, and before commencing any work under this Agreement, to furnish Company with a certificate of the insurance carrier that Contractor is covered with Workmen's Compensation and Occupational Disease Disability Compensation Insurance, and an agreement of the insurance carrier that the policy or policies for such insurance will not be cancelled without first giving Company at least 10 days' written

notice of Intention to cancel the same, to pay any taxes and/or make any deductions under the Federal Insurance Contributions Act, the Federal Unemployment Tax Act, and/or the Nevada Employment Security Act for which Contractor may become obligated, and to comply with the Nevada Act to Regulate Payment of Wages in Private Employment, the Fair Labor Standards Act of 1938 as amended, and all other laws, rules and regulations of any duly constituted governmental authority affecting said work; and on request of Company, to furnish its supporting evidence of compliance with the requirements of this paragraph.

(g) CONTRACTOR AGREES to furnish Company, upon its request, satisfactory proof that all workmen employed by Contractor in the performance of the work covered by this Agreement have been fully paid and that all suppliers of equipment, tools, supplies, and power furnished by Contractor have been fully paid.

(h) CONTRACTOR AGREES to indemnify and save Company harmless against all claims made upon Company for or on account of any debt or expense incurred by Contractor, or claims for personal injury to or death of any person or injury to property of any person by reason of any act or omission of Contractor, its agents, or employees; and to assume and discharge all liability, claims and demands of whatsoever nature arising out of or based upon its operations under this Agreement.

IV IT IS MUTUALLY AGREED:

(a) That final payment to Contractor under this Agreement shall be based on plans, sections, and other data prepared by Company's engineers from original measurements and surveys made by Company's representative, in the presence of a representative of Contractor, of the drift and/or excavations, completed in accordance with the provisions of this Agreement; and said representative of Contractor and representative of Company shall approve and sign the original notes of such measurements at the time they are made. Payment for partially completed sections of the drift and/or raise or for sections where any work is improperly done (such as timbering inadequately blocked) or excessive track grade) shall be withheld until the regular payment date next following proper and final completion of the section. In the event of disagreement between the representative of Contractor and representative of Company as to the work completed, Contractor shall furnish Company with a memorandum, in writing, stating the differences and Company shall investigate the facts and attempt to compose such difference, but in any event, the decision of the Company shall be final in determining payments to be made under this Agreement.

(b) That neither party to this Agreement shall be responsible for loss or damage arising from delays caused by strikes, fire, accidents, delays or carriers, suppliers of material,

inability to obtain labor or supplies, cave-ins, or other causes beyond the reasonable control of either party, whether of the same kind or class as the cause specifically enumerated or not; but each party will exercise reasonable effort and diligence to avoid any such delays.

(c) In the event of the Company's failure, or temporary inability to provide agreed upon services or facilities, the Company will make reasonable payments to the Contractor for the direct costs incurred by him as the result of such failure. This does not apply to isolated breakdowns or breakdowns of short duration which can be reasonably expected.

(d) Payment for advance will be made not later than the tenth of the following month with no hold-back, except in the case of work improperly performed.

(e) That Company mine superintendent or engineer may inspect the workings at any time and direct Contractor as to direction of the drive and advise if work fails to meet contract specifications.

(f) That this Agreement is not assignable or transferable by Contractor or by operation of law.

V THE COMPANY reserves the right to terminate this Agreement by thirty (30) days written notice to the Contractor for:

(a) Failure to perform work in minerlike fashion or follow work specifications.

(b) Failure to maintain reasonable progress.

(c) Deterioration of economic conditions or suspension of Government aid.

IV THIS CONTRACT becomes null and void effective immediately should Defense Minerals Administrator fail to approve this sub-contracting of DMA Docket 86, L-DMA-E7, in which case the Company will pay Contractor direct costs plus Twenty-five Dollars ($25.00) per day after drifting commenced until date of cancellation.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective proper officers thereunto duly authorized, as of the day and year first written above.

M. I. A. MINES COMPANY

/s/ _____
Manager

CENTENNIAL DEVELOPMENT COMPANY

/s/ _____
Sec.-Treas.

AMENDED
EXPLORATION PROJECT CONTRACT
M. I. A. MINES COMPANY
Docket No. DMEA 268

EXHIBIT "A"

Description of the Work

The work consists of two stages, which may be performed simultaneously. The Objective Areas are indicated on Map C-1107, attached hereto.

STAGE I

Time Schedule: 0 - 15 Months

(1) Purchase, transport to and install on surface a compressor, power and warehouse building; and provide and install one water tank and fuel tanks.

(2) Rehabilitate the main adit in the Scheelite Chief Mine, including laying track, and installing air, water, and power lines. The adit shall be straightened and widened only to the extent necessary to complete the proposed exploration in an efficient and workmanlike manner.

(3) Objective Area 1. Drive a drift 1/147 feet southeasterly on the intermediate level. (See Map C-1112 attached hereto.)

Diamond drill not to exceed 709.5 feet from intermediate level "A", to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole are subject to the approval of the Government. (See Map C-1112 attached hereto.)

(4)- Objective Areas 2 and 3.

Step 1 - Bulldoze the necessary roads to 4 churn-drill sites. Churn drill 4 holes to an aggregate total depth of 739.7 feet. The location, direction, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government.

Step 2 - This step will depend upon the results of Step 1 under this item and shall be subject to the prior approval of the Government. Extend the main adit 2/ S. 80° E. direction for approximately 275 feet from its present face. (See MapC-1112 attached hereto).

1/ The drifts, crosscuts, and raises shall be driven approximately 5' by 7' in the clear. However, the Operator, at his election, may drive larger drifts or crosscuts, and may drive 3-compartment raises, provided that the extra costs thereof shall be at the Operator's sole expense. In such event the basis of proration between Operator and Government shall, at all times be subject to the approval of the Government, and costs involved in such proration will be disallowed by the Government to the extent that they are disapproved by the Government.

2/ See footnote 1.

---

(5) Objective Area 4.

Step 1 - Advance the main adit 2/ S. 80° E. an additional 570.5 feet. (See Map C-1112 attached hereto).

Step 2 - Diamond drill 2 holes, each approximately 200 feet in length, up to the objective area. The location, attitude and length of each hole shall be determined by the Operator subject to the prior approval of the Government.

Step 3 - This step will depend upon the results of Step 2 and is subject to the prior approval of the Government. Drive a 2-compartment raise 2/ approximately 290 feet to the Objective Area. (See Map C-1112 attached hereto).

Step 4 - Explore the area below the favorable ore horizon drilled in Step 2 with 6 diamond drill holes with a total aggregate length of approximately 900 feet. The location, attitude, and length of each hole shall be determined by the Operator, subject to the prior approval of the Government

STAGE II

Time Schedule: 15 - 21 Months

(1) Erect headframe, bin, and hoist house, and lay necessary track on surface at Silver Bell shaft, all on Company account at no cost to the Government.

(2) Rehabilitate Silver Bell shaft to 3rd level, retimbering where necessary, including laying track, and installing air, water, and power lines.

(3) Install skip pocket on 3rd level of Silver Bell shaft.

(4) Objective Area 5. Drift 2/ 200 feet easterly on the 3rd level of Silver Bell shaft.

(5) Objective Area 6.

Step 1 - Bulldoze the necessary roads to churn-drill sites. Churn drill 3 holes aggregating a total of 600.3 feet in depth. The location, direction, attitude, and length of each hole shall be determined by the Operator subject to the prior approval of the Government.

Step 2 - This step will depend upon the results of Step 1 and is subject to the prior approval of the Government. Extend the 3rd level drift 2/ of the Silver Bell shaft an additional 300 feet easterly.

Insert

(6) Objective Area 4.

Step 1 - From the 6500-foot sub-level off the main Chief-Silver Bell raise, drift westerly approximately 200 feet.

Step 2 - This step will depend upon the results of Step 1 and the results of any diamond drilling under Steps 2 and 4 of item (5) Objective Area 4, and is subject to the prior approval of the Government.

Extend the 6500-foot sub-level drift westerly and/or crosscut an additional aggregate of approximately 184.8 feet.

Step 3 - This step will depend upon the results of Steps 1 and 2 and is subject to the prior approval of the Government. Extend the 3rd level drift[2/] of the Silver Bell shaft an additional 150 feet easterly (See Map C-1112 attached hereto).

2/ See footnote 1.

Estimated Costs of the Project
(* Indicates allowable maximum)

(1) Independent Contracts[4]

STAGE I

Rehabilitate, straighten, and widen main adit, 1700* feet at $0.50/cubic foot* of rock in place (estimated at 3,600 cu. ft.)	$1,800.00*	
Lay track, install air, water, and ventilation pipes, 1900 ft.* at $0.75/foot*	1,425.00*	
992.5 feet* of drift at $20.00/foot*	19,850.00*	
120 feet* of drift timbering at $3.50/ft.*	420.00*	
290 feet* of 2-compartment raise at $30.00/foot*	8,700.00*	
1 bulldozer, 20 hours* at $12.00/hr.*[5]	240.00*	
739.7 feet* of churn drilling at $5.00/foot*[6]	3,698.50*	
2,009.5 feet* of diamond drilling at $5.50/foot*[6]	11,052.25*	$47,185.75*

3/ See footnote 1.

4/ The Operator may elect to do all or any part of the work under this category on Company account on an actual cost basis, in lieu of contract unit costs, and in such event, all schedules under Article 6(a) of the contract form are waived as to such work, provided that the actual costs for any item shall not exceed the allowable maximum specified for that item under this category.

5/ The bulldozer costs include operator, fuel and oil, necessary supplies, repairs and replacement parts.

6/ The costs of churn and diamond drilling include labor, and all machines and supplies necessary for the operation except water, which will be furnished by the Operator.

STAGE II

Rehabilitation of Silver Ball shaft to 3rd level, 18 days* at $100.00/day*	$ 1,800.00*	
Construction of skip pocket at 3rd level Silver Ball shaft, including all labor, supplies, materials, and all other costs	500.00*	
1,034.8 feet* of drift at $26.00/ft.*	26,904.80*	
50 feet* of drift timbering at $4.00/ft.*	200.00*	
600.3 feet* of churn drilling at $5.00/ft.* 7/	3,001.50*	
1 bulldozer, 30 hours* at $12.00/hr.* 8/	360.00*	$32,766.30*

NOTE: The estimated costs of the underground work and the conditions under which it will be carried on are based upon Annex III, made a part of this Exhibit, which is a "Agreement" dated June 22, 1953, by and between the M. I. A. Mines Company and the Centennial Development Company. In any case of conflict between the provisions in Annex III and the provisions of the contract form and Exhibit "A", the contract form and Exhibit "A" shall prevail.

(2) Labor, Supervision, Consultants

STAGE I

1 Supervising Engineer at $600.00/month,* 8 months*	$ 4,800.00*	
1 Tagman 1/2 day at $16.02 per day, 8 months (includes overtime and fringe payments)	1,666.50	
1 Engineer, part time at $100.00/month*, 8 months*	800.00*	$7,266.50

7/ See footnote 6.

8/ See footnote 5.

STAGE II

1 Supervising Engineer at $600.00/month*, 5 months*	$3,000.00*	
1 Topman 1/2 day at $16.02 per day, 5 months (includes overtime and fringe payments)	1,041.50	
1 Engineer, part time, at $100.00/month*, 5 months*	500.00*	$4,541.50

(3) Operating Materials and Supplies 9/

STAGE I

12 tons of secondhand 30# rail at $105.00/ton 10/	$1,260.00*	
1700 feet of 1" black pipe at $0.12/foot	204.00	
850 feet of 3" black pipe at $0.74/foot	629.00	
850 feet of 2" black pipe at $0.50/foot	425.00	
Pipe fittings	66.00	
1,800 feet of 12" flexible vent tubing at $0.82/foot	1,476.00	
2,500 feet #4 - 3 conductor wire insulated for underground use at $1.00/foot	2,500.00	
Electric switches and transformer	185.00	
Fuel and oil, 26 days per month, 16 hours per day, 8 months	3,536.00	
Drill steel and bits	2,500.00	
Tools and miscellaneous supplies	300.00	
480 Ties at $0.75 each	360.00	
35,000 feet timber at $117.00/M 11/	4,095.00	
Core boxes	180.00	
Drayage on pipe and fittings	83.00	
Explosives (Not chargeable when work done under Independent Contracts)	1,120.00	$18,919.00

9/ Any materials and supplies not included under this category are to be furnished by the independent contractors, except as otherwise provided in footnote 4.

10/ Price of rail includes fish plates, bolts, and spikes.

STAGE II

5 tons of secondhand 30# rail, at $105.00/ton 12/	$ 525.00*	
900 Feet of 1" black pipe at $0.12/foot	108.00	
900 feet of 2" black pipe at $0.50/foot	450.00	
Pipe fittings	37.00	
800 feet of 12" flexible vent tubing at $0.82/foot	656.00	
400 feet #4 - 3 conductor wire insulated for underground use at $1.00/foot	400.00	
Fuel and oil, 26 days per month, 16 hours per day, 5 months	2,210.00	
Drill steel and bits	2,100.00	
Tools and miscellaneous supplies	200.00	
200 ties at $0.75 each	150.00	
10,000 feet of timber at $117.00/M 11/	1,170.00	
Drayage on pipe and fittings	47.00	
Explosives (Not chargeable when work done under Independent Contracts)	2,000.00	$10,053.00

(4) OPERATING EQUIPMENT

STAGE I

To be rented 13/

11/ Timber cost includes the costs of trucking to mine and framing.

12/ See footnote 10

13/ If any of the equipment under this category is furnished by the M.I.A. Mines Company, or an affiliated company, it is to be charged to the contract on a monthly depreciation value which is equal to 1/60 of its fair market value, instead of the rental values listed.

14/ See footnote 13.

1 Battery trammer, $230.00/month, 8 months	$1,840.00*	
10 - 20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 8 months	2,080.00	
1 Diesel-Electric Generator Set, 220-440 volts, at $400.00/months, 8 mo Pr	3,200.00	
2 Ventilator fans at $17.00 each/month, 8 months	272.00	
1 15-KW Diesel-Electric Generator set, 110-220 volts, at $150.00/month, 8 months	1,200.00	
Water pressure tank, $5.00/month, 8 months	40.00	$12,672.00
~~1 Mucking machine at $150.00/month, 3 months~~	~~450.00~~	~~$13,122.00~~

STAGE II

To be rented[14]/

3 - 20 to 24 cubic foot mine cars, equipped for motor haulage, at $26.00 per car per month, 4 months	$ 312.00	
1 Diesel-driven, portable compressor at $505.00/month, 5 months	2,525.00	
1 Diesel-Electric Generator set, 220-440 volts, $400.00/month, 5 months	2,000.00	
1 Ventilator fan at $17.00/month, 5 months	85.00	
1 15-KW Diesel-Electric Generator set, 110-220 volts, $150.00/month, 5 months	750.00	
1 Gasoline-driven hoist at $85.00/month, 5 months	340.00	
Water pressure tank, $5.00/month, 5 months	25.00	
Surface equipment at the Silver Bell shaft to be erected and to be supplied by the Operator, includes hoist house, headframe, bin, truck, cars, skip, and miscellaneous equipment. $300.00/month, 5 months	1,500.00	$7,537.00

(5) Rehabilitation and Repairs

STAGE I

19 tons of secondhand 30# rail at $105.00/ton 15/	$1,995.00*	
Pipe fittings	76.00	
760 ties at $0.75 each	570.00	
1,900 feet 1" black pipe at $0.12/foot	228.00	
1,900 feet 3" black pipe at $0.74/foot	1,406.00	
Drayage on pipe and fittings	95.00	$4,370.00*

STAGE II

3 tons of secondhand 30# rail at $105.00/ton 15/	$ 315.00*	
300 feet 1" black pipe at $0.12/foot	36.00	
300 feet 2" black pipe at $0.50/foot	150.00	
200 ties at $0.75 each	150.00	
4,000 feet of timber at $117.00/M 16/	468.00	$1,119.00*

(6) New Buildings, Improvements, Installations

STAGE I

Fan house at collar of churn drill hole	150.00*	
1,200 feet of power line at $0.38/foot	456.00*	
Compressor, power, and warehouse building (To be bought and moved to adit site)	1,500.00*	
Provide and install fuel tanks	600.00*	
Provide and install 7,000 gallon water tank with pipe buried for winter weather	644.00*	$3,350.00*

15/ See footnote 10

16/ See footnote 11

(7) Miscellaneous

STAGE I

Repair parts and maintenance of equipment $550.00/month, 8 months 17/	$4,400.00	
Assays, $50.00/month, 8 months	400.00	
Road maintenance for winter, $400.00/month, 6 months	2,400.00*	
Office and engineering supplies	200.00	
Compensation, employer's liability insurance, payroll taxes, etc., 8 months	1,100.00	
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/month, $99.00/month, 8 months 17/	792.00	
Transportation of heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 600 miles/month, $84.00/month, 8 months 17/	672.00	
Supplying water to project, 8 months at $244.71/month	1,957.65	
1 Bookkeeper-clerk, part time at $150.00/month*, 8 months*	1,200.00*	$13,121.65

STAGE II

Repair parts and maintenance of equipment, $550.00/month, 5 months 17/	2,750.00
Assays, $50.00/month, 5 months	250.00
Office and engineering supplies	125.00
Compensation, employer's liability insurance, payroll taxes, etc., 5 months	700.00
Transportation by company pickup truck at $0.09/mile (includes operating cost), estimated 1,100 miles/month, $99.00/month, 5 months 17/	495.00

17/ The costs of repair, maintenance, and transportation are to be charged against the project only as incurred while the equipment is working on the project.

Transportation of heavy supplies by company truck at $0.14/mile (includes operating cost), estimated 600 miles/month, $84.00/month, 5 months 18/	$ 420.00	
Supplying water to project, 5 months at $244.71 per month	1,223.55	
1 Bookkeeper-clerk, part time, at $150.00/month*, 5 months*	750.00	$6,713.55

(8) Contingencies

STAGE I	$1,181.80
STAGE II	602.95

The Operator may elect to carry on simultaneously with the exploration work, development and production operations. In this event, the exploration work shall be carried on, as far as practicable, with equipment, materials, crews, and supervision separate and distinct from any other operations of the Operator, in order to avoid confusing the costs under this contract with any other costs. However, to the extent economically practicable, equipment (such as compressor and hoist), incidental labor, and supervision used in development and production operations may be used also for exploration, and the direct costs arising out of such use prorated between the operations, but the basis of such proration shall at all times be subject to the approval of the Government, and the costs resulting to the exploration project from such proration will be disallowed by the Government to the extent disapproved by the Government.

S U M M A R Y

Estimated Cost of Stage I	$108,066.70*	
Estimated Cost of Stage II	63,333.30*	
Total Estimated Cost of Project		$171,400.00*
Government Participation @ 75%		$128,550.00*

18/ See footnote 17.

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

August 4, 1954

Air Mail

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

As Mr. George Mavor, DMEA Auditor, was scheduled to go to the M. I. A. Mines Company property about the time your July 20, 1954, letter requesting the information on equipment depreciation asked for in your July 15 letter reached us, our reply to you has been delayed.

Upon Mr. Mavor's return to the office the matter in question was discussed with him. We are somewhat at a loss as to exactly what information is needed. The subcontractor (Centennial Drilling Co.) included no equipment costs in his estimate as all equipment listed in the subcontract agreement of June 23, 1953, Section II (a) was furnished by M. I. A. Mines Company.

A review of the contract indicates that the conditions of Annex 1 had never been used by M. I. A. and that when Centennial started operations in June 1953, the performance of the work and costs were in conformance with the agreement dated June 1953. The depreciation of the equipment was based on the equipment furnished by M. I. A. in accordance with the terms of Exhibit "A" as detailed in the following table. We have been unable to detect where any variation in depreciation charges differs from those set out in the table.

Equipment Depreciation
charged to Stage 1 and Stage 2
for the Period March 1, 1953 to May 31, 1954

Equipment	Value	Depreciation 1/60 Per Mo.	Depreciation Stage 1	Depreciation Stage 2	Months Used Stage 1	Months Used Stage 2
1 Battery Trammer	$6,900.00	$115.00 *	$912.00		8	
1 G.M.C. Compressor	7,146.00	119.00	1,309.00		11	
10 Mine Cars	1,200.00	20.00	160.00		8	
3 Mine Cars	360.00	6.00		$36.00		6
1 15Kw Diesel Elec. Generator	2,400.00	40.00	320.00	120.00	8	3
1 Water Tank	300.00	5.00	40.00		8	
1 Water Tank	300.00	5.00		30.00		6
2 5-HP Fans	720.00	12.00	72.00	6.00	6	1
1 Ventilating Fan	850.00	14.17		70.85		5
1 Gaso Driven Hoist	1,199.00	20.00		120.00		6
1 Portable Joy Compressor	7,540.00	125.65		753.90		6
1 100 Kw Diesel Electric Generator	5,154.32	85.91	601.37	257.73	7	3
Total Depreciation			$ 3,414.37	$1,394.48		

* Operator incorrectly charged $113.00 per month on his MF-104 and MF-104A vouchers.

Centennial Drilling Company canceled its contract with M. I. A. Mines and stopped operating under it along about the end of January 1954, as it found that it could not make a go of it at the rates set forth in the subcontract.

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

Copy to: Roscoe Smith, USGS

400

DOCKET
SURNAME

Martin
Selfridge
H. Johnson
Rutledge

JUL 20 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

This will acknowledge your memorandum of July 7, 1954, covering a request from the Operator to transfer the 384.3 feet of drifting on the fifth level of the Silver Bell Shaft (approved under Amendment No. 3) to the 650-foot level of the Silver Bell Shaft.

The referenced request will be considered when the Amended Contract is prepared. The Amended Contract is being held in abeyance pending receipt of the information requested in our letter of July 15, 1954, regarding depreciation of equipment.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (FAR)

Approved:

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

T. P. Thayer (FAR)
Member, Geological Survey

FARutledge:foc
7-15-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. III
R. W. Geehan, USBM
T. P. Thayer, USGS

R.C.G.

400

Docket
Surname
Rutledge
Martin
Talbot
Selfridge
Fairman
Mattendorf

JUL 15 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the subject docket, our letter of June 17, 1954, and your reply dated July 6, 1954.

In reviewing the referenced data, we find that we were insufficiently specific in detailing the requested additional exploration charges that were not included in either the original contract or the subcontract between M. I. A. Mines Company and the Centennial Development Company, dated June 22, 1953. These costs, however, were originally included in the unit costs outlined in Annex I to the original contract. It was these equipment items, partially covered in Mr. Mavor's letter of April 2, 1954, (attached) that we requested you to obtain from the Operator in the fourth paragraph of our letter of June 17.

Because the contract is being amended to clarify its administration and as these costs were originally included in the unit costs under the subcontract attached to the contract, we feel that they should be itemized at this time without waiting for a request from the Operator.

It would be appreciated, therefore, if you would ascertain from the Operator the equipment items not detailed in the contract but originally included in the subcontract's unit costs. We will need the fair value of the equipment, months during which the equipment items were used or will be used, and the Stage of work to which they should be charged.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

APPROVED:

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

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

cc to: T. P. Thayer, USGS
cc to: Operating Comm.
FT. Reg. 3
R. W. Geehan, USBM
Adm. Reading File
Code 400
cc to: Docket

FARUTIEDGE:foc
7-12-54

R.C.J.

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

Defense Minerals Administration
RECEIVED
JUL 9 - 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

July 7, 1954

Air Mail

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Mr. Paul Gemmill, General Superintendent of Mines for Combined Metals Reduction Company at Pioche, Nevada, has requested another amendment to the subject contract. As Amendment No. 4 is being prepared in the Washington Office, this latest requested amendment, if allowed, will be No. 5.

Mr. Gemmill's request was made to Mr. A. C. Johnson by letter dated June 24, 1954. A copy of that letter is attached.

Attached also is a copy of a memorandum dated June 29, 1954, from Mr. Johnson to me which indicates that Mr. Gemmill's latest request should be approved.

It is noted that the operator already has commenced work on the new location of the drift, as his May MF-104 bills us for 63 feet of the work.

Mr. Smith and I cannot confirm the necessity for the change of location of the work but see no objections to allowing it as our engineer, who is familiar with the work under way at Minerva, recommends it be approved.

I have not answered Mr. Gemmill's request for putting his operations on a unit cost basis. I do not see how that can be done in view of the wording of a footnote of the contract.

Inasmuch as the request of Mr. Gemmill is for a change of location of work, I am under the impression that the Washington office will have to draw up the amendment. Therefore, will you kindly act accordingly.

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

Attachments

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

COPY COPY

COMBINED METALS REDUCTION COMPANY
Caselton Plant Pioche, Nevada

June 24, 1954

Mr. A. C. Johnson, Chief,
Mining Division, U. S. Bureau of Mines
Region III
Reno, Nevada

Dear Mr. Johnson:

Mr. Gentry has again visited the various exploration projects under our direction. He advised me that although he is certain there will be no objection, it would be advisable to request transfer of footage from the Silver Bell No. 5 level west (Item 6) Objective Area 4 to the 6500 elevation sub-level off the main Chief - Silver Bell raise. The 6500 level may also be referred to as the Silver Bell 650 level. (The old 600 winze level of the Silver Bell should have been the 550 level and the 6500 level is actually less than 100 feet in elevation below the 500 level).

Information gained since the project was approved makes it appear desirable to drive at the lower elevation to assure the level being under the ore shoot. This letter is therefore our formal application for transfer of the footage as above explained.

As pointed out in the May narrative prepared by Mr. R. G. Lee, Minerva Superintendent, we will probably request various revisions to our contract in the near future in order to make possible the use of the remaining approved funds. In this connection, since we are conducting a company operation in addition to the D.M.E.A. Project, all reporting would be greatly simplified if we could arrive at an overall unit cost basis in our request for revision. I would greatly appreciate having from you what figures your office would approve as fair unit costs for drifting, raising and diamond drilling and whether you believe we would be successful in putting through this type of revision. We would prefer that such unit costs would include engineering, supervision and a fair allowance for general expense so that reporting would be simplified as much as possible.

Sincerely yours,

/s/ Paul Gemmill
Paul Gemmill, General Supt.
of Mines for Nevada

cc: E. H. Snyder
S. S. Arentz
R. G. Lee
F. H. Anderson

1605 Evans Ave.

June 29, 1954

Memorandum

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

From: Chief, Mining Division, Region III

Subject: Docket DMEA-2688 - Tungsten
M. I. A. Mines Company, Minerva Tungsten Mine,
White Pine County, Nevada
Contract Idm-E481

Mr. Paul Gemmill, General Superintendent of Mines for the Combined Metals Reduction Company at Pioche, Nevada, has written me relative to an amendment to their contract.

On Mr. Gentry's last inspection trip to the Minerva property, the amendment was discussed with Mr. Gemmill. The amendment that Mr. Gemmill has requested is that the 384.8 feet of drifting on the fifth level of the Silver Bell Shaft be used or transferred on the 650 foot level of the Silver Bell Shaft.

Under the contract Step I would be to extend the fifth level drift of the Silver Bell Shaft approximately 200 feet westerly.

Step II. This step would depend upon the results of Step I and the results of any diamond drilling under Steps 2 and 4 of Item 5 in the objective area No. 4 and is subject to prior approval of the Government. Extend the fifth level drift of the Silver Bell Shaft or crosscut an additional aggregate of approximately 184.8 feet.

I have discussed the amendment with Mr. Gentry and he believes that the amendment should be approved.

Mr. Gentry has advised me that Mr. Gemmill believes the ore is below the fifth level. The diamond drilling that has been done has been successful in locating the quartz vein, which is usually mineralized, below the fifth level.

The MF-104 Forms for May, 1954, indicates that work has already been started on the sixth level and 63 feet of drifting has been reported.

It is believed that it will be to the best interests of the Government to do the work on the sixth level and it is recommended that an amendment be prepared for the work.

A. C. Johnson

Encls. MF-104 Forms
for May and supporting papers

CC: Mr. Paul Gemmill

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

Defense Minerals Administration
RECEIVED
JUL 9 - 1954

420 Custom House
555 Battery Street
San Francisco 11, California

July 6, 1954

Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Exploration
Administration
Interior Building
Washington 25, D. C.

RE: Docket No. DMEA-2688 (Tungsten)
M.I.A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Selfridge:

Reference is made to your letter dated June 17, 1954 in connection with proposed amendment to subject contract submitted with my letter dated June 4, 1954 for your review and consideration.

You call my attention to certain costs which had been incorrectly charged by the Operator to "Independent Contracts" for drifting and raising work on a unit cost basis, instead of actual costs, covering work performed by the Operator. Steps are now being taken to have the Operator review these costs and properly restate them on an actual cost basis. The maximums for this work will be in accordance with agreement dated June 22, 1953, between M.I.A. Company and Centennial Development Company, as stated in your letter of June 17, 1954.

The information on equipment depreciation requested by you has been compiled from details attached to the Operator's MF-104 and summarized as follows:

Equipment Depreciation
charged to Stage 1 and Stage 2
for the Period March 1, 1953 to May 31, 1954

Equipment	Value	Rate 1/60 Per Mo.	Depreciation Stage 1	Depreciation Stage 2
1 Battery Trammer	$6,900.00	$115.00	$912.00	
1 G.M.C.Compressor	7,146.00	119.00	1,309.00	

Equipment	Value	Rate 1/60 Per Mo.	Depreciation Stage 1	Depreciation Stage 2
10 Mine Cars	$1,200.00	20.00	160.00	
3 Mine Cars	360.00	6.00		36.00
1 15Kw. Diesel Elec. Generator	2,400.00	40.00	320.00	120.00
1 Water Tank	300.00	5.00	40.00	
1 Water Tank	300.00	5.00		30.00
2 5-HP Fans	720.00	12.00	72.00	6.00
1 Ventilating Fan	850.00	14.17		70.85
1 Gaso.Driven Hoist	1,199.00	20.00		120.00
1 Portable Joy Compressor	7,540.00	125.65		753.90
1 100Kw. Diesel Elec. Generator	5,154.32	85.91	601.37	257.73
Total Depreciation:			$3,414.37	$1,394.48
Less: Depreciation prorated on a direct labor basis, charged to Company operations				
February 1954 based on 64% direct labor			$252.74	
March 1954 based on 41% direct labor			120.91	111.04
April 1954 based on 64% direct labor			252.74	109.32
May 1954 based on 69% direct labor			264.99	117.87
Total charged to Company Operations			$891.38	$338.23
Net depreciation charge to DMEA			$2,522.99	$1,056.25
				2,522.99
Total depreciation per MF-104 May 31, 1954				$3,579.24

From the above it is apparent that commencing with the month of February 1954, the Operator is prorating the major portion of equipment depreciation to the cost of his own operations and using the average monthly depreciation based on labor percentages, it is estimated that approximately $1,300.00 will be charged for depreciation to Stage 1 and $600.00 to Stage 2 for the remaining period of operations June 1 to October 25, 1954.

It is further stated that the contract allowed rental of equipment under Stage 1 -- $12,672.00, and Stage 2 -- $7,237.00 or a total of $19,909.00, however, depreciation was charged on this equipment in lieu of rentals, in order to comply with the terms of the contract, which stated that only depreciation could be charged if the equipment was furnished by M.I.A. Mines Company or an affiliated company. The difference between equipment rentals allowed in contract and depreciation can be summarized as follows:

	Stage 1	Stage 2
Rental allowed by Contract:	$12,672.00	$7,237.00
Less: Depreciation		
3/1/53 to 5/31/54	$ 2,522.99	$1,056.25
Est.6/1 to 10/25/54	1,300.00	600.00
Total Depreciation:	$ 3,822.99	$1,656.25
Estimated Rental not used:	$ 8,849.01	$5,570.75

I believe the above gives as accurate an estimate of the depreciation status to the completion date of contract as can be obtained at the present time.

The total estimated cost of the project is $171,400.00 and the cost to May 31, 1954 amounts to $126,391.63 leaving $45,008.37 to be expended between June 1 and October 25, 1954.

Trusting the above explanation for depreciation will enable you to process the proposed amendment and I might state that the costs being questioned will be audited by George Mavor, DMEA Auditor, sometime during this month.

Sincerely yours,

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

Copy to: R. M. Smith (USGS)

P.S. Distribution of depreciation on a percentage of labor basis, commencing February 1954, is an allowable procedure as set forth in Page 11, Exhibit "A" of the contract. HCM

400

Docket
Surname

Rutledge
Martin
Talbot
Selfridge
Kramer
Wetherbee

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Ldn-8481

Dear Mr. Miller:

Reference is made to the subject docket, your memorandum of June 4, 1954, and Mr. Mauer's letter of April 2, 1954, to Mr. Jay L. Chambers, Chief, Contract Administration and Audit Division, DMEA.

We are preparing an amended contract embodying the changes suggested in your memorandum of June 4th. However in reviewing the MC-1pk cost reports, it was noted that since January the Operator apparently has been carrying out exploration on force account. The exploration costs by the Operator for January were partly carried under "Independent Contracts" and partly under the correct headings. (See charge for explosives on invoice attached to report for January.) Since January, however, the Operator has been paid incorrectly for exploration on a unit cost basis under "Independent Contracts". Payment to the Operator for the exploration should be on an actual cost basis as set forth in Footnote 4 to the original contract.

In addition, the rates used were those set forth in the original contract and if the contract is amended as you suggested, these maximums will be reduced to those set forth in the Agreement between M. I. A. Mines Company and the Centennial Development Company, dated June 22, 1953. Because these unit costs do not reflect all of the necessary exploration charges, we are including items for explosives, drill steel and bits, and depreciation of equipment in the amended contract.

It would be appreciated, therefore, if you would contact the Operator and ascertain these equipment items, their fair value, months during which the equipment items were used or will be used, and the Stage of work to which they should be charged.

As soon as we receive these data, we will complete the amended contract and forward it for your approval and consideration by the Operator.

Sincerely yours, 6.17.54

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Philip W. Guild
Member, Geological Survey

FARUTLEDGE:foc
6-16-54
cc to: Docket
Code 400
Admr. Reading File
Operating Committee
FT. REG. 3
R. W. Geehan, USBM
T. P. Thayer, USGS

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

Defense Minerals Administration
RECEIVED
JUN 8 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

June 4, 1954

Memorandum

To: C. O. Mittendorf, Administrator, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Upon return from his recent trip to Washington, Mr. George Mavor informed me that, following a discussion with Mr. Chambers of the audit of the subject contract, Mr. Chambers advised him that I was to prepare an amendment to the subject contract to permit payment of the Company's vouchers in accordance with its agreement with the Centennial Drilling Company.

The following background information will bring you up to date as to the reason for the amendment. A letter dated August 20, 1952, in which the Centennial Drilling Company quoted prices for drifting, raising and miscellaneous contract work at the Minerva Tungsten mine was made a part of the original DMEA contract dated January 27, 1953. This letter is Annex I of the contract.

On June 22, 1953, the Operator signed a formal agreement with Centennial Drilling Company which, instead of sending to me directly, he attached to the sheaf of papers submitted with an early MF-104 report. As a result, the agreement did not come to my attention and we were entirely unaware of its existence until Mr. Mavor visited the mine and learned that the Company was billing us in accordance with that agreement.

The agreement is more favorable to the Government and to the Operator than Annex I of the contract.

In line with Mr. Chambers' suggestion, I have prepared a draft of an amendment which Mr. Mavor and I believe will straighten matters out and satisfy the Washington auditors of DMEA. To be absolutely sure of my ground, however, I am submitting my draft to you before drawing it up in final form and sending it to the Operator for his signature.

Will you kindly have Mr. Chambers review the draft to determine if it meets with his approval or for suggestions as to how it should be rewritten to meet any objections he may have to it. When the draft meets the approval of the Washington office it should be returned to me for final writing or if you wish, it may be rewritten in the Washington office and signed by you. Either way will satisfy me.

Two copies of the rough draft of the proposed amendment are attached, along with two copies of the agreement between the M. I. A. Mines Company and the Centennial Development Company. The original of this agreement was signed by S. S. Arentz, Manager, M. I. A. Mines Company, and by Robert E ? , Sec-Treas., Centennial Development Company. We cannot decipher the signature of the Secretary-Treasurer but will have M. I. A. Mines Company type in the man's name when the amendment is submitted to them.

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

Attachments

Copy to: Roscoe Smith, USGS

DRAFT

DEPARTMENT OF ...
Defense Minerals ...
REC'D
JUN - 8 1954

M. I. A. MINES COMPANY
EXPLORATION PROJECT CONTRACT IDM-E481
DOCKET NO. DMEA-2688

AMENDMENT NO. 4

It is agreed this 2nd day of June, 1954, that Contract Idm-E481, Docket No. DMEA-2688, dated January 27, 1953, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, and M. I. A. Mines, as amended, is further amended, effective June 22, 1953.

The Operator on June 22, 1953, signed an agreement with the Centennial Development Company for rehabilitating the workings, drifting, raising and miscellaneous work at the M. I. A. Mines Company property under Contract Idm-E481. This agreement which is made a part of this amendment was more favorable to the Operator and the Government than the Centennial Development Company's quotation dated August 20, 1952, which is a part (Annex 1) of the original DMEA contract dated January 27, 1953.

The agreement, however, did not come to the attention of the Executive Officer of the DMEA Field Team for his approval for several months after being in effect. By this amendment, therefore, the agreement between the Operator and the Centennial Development Company dated June 22, 1953, is approved as of that date.

In order for the Operator to carry out his operations under the terms of the agreement and to be reimbursed for the Government's share of the cost, Amendment No. 3 is hereby amended, effective June 22, 1953, as follows:

1. Under 8(a), item (1), delete that part of the sentence which reads:

"at $25.00/foot* - $24,812.50*"

and substitute therefor:

"at $20.00/foot* - $19,850.00*"

2. Under 8(a), item (2), delete that part of the sentence which reads:

"at $31.00/foot* - $8,990.00*"

and substitute therefor:

"at $30.00/foot* - $8,700.00*"

3. Under 8(b), item (1), delete that part of the sentence which reads:

"at $30.00/foot* - $31,045.25*"

and substitute therefor:

"at $26.00/foot - $26,904.80*"

4. In Exhibit "A" of the original contract dated January 27, 1953, under Estimated Costs of the Project (3) Operating Materials and Supplies, Stage I, delete the item reading:

"Tools and miscellaneous supplies $300.00"

and substitute therefor:

"Tools, miscellaneous supplies, drill steel $7,344.71"

This change necessitates deleting the total of this category ($15,299.00*) and substituting therefor: $22,343.71*.

Under Estimated Costs of the Project (3) Operating Materials and Supplies, Stage II, delete the item reading:

"Tools and miscellaneous supplies $200.00"

and substitute therefor:

"Tools, miscellaneous supplies, drill steel $2,548.24"

This change necessitates deleting the total of this category ($5,953.00*) and substituting therefor: $8,301.24*.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum."

Executed in sextuplicate the day and year first above written.

M. I. A. MINES COMPANY

By_____

THE UNITED STATES OF AMERICA

By_____

A G R E E M E N T

THIS AGREEMENT made and entered into as of the 22nd day of June, 1953, by and between the M. I. A. MINES COMPANY, not incorporated, authorized to do business in Nevada, party of the first part, hereinafter referred to as "Company," and the CENTENNIAL DEVELOPMENT COMPANY, a Utah Corporation, party of the second part, hereinafter referred to as "Contractor."

WITNESSETH:

The Company holds under agreement and lease certain mining property situated in Minerva Mining District, County of White Pine, State of Nevada, and is desirous to have certain exploration work done in accordance with Exploration Project Contract Docket No. DMEA 2688 and Contractor is qualified and willing to do said work upon the terms hereinafter stated.

NOW THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00) to Contractor paid, receipt of which is hereby acknowledged, and of the agreements of the parties by them respectively to be kept and performed, it is hereby agreed as follows:

1. (a) CONTRACTOR AGREES to rehabilitate the main adit in the Scheelite Chief mine, including straightening and widening as designated, laying track, and installing air and water lines; for which the Company will pay $.50 per cubic foot of rock in place removed to the waste dump and $.75 per lineal foot of completed track, air, and water line installation.

(b) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Scheelite Chief mine on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty Dollars ($20.00) per lineal foot of drift advance and $3.50 per lineal foot for installation of Company furnished 6 x 8 feet sets on 5 foot centers.

(c) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartment (5 1/2 x 13 feet) raises and install timber and chutes as specified in the Scheelite Chief mine at location and inclination designated

by the Company; for which the Company will pay Thirty Dollars ($30.00) per lineal foot for 5 1/2 x 11 ft. rock section complete with timber installed, and Thirty-four dollars per lineal foot for 5 1/2 x 13 ft. rock section complete with timber installed.

(d) CONTRACTOR AGREES to rehabilitate the inclined shaft at the Silver Bell mine to the third level at direct labor and supervision costs plus a fixed fee of Fifteen Dollars ($15.00) per shift.

(e) CONTRACTOR AGREES to construct a skip pocket, including timbering, with an effective capacity of 150 cubic feet at the third level of the Silver Bell mine for a flat price of Four Hundred Dollars ($400.00).

(f) CONTRACTOR AGREES to drive 5 x 7 ft. drifts clear and inside timber where needed in the Silver Bell mine to a maximum of 500 feet from the shaft on bearing alignment and at location designated by the Company and timbered as required; for which the Company will pay Twenty-six Dollars ($26.00) per lineal foot of drift advance and $4.00 per lineal foot for installation of Company furnished 6 x 8 feet sets on 5 foot centers.

(g) CONTRACTOR AGREES to drive two compartment (5 1/2 x 11 feet) and/or three compartment (5 1/2 x 13 feet) raises and install timber and chutes as specified in the Silver Bell mine at location and inclination designated by the Company; for which the Company will pay Thirty-eight Dollars ($38.00) per lineal foot for 5 1/2 by 11 ft. rock section complete with timber installed, and Forty-two Dollars ($42.00) per lineal foot for 5 1/2 x 13 feet rock section complete with timber installed.

II (a) COMPANY AGREES to provide for use in the development without cost to the Contractor:

1. One Gardner-Denver mucking machine Model 9.
2. One Sullivan mucking machine Model HL-3.
3. Ten mine cars.
4. Coppus fans, 5 HP, as needed for adequate ventilation.
5. One storage battery locomotive complete with charger.
6. One 360 cubic foot compressor (Ingersoll Rand Model 75, GMC Diesel Motor Model 4031C), complete with air receiver and 3 inch air line to portal of Scheelite Chief adit.
7. Diesel Generator Set - 15 KW.
8. One Sullivan Hydrojib.

9. One "motor feed" - Joy IW-6-A.

10. One drifter - Joy T300.

11. One drifter - Joy T350.

12. One stoper - Gardner-Denver R91.

13. One jackleg - Thor Model 63A.

14. One jackhammer - Thor Model 38.

15. Two jackhammers - Thor Model 75.

16. One jackhammer shell - Thor Model 75.

17. Mechanics and electricians' services and repair parts for repair and maintenance of all above equipment.

18. Rail and fittings, pipe and fittings, vent lines and accessories, timber, wedges, nails, as needed, all delivered at the portal as required by the Contractor.

19. Greases and oils for all equipment.

20. Air and water hoses for the headings.

21. Raise service hoists as required.

22. Power line to electric fans as required.

23. Operation of small tractor for snow removal as required.

24. Gasoline driven hoist (or equivalent) plus fuel for same, surface bin with dumping arrangement and skip at the collar of the Silver Bell incline.

25. Compressed air, drill water, and electric power as required including fuel and maintenance.

26. To sell to the Contractor at cost plus 10% such supplies and shop service as he may require, but entirely at the Company's convenience.

III (a) CONTRACTOR AGREES to supply or provide:

1. All labor and supervision, including insurance and payroll taxes, and housing and boarding of same.

2. Haul and dump waste or ore and maintain waste dump.

3. All explosives and blasting facilities.

4. Installation of fans and vent lines.

5. Operation of all surface plant equipment, including compressors, diesel electric generators, battery chargers, and hoists.

6. Small tools as required in drill headings.

(b) CONTRACTOR AGREES to commence work immediately and to continue at a rate of at least two machine shifts per day for no less than six days per week.

(c) CONTRACTOR AGREES to perform the work in an efficient and minerlike manner, and to conform with applicable rules and regulations governing safety and sanitation in mines.

(d) CONTRACTOR AGREES to provide labor and/or supervision, at Contractor's cost, for additional items of work as may be required in fulfilling the Company's Exploration Project Contract with the government.

(e) CONTRACTOR AGREES to co-ordinate its operations with any concurrent Company mining operations for maximum efficiency of both parties.

(f) CONTRACTOR AGREES to carry, at its expense, Workmen's Compensation and Occupational Disease Disability Compensation Insurance covering its employees, and before commencing any work under this Agreement, to furnish Company with a certificate of the insurance carrier that Contractor is covered with Workmen's Compensation and Occupational Disease Disability Compensation Insurance, and an agreement of the insurance carrier that the policy or policies for such insurance will not be cancelled without first giving Company at least ten days' written notice of intention to cancel the same; to pay any taxes and/or make any deductions under the Federal Insurance Contributions Act, the Federal Unemployment Tax Act, and/or the Nevada Employment Security Act for which Contractor may become obligated, and to comply with the Nevada Act to Regulate Payment of Wages in Private Employment, the Fair Labor Standards Act of 1938 as amended, and all other laws, rules and regulations of any duly constituted

governmental authority affecting said work; and on request of Company, to furnish it supporting evidence of compliance with the requirements of this paragraph.

(g) CONTRACTOR AGREES to furnish Company, upon its request, satisfactory proof that all workmen employed by Contractor in the performance of the work covered by this Agreement have been fully paid and that all suppliers of equipment, tools, supplies, and power furnished by Contractor have been fully paid.

(h) CONTRACTOR AGREES to indemnify and save Company harmless against all claims made upon Company for or on account of any debt or expense incurred by Contractor, or claims for personal injury to or death of any person or injury to property of any person by reason of any act or omission of Contractor, its agents, or employees; and to assume and discharge all liability, claims and demands of whatsoever nature arising out of or based upon its operations under this Agreement.

IV IT IS MUTUALLY AGREED:

(a) That final payment to Contractor under this Agreement shall be based on plans, sections, and other data prepared by Company's engineers from original measurements and surveys made by Company's representative, in the presence of a representative of Contractor, of the drift and/or excavations, completed in accordance with the provisions of this Agreement; and said representative of Contractor and representative of Company shall approve and sign the original notes of such measurements at the time they are made. Payment for partially completed sections of the drift and/or raise or for sections where any work is improperly done (such as timbering inadequately blocked) or excessive track grade) shall be withheld until the regular payment date next following proper and final completion of the section. In the event of disagreement between the representative of Contractor and representative of Company as to the work completed, Contractor shall furnish Company with a memorandum,

in writing, stating the differences and Company shall investigate the facts and attempt to compose such difference, but in any event, the decision of the Company shall be final in determining payments to be made under this Agreement.

(b) That neither party to this Agreement shall be responsible for loss or damage arising from delays caused by strikes, fire, accidents, delays of carriers, suppliers of material, inability to obtain labor or supplies, cave-ins, or other causes beyond the reasonable control of either party, whether of the same kind or class as the causes specifically enumerated or not; but each party will exercise reasonable effort and diligence to avoid any such delays.

(c) In the event of the Company's failure, or temporary inability to provide agreed upon services or facilities, the Company will make reasonable payments to the Contractor for the direct costs incurred by him as the result of such failure. This does not apply to isolated breakdowns or breakdowns of short duration which can be reasonably expected.

(d) Payment for advance will be made not later than the tenth of the following month with no hold-back, except in the case of work improperly performed.

(e) That Company mine superintendent or engineer may inspect the workings at any time and direct Contractor as to direction of the drive and advise if work fails to meet contract specifications.

(f) That this Agreement is not assignable or transferable by Contractor or by operation of law.

V THE COMPANY reserves the right to terminate this Agreement by thirty (30) days written notice to the Contractor for:

(a) Failure to perform work in minerlike fashion or follow work specifications.

(b) Failure to maintain reasonable progress.

(c) Deterioration of economic conditions or suspension of Government aid.

VI THIS CONTRACT becomes null and void effective immediately should Defense Minerals Administrator fail to approve this sub-contracting of DMEA Docket 2688, in which case the Company will pay Contractor direct costs plus Twenty-five Dollars ($25.00) per day after drifting commenced until date of cancellation.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective proper officers thereunto duly authorized, as of the day and year first written above.

M. I. A. MINES COMPANY

/s/ S. S. Arentz
Manager

CENTENNIAL DEVELOPMENT COMPANY

/s/ Robert E ---
Sec. - Treas.

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

Defense Minerals Administration
RECEIVED
MAY 11 1954

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

May 7, 1954

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract Idm-E481
Amendment No. 3

Attached are the original and two copies of Amendment No. 3, dated April 23, 1954, made in connection with the subject contract.

A justification sheet is attached to each copy of the amendment.

Proper distribution has been made of the remaining copies.

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

Attachment

Copy to: A. C. Johnson, Reno (With copy of amendment)
Finance Officer, Region III (With copy of amendment)
Roscoe Smith, USGS
George Mavor

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

Defense Minerals
MAY 3 - 1954

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

April 29, 1954

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Re: Docket DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Gentlemen:

Reference is made to the February 1954 cost report on the subject contract.

In reviewing this report, it is noted that the only DMEA progress during the month was an advance of 42.5 feet in the raise (19.0 feet to 61.5 feet). The costs charged to raising amount to $97.47 per foot and seem excessive in view of the small amount of work done on the DMEA contract compared to the work done for your own account.

An explanation as to why the cost of raising is so high will be appreciated.

Sincerely yours,

H. C. MILLER

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

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS
A. C. Johnson, Reno

file copy
Rutledge
Martin
Ray
Geehan
Selfridge
Hofman

400

APR 23 1954

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

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

We are enclosing the original and five copies of a proposed amendment, Amendment No. 3, to the subject contract signed by the Administrator for the Government.

If the terms and conditions of this proposed amendment are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

Please note that the diamond drilling remaining under Stage II, Objective Area 4 (749.2 feet) was not deleted and is still available, if required, to locate the mineralization in this area.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (2/6)

Enclosures

Approved:

J. H. Hedges
Member, Bureau of Mines (2/6)

D. M. Larrabee
Member, Geological Survey (2/5)

CC: R. W. GEEHAN, USBM
T. P. THAYER, USGS

FARutledge/ls 4/21/54

cc: DOCKET
FIELD TEAM, REG. III
CODE 400
OPER. COMMITTEE
ADM. READ. FILE

P.C.S.

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

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

April 22, 1954

Air Mail

Memorandum

To: C. O. Mittendorf, Administrator, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract No. Idm-E481

Mr. S. S. Arentz, Manager, Nevada Operations, Combined Metals Reduction Company, telephoned this morning for information concerning his request for Amendment No. 3 to the subject contract.

The telephone connection was poor, but I did get from him that he would like to know if Amendment No. 3 is going through, so he can plan his future work. All the work under the contract up to that asked for in Amendment No. 3 has been completed.

Mr. Arentz informed me also that shipment of very good ore from blocks of ground explored under the contract so far starts tomorrow. He seemed very enthusiastic about the future of his operations, and stated that he believes production can be maintained for some time to come and royalties paid to the Government.

If Amendment No. 3 is to be drawn, kindly expedite, and let me know about when I may expect copies for the operator's signature.

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

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

FILE COPY

Rutledge
Martin
Selfridge
Hoffman
Mittendorf

APR 21 1954

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

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the February 1954 cost report on the subject contract.

In reviewing this report it was noted that the only DMEA progress during the month was an advance of 42.5 feet in the raise (19.0 feet to 61.5 feet). The costs charged to raising amount to $97.47 per foot and seem excessive in view of the small amount of work done on the DMEA contract compared to the work done for the Operator's own account.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (243)

Approved:

J. H. Hedges

Member, Bureau of Mines (243)

D. M. Larrabee

Member, Geological Survey (243)

FARutledge/ls 4/19/54

cc: Docket
Code 400
FT, Reg. 3
Adm. Read. File
Oper. Comm.
R. W. Geehan, USBM
T. P. Thayer, USGS

R.C.L.

Chambers

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

APR 16 1954

Mr. George Mavor
DMEA Auditor
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Idm-7/61, DMEA-2668
M. I. A. Mines Company
White Pine County, Nevada

Dear Mr. Mavor:

Reference is made to your letter of April 2, 1954, in regard to certain provisions of the above-cited contract.

On page 2 of your letter you have a table, apparently furnished by the operator, which proposes to show that the operator saved the Government some $8600 on subcontracting the work under the estimated rates provided in Exhibit "A" of the contract. The fallacy of the operator's contentions is readily discernible if you will compare the provisions of Annex 1 to the provisions of the subcontract entered into June 22, 1953. It is true that some of the unit costs provided in the subcontract will be under the unit costs provided in Annex 1 and also in Exhibit "A". The provisions, however, in Annex 1 stipulate that the subcontractor will assume the costs of many items which are not covered in the costs provided for in the subcontract. Annex 1 is made a part of the contract and is the basis for the estimates made in Exhibit "A". Since Annex 1 provides for maximum costs for drifting, drilling, raising, bulldozing, etc., it will be your responsibility to add to the subcontract unit cost provision those items which were enumerated in Annex 1 and omitted in the subcontract and determine whether or not the maximum unit costs of the contract have been exceeded. This will not be an easy task but in my opinion it can be done.

I hope I have answered the points covered in your letter, but if you find additional information necessary, please write again pointing out in detail the points to be covered.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
April 15, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers

R.C.S.

Docket File

Rutledge Martin

April 6, 1954

MEMORANDUM

To: Administrator, DMEA

From: Chief, Iron and Ferro-Alloys Division, DMEA

Subject: Proposed amendment adding additional work in place of part of the original work with no increase in funds.
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten property
White Pine County, Nevada
Contract No. Idm-E481

The applicant has proposed that units of work remaining uncompleted in several of the objective areas be transferred on a contract-rate factor basis to allow additional work in the Silver Bell mine area. This Division believes that part of the requested work, i.e., completing the raise to the 5th level of the Silver Bell mine, may to some extent be development but should be allowed as this raise will further explore the interval between the Scheelite Chief tunnel and the 5th level of the Silver Bell mine in Area 4. Tungsten mineralization in this area has been indicated by DMEA diamond drill hole No. 3. The extension of the 5th level of the Silver Bell mine to the west will explore mineralization indicated by contract churn drilling. The completion of the above-mentioned raise is also necessary if exploration is to be carried out on the 5th level of the Silver Bell. Additional drifting to the east on the 3rd level of the Silver Bell mine is also proposed to explore the mineralization indicated by churn drill hole No. 7 and the extension of the ore exposed by the drifting to date.

The raises in Areas 1, 5, and 6 allowed under the contract will be carried forward entirely on M.I.A. Mines Company account.

Sufficient tungsten mineralization has been indicated by the exploration completed to date to certify this project.

R.C.G.

A resume of the subject project follows:

Operator - M. I. A. Mines Company, a joint venture consisting of Combined Metals Reduction Company and the American Zinc Company.

Operator's property rights - Easterly one-half of Silver Bell claim, Silver Bell No. 1 claim, the southerly one-half of Wedge claim, the southerly one-half of Pot Pie No. 1 claim, and that part of the west one-half of the Silver Bell claim that contributes ore from Objective Area No. 1.

Contract dated - January 27, 1953.

Period for completion of contract - 15 months.

Work authorized:

Stage I

(1) Purchase and installation of compressor, power and warehouse building; water tank and fuel tanks.

(2) Rehabilitate the main adit in the Scheelite Chief mine.

(3) Objective Area 1:

Drift 100 feet southeasterly on intermediate level A. Drive a 2-compartment raise 50 feet to the mineralized zone.

(4) Objective Areas 2 and 3:

Step 1 - Bulldoze the necessary roads to 4 churn drill sites.
Churn drill 4 holes each approximately 200 feet deep.

Step 2 - Extend the main adit 275 feet S. 80° E.
Crosscut 250 feet.
Raise 200 feet.

(5) Objective Area 4:

Step 1 - Advance the main adit 575 feet S. 80° E.

Step 2 - Diamond drill 2 holes each approximately 200 feet in length.

Step 3 - Drive a 2-compartment raise approximately 200 feet to the objective area.

Step 4 - Explore by 6 drill holes with a total aggregate length of approximately 900 feet, the area below the favorable ore horizon drilled in Step 2.

Stage II

(1) Erect headframe, bin, and hoist house, and lay necessary track on surface at Silver Bell shaft, all on Company account at no cost to the Government.

(2) Rehabilitate Silver Bell shaft to 3rd level, retimbering where necessary, including laying track, and installing air, water, and power lines.

(3) Install skip pocket on 3rd level of Silver Bell shaft.

(4) Objective Area 5:

Drift 200 feet easterly on 3rd level of Silver Bell shaft and drive a 2-compartment raise approximately 50 feet to the objective area.

(5) Objective Area 6:

Step 1 - Bulldoze the necessary roads to churn drill sites.
Churn drill 7 or 8 holes aggregating a total of 1500 feet.

Step 2 - Extend the 3rd level drift an additional 300 feet easterly and
Drive a 2-compartment raise 75 feet to the objective area.

Summary of Costs

Stage I	$115,426.00
Stage II	55,974.00
Total	$171,400.00
Government participation @ 75 percent	$128,550.00

Amendments:

1. **In Exhibit "A", Description of Work (2) Labor, Supervision, Consultants:**

   Under Stage I delete the item:

   1 Topman @ $16.02/day, 8 months $3,333.00 and substitute

   1 Topman @ $8.01/½ day, 8 months $1,666.50.

   Under Stage II delete the item:

   1 Topman @ $16.02/day, 5 months $2,083.00 and substitute

   1 Topman @ $8.01/½ day, 5 months $1,041.50.

   In Exhibit "A", Description of Work (7) Miscellaneous:

   Under Stage I delete the item:

Transportation of water and heavy supplies, $120.40/mo., 8 months	$963.20

   and substitute

Transportation of heavy supplies, $84.00/month, 8 months	$672.00

   Under Stage II delete the item:

Transportation of water and heavy supplies, $120.40/month, 5 months	$602.00

   and substitute

Transportation of heavy supplies, $84.00/month, 5 months	$420.00

   In Exhibit "A", Description of Work (7) Miscellaneous

   Add the following:

   Stage I

Supplying water to project, 8 months at $244.71 per month	$1,957.65

   Stage II

Supplying water to project, 5 months at $244.71 per month	$1,223.55

2. <u>In Exhibit "A", Description of the Work</u>

Under Stage I, Item 3, Objective Area 1:

Delete "Drive a drift 100 feet southeasterly on intermediate level A", and substitute

"Drive a drift 147 feet southeasterly on the intermediate level, and then
Drift 78 feet to a point indicated by proposed drill holes."

Under Stage I, Item 3, Objective Area 1, the following work is added:

Diamond drill not to exceed 817.9 feet from level A.

Under Stage I, Item 4, Objective Areas 2 and 3, Step 2:

Delete "Crosscut southeasterly 250 feet"; and

Substitute "Crosscut southeasterly 125 feet."

Under Stage II, Item 5, Objective Area 6, Step 1:

Delete "Churn drill 7 or 8 holes aggregating a total of 1,500 feet in length" and

Substitute "Churn drill 3 holes aggregating a total of 600.3 feet."

<u>In Exhibit "A", under the heading "Estimated Costs of the Projects:</u>

Under the category "Independent Contracts,"

Stage I:

Delete the item "1,300 feet of diamond drilling at $5.50/foot - $7,150.00" and

Substitute "2,117.9 feet of diamond drilling at $5.50/foot - $11,648.50".

Delete the subtotal "$59,165.00"; and

Substitute the subtotal "$63,663.50".

Stage II:

Delete the item "1,500 feet of churn drilling at $5.00/foot - $7,500.00" and

Substitute "600.3 feet of churn drilling at $5.00/foot - $3,001.50".

Delete the subtotal "$30,410.00" and

Substitute the subtotal "$25,911.50".

New Work Allowed and Completed under Amended Contract

Stage I

Objective Area 1

Contract		Completed	Unused
Drifting	147.0 feet	147.0 feet	0.0 feet
Drifting	78.0 feet	0.0 feet	78.0 feet 1/
Raising	50.0 feet	0.0 feet	50.0 feet 2/
Diamond drilling	817.9 feet	709.5 feet	108.4 feet 3/

Objective Areas 2 and 3

Drifting	275.0 feet	275.0 feet	0.0 feet
Raising	200.0 feet	0.0 feet	200.0 feet 1/
Churn drilling	800.0 feet	739.7 feet	60.3 feet 3/
Crosscutting	125.0 feet	0.0 feet	125.0 feet 1/

Objective Area 4

Drifting	575.0 feet	570.5 feet	4.5 feet 3/
Raising	200.0 feet	66.7 feet	133.3 feet
Diamond drilling	1300.0 feet	550.8 feet	749.2 feet

Stage II

Objective Area 5

Drifting	200.0 feet	200.0 feet	0.0 feet
Raising	50.0 feet	0.0 feet	50.0 feet 2/

1/ Work not necessary. Either the target already has been reached or prior work did not locate the expected target. This work to be deleted by Amendment No. 3.

2/ Discovery made and ore now being produced. The proposed raises, therefore, are being driven on Company's account incidental to production. This work to be deleted by Amendment No. 3.

3/ Deleted by Amendment No. 3 as work under this category has been completed.

Objective Area 6

Churn drilling	600.3 feet	600.3 feet	0.0 feet
Drifting	300.0 feet	300.0 feet	0.0 feet
Raising	75.0 feet	0.0 feet	75.0 feet 2/

Summary of Units to be Deleted by Amendment No. 3

Stage I

207.5 feet of drifting @ $25.00/ft.	$5,187.50	
250 feet of raising @ $31.00/ft.	7,750.00	
108.4 feet of diamond drilling @ $5.50/ft.	596.20	
60.3 feet of churn drilling @ $5.00/ft.	301.50	$13,835.20

Stage II

125 feet of raising @ $40.00/ft	5,000.00	5,000.00
		$18,835.20

Summary of Units to be Added by Amendment No. 3

Stage I

90 feet of raise @ $31.00/ft.	$2,790.00	

Stage II

534.8 feet of drifting @ $30.00/ft.	16,045.20	
		$18,835.20

New Work to be Added under "Description of Work"

Stage I

Objective Area 4

Extend the raise an additional 90 feet for a total of 290.0 feet.

Stage II

Objective Area 4

Step "A" Extend the 5th level drift of the Silver Bell shaft 200 feet westerly.

Step "B" This step will depend on the results of Step "A" and the results of any diamond drilling under "Steps 2 & 4, (5) Objective Area 4" of the original contract. Extend the 5th level drift of the Silver Bell shaft and/or crosscut an additional 184.8 feet.

Objective Area 6

Extend the 3rd level of the Silver Bell shaft an additional 150 feet easterly.

Comments

The exploration under the subject contract has been well carried out. Certain of the diamond drill holes at first seem to be drilled nearly parallel to the dip or strike of the formations but these holes were so located to intersect the projected position of known fissures.

Ore has been exposed by the workings in Objective Areas 1, 2, 5, and 6 and indicated by drilling in Objective Areas 3 and 4. Workings proposed for several of these areas are being driven on Company account incidental to the production of ore.

The Operator has now requested another amendment to use all of the remaining footages allotted for crosscutting, raising, and churn drilling to further explore the area. This requested work has been recommended by the Field Team as "good exploration work."

This Division has prepared a proposed amendment that embodies most of the Operator's requests. The following changes have been made:

Increased raise by 2 feet (290 feet total)
Decreased drift on 3rd level by 17 feet (150 feet)
Decreased drifting on 5th level by 115.2 feet (384.8 feet).

By these changes, the diamond drilling remaining under Stage II, Objective Area 4 (749.2 feet) is still available to locate the mineralization in this area if required.

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

FARutledge/ls 4/7/54

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Docket

Rutledge
Martin

No. 5. in R. R.

April 5, 1954

MEMORANDUM

To: Chief Counsel, DMEA

From: Chief, Iron and Ferro-Alloys Division, DMEA

Subject: Review and preparation of Amendment No. 3 to Contract No. Idm-E481
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten property
White Pine County, Nevada
Contract No. Idm-E481

Transmitted herewith is the rough draft of a proposed amendment, Amendment No. 3, for your use in preparing the amendment in final form, as follows:

1. In Article 3. Exploration project delete 15 months and substitute 21 months.

2. In Exhibit "A", under the heading "Description of the Work":

   (a) Under Stage I, Item (3) Objective Area 1:

   Delete "drift 1/ 78 feet to a point indicated by proposed drill holes and approved by the Government".

   (b) Under Stage I, Item (3) Objective Area 1:

   Delete "drive a 2-compartment raise1/ 50 feet to the mineralized zone".

   (c) Under Stage I, Item (3) Objective Area 1:

   Delete "Diamond drill not to exceed 817.9 feet from intermediate level A, to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole is subject to the approval of the Government." and

   Substitute "Diamond drill not to exceed 709.5 feet from intermediate level A, to locate mineralized zone in this Objective Area. The location, direction, attitude, and length of each hole is subject to the approval of the Government."

(d) Under Stage I, Item (4) Objective Areas 2 and 3, Step 1:

Delete "Churn drill 4 holes, each to an approximate depth of 200 feet." and

Substitute "Churn drill 4 holes to an aggregate total of 739.7 feet."

(e) Under Stage I, Item (4) Objective Areas 2 and 3, Step 2:

Delete "Crosscut southeasterly 125 feet."

(f) Under Stage I, Item (4) Objective Areas 2 and 3, Step 2:

Delete "Drive a 2-compartment raise[2] approximately 200 feet to the objective areas."

(g) Under Stage I, Item (5) Objective Area 4, Step 1:

Delete "Advance the main adit[2] S. 80° E. approximately 575 feet additional" and

Substitute "Advance the main adit[2] S. 80° E. an additional 570.5 feet."

(h) Under Stage I, Item (5) Objective Area 4, Step 3:

Delete "Drive a 2-compartment raise[2] approximately 200 feet to the objective area." and

Substitute "Drive a 2-compartment raise[2] approximately 290 feet to the objective area."

(i) Under Stage II, Item (4) Objective Area 5:

Delete "drive a 2-compartment raise[2] approximately 50 feet to the objective area."

(j) Under Stage II, Item (5) Objective Area 6, Step 2:

Delete "Extend the 3rd level drift[3] of the Silver Bell shaft an additional 300 feet easterly, and drive a 2-compartment raise[3] 75 feet to the objective area." and

Substitute: Extend the 3rd level drift[3] of the Silver Bell shaft an additional 450 feet easterly."

(k) Under Stage II the following work is added:

Item (6) Objective Area 4:

Step 1: Extend the 5th level drift[3] of the Silver Bell shaft approximately 200 feet westerly.

Step 2: This step will depend on the results of Step 1 and also the results of any diamond drilling under "Steps 2 & 4, (5) Objective Area 4" of the contract. Extend the 5th level drift[3] of the Silver Bell shaft and/or crosscut an additional 184.8 feet.

3. In Exhibit "A", under the heading "Estimated Costs of the Project":

(a) Under the category "Independent Contracts," under Stage I:

(1) Delete the item "1200 feet* 5' x 7' drift at $25.00/foot* - $30,000.00*"; and

Substitute the item "992.5 feet* 5' x 7' drift at $25.00/foot* - $24,812.50*".

(2) Delete the item "450 feet* of 2-compartment raise at $31.00/foot* - $13,950.00*"; and

Substitute the item "290 feet* of 2-compartment raise at $31.00/foot* - $8,990.00*".

(3) Delete the item "800 feet* of churn drilling at $5.00/foot*[6] - $4,000.00*" and

Substitute the item "739.7 feet* of churn drilling at $5.00/foot*[6] - $3,698.50*".

(4) Delete the item "2,117.9feet* of diamond drilling at $5.50/foot*[6] - $11,648.50*"; and

Substitute the item "2,009.5 feet* of diamond drilling at $5.50/foot*[6] - $11,052.30*".

(b) Under the category "Independent Contract," Under Stage II:

(1) Delete the item "125 feet* of 2-compartment raise at $40.00/foot* - $5,000.00*"

(2) Delete the item "500 feet* of 5' x 7' drift at $30.00/foot* - $15,000.00*"; and

Substitute the item "1,034.8 feet* of 5' x 7' drift at $30.00/foot* - $31,045.20*".

(c) Under the heading "Summary (at the end of Exhibit "A"):

Delete the figures "$119,924.50*" and "$51,475.50*", respectively, and

Substitute the figures "$108,879.30*" and "$62,520.70*", respectively.

This amendment shall not be construed to increase the estimated total cost of the project, the aggregate total amount which the Government may be required to contribute, nor the amount of any item designated as "allowable maximum" which is not specifically changed in this amendment.

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

FARutledge/ls 4/5/54

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

April 2, 1954

1012 Flood Building
870 Market Street
San Francisco 2, Calif

Mr. Jay L. Chambers, Chief
Contract Administration and Audit Division
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Idm-E481, DMEA-2688
M.I.A.Mines Company
White Pine County,
Nevada

Dear Mr. Chambers:

Reference is made to your letter dated March 25, 1954, in connection with Centennial Development Company subcontract dated June 22, 1953, who are performing work for subject operator, and you infer that certain supplies, materials, repairs, etc., should be borne by the subcontractor, as these costs are probably included in unit prices of the subcontract rates.

A review of the MF-104's reveals that the Centennial Development Company billed the operator for materials and supplies used on the job as follows:

September	1953	$1,501.77
October	1953	406.77
November	1953	781.76
December	1953	- 0 -
January	1954	1,356.59
Total		$4,046.89

Of the above amount, $3,451.20 was for drill steel and bits, and the balance $595.69 was for repair parts and sundry materials, and the invoices were paid direct to the Centennial Development Company.

The diesel fuel oil used as per the MF-104 for January 1954, amounted to $4,211.19, and was cleared through the Combined Metals Reduction Company stores account, and charged to the operator.

You will note in the Centennial Development Company subcontract agreement dated June 22, 1953, under Article II(a), items 1 to 25 cover equipment, materials and supplies to be furnished by the operator, especially items 17, 18, 19, and 25. The diesel fuel oil is mentioned in these items, however, the drill steel and bits are not specifically mentioned.

During my visit last November to the Combined Metals Reduction Company's office at Pioche, Nevada, I questioned the cost of drill steel and bits, etc., being charged to the cost of the project, and I was informed by both F. H. Anderson, Accountant, and R. H. Godbe, the Supervising Engineer, that the unit rates listed in the subcontract under Article I, a to g inclusive, did not include the cost of materials and supplies. They also pointed out that considerable savings had been effected by obtaining lower unit rates in the subcontract dated June 22, 1953, as compared to the unit rates listed under Independent Contracts in Exhibit "A" of the contract. These savings are accounted for as follows:

	Exhibit "A"		Subcontract		
	Rate	Amount	Rate	Amount	Savings
Stage 1 Drift 1200'	$25.00	$30,000.00	$20.00	$24,000.00	$6,000.00
Stage 1 Raise 450'	31.00	13,950.00	30.00	13,500.00	450.00
Stage 2 Drift 500'	30.00	15,000.00	26.00	13,000.00	2,000.00
Stage 1 Timber 120'	5.00	600.00	3.50	420.00	180.00
Stage 2 Timber 50'	5.00	250.00	4.00	200.00	50.00
		$59,800.00		$51,120.00	$8,680.00

During the course of our discussion, F. H. Anderson and R. H. Godbe called my attention to the fact that the following equipment was being furnished by the operator at no cost to the project:

Rental of Equipment

Mucking Machine 3 mos. at $150.00	$450.00

Depreciation

Equipment	Value	Rate			
Mucking Machine	$6,000.00	1/60	10 mos. at	$100.00	$1,000.00
Car Tfr.	498.59	1/60	10 mos. at	8.00	80.00
Jumbo	3,600.00	1/60	10 mos. at	60.00	600.00
Drilling Machine	2,400.00	1/60	10 mos. at	40.00	400.00
Cost to 9/30/53 - No charge to Project					$2,530.00

It was intimated that a request for an amendment to the contract would be made for the use of the above equipment, to compensate for the savings made of $8,680.00 on reduced unit rates. Up to date no request has been received for this amendment.

I have cited the above savings to you, as this was in line with my discussion with the operator when I questioned the cost of drill steel and bits and other material furnished by the operator. It would therefore appear that the unit rates listed in the agreement dated June 22, 1953, with the Centennial Development Company do not include the cost of materials.

Sincerely yours,

/s/ George Mavor
George Mavor
Auditor

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

Mr. George Mavor
DMEA Auditor
1012 Flood Building
870 Market Street
San Francisco 2, California

MAR 25 1954

Re: Idn-2481, DMEA-2608
M. I. A. Mines Company
White Pine County, Nevada

Dear Mr. Mavor:

I would like to call your attention to some of the recent MF-104's submitted by the Operator of the above-cited contract for reimbursement.

A large part of the work of this contract is carried on by the Centennial Development Company under a subcontract dated June 22, 1953. This subcontract provides for accomplishing much of the work on a unit basis. The unit price covers supplies, materials, repairs, etc.

An examination of the MF-104 submitted for January, 1954, discloses that the Operator has billed for a number of items which apparently should have been paid by the subcontractor as follows: drill steel and bits - $992.94. There are also a number of other items, such as, miscellaneous supplies - $401.17. In the December MF-104, the contractor billed for drill steel, diesel fuel and other items which may or may not be subject to reimbursement under the subcontract. You will also find items in the November MF-104 which are questionable. I would like for you to carefully scrutinize the Operator's MF-104 with the supplementary billing made by Combine Metals Reduction Company for further claims presented by the Operator which may not be allowable. Judging from this distance I think it might be a good idea to recheck this account carefully, since it is so easy for the Company to claim reimbursement for items covered under the subcontract. After reading my letter will you make a cursory check to see if I have raised a valid point.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

JLChambers/wb
March 24, 1954

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

R.C.G.
3-25-54

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

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

March 18, 1954

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract No. Idm-E481
Amendment No. 2

Attached are the original and two copies of Amendment No. 2, dated January 25, 1954, made in connection with subject contract.

A justification sheet is attached to each copy of the amendment.

Proper distribution has been made of the remaining copies.

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

Attachment

Copy to: A. C. Johnson, Reno (With copy of amendment)
Finance Officer, Region III (With copy of amendment)
Roscoe Smith, USGS
George Mavor

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 18 1954

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

March 15, 1954

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract No. Idm-E481

In response to my letter to M. I. A. Mines Company, dated March 8, 1954, Mr. S. S. Arentz, Manager, Nevada Operations, Combined Metals Reduction Company, by letter dated March 11, returned the original and four copies of Amendment No. 2 to the above contract, signed by Mr. E. H. Snyder for the M. I. A. Mines Company.

Mr. Arentz wrote that the delay in transmitting the amendment to me was "occasioned by the fact that a request was transmitted to us under date of January 21, 1954, which, if approved, would make Amendment No. 2 obsolete." Thus, he stated, that to keep the record straight, he was transmitting the executed copies of Amendment No. 2 with the request that it not prejudice favorable action on Amendment No. 3.

The request dated January 21, 1954, which Mr. Arentz refers to, was submitted to Mr. A. C. Johnson, who in turn sent it to me by memorandum dated January 27. I did not realize on February 1, when I sent the Washington prepared Amendment No. 2 to the operator for his signature, that what the operator was requesting in his January 21 letter would make Amendment No. 2 obsolete. Therefore, I held the January 21 request in our pending file, awaiting return of executed copies of Amendment No. 2.

With that as my excuse for not acting on the January 21 request before now, I am herewith sending three copies of the operator's request to you with my request that Amendment No. 3 be prepared.

Also enclosed are three copies of a memorandum dated January 27, 1954, from Chief, Mining Division, Region III, in which Mr. Johnson recommends the operator's proposed work. Mr. Johnson tells me that this project is a dandy and is one that will pay off. In that connection, Mr. Arentz wrote on March 11 as follows:

> "The project has been most successful to date, and production is starting from ore blocks resulting from exploration work completed under the project. With the completion of the raise between the Chief and Silver Bell workings and the drifting from the raise to the area prospected by churn drill holes #1, 2 and 3, we believe that a sustained production can be established."

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

Attachments

Copy to: Roscoe Smith, USGS
A. C. Johnson, Reno

January 27, 1954

Memorandum

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

From: Chief, Mining Division, Region III

Subject: Docket No. DMEA-2688 Tungsten M.I.A. Mines Co. Joint Venture Combined Metals Reduction Co. and American Zinc Co. of Tennessee. Minerva Tungsten Property, White Pine County, Nevada. Contract Idm-E481

Enclosed are four copies of proposed work by the M.I.A. Mines in White Pine County, Nevada.

The information shows the work that has been completed under Stage I, area 1, areas 2 and 3, area 4 and under Stage II, area 5 and area 6 of the contract and the proposed work under the contract. The company now evidently wants another amendment to use up all footages in crosscutting, raising and churn drilling to complete work under the project, which is changed greatly from the original proposal.

The work that they are requesting is good exploration work and I recommend it.

Messrs. Godbe and Gemmill have broken down the remaining footages under the contract and have reconverted into footages and prices for the work that they would like to do in completing exploration at the Minerva Mine. It is rather difficult to follow it through but it comes within the costs of the project work.

I believe that in writing an amendment to cover this work, I would not break it down as shown in Messrs. Godbe and Gemmill's letter to me. In other words I would take the remaining balances for drifting, crosscutting, raising, churn drilling and diamond drilling

and transfer them to one common account for completing the work that they have proposed, namely, 288 feet of raising from the Scheelite Chief tunnel to the Silver Bell workings, 500 feet of drifting to the west in the Silver Bell Mine to determine mineralization encountered and 167 feet of drifting to the east to extend the workings under their churn drill hole No. 7 that showed good mineralization.

The total cost for all of the proposed raising and drifting will be $28,650. This would more or less complete the project work under this program.

A. C. Johnson

Encls.

January 21, 1954

Mr. A. C. Johnson
U. S. Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Docket No. DMEA 2688 (Tungsten M.I.A. Mines Co. - Joint Venture Combined Metals Reduction Co. and American Zinc Co. of Tennessee. Minerva Tungsten Property, White Pine County, Nevada. Contract No. IBM-S 481).

Dear Mr. Johnson:

The following tabulation gives the status of subject exploration project as of January 16, 1954 exclusive of completed "rehabilitation" and "new building, improvements, etc." items:

STAGE I

	Obj. Area 1			Obj. Area 2 & 3			Obj. Area 4			Cumulative
	All.	Compl.	Diff.	All.	Compl.	Diff.	All.	Compl.	Diff.	Diff. All
Drifting	100	147	(47)	275	275	0	575	570.5	4.5	(42.5)
Raising	50	0	50	200	0	200	200	0	200	450
Churn Drilling	800	739.7	60.3							60.3
Diamond Drilling							1,300	950*	350	350
Crosscutting				250	0	250				250

STAGE II

	Obj. Area 5			Obj. Area 6			Cumulative Diff.
	All.	Compl.	Diff.	All.	Compl.	Diff.	All.
Drifting	200	200	0	300	300	0	0
Raising	50	0	50	75	0	75	125
Churn Drilling				1,500	600.3	899.7	899.7

* Total Diamond Drill Footage - Minerva DDH #1 Through #7 Incl.

Proposed Amendment No. 2, dated November 21, 1953, requested 125 feet of the 250 feet allocated for crosscutting in Step 2 of Item (4) Objective Areas 2 and 3 of Stage I be changed to Item (3) Objective Area 1 of Stage I.

Proposed Amendment No. 3, dated November 21, 1953, requested that equivalent diamond drill footage be substituted for the "unused" churn drill footage totaling 960 feet.

Confirmation of acceptance of Proposed Amendments No. 2 and 3 has not been received as of this writing.

Results of exploration work completed to date, has defined a program for completion of the exploration project with the following proposed items of work established on an equivalent work ratio in accordance with rates as established in the project. Reference is made to accompanying map C-1112 (1" = 100'), delineating these proposals.

The contract agreement allowed a 200 feet two compartment raise entry to Objective Area 4, and a 250 feet crosscut with a 200 feet two compartment raise entry to Objective Areas 2 and 3. The location of Objective Area 4, below the bottom workings of the Silver Bell mine, does not permit favorable diamond drill intersections at permissable angles. Very favorable scheelite mineralization was encountered in the fissure zone in Minerva DDH #2 at a position approximately 100 ft. in elevation below the bottom of the Silver Bell workings but undoubtedly below the favorable ore horizon. It now appears probable that Minerva DDH #3 intersected the fissure at shallow depth as indicated by the narrow quartz zone with scheelite mineralization encountered between 26.9 and 29.4 feet. Inspection of the fissure on the fifth level of the Silver Bell mine near transit station 504 shows a minimum vein width of 7 to 8 feet with excellent scheelite values. The last work by the former operator was done at this location just prior to closing down, and excellent ore showings remain here and in the entire stope area above.

Minerva C.D.H. #3 showed scheelite mineralization in a quartz fissure zone from about 80 feet to a bottom depth of 127 feet. The drill was stopped after unsuccessful efforts to penetrate deeper in the quartz zone. Favorable assays were obtained between 85 and 95 feet (85'-90' 0.076% WO_3 and 90'-95' 0.29% WO_3), or at an elevation of 6637 to 6627. The rail elevation at transit station 504 is 6590.

—Proposal A—

It is proposed to drive a 288 foot raise (515°± alignment and ∠ 58° inclination) to connect with the 5th level of the Silver Bell mine as shown. Present information shows that this raise will be driven just under the footwall of the fissure, and will be located in a favorable position to provide both an entry to Objective Area 4 and for exploration of the fissure at horizons below this area.

—Proposal B—

On completion of this raise it is proposed to drive a 500 feet drift westerly as shown to Objective Areas 2 and 3 at a position in elevation below the favorable mineralization located in Minerva C.D.H. #3. (Possibly below fifth level).

—Proposal C—

Completion of the allocated 500 feet of drifts footage allocated for the 3rd. level drive to the east from the incline has fallen short of providing a drift entry to the ore defined by Minerva C.D.H. #7.

It is proposed to drive an additional 167 feet more to place the heading at a position below Minerva C.D.H. #7.

It is requested that consideration be given to modification of remaining items of drifting, crosscutting, raising and churn drill footage to carry out Proposals A, B, and C above described. The following detail is carried forward on a basis of changing remaining footages in these categories to equivalent drift footage at the Stage II (Silver Bell) contract rate.

	Stage	Cumulative Diff. All.	Required for Proposal A	Difference	Contract Rate Factor	Equivalent Drift Footage-Silver Bell
Drifting & Crosscutting	I	207.5*		207.5	$25/$30	172.9
Raising	I	450.0	288.0	162.0	$31/$30	167.4
Churn Drilling	I	60.3		60.3	$5/$30	10.0
Raising	II	125.0		125.0	$40/$30	166.7
Churn Drilling	II	899.7		899.7	$5/$30	150.0
Total (To be used in Proposals B and C)						667.0

* 250' crosscutting less 47' overage Obj. Area 1.

Required raise entries to the ore horizon as now clearly defined above the sub-level drift, Objective Area 1; and raise entries in Silver Bell mine ore blocks will be carried forward entirely on M. I. A. Mines Co. account.

These proposals with resultant amendments to the contract shall not be construed to increase the estimated total cost of the project, or the aggregate total amount which the government may be required to contribute.

The Exploration Project Contract as approved was dated effective January 27, 1953 and was to be completed within a period of 15 months. It is estimated that the 288 foot raise can be completed on or about April 1, 1954; and the required 500 foot drift on or about July 15, 1954. The additional work on the 3rd. level of the Silver Bell mine will be carried out concurrently with the raise work. It is therefore requested that a minimum time extension of three months be allowed to complete the project.

Very truly yours,

R. H. Godbe, Engineer and Acting Supt. of Minerva Operations

APPROVED:

Paul Gemmill, General Supt. of Mines for Nevada

cc: Mr. A. C. Johnson (5)
EHS
SSA
PG
File

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

Department of the Interior
Defense Minerals Administration
RECEIVED
MAR 12 1954

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

March 8, 1954

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Re: Docket DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine
White Pine County, Nevada
Contract Idm-2481
Amendment No. 2

Gentlemen:

On February 1, 1954, we sent you six copies of Amendment No. 2 to Contract Idm-2481 for your signature.

To date our copies of the executed amendment have not been received. Kindly give this your attention and return the signed copies to us promptly.

Sincerely yours,

H. C. Miller

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

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS
A. C. Johnson, Reno

FILE COPY
SURNAME:

Talbert
Chambers

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

JAN 26 1954

Mr. George Mayer
DMEA Auditor
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Idm-E481, DMTA-2688
M. I. A. Mines Company
White Pine County, Nevada

Dear Mr. Mayer:

Reference is made to your letter of January 23, 1954 relative to the allowable maximum for rehabilitating an adit under the subject contract.

The explanation quoted in your letter appears to be satisfactory. This quotation, together with a reference to its source, should be incorporated in your Audit Report.

Sincerely yours,

(Signed) J. L. Chambers

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/wb
January 26, 1954

Copy to : Docket
Admr. Reading File
Mr. Chambers

P.C.H.
1-26-54

Martin
Fackler
Selfridge
F C Johnson

JAN 25 1954

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

Re: Docket No. DMEA 2688, Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

We are enclosing the original and five copies of a proposed amendment, Amendment No. 2, to the referenced contract, signed by the Administrator for the Government.

If the terms and conditions of this proposed amendment are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Enclosures

APPROVED:

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

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

cc: DOCKET
FT, REG. 3
CODE 400
OPER. COMMITTEE
ADM. READ. FILE
R. W. GEEHAN, USBM
T. P. THAYER, USGS

WSMartin/ls
1/22/54

R.C.S.
1-26-54

FILE COPY
SURNAME:

Talbert
Chamberlain

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

JAN 14 1954

Mr. George Mayer
DMEA Auditor
1082 Flood Building
870 Market Street
San Francisco 2, California

Re: Idm-E/51, DMEA-2688
M.I.A. Mines Company
White Pine County, Nevada

Dear Mr. Mayer:

Returned herewith for certain revisions are the copies of the Audit Report and Certificate, covering the reference project, which were received with your Reference Slip dated January 5, 1954.

On pages 3 and 4 you have indicated the acceptance of the costs of straightening and widening the adit on the basis of a contract maximum of 3,000 cu. ft. @ $.60 per cu. ft., even though the unit costs to the Operator were only $.50 per cu. ft. The Government may not contribute to costs on a basis of unit prices in excess of those paid by the Operator. It should be noted, however, that the 3,000 cu. ft. was not a contractual allowable maximum, but was the estimated cu. ft. equivalent of a 1700 linear ft. allowable maximum.

Accordingly, the accepted costs properly should be determined on the basis of the cu. ft. of rock removed in rehabilitating not to exceed 1700 linear ft. of drift multiplied by the $.50 per cu. ft. actually paid by the Operator, but not exceeding the allowable maximum of $1,800.00 in total. I realize, of course, that it may not be possible to make an accurate determination of the cu. ft. properly chargeable, but I am sure that, with regional engineering assistance, you can arrive at a reasonable and equitable estimate.

On pages 6 and 9, in relating the expenses of Initial Rehabilitation and Repairs, you state that the entire costs of rail ($1,995.00) have been shown as a cost item under Operating Materials and Supplies, since that is where the Operator has listed it. However, since all of the remaining items (amounting to $2,284.46) also were used in underground rehabilitation, they, likewise, should be transferred to Operating Materials & Supplies. If you will refer to footnote 15 of the Audit Guide, a copy of which was forwarded to you by my memorandum of June 4, 1953, you will note that rehabilitation of shafts and underground workings are not to be included in the audit findings under the title of Initial Rehabilitation and Repairs. It is this Division's audit policy to reflect the distribution of costs in accordance with the definitions

R.C.B.
1-14-54

shown in Article 6 of the long form contract and on the reverse of the Form MF-104 even though the items of costs may be improperly listed in the Exhibit "A".

On pages 7 and 9 the bulldozing costs are shown under Operating Equipment Rented. In this case the Exhibit "A" properly listed the item under Independent Contracts since the estimated costs include operator, fuel and oil, necessary supplies, repairs and replacement parts. You will note, also, that the Form MF-104 includes "Bulldozing" as a sub-item under (1) Independent Contracts.

On page 8 depreciation charges of $1,080.82 are shown for certain equipment, which in Exhibit "A" were listed as "To be rented" with a footnote that under certain circumstances these equipment items were to be charged on a monthly depreciation rate equal to 1/60 of the fair market value. The Audit Report should include a statement to substantiate that the "depreciation values" indicated therein are "fair market values". There also is a typographical error on the tenth line of this page where the amount is shown as $1,074.82.

On page 10 are listed the cost items included in the accepted costs of $3,315.96 applicable to New Buildings, Improvements, etc., which are indicated as being within the total allowable maximum of $3,350.00 for this category of costs. It should be noted that by the terms of Article 6(a)(6) of the contract, as well as by insertion of asterisks in the Exhibit "A", each of five specific items have allowable maximum limitations. Accordingly, the costs are for distribution to these specific items. Since your list of materials shows neither poles nor wire, it appears quite possible that one of the items, i. e. the power line @ $436.80, was not installed. If this is so, then even in total the allowable maximums have been exceeded.

On page 12, last line of third paragraph, there is a typographical error. The "1950" should be "1953".

On page 13 the acceptable costs are indicated as including truck mileage @ $.14/mile and supplying water @ $244.71/month, which are the estimated costs shown in Amendment No. 1. The Audit Report must indicate that these were, or at least were not in excess of, the actual costs to the Operator.

On page 15, the status of allowable maximums is incomplete. Since some of the work was performed concurrently and, possibly, the Operator did not keep sufficiently detailed cost distribution records, it may be impossible to show the status of all allowable maximums. However, if this is the case, the Audit Report should contain a justification for the omission of this information. But the status statement should contain as much information as practical to develop from your audit.

My review indicates that a complete statement of the status of allowable maximums would contain the following items:

	Item	Allowable Maximum
	Stage I	
	Independent Contracts	$ 59,165.00
	Rehabilitation Main Adit	1,800.00
	Laying Track, Air & Water Lines	1,425.00
	Drifting	30,000.00
	Drift Timbering	600.00
	Raising	13,990.00
	Bulldozing	240.00
	Shaft Drilling	4,000.00
	Diamond Drilling	7,150.00
(A)	Labor, Supervision, Consultants	$ 10,133.00
	Supervising Engineer	4,800.00
	Engineer	800.00
	Bookkeeper-Clerk	1,200.00
(B)	Operating Materials & Supplies	$ 15,299.00
	Rail	1,260.00
	Equipment Rental & Depreciation	$ 12,672.00
	Battery Trammer	1,840.00
	Underground Rehabilitation Materials	$ 4,370.00
	Rail	1,085.00
	New Buildings, Improvements & Installations	$ 3,350.00
	Fan House	150.00
	Power Line	456.00
	Compressor, Power & Warehouse Building	1,500.00
	Fuel Tank (including installation)	600.00
	Water Tank w/pipe (including installation)	644.00
(G)	Miscellaneous	$ 10,295.00
	Road Maintenance	2,400.00
	Stage II	
	Independent Contracts	$ 30,430.00
	Rehabilitation of Shaft	1,800.00
	Construction of Skip Pocket	500.00
	Drifting	15,000.00
	Drift Timbering	250.00
	Raising	5,000.00
	Shaft Drilling	7,500.00
	Bulldozing	360.00
(A)	Labor, Supervision, Consultants	$ 6,333.00
	Supervising Engineer	3,000.00
	Engineer	500.00
	Bookkeeper-Clerk	750.00

Item	Allowable Maximum
(B) Operating Materials & Supplies	$ 5,953.00
Rail	525.00
Equipment Rental & Depreciation	$ 7,237.00
Underground Rehabilitation Materials	$ 1,119.00
Rail	316.00
(C) Miscellaneous	$ 1,922.00
Total Costs — Stage I	$115,426.00
Stage II	55,974.00

(A) Includes Bookkeeper-Clerk (Accounting Services) properly distributed in audit summary to item (7) Miscellaneous.

(B) Excludes supplies and materials for underground work improperly listed in Exhibit "A" under item (5) Rehabilitation & Repairs.

(C) Excludes Bookkeeper-Clerk (Accounting Services) improperly listed in Exhibit "A" under item (2) Labor, Supervision & Consultants.

It is with regret that I find it necessary to return this Audit Report and Certificate for the indicated revisions, since it is a clearly written report indicating field work well done on a rather difficult contract. However, where the contract indicates "allowable maximums", even to the extreme involved in this instance, it is a part of our audit responsibility to show that none of the Government's contribution is to costs which, by the terms of Article 5 of the contract, are "for the sole account of the Operator".

Sincerely yours,

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

Enclosure

EDTalbert/wb
January 13, 1954

Copy to: Docket
Admr. Reading File
Mr. Chambers

Chapman
Martin

400

Chief Counsel, DMEA 1-13-54

Iron and Ferro-Alloys Division, DMEA

Amendment No. 2, Docket No. DMEA 2688 - Tungsten, Contract Idm-E481
M. I. A. Mines Company
Combined Metals Reduction Company and AmericanZinc Company of Tennessee
White Pine County, Nevada

Rough drafts of the above noted amendment and justification and the subject docket are transmitted for your use in preparing the amendment in final form.

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

Enclosures

TLChapman:foc
1-13-54
cc: Docket
Code 400

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

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

December 1, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract No. Idm-E481

By letter dated November 21, 1953, addressed to Mr. A. C. Johnson, Mr. R. H. Godbe, Engineer and Acting Superintendent of Minerva Operations, and Mr. Paul Gemmill, General Superintendent of Mines for Nevada, Combined Metals Reduction Company, have requested another amendment to the subject contract. As the request involves a change of program, it is believed that the Washington office should be asked to prepare the amendment if such is to be granted.

Two copies of the cited letter from Messrs. Godbe and Gemmill are attached.

Mr. Johnson writes that he is in agreement with the proposed amendment for substituting diamond drilling for the churn drilling in objective areas 1, 2, and 3. "However," writes Mr. Johnson, "before an amendment is made to substitute 125 feet of the 250 feet allocated in step 2 of item 4, objective areas 2 and 3 of stage I to be changed to item 3, objective area 1 of stage I, some diamond drilling should be done before any further footage is allocated to the intermediate level." He makes that statement because the operator does not know what footage will be needed to intersect new mineralization on the intermediate level. "It might be," he writes, "that the diamond drilling will prove negative and under the circumstances there would be no reason for an extension of the intermediate level."

I will be in the Washington office next week at which time you may want to discuss this with me.

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

Attachment

Copy to: E. H. Bailey, USGS
A. C. Johnson, Reno

COMBINED METALS REDUCTION COMPANY

November 21, 1953

Mr. A. C. Johnson
U. S. Bureau of Mines
P.O. Box 1551
Reno, Nevada

Re: Docket No. DMEA 2688 (Tungsten
M. I. A. Mines Co.-Joint Venture
Combined Metals Reduction Co. and
American Zinc Co. of Tennessee.
Minerva Tungsten Property, White
Pine County, Nevada-Contract No.
IBM-X 481

Dear Mr. Johnson:

It is requested that consideration be given to the following proposed amendments to the subject contract. Amendment No. 1, in regard to providing water to the project, was approved effective July 1, 1953. These additional proposals are therefore enumerated in consecutive order.

Proposed Amendment No. 2

It was estimated in the "original cost estimates" that a total drift footage of 100 feet and raise footage of 50 feet would be adequate to provide an entry to Objective Area 1. This estimate was approved and entered as item (3) Objective Area 1 of Stage I in the contract agreement.

Drift work in excess of 100 feet has been unsuccessful in locating the fissure. The drift alignment to the southeast was predicated on the fact that almost without exception the N-S easterly dipping faults offset the fissure in the hanging wall block to the south.

As denoted in map 6-1107, submitted with the original application, the block designated as Objective Area 1 is large and warrants further exploration work to locate the ore horizon within the fissure and provide a necessary entry.

To accomplish this end, it is proposed to use diamond drilling to first locate the fissure and ore horizon, and afterward provide a drift and/or raise entry as required.

The modification to cover the diamond drill work is outlined in Proposed Amendment No. 3 to follow. A modification of the 50 feet raise entry to equivalent drift footage is not deemed advisable due to possible future need of this item to gain entry to the block.

It is requested that 125 feet of the 250 feet allocated in Step 2 of Item (2) Objective Areas 2 and 3 of Stage I be changed to Item (3) Objective Area 1 of Stage I. Results of churn drilling indicate a crosscut of a 250 foot length will probably not be required in this area.

Proposed Amendment No. 3

A total churn drill footage of 800 feet was allocated to explore Objective Areas 2 and 3, Item (4) of Stage I. Four churn drill holes (Minerva C.D.H. #1,2,

FORM 25

COMBINED METALS REDUCTION COMPANY

3 & 4) were drilled in this area with a total aggregate footage of 739.7 feet.

In Objective Area 6, Item (5) of Stage II, a total churn drill footage of 1,500 feet (7 or 8 holes) was requested and allowed. Three churn drill holes (Minerva C.D.H. #5, 6, & 7) have been completed in this area with a total footage of 600.3 feet.

It is our opinion that results of churn drilling as undertaken and presently completed in these areas has provided adequate information to be gained from this type of exploration. In this regard, all three churn drill holes in Objective Area 6 have successfully located mineralization in the fissure, and no further drill work of any type is felt warranted to develop this block.

As defined in the contract, no diamond drilling was specifically allocated for Objective Areas 1, 2, or 3. The complex faulting in these areas coupled with the westerly rake of the favorable ore horizon within the fault blocks, demand considerable diamond drill information prior to properly locating relatively high raise entries. This is substantiated by review of actual diamond drill requirements of the U. S. Bureau of Mines in carrying forth exploration work at this property during the last operating period.

It is requested that equivalent diamond drill footage be substituted for the "unused" churn drill footage totalling 860 feet. It is proposed to use this equivalent diamond drill footage as needed to (1) properly define the ore horizon and entries to Objective Areas 1, 2, and 3 and (2) to explore for lower ore horizons in this zone.

COPY

Very truly yours,

R. H. Gibbs

R. H. GIBBS, Engineer and Acting Superintendent of Minerva Operations

cc: Mr. A. C. Johnson (5)
M. M. S.
S. S. A.
P. G.
File

Approved:

Paul Gemmill

Paul Gemmill, General Superintendent of Mines for Nevada

FILE COPY
SURNAME:
ECC

Talbert
Hoffland
Chambers

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

NOV 25 1953

Mr. George Mavor
DMA Auditor
1012 Flood Building
870 Market Street
San Francisco 2, California

Re: Idm-1481, DMA-2688
M. I. A. Mines Company
White Pine County, Nevada

Dear Mr. Mavor:

Reference is made to your letter of November 20, 1953, concerning the allowable costs for a Diesel-Electric Generator Set under the referenced Exploration Project Contract.

Footnote No. 10 in the Exhibit "A" of the Contract specifically states that if any of the equipment, listed as "to be rented", is furnished by the Operator, or an affiliated company, it is to be charged to the project on a monthly depreciation value which is equal to 1/60 of its fair market value, instead of the rental values listed.

Since the Combined Metals Reduction Company, which is definitely an affiliate of the Operator, is furnishing the Diesel-Electric Generator Set and billing the Operator on a rental basis, it appears that this footnote is for application. The method under which this affiliate has procured the equipment is of no concern in determining the project costs to which the Government will contribute.

Accordingly, it appears that the maximum monthly allowable cost for this item of equipment is $85.91 (1/60 of the affiliate's acquisition cost of $5,154.52) on a depreciation basis rather than the $400.00 per month on a rental basis.

Sincerely yours,

SIGNED

Jay L. Chambers, Chief
Contract Administration
and Audit Division

EDTalbert/ama
November 24, 1953

Copy to: Docket
Admr. Reading File
Mr. Chambers

11-25-53

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 5 1953

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

November 4, 1953

Memorandum

To: Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine, White Pine County, Nevada
Contract Idm-E481
Amendment No. 1

Attached are the original and two copies of Amendment No. 1, dated October 8, 1953, made in connection with subject contract.

A justification sheet is attached to each copy of the amendment.

Proper distribution has been made of the remaining copies.

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

Attachment

Copy to: A. C. Johnson, Reno (With copy of amendment)
Finance Officer, Region III (With copy of amendment)
E. H. Bailey, USGS
George Lavor

RECEIVED
DEC 30 1953
GENERAL COUNSEL
DEFENSE MINERALS
ADMINISTRATION

cc
11-9

7

MIA

9-25-53

Western Minerals Survey

state MIA to

start production

10-12-53

J.A.

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

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

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

October 8, 1953

M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Re: Docket DMEA-2688 - Tungsten
M. I. A. Mines Company
Minerva Mine
White Pine County, Nevada
Contract Idn-[illegible]

Gentlemen:

Reference is to a letter signed by Mr. R. M. Godbe and approved by Mr. Paul Gemmill, dated August 26, 1953, requesting an amendment to the above captioned contract to permit you to drill a water well for supplying water to your exploration operations in place of hauling it a distance of 5 miles.

The matter was taken up with the Washington office of the Defense Minerals Exploration Administration and a way was pointed out by means of which I could amend the contract in such way as to leave it to you to use any practical method of supplying water and would not restrict it to hauling.

Accordingly, I have amended the contract by deleting $3181.20 allowed for hauling water and adding a similar amount for supplying water by any practical method, which you are now permitted to do if the amendment is properly executed by you.

If you agree to the amendment as drawn you will have to absorb the difference in costs for July ($55.38), for August (estimated $5.38) and for September (?).

If the amendment is satisfactory, kindly sign all of the six enclosed copies, retain the copy marked "Operator's Copy" and return the original and the other four copies to this office.

Sincerely yours,

H. C. MILLER
H. C. Miller
Executive Officer
DMEA Field Team, Region [illegible]

Enclosure

FILE COPY
SURNAME:

Chapman
Martin
Kane
Putin
Selfridge
Johnson

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

OCT -1 1953

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

Re: Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company
Minerva Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

This will acknowledge receipt of your letter of September 18, 1953, with two copies of letters and maps from R. H. Godbe, Combined Metals Reduction Company, dated August 26, 1953, requesting an amendment to the subject contract to provide for drilling a well for water instead of hauling water as stipulated in the contract.

We would be willing to approve an amendment to the contract that would change water supply from actual cost to unit cost. The item would become: "Supplying water to project for 13 months at $244.62 per month." The $3,181.00 in the contract for water haulage should be deleted.

The Operator would have to absorb the difference in costs for July ($55.38) and August (estimated $5.38), and September (?), but could use any practicable method for supplying water, and would not be restricted to hauling.

If you agree with the above proposal, please prepare an amendment to this effect.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (2/B)

Approved:

J. H. Hedges

Member, Bureau of Mines (2/B)

A. R. Kinkel, Jr.

Member, Geological Survey (2/B)

cc: Docket
FT, Reg. 3
Adm. Read. File
Code 400
Oper. Committee
Mary Miller, USGS
R. W. Geehan, USBM

TLChapman/ls
9/25/53

R.C.J. 10-1-53

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 23 1953

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

September 18, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Enclosed are the original and two copies of letter dated August 26, from R. H. Godbe, Combined Metals Reduction Company, to A. C. Johnson, requesting an amendment to the subject contract.

We concur in the following comments which are quoted from Mr. Johnson's covering letter to us, dated September 11, 1953:

"According to their statement their water haul for the project, in the event it goes the full 13 months will cost $3,181.00, while the cost of the water well will be $3,000.00.

"The water well if successful would be to the advantage of the company both for exploration and production later. However, in my own mind a water well at the property is purely development work looking toward the future. Again I am rather puzzled that the company is doing churn drilling on the project at $5. per foot but to drill a water well by the same method, in the same type of rock, in the same area costs $6. per foot.

"I am not in favor of granting an amendment to the contract. This contract as written is very liberal and is based on a unit basis plus additional fringe payments throughout the whole contract."

We would appreciate your suggestions for handling the Operator's request.

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

Attachment

Copy to: E. H. Bailey, USGS
A. C. Johnson, Reno

COMBINED METALS REDUCTION COMPANY

CASELTON PLANT PIOCHE, NEVADA

August 26, 1953

Mr. A. C. Johnson
U. S. Bureau of Mines
P. O. Box 1551
Reno, Nevada

Re: Docket No. DMEA 2688(Tungsten)
MIA Mines Co.-joint venture
Combined Metals Reduction Co.
and American Zinc Co. of
Tennessee. Minerva Tungsten
Property, White Pine County,
Nevada - Contract No.IDM-E 481

Dear Mr. Johnson:

It is requested that consideration be given to the following proposed amendment to subject contract:

Participation of the Government in drilling a water well at the Minerva Tungsten property in lieu of hauling water to the operation as proposed in the original cost estimate and approved in the Exploration Project Contract; it is agreed that (1) participation by the Government shall be only to the extent allowed in the contract for water haulage. (2) in event of a "dry" hole, additional water requirements will be at the sole expense of the company. (3) no additional cost in excess of that allowed in the contract shall be bourne by the Government. (4) no additional real property with Owner Consent to Lien shall be required.

This proposal to modify the existing contract is deemed warranted from the Company's standpoint to provide water requirements for current exploration work as well as for apparent future mine operations. Allocation of "water money" allowed in the Exploration Project Contract is deemed warranted by the Government on the basis of no additional cost over and above that allowed in the agreement. In addition the well will provide valuable geologic information in a new area.

As set forth in the original cost estimates and incorporated in the Exploration Project Contract, water haulage costs follow:

COMBINED METALS REDUCTION COMPANY

SHEET 2 DATE August 26, 1953 TO A. C. Johnson

Topman 1/2 day @ $12.65		$6.33
Fringe payments @ 26.54%		1.68
Total labor		$8.01

Fuel and maintenance of
Water Truck

Day 2 round trips @ 750 gal/trip or 10 miles @ $.14/mile	$1.40
Cost per day	$9.41

$9.41/day x 26 days/mo. x 13 mos. $3,181.00
allowable maximum

Actual water haulage costs during the month of July, 1953, totalled $300.00, and cost for August is estimated at $250.00.

Accompanying map A-1613 delineates the "well site" in relation to other camp features. Actual relative difference in elevation between the collar of the well and the valley floor to the west has been determined to be about 550 feet. A well of 500 feet minimum depth is indicated. Drill costs are estimated to be $6.00 per foot exclusive of casing (if required), pump and auxilliary equipment, installation costs etc.

Early approval of modification of the contract on the basis outlined is respectfully requested.

Very truly yours,

R. H. Godbe

cc: Mr. A. C. Johnson (5)
EHS
SSA
PG
File

Approved

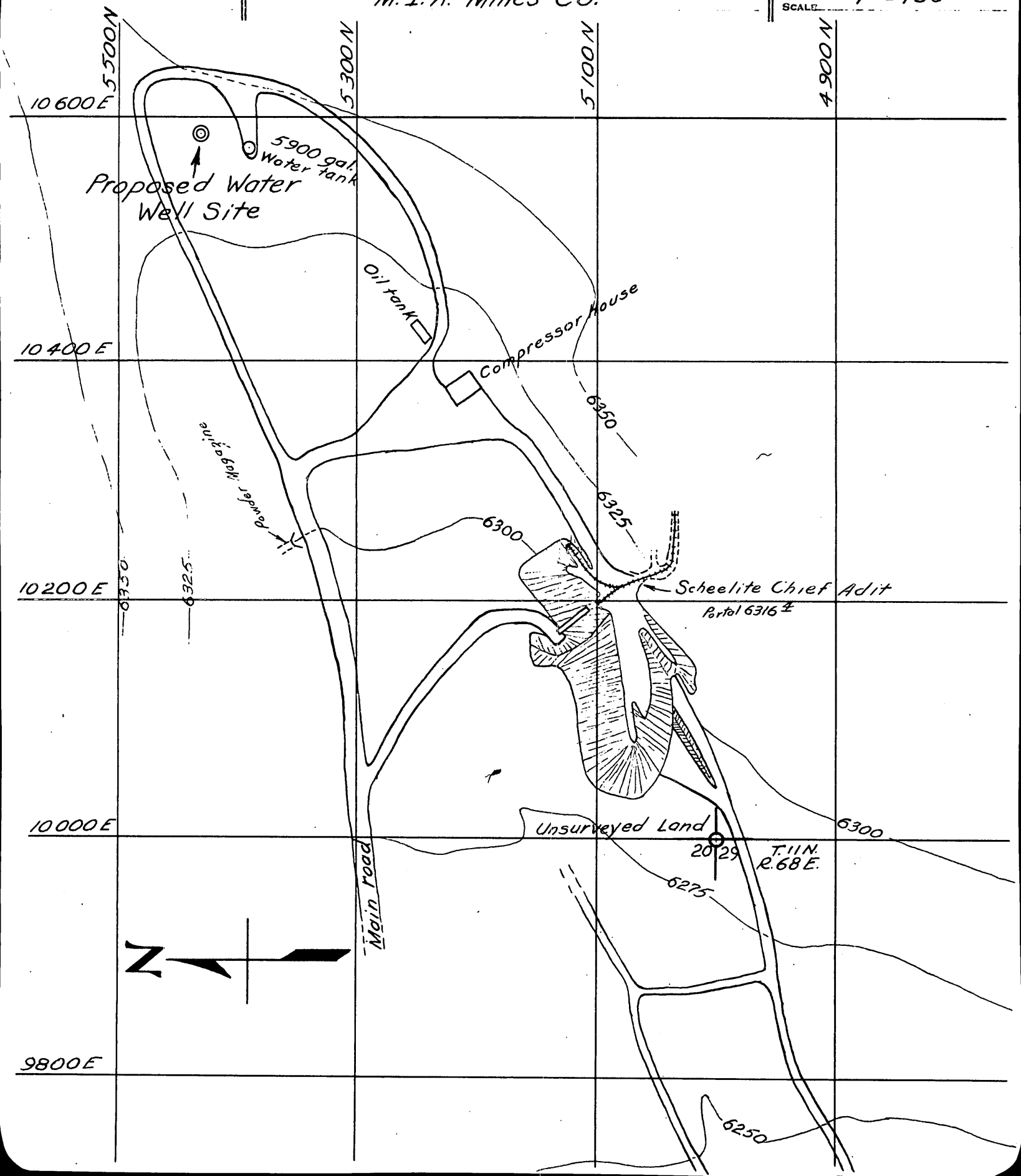
A-1613

REFERENCES.
Docket No. DMEA 2688
Contract No. IDM-E 481

COMBINED METALS REDUCTION CO.

PROPOSED WATER WELL
Minerva Tungsten Property
M.I.A. Mines Co.

August 27, 1953
MADE BY O.E. Schrader
TRACED BY
CHECKED BY
SCALE 1" = 100'



FILE COPY
SURNAME:

400

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

SEP 10 1953

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

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the subject docket and your memorandum of August 21, 1953, concerning the payment made for mine rail.

As stated in our letter to you of August 3, 1953, the 30-pound rail was only permitted by the contract because it was second-handed and the price corresponded to that for new 20-pound rail; 20-pound rail would have been sufficiently heavy for our exploration program.

In preparing the contract, we assumed that the rail would be purchased at the price quoted and the estimate was made accordingly. Though only the total sum was starred and made a maximum, it follows that the full quantity of rail could only be purchased if the unit price was not more than that estimated.

The Auditor, however, was correct in his interpretation that only the total amount is a maximum since it alone was starred. The indication of maximum items by the use of asterisks where more than one item appears in a line is discussed in Operating Committee Memorandum 8, under Question and Answer No. 4. The discussion, however, leaves final determination of the meaning of the starred items to the judgment of the appropriate officials in individual cases. It does state, however, that if all the items in a line are to be made maximums, all of them should be starred. It appears, therefore, that we were in error in not also starring the unit prices.

You are correct in your conclusion that if additional rail is needed, the Operator will have to foot the entire bill himself.

We regret that we neglected to state the unit price for the mine rail and hope that this matter has been satisfactorily settled.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

FARUTLEDGE:FOC
9-4-53
cc: Docket
Code 400
FT. Reg. III
Operating Comm.
Adm. Reading File
R. W. Geehan, USBM
Mary Miller, USGS

HHR
9-10-53

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

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

August 21, 1953

Memorandum

To: George C. Selfridge, Chairman, Operating Committee, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2688 - Tungsten
M. I. A. Mines Company , Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Reference is made to your letter dated August 3, 1953, in which you point out that the cost of rails per ton as shown on the Operator's March 1953 MF-104, does not agree with the price entered in the contract.

Your letter was referred to the DMEA Auditor - Mr. George Mavor, and he in turn discussed it with Mr. Talbert when he (Talbert) visited this office about two weeks ago. The letter has now come back to me with a note to Mrs. Horton, our voucher examiner, from Mr. Mavor. The note states "Rail costs are maximum, but prices are not." Underneath that note is one by Mrs. Horton as follows: "Mr. Talbert advised that payment as made was in order and no adjustment is necessary for reason stated above by Mr. Mavor."

Interim Report dated April 14, 1953, by Mr. Gentry reports "Miscellaneous supplies on hand - approximately 30 tons of new 30-pound mine rail, with necessary splice bars, track bolts and spikes." Evidently used rail was not available at time of purchase. Even though the rails purchased cost $4,361.43, the contract was charged only $4,095.00 and the difference suspended. Obviously, if the Operator needs additional rails he will have to foot the entire bill himself.

I trust that this explanation clears in your mind what we have done and why.

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

Copy to: E. H. Bailey, USGS

FILE COPY
SURNAME:

400

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

AUG 3 1953

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

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract Idm-E481

Dear Mr. Miller:

In reviewing the MF-104 for the Month of March 1953, we find that the cost of rails per ton does not agree with the price quoted to us by the Applicant and entered in the contract.

The application specified 30# second hand rail at $105.00 per ton delivered at the mine. 30# rail was allowed only because of the low price quoted, as 20# rail would have been sufficiently heavy for our exploration project.

The contract specifies a total of 39 tons of rail at $105.00 per ton or a total of $4,095.00.

The MF-104 for March shows the purchase of 30 tons of 30# rail at $145.38 per ton or total of $4,361.43. As this last amount was higher than the stipulted $4,095.00 the contract was charged the full allowable amount which comes to $136.50 per ton. This is $31.50 per ton more than the price allowed in the contract and computed at the same premium for 39 tons of rail would amount to $1,228.50.

We believe it would be advisable to call this overcharge to the attention of the Operator.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Director, Bureau of Mines

A. R. Kinkel, Jr.
Director, Geological Survey

TLChapman:foc 7-31-53
cc: Docket
Code 400
FT. Reg. 3
Oper. Comm.
Adm. Reading File
R. W. Geehan, USBM
D. M. Lemmon, USGS

R. C. 8-3-53

FILE COPY
SURNAME:

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

400

Ritledge
Martin
Johnson
Hottenroy

AIR MAIL

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

MAY 1 2 1953

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E481

Dear Mr. Miller:

Reference is made to the subject contract and the question of easement through property withheld by the lessor in the agreement dated January 26, 1952, between Robert F. Stopper, et al, and the Combined Metals Reduction Company. This agreement was assigned to M. I. A. Mines Company by Combined Metals on May 8, 1952.

Easement through the property withheld was granted to Combined Metals Reduction Company in Article 3 of the January 26, 1952, agreement, later assigned to M. I. A., as follows:

"Lessors do hereby demise, lease and let unto said lessee the property subject to this agreement as above described, to have and to hold with covenant for quiet enjoyment for the term of twenty-five years from the date hereof unless sooner forfeited or otherwise terminated. Reserving, however, to the Lessors that portion of the Scheelite Chief Claim, U.S.S. No. 4485-A, westerly from vertical plane boundary line running through the wins on the main level parallel to the end line of said claim; provided, however, that the Lessee shall have an easement over, through, and upon said reserved portion for all purposes necessary or convenient in its operations under this lease."

The remainder of the Scheelite Chief adit outside of the area covered by this contract is included in the referenced agreement and lease.

To complete your files on the referenced contract, we are enclosing a copy of the lease agreement and of the assignment to M. I. A.

Sincerely yours,

J.C. 5/12/53

W. S. Martin
ACTING Chairman, Operating Committee (JB)

APPROVED:

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

T. P. Thayer
Member, Geological Survey (JB)

FARUTLEDGE:foc 5-8-53
cc: Docket
Code 400
FT. Reg. 3
Oper. Com.
Adm. Reading File
R. W. Geehan, USBM
D. M. Lemmon, USGS

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 4 1953

Office of
Executive Officer
DMEA Field Team
Region III

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

April 30, 1953

Memorandum

To: Defense Minerals Exploration Administration,
Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA-2688 (Tungsten)
M.I.A. Mines Company (Combined Metals Reduction Co.),
Pioche, Nevada, Minerva Tungsten Mine,
White Pine County, Nevada, Contract Idm-E481

Your attention is called to the matter of an easement which is brought up by Mr. Glenn G. Gentry in his April 14, 1953, Interim Report on the subject property. It is believed that the Chief Counsel of DMEA should be notified of the condition brought up by Mr. Gentry and his advice sought as to what steps should be taken by us.

Kindly let us hear from you concerning the easement matter, as the company plans to do considerable trimming of the Chief adit, a part of which is on ground reserved by Mr. Stopper for his own mine operations. We have nothing out here to show that the Combined Metals Reduction Company has an easement from Mr. Stopper to use this adit for their exploration work and also in the event that they should decide to use the adit to transport any ore that might be found under contract Idm-E481.

Also, for your information, Mr. Gentry has been notified that the contract definitely is for 15 months and not for 21 months as he mentions on Page 6 of his report. His attention has been called to statement appearing in Exhibit "A" that the two stages may be carried on simultaneously.

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

Copy to: E. H. Bailey, USGS
A. C. Johnson, Reno

400

FILE COPY
SURNAME:

Martin

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

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

MAR 12 1953

J. C. 3/12/53

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Idm-E-481

Dear Mr. Miller:

We are enclosing an extra copy of the above-referenced contract for use of your field representatives in making their examinations and reports.

Sincerely yours,

C. O. Mittendorf (fw)

Administrator

Enclosure

LScott
3/11/53

cc: Docket
Field Team, Reg. 3
Code 400
D. M. Lemmon, USGS
R. W. Geehan, USBM
Admn. Reading File

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 9 1953

1012 Flood Bldg.
870 Market St.
San Francisco 2, Calif.

March 5, 1953

Memorandum

To: Operating Committee, DMEA, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Contract Idm-E481 - Docket DMEA-2688 (Tungsten)
M. I. A. Mines Company, Salt Lake City, Utah
Minerva Tungsten Mine, White Pine County, Nevada

Reference is made to Mr. Frank E. Johnson's letter of January 27, transmitting to this office the original and five copies of subject contract.

The contract has been executed on the part of the Operator and one copy retained by him. Distribution has been made of the Field Team's and Finance Officer's copies, and the original and two remaining copies are returned herewith.

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

Attachment

Copy to: A. C. Johnson, Reno (With copy of contract)
Finance Officer, Region III (With copy of contract)
E. H. Bailey, USGS
George Mavor

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 2 1953

Docket

Office of
Executive Officer
DMA Field Team
Region III

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

February 25, 1953

Mr. S. S. Arents
M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Re: Docket DMA-3688 (Tungsten)
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Arents:

On February 3, 1953, the original and five copies of the above referenced exploration contract were sent to you for signature. In that letter I itemized changes that were made in the Washington office in the cost as originally presented by you, to indicate how the final cost was arrived at.

The itemization contained an error which, however, did not effect the contract in any way. The error was in the diamond drilling item which should have amounted to $2,275.00 in place of $275.00.

The Washington office has now sent me a recapitulation of changes in the cost to correct the error. The following is the corrected recapitulation:

Applicant's cost	$ 190,940.00
Compensation and Liability Insurance not included in application	1,800.00
Total	192,740.00
Contract	171,400.00
Total deductions	$ 21,340.00

Deductions

Foreman has been eliminated	$ 7,150.00
Raises, 2 compartment instead of 3 compartment	4,025.00
Raise stations	768.00

Power lines eliminated from raises and 200 feet from end of drifts	$ 1,200.00
Pipe lines, 3 inch to 2 inch in raises and Silver Bell work	300.00
Diamond drilling, 1800 feet to 1300 feet, 500 feet at $5.50 per foot	2,750.00
Road maintenance	1,100.00
Battery trammer not used in Silver Bell	1,150.00
Maintenance of equipment, $8,175.00 to $7,150.00	1,025.00
Accounting, $5,537.00 to $3,975.00	1,562.00
Ventilation	400.00
Miscellaneous deductions	110.00
Total deductions	$ 21,340.00

Sincerely yours,

H. C. MILLER

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

Copy to: DMEA, Interior Building, Washington
E. H. Bailey, USGS
A. G. Johnson, Reno

HCMiller:mpp
Files
Chron.

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FILE COPY
SURNAME:

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

Chapman
Martin
Selfridge

FEB 19 1953

RW

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

J.C. 2/19/53

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada
Contract No. Ism-E-481

Dear Mr. Miller:

In reference to your wire of February 11, 1953, advising of error in letter of January 27, 1953, and requesting advice of any possible effect on contract, we wired you on February 13, 1953, as follows:

"Error in our covering letter of January 27 will not affect contract in any way whatsoever. Regret any possible inconvenience to yourselves. Writing."

The following is a recapitulation of changes in the cost to correct error in our letter of January 27, 1953:

Applicant's cost		$ 190,940.00
Compensation and Liability Insurance not included in application		1,800.00
	Total	192,740.00
Contract		171,400.00
	Total deductions	$ 21,340.00

Deductions

Foreman has been eliminated	$ 7,150.00
Raises, 2 compartment instead of 3 compartment	4,025.00
Raise stations	768.00
Power lines eliminated from raises and 200 feet from end of drifts	1,200.00
Pipe lines, 3 inch to 2 inch in raises and Silver Bell work	300.00
Diamond drilling, 1800 feet to 1300 feet, 500 feet at $5.50 per foot	2,750.00
Road maintenance	1,100.00
Battery trammer not used in Silver Bell	1,150.00
Maintenance of equipment, $8,175.00 to $7,150.00	1,025.00
Accounting, $3,637.00 to $2,275.00	1,362.00
Ventilation	400.00
Miscellaneous deductions	110.00
Total deductions	$ 21,340.00

We hope that this will clear up the matter satisfactorily.

Sincerely yours,

George C. Selfridge (NB)

Chairman, Operating Committee

Approved:

J. H. Hedges (NB)

Member, Bureau of Mines

D. M. Lemmon (NB)

Member, Geological Survey

cc: Docket
Field Team, Region 3
Code 400
Admn. Read. File
Operating Committee
R. W. Geehan, USBM
D. M. Lemmon, USGS

TLChapman/hhb
2/17/53

FILE COPY
SURNAME:

Martin
Selfridge.

Defense Minerals Exploration Administration
WSMartin
5285 3558

February 13, 1953

N. C. Miller, Executive Officer, DMEA Region 3, 1012 Flood Building
870 Market Street, San Francisco, California
Urtel February 11. Docket DMEA 2688 - Tungsten - Minerva Tungsten Mine

Error in our covering letter of January 27 will not affect contract in any way whatsoever. Regret any possible inconvenience to yourselves. Writing.

G. C. Selfridge
Chairman, Operating Committee

WSMartin/ls
2/13/53

CC: DOCKET
ADMN. READ. FILE
OPER. COMMITTEE
CONFIRMATION
AUDITS
CODE 400

S.H.
2.13.53

157 WA SFS /I-BOM/

SAN FRANCISCO CALIF 2-11-53 451P

FRANK E JOHNSON DEPUTY ADMINISTRATOR

DMEA INTERIOR BLDG WA

RELET JANUARY 27 DOCKET DMEA 2688 /TUNGSTEN/ MINERVA TUNGSTEN MINE. THERE IS ERROR OF $2475 IN SECOND ITEM PAGE 2. IF FOOTAGE AND RATE QUOTED ARE CORRECT, THE TOTAL SHOULD BE $2750 AND NOT $275. WILL THIS EFFECT CONTRACT IN ANY WAY /QM/ CONTRACTS HAVE BEEN SUBMITTED TO OPERATOR FOR SIGNATURE BUT NOT YET RETURNED. PLEASE ADVISE

H C MILLER EXECUTIVE OFFICER DMEA FIELD TEAM REGION III

27 2688 $2475 2 $2750 $275

EA 455P

RECEIVED
FEB 12 8 33 AM '53
GENERAL SERVICES ADMIN.
PUBLIC BLDGS. SERVICE
CMD - COMMUNICATIONS

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 12 1953

Does not affect contract
WSM

DOCKET

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
R. SITE
FEB 1 1953

Office of
Executive Officer
DMEA Field Team
Region III

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

February 10, 1953

Memorandum

To: Frank E. Johnson, Deputy Administrator, DMEA, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

2688

Subject: Compensation and Employer's Liability Insurance on Superintendent's Salary in Nevada

In reply to the question you raised in the last paragraph of your letter to me, dated January 27, 1953, (Re: Docket DMEA-2688 - Tungsten - M. I. A. Mines Company, Minerva Tungsten Mine, White Pine County, Nevada) our Reno mining office informs me that the Nevada Industrial Commission reports that all of a superintendent's salary is considered for Employer's Liability Insurance purposes.

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

Copy to: E. H. Bailey, USGS

Copy retained 400

FILE COPY 400
SURNAME:

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

Selfridge
Chapman
E. Johnson
L. J.

Mr. H. G. Miller
Executive Officer, Region III
1812 Flood Building
870 Market Street
San Francisco 2, California

JAN 27 1953

Re: Docket No. DMEA 2688 - Tungsten
W. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Miller:

We are enclosing the original and five copies of the above referenced exploration contract signed by this office for the Government, together with Exhibit "A" (12 pages), Map C-1107, Annex I and Owner's Consent to Lien.

If the terms and conditions of this contract are satisfactory to you and the Operator, all six copies should be signed by a duly authorized official of the Company. One copy is to be given to the Operator and the usual distribution made of the remaining copies.

If any part of this contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, then the original and all copies of the contract are to be returned to this office, together with the proposed changes for consideration.

Please note that the following changes have been made in the costs as presented by the applicant and finally arrived at in the accompanying contract:

Applicant's cost	$190,940.00
Contract	171,400.00
Total deductions	$ 19,540.00
Foreman has been eliminated	$ 7,150.00
Raises, 2 compartment instead of 3 compartment	4,025.00
Raise stations	768.00
Power line eliminated from raises and 200 feet from end of drifts	1,200.00

Pipe line, 3-inch to 2-inch in raises on main adit and in Silver Bell work	$ 300.00
Diamond drilling, 1800 feet to 1300 feet, 500 feet @ $5.50/feet	275.00
Road maintenance	1,100.00
Battery trammer not used in Silver Bell	1,150.00
Maintenance of equipment, $8,175.00 to $7,150.00	1,025.00
Accounting, $3,637.00 to $2,275.00	1,362.00
Ventilation	400.00
Miscellaneous deduction	785.00
TOTAL	$ 19,540.00

You will note that footnote 1/ and the last paragraph under Estimated Costs provide for the prorating of costs under certain circumstances. In each provision, the Government is protected against an unfair proration basis being used by the Operator. However, in order to facilitate the administration of this contract with the least amount of difficulty, it is suggested that the field team work out in advance, and reduce to an amendment, the basis for prorating costs in the event that the Operator elects to work under conditions which bring the prorating provisions of the contract into effect.

Attached hereto are 2 copies of a letter dated September 4, 1952, from Combined Metals Reduction Company which outlines its suggested prorating of expenses. Our comments are as follow:

We believe, in keeping with the contract provision, that all direct expenses of items relating to the exploration or to the Company's operations should be charged directly and as far as feasible to each operation. All other expenses would have to be prorated. At present, we have no objection to the proposed prorating as listed under Item 1 of the letter. We did discuss among ourselves the prorating of compressor and power units operation on a machine shift basis.

Under Item 2, in case the underground exploration is contracted, there should be no charge against the exploration for foremen, shift bosses, camp expenses and maintenance, including a boarding house deficit, as the contractor is to provide these.

We believe that all direct rock breaking expenses should be charged directly against the particular operation and that part which cannot be charged directly prorated on a rock ton basis rather than on a man shift basis. There is no reason that the assaying cannot be charged on a direct basis, depending upon the number of samples analyzed. The engineering could be done on a direct time basis, with the engineer keeping track of his own time.

You will realize that if the exploration work is done entirely under contract the matter of prorating will be simpler than if the Company takes over the exploration. It is also possible that other methods of proration may appear more feasible once the examining engineer has a better background for the contemplated Company operations. Should any difficulties develop regarding the prorating, please feel free to present your problems to Washington for discussion.

Will you please inform us whether or not a company operating in Nevada pays compensation and Employer's Liability Insurance on all or any part of a superintendent's salary.

Sincerely yours,

(signed) FRANK E. JOHNSON (GHB)

Chairman, Operating Committee

S.H. 1-27-53

Enclosures

TLChapman-GCSelfridge'lm
11/13/52

Approved:

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

E. L. McKnight (GHB)
Member, Geological Survey

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

UNITED
DEPARTMENT OF
DEFENSE MINERALS EXPLO

COMBINED METALS REDUCTION COMPANY

CASELTON PLANT PIOCHE, NEVADA

January 16, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 22 1953

Mr. G. C. Selfridge, Chief
Iron and Ferro-Alloy Division
Defense Minerals Exploration Administration
Department of Interior
Washington 25, D. C.

Re: Docket No D.M.E.A. 2688-Tungsten
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Selfridge:

Enclosed are signed copies of the Owner's Consent to Lein agreements on the above project. I regret the delay in forwarding these agreements to you but the various alterations on the agreements as submitted to me and the change from the older subordination agreement forms caused some misunderstandings on the part of the owners.

I hope that it will be possible to complete a contract on the project at an early date.

Sincerely yours,

S. S. Arentz, Manager
Nevada Operations

ENC.
cc: E. H. Snyder
Paul Gemmill

FILE COPY
SURNAME: 900

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

Chapman
Selfridge
Mattendorf

DEC 19 1952

Mr. S. S. Arents
M. I. A. Mines Company
218 Felt Building
Salt Lake City 10, Utah

Re: Docket No. DMEA 2688 - Tungsten
Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Arents:

On December 1, 1952, we wired you as follows:

"Landlord's Subordination Agreement forms sent us are unacceptable. Please send us signed copies of Owner's Consent to Lien as mailed you with our letter of October 28, 1952."

To date we have not received the executed Owner's Consent to Lien forms. In order for us to proceed with the processing of the contract, it will be necessary for us to have the six signed copies of the forms.

When the contract form was revised in February, 1952, it was also necessary to revise the Subordination form. This was done by issuing the "Owner's Consent to Lien" form which is now required with all new contracts involving leases.

As soon as the above noted forms are received, we will proceed with the processing of your application.

Sincerely yours,

George C. Selfridge

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

12-19-52

TLChapman'lm
12/18/52

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

FILE COPY
SURNAME:

Chapman
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
T. L. Chapman - Ext. 5285

Interior Department

Defense Minerals Exploration
Administration

STRAIGHT WIRE

DECEMBER 1, 1952

MR. S. S. ARENTZ
M. I. A. MINES COMPANY
218 FELT BUILDING
SALT LAKE CITY, UTAH

LANDLORD'S SUBORDINATION AGREEMENT FORMS SENT US ARE UNACCEPTABLE.

PLEASE SEND US SIGNED COPIES OF OWNER'S CONSENT TO LEASE AS MAILED YOU WITH

OUR LETTER OF OCTOBER 28.

FRANK E. JOHNSON

FRANK E. JOHNSON, ACTING ADMINISTRATOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

F.E.J.
12-1-52

TLChapman:LS
12/1/52

Copy to: Docket DMEA 2688
Admn. Read.File
Field Team, Reg. 3
T. L. Chapman
G. C. Selfridge
Confirmation
Audits

COMBINED METALS REDUCTION COMPANY

P. O. BOX 150

SALT LAKE CITY 10, UTAH

November 26, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 28 1952

12/1/52

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Washington 25, D.C.

Docket No. DMEA-2688 - Tungsten
M.I.A. Mines Company - Minerva Mine
White Pine County, Nevada

Dear Sir:

Enclosed herewith are six copies of the owner's subordination agreement covering the above named project as requested in your wire of November 21. We are sorry that there has been a delay in completing these agreements and hope that they will allow rapid completion of a contract covering the proposed project.

Very truly yours,

S. S. Arentz, Manager
Nevada Operations

SSA: m

cc - Mr. E. H. Snyder

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground (consisting of the following unpatented mining claims; Silver Bell, Silver Bell No. 1, Wedge, Pot Pie No. 1), in the County of White Pine, State of Nevada, described in a certain Exploration Project Contract dated August 22, 1952, between M. I. A. Mines Company, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated January 26, 1952, does by these presents subordinate all of his right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the Unites States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successor, and assigns of the undersigned.

Dated this 4 day of October, 1952, by the undersigned ~~its officers thereunto duly authorized by Resolution this day adopted unanimously by its Board of Directors.~~

Martha R. Allen

Martha R. Allen

Robert F. Stopper

Robert F. Stopper

Edward G. Stopper

Edward G. Stopper

State of Nevada)
) ss
County of White Pine)

On this 4 day of ~~August~~ October, 1952, personally appeared before me, a Notary Public in and for said County and State, ROBERT F. STOPPER, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Mary Tastan
Notary Public

My Commission Expires; 4/7/53

State of California)
) ss
County of San Francisco)

On this 28th day of August, 1952, personally appeared before me, a Notary Public in and for said County and State,

EDWARD G. STOPPER, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Martha D. McDonnell
Notary Public

My Commission Expires: January 3, 1955

State of California)
) ss
County of Marin)

On this 27th day of August, 1952, personally appeared before me, a Notary Public in and for said County and State, MARTHA R. ALLEN, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that she executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

David A. Leach
Notary Public

My Commission Expires: Nov. 15, 1955

G. C. Selfridge - Ext. 5284

U. S. Dept. of Interior

Defense Minerals Exploration
Administration

STRAIGHT WIRE

NOVEMBER 21, 1952

[illegible] W. [illegible]
MEMBER, EXECUTIVE COMMITTEE
[illegible] METALS PRODUCTS COMPANY
218 [illegible] BUILDING
SALT LAKE CITY, UTAH

[illegible] CONTRACT [illegible]'S CONSENT TO LIMIT [illegible]

YOUR LETTER NOVEMBER 3[illegible]

C. [illegible]
[illegible], [illegible]

GCSelfridge:ls

11/21/52

Copy to: Docket
Admn. Head.File
G. C.Selfridge
Audits
Confirmation

140

FILE COPY
SURNAME:

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

Rubin

November 10, 1952

n.s. in R. & P.

Memorandum

To: G. C. Selfridge

From: Chief Counsel

Subject: M. I. A. Mines Company, Docket No. DMEA-2688

There is attached, in satisfactory legal form for execution, a contract covering the above-described project. However, prior to the execution of the contract, a copy of the assignment of the lease to M. I. A. Mines Company must be obtained; the map C-1107 must be attached to the contract; the Owner's Consent to Lien must be attached to the contract; and the letter from the subcontractor, identified as ANNEX I must be attached to the contract.

You will note that footnote 1/ and the last paragraph under the Estimated Costs of the Project (p. 11) in Exhibit "A" provide for the prorating of costs under certain circumstances. In each provision the Government is protected against an unfair proration basis being used by the Operator. However, in order to facilitate the administration of this contract with the least amount of difficulty, it is suggested that the field team be instructed to work out in advance, and reduce to an Amendment, the basis for prorating the costs, in the event that the Operator elects to work under conditions which bring the prorating provisions of the contract into effect.

J. L. Hofflund
J. L. Hofflund
Chief Counsel

Attachment

HCRubin/ema
cc: Mails & Files
J. L. Hofflund
H. C. Rubin
Chron.

COMBINED METALS REDUCTION COMPANY

218 FELT BUILDING
SALT LAKE CITY, UTAH

E. H. SNYDER, PRESIDENT

11/6/52

November 3, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 5 1952

Mr. G. C. Selfridge, Chief
Iron and Ferro-Alloy Division
Department of Interior
Washington 25, D.C.

Docket No. DMEA 2688 - Tungsten
M.I.A. Mines Company - Minerva Tungsten Mine
White Pine County, Nevada

Dear Mr. Selfridge:

Referring to your letter of October 28 on the above subject, we are enclosing six ozalid reproductions of assignment by Combined Metals Reduction Company to M.I.A. Mines Company of lease dated January 26, 1952 covering that portion of the Minerva Mine on which proposed development is located.

Rubin OK'ed by telephone 11/13/52

We have forwarded forms covering "Owner's Consent to Lien" to our Nevada Manager, Mr. S. S. Arentz, who will have them executed by the property owners and returned to you.

Yours very truly,

Edward H. Snyder
Member Executive Committee

EHS: m

cc: Mr. S. S. Arentz
Mr. Paul Gemmill
Mr. L. K. Requa
1

ASSIGNMENT

For a valuable consideration, receipt whereof is hereby acknowledged, Combined Metals Reduction Company, a Utah corporation, qualified to do business in Nevada, hereby assigns and transfers to M I A Mines Company, not incorporated, authorized to do business in Nevada,

> Agreement and Lease dated January 26, 1952, between Robert F. Stopper et als, lessors, and Combined Metals Reduction Company, lessee, which describes property situated in Minerva Mining District, County of White Pine, State of Nevada.

This assignment is made upon the express condition that assignee shall keep and perform all of the agreements and conditions on the part of lessee and optionee to be kept and performed, and in default of such performance on the part of assignee, this assignment to be void.

WITNESS the due execution hereof this 8 day of May, 1952.

COMBINED METALS REDUCTION COMPANY
By E H Snyder
President

Attest: [illegible]
Secretary

COMBINED METALS REDUCTION COMPANY CORPORATE SEAL UTAH

STATE OF UTAH :
) ss
County of Salt Lake:

On this 8 day of May, A.D. 1952, personally appeared before me. Hortense White, a Notary Public in and for said County, E. H. Snyder, known to me to be the President of Combined Metals Reduction Company, the corporation that executed the foregoing instrument and upon oath did depose that he is the officer of said corporation as above designated; that he is acquainted with the seal of said corporation and that the seal affixed to said instrument is the corporate seal of said corporation; that the signatures to said instrument were made by officers of said corporation as indicated after said signatures; and that said corporation executed the said instrument freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of Salt Lake, State of Utah, the day and year in this certificate first above written.

Hortense White
Notary Public
Salt Lake City, Utah

My Commission Expires:

NOTARY PUBLIC COMMISSION EXPIRES SALT LAKE CITY, UTAH

69099

RECORDED May 13, 1952 at 9:04 a. M.
J. B. Geraghty
RECORDER OF WHITE PINE COUNTY, NEVADA
B.
PC

FILE COPY
SURNAME:

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

Chief Counsel, DMEA

October 31, 1952

Chapman
Selfridge

Iron and Ferro-Alloy Division, DMEA

Preparation of contract
Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Scheelite Chief and Silver Bell Mines
White Pine County, Nevada

Attached hereto is the subject docket and a rough draft of a proposed contract thereto.

It will be appreciated if you can give early consideration to the preparation of the contract because the Operator has only approximately one month more of good weather in which to prepare for winter operations. An assignment of the lease and the owner's consent to lien forms are expected to reach Washington in the very near future.

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

Attachments

GCSelfridge:ls

cc: Docket
Admn. Read.File
G. C. Selfridge

FILE COPY
SURNAME:

Chapman
Selfridge

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

OCT 28 1952

M. I. A. Mines
218 Felt Building
Salt Lake City, Utah

Re: Docket No. DMEA 2688 -
Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Gentlemen:

This is to acknowledge receipt of your letter of October 17, 1952, in reply to our letter of October 8.

We are sending a draft copy of a proposed contract to our Legal Department for examination. However, before we can complete the final processing of your application, it will be necessary that we have a copy of the assignment of the lease by the Combined Metals Reduction Company to the M. I. A. Mines. In addition, as part of the contract, will you please furnish us with six executed copies of the enclosed "Owner's Consent to Lien," signed by Mr. Robert F. Stopper, et al., owners, and authorized officials of the M. I. A. Mines Company.

Sincerely yours,

SIGNED 10-28 GL
G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

Enclosures

TLChapman:GCSelfridge:ls 10/28/52

Copy to: Docket
Admn. Read. File
Field Team, Reg. 3
T. L. Chapman
G. C. Selfridge
R. W. Geehan, USBM
D. M. Lemmon, USGS

COMBINED METALS REDUCTION COMPANY

CASELTON PLANT PIOCHE, NEVADA

October 17, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 21 1952

Mr. G. C. Selfridge, Chief
Iron and Ferro-Alloy Division
Defense Minerals Exploration Administration
Washingtom 25, D. C.

Re: Docket No. DMEA 2688-Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Dear Sir:-

In reply to your recent letter on the above subject we have reviewed the cost estimates set out in our application and offer the following revisions to meet the objections stated in your letter:-

1. The contract rates do appear high in view of what the contractor furnishes. The mine is in an isolated location and the contractor will probably have to pay a premium in order to get men and in addition will have to absorb the cost of providing camp facilities. We have reserved the option of doing the work ourselves or of getting other contract bids.

   It is my understanding that the government will only be charged for its share of the actual cost of the work up to a maximum of its share of the estimated cost. We shall use every precaution to get work done as cheaply as possible.

2. By reducing the proposed raises from 3 compartments to 2 compartments a cost saving is estimated as follows:-

Labor and Explosives (contractor's price)	-	$ 5.00 per ft.
Supplies - (timber) -	-	2.00 per ft.
Total estimated saving -	-	7.00 per ft.
Raising - Cheif adit - 450 feet @ $7.00	-	3,150.00
Raising - Silver Bell adit - 125 feet @ $7.00	-	875.00
Total estimated saving 575 feet @ $7.00		$ 4,025.00

Copy retained 400

We would reserve the right to drive three compartment raises to facilitate later mining with the additional cost to be for our account.

3. On the basis of a contractor doing the work of drifting, raising, and crosscutting, we agree that a foreman will not be necessary and that our superintendent can take care of the necessary supervision of the service crews, drill crews etc., and check on the contractor. The contractor will have a foreman whose wages will be included in the contract price. In the event we choose to do the work on company account we would require a foreman and in the event we reserve the right to include his wages or salary as a project expense on the assumption that the direct heading costs would be reduced by a like amount and the estimated overall cost of the project would not be increased. The reduction in the estimated cost set out in our application is as follows:-

1 - Foreman - 13 months @ $550.00 - $ 7,150.00

4. We agree that for the purpose of the exploration project only we do not need a power line up the raises and that we can use 2" airline instead of 3" airline in the raises. The saving in estimated cost by these changes is as follows:-

Elimination of power line in raises	-	$ 1.00 per ft.
Change from 3" pipe to 2" pipe	-	.30 per ft.
Total saving -	-	$ 1.30 per ft.

Raising - Chief adit - 450 ft. @ $1.30	-	$ 585.00
Raising - Silver Bell - 125 ft. @ 1.30	-	162.50
Total saving		$ 747.50

5. Regarding the questions raised on equipment rental as set out under paragraph (d) Operating Equipment on page 16 of our application we have the following:-

All of the items listed except the two trucks (items #7 and #8) will have to be rented or purchased by the operator as none of the equipment listed is currently on hand or owned by the M.I.A. Mines Company. The rental rates listed are those charged by equipment dealers in this area and in general are direct quotations from the Cate Equipment Company of Salt Lake City, Utah. The purchase price

of this equipment if purchased new (and second hand equipment in good condition is not readily available) is several times the total estimated cost of operating equipment set out in the application. On the completion of the project the new value of the equipment would be reduced by more then the rental value set out in our application and on this basis we believe that the rental rates are fair. It might also be noted that on the two trucks listed as items #7 and #8 we have only charged operation and maintenance costs as our experience has shown that in the rough service received in this kind of work, the estimated costs used will not cover amortization.

The rental on the surface equipment at the Silver Bell shaft for the period covered by the contract is minor when compared with the cost of providing these currently non-existent facilities.

6. Equipment maintenance is estimated to total $8,175.00 for the 13 months covered by the project, or $629.00 per month. Based on experience at Caselton extending over a long period of years this is the amount required to provide on average of one maintenance man and the necessary welding supplies, repair parts, steel, etc required to keep an operation going. We shall of course endeavor to keep this cost below the estimate.

7. In addition to the contract crews (and it may be necessary to do all work on company account) there will be churn drill crews, diamond drill crews and service and maintenance employees engaged on the project. The cost of accounting estimated in the project is less than the full time services of one man for the duration of the project and in addition covers office supplies, postage, telephone and telegraph, office space, etc, directly chargeable to operations. It is anticipated that the accounting will be handled by the Caselton office of the Combined Metals Reduction Company and that charges will be on an equitable basis. A similar arrangement is now in operation between Comet Mines, Inc. and Combined Metals Reduction Company covering a DMEA project at the Comet Mine and no difficulties have arizen.

8. The estimated cost of buildings, fuel, water, surface labor, and miscellaneous charges are detailed in the application. We believe that they are necessary to the project and will do everything we can to hold the actual expense to the minimum. In calculating total footage on the project you have not considered the very considerable drill hole footage involved all of which will necessarily require supervision, servicing, accounting and auxillary labor.

The estimated cost of the project will be reduced by the changes discussed above. These changes are summarized as follows:-

Total estimated cost of project as set out in our application -	-	$190,940.00
Reduction due to reducing size of proposed raises -	$4,025.00	
Reduction due to leaving out foreman if work is contracted or in cost of work if company account -	7,150.00	
Reduction due to leaving power line out of raises and changing from 3" pipe to 2" pipe -	747.50	
Total reduction - - -	-	$ 11,922.50
Total estimated cost on revised basis	-	$ 179,017.50

It will be agreeable with us for you to make these revisions a part of our application and to proceed to draft a contract on this revised basis.

You requested additional information regarding the property and the status of the leases, etc. The following is the requested information:

1. The agreement dated January 26, 1952 between Robert F. Stopper et al and Combined Metals Reduction Company has been assigned by Combined Metals Reduction Company to M.I.A. Mines Company. The options have been exercised and title to the property now rests with Robert F. Stopper et al and M.I.A. Mines Company has a 25 year lease on the property. The related documents have been recorded and certified copies can be obtained if necessary.

2. All provisions of the lease including Section 17 of the above agreement "Owners consent to Lien" apply to M.I.A. Mines Company.

3. The lessors will not consent to the proposed clause making ore removed through the Chief adit subject to a percentage royalty payment to the government because of possible inclusion of ore now developed along the adit. They will consent to

COMBINED METALS REDUCTION COMPANY

SHEET 5 DATE October 17/52 TO G. C. Selfridge

including all ore mined from objective Area #1, a small part of which area may be outside the boundaries of the claims named in our application.

We can reasonably expect a maximum of 6 more weeks of good weather before winter will hit this area and it would be extremely desireable to get work started during this remaining period of good weather. We would therefore greatly appreciate anything you can do to expidite completion of the contract at the earliest possible date.

Sincerely yours,

Samuel S. Arentz, Manager
Nevada Operations

SSA:zw

FILE COPY 400
SURNAME:

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

Chapman
Martin
Selfridge

OCT 8 1952

M. I. A. Mines
218 Felt Building
Salt Lake City, Utah

Re: Docket No. DMEA 2688 - Tungsten
M. I. A. Mines Company
Minerva Tungsten Mine
White Pine County, Nevada

Gentlemen:

The subject application for exploration assistance has been carefully reviewed. Your project appears to be well planned and to have good geologic possibility of exposing ore, but the estimated costs are higher than we normally allow for such an exploration project.

Apart from the churn and diamond drilling costs, the project as estimated would cost about $67.50 per foot of drifting, crosscutting and raising, without taking into account the preliminary rehabilitation which increases the above cost per foot by about $6.00. The following items all contribute to the above high cost:

1. The contract rates appear high for what the contractor furnishes. You might be able to save $3.00 or $4.00 per foot on the drifting and crosscutting.

2. Our projects are not intended to go beyond a reasonable delineation and sampling of the ore, and do not include work prosecuted primarily for mining or preparation for mining. We, therefore, restrict our approved raises to about 5' x 7' in the clear, 2 compartment size. If you desire 3 compartment raises, the extra cost will be for your account.

3. Supervision comes to about $6.60 per foot. With a contractor carrying on the drifting, crosscutting and raising, your superintendent should not need a foreman as well.

4. Supplies total about $6.25 per foot. It is not clear to us why you need a power line up the exploration raises. Two inch air pipe would be large enough for exploration raises and this should cost about half as much as the 3-inch pipe that you propose to use.

5. Equipment comes to nearly $11.25 per foot. The Operator is not expected to rent his own equipment to the project, but can charge depreciation on such equipment at 1/60 (one sixtieth) of its fair market value per month, and can also charge actual maintenance expenses incurred during the life of the project. In the case of existing buildings and mine structures, no depreciation or rental can be charged but reasonable costs of rehabilitation and repairs can be included in the project. Please submit a list of equipment with fair values, and revised estimates for "6(d) Operating Equipment" and "6(e) Rehabilitation and Repairs, etc." on the foregoing basis.

6. In addition to the above equipment cost, equipment maintenance at about $3.60 per foot is included in the estimate. If the equipment is in good condition at the start of the project, we believe you should be able to keep the maintenance cost well below the quoted figure.

7. Accounting is estimated at $1.60 per foot. As in the case of supervision, we believe that with the work on contract you should be able to make an appreciable saving per foot on this item.

8. New buildings, fuel, water, surface labor, and miscellaneous charges add about $9.15 per foot.

Please also supply us with information on the following:

1. What interest has your company in the agreement you submitted dated January 26, 1952, between Robert F. Stopper et al and Combined Metals Reduction Company. The regulations of this Administration (DMEA Order-1) require that an applicant have a sufficient interest in the land for the purpose of the exploration project contract. It appears from the lease dated January 26, 1952, that Combined Metals lease is contingent upon the exercise of an option by it, and also the exercise of an option by it's lessor. Therefore, we must be furnished with evidence that the options have been exercised and that Combined Metals has an existing 25 year lease.

2. Will the lessors extend to your company the same assistance and cooperation offered to Combined Metals Reduction Company in Section 17 of the above agreement, which section covers execution of any necessary "Owner's Consent to Lien".

3. It is apparent from your map C-1107 that rehabilitation of the Chief adit involves work predominantly outside the boundaries of the unpatented lode claims listed in your application, namely: Silver Bell No. 1, easterly half of Silver Bell, southerly half of Wedge, and southerly half of Pot Pie No. 1. It appears too that either your sublevel drift toward Objective Area I or your possible ore exposure in that area may also be to some extent outside the boundaries of the claims named above. Please determine whether the lessors will consent to a clause in our proposed exploration contract stating that, in case a certification of discovery shall be made as a result of your project, any ore so certified that is removed through the Main Chief Adit of the Scheelite Chief Mine shall be subject to a percentage royalty payment to the Government (as specified in "Sec. 10 Repayment by Operator" of DMEA Order-1) not only in the event that such ore is mined within the boundaries of the above named claims but also in the event that such ore is mined from claims contiguous to those above named.

We have discussed your application in considerable detail because there will be no need for a field examination of your property. Reports on its merit are already available here. A contract for the project can, therefore, be drafted here and submitted to you for your comments as soon as your estimated costs can be revised to cover only work and installations of a type that can reasonably be charged to exploration, and as soon as your property rights are clarified so that we know what area must be included in the "Owner's Consent to Lien".

Sincerely yours,

George C. Selfridge

10-8-52

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

TLChapman-WSMartin'lm
10/8/52

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

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

October 8, 1952

Memorandum

To: George C. Selfridge, DMEA

From: Robert W. Geehan

Subject: M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

DMEA 2688
Tungsten

The subject proposal is sound from a geological standpoint. However, the costs appear to be too high. In general, this seems to result in part from work that would not be classed as "exploration" such as power lines, 3 compartment raises, and 3-inch air lines, all of which were discussed with you yesterday.

As the draft of your letter to the applicant appears to cover these points, I will not enumerate them all here.

No examination by the Field Team should be needed as we have detailed reports on the property at this office (USBM Report of Investigations 4648) and at the Geological Survey. If the costs are revised downward to include only exploration items, the proposal would warrant approval.

Robert W. Geehan

Robert W. Geehan

Attachment

Copy retained 400
George C. Selfridge

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 8 1952

IN REPLY REFER TO:

G-MD-CF

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

September 16, 1952

Memorandum

Copy retained HQ

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application $190,940 DMEA 2688 - Tungsten
M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Property: Scheelite Chief and Silver Bell mines
Minerva district
White Pine County
Nevada

Proposal: It is proposed to rehabilitate the main Chief adit and the Silver Bell shaft and to do the following exploratory work: 1,700 feet of drifts and crosscuts, 575 feet of raises, 2,300 feet of churn drilling and 1,300 feet of diamond drilling. The work is aimed at discovery of orebodies in the unexplored part of the vein between the Chief and Silver Bell mines and east of the Silver Bell mine.

Comment: The proposed work is well-conceived and has a good geologic chance of exposing ore containing 30,000 to 50,000 units of WO_3. The geologic controls for the principal ore shoot are known from past work on this vein and other veins in the district, and the exploration targets are faulted segments of this ore shoot. The displacements on the faults are determinable. Chances exist for discovering other ore shoots at lower stratigraphic positions as proposed under objective number 4.

As proposed, all surface drilling is to be with a churn drill, and underground drilling with a diamond drill. Costs are estimated at $5 per foot for churn drilling, $5.50 per foot for diamond drilling. In the past, exploration by diamond drilling from the surface was successful and core recovery was good. Churn

drill holes may not provide as good geologic information as diamond drill holes although they will be advantageous in ventilating workings. Therefore I suggest that the exploration contract specify that diamond drilling may be substituted for churn drilling at the option of the M.I.A. Mines Company if churn drilling is not successful.

Some of the proposed costs may not be permissible. Raises are 3 compartment for production although 2 compartments are sufficient for exploration. The sub-contractor quotes the additional cost at $5 per foot, which should probably be for the Company's account.

The equipment furnished by the operator is charged at monthly rentals rather than on a depreciation basis.

The total cost of the project may prove substantially less than the estimates, for the Company plans to start production as soon as possible and will then prorate many of the costs between exploration and production.

Recommendation: I recommend that an exploration contract be drawn to finance the program proposed by the applicant. No field examination is necessary to substantiate the merit of the project. The property is well-known to Bureau of Mines and Geological Survey personnel in Washington.

D. M. Lemmon

Mr. Otto Herres
M. I. A. Mines Company
218 Felt Building
Salt Lake City, Utah

Subject: DMEA-2688
Re: Exploration Assistance
Minerva Tungsten Mine
September 8, 1952

My dear Mr. Herres:

The receipt of your application dated September 4, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2688 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2688 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Chief, Operation's Control
and Statistics Division

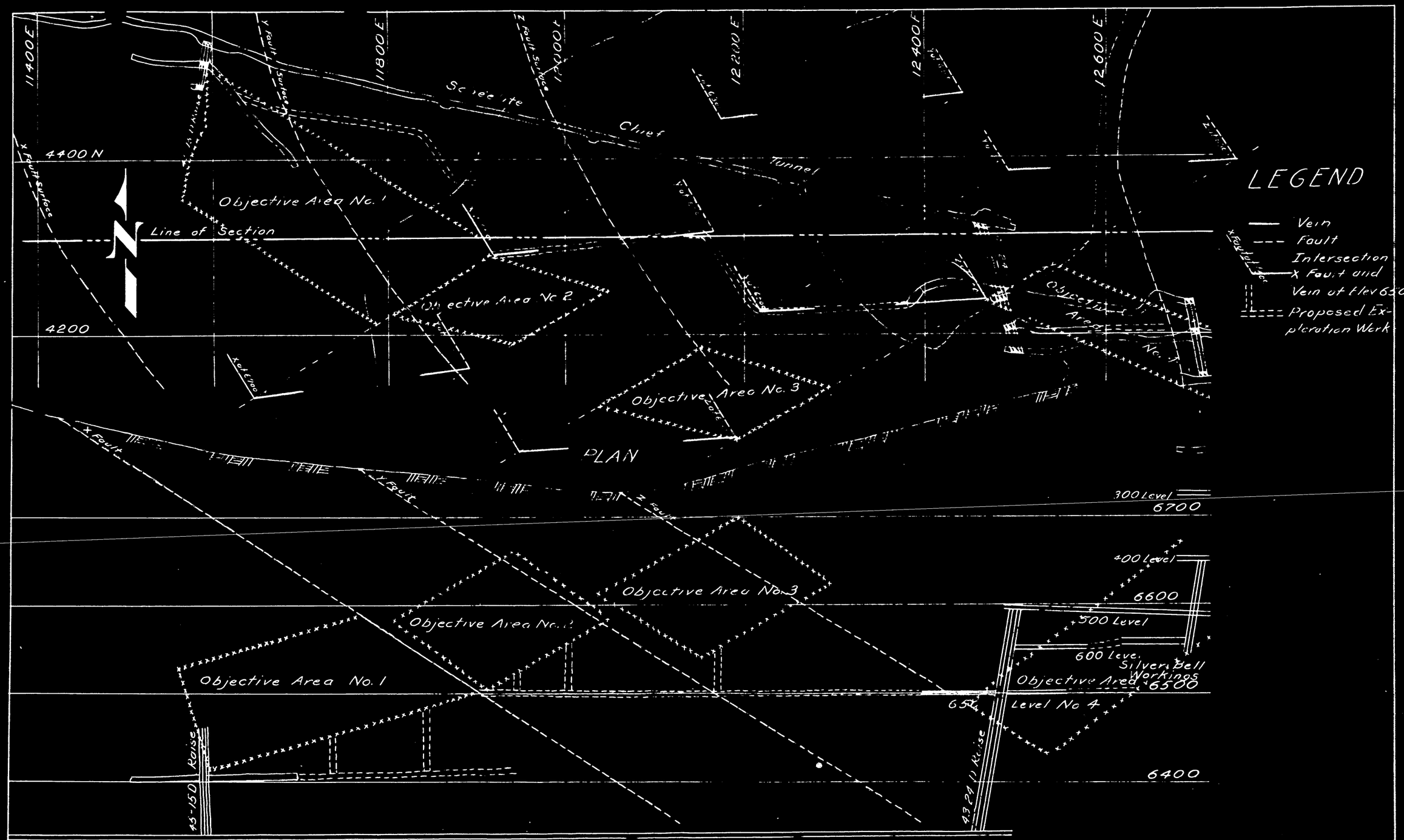
25451

M.I.A. Mines Company - DMEA 2688

costs through May 1954

Work	Feet		Direct Costs $	$/FT	Supervision - Insurance $	$/FT	Plus Undistributed Costs $	$/FT
Drifting	1669.0	67.918	61217.51	36.68	68811.67	4123	84222.21	50.46
Raising	289.5	19.562	17632.18	60.91	19819.48	68.46	24257.98	83.79
Diamond Drilling	1139.3	5.087	4585.27	4.02	5154.07	4.52	6025.85	5.29
Churn Drilling	1340.0	7.433	6700.00	5.00	10476.23 1/	7.82	11750.05	8.77
			90134.96		104261.45		126256.09	

1/ Includes Rental Drills



REFERENCES		WORK			
Base Maps D.M. Lemmon U.S.G.S. C-1107		DRAWN Schrader	8-1-54	COMBINED METALS REDUCTION CO. Pioche, Nevada	MINERVA TUNGSTEN PROPERTY EXPLORATION PROPOSALS Scheelite Chief and Silver Bell Mine Areas
		TRACED			
		CHECKED R. G. Lee	8-2-54		
		APPROVED			

SCALE 1" = 100'

B-877

Roll.

1. Contracts.

Drift. 500 ft. @ 30.00 ft.	15,000.00	500 ft. @ 26.00	13,000.00
Timbering 50 ft. @ 5.00	250.00		250.00
Raise. 125 ft. @ 45.00 3 comp.	5,625.00	2 Comp. 36.00 ft.	4,500.00
	20,875.00		17,750.00

2. Supervision, Labor, Consultants

5 months	8,330.00		5,580.00

3. Supplies.

Shaft.	2,400.00	Drift 10 sets, 311 ft. @ 117.00	364.00
Raise.	1,159.00	" Track 500 ft. @ 1.35	675.00
	3,559.00	" Vent. pipe.	410.00
		" Power Line	250.00
		" Pipe.	387.00
		Raise. Timber	890.00
		Pipe.	95.00
			2971.00

4. Operating Equipment

Rental	11,606.00	1 Hoist Value $2800	
		5 mo. 30 mo.	150.00
		Other Equipment	2750.00
			2900.00

5. Rehab. - Reclam.

Shaft. Contract	1,800.00		1,800.00
Supplies. $5.41 ft.		4200 ft. timber @ 117.00	491.00
200 ft.	1,515.00	Pipe. Power Line Repair	616.00
	3,315.00	$2.20 ft.	2,907.00

6. New Bldgs.

Shaft house etc.	1,200		1,200.00

7. Misc.

Refinery.	3,144.00	150 mo. 5 mo.	750.00
Assaying 50.00			
month, 5 mo.	250.00		250.00
Accounting	1399.00	5 mo. 150.00 mo.	750.00
Water Develop.:			
1.40 day 130 day	182.00		182.00
Cement chs. etc	916.00		614.00
	5,891.00		2546.00

Total Silver Bell Shaft, Drifts, & Raises.

1.	20,875.00	17,750.00
2.	8,330.00	5,580.00
3.	3,559.00	2,971.00
4.	11,606.00	2,900.00
5.	3,315.00	2,907.00
6.	1,200.00	1,200.00
7.	5,891.00	2,546.00
	54,776.00	35,854.00

Adv.	102,256.00	78,835.00
Shaft.	54,776.00	35,854.00
Chum Drill.	12,100.00	12,100.00
D. Drill.	9,900.00	9,900.00
	179,032 00	136,689.00

Contract Adv.

Shaft.	20,875.00	17,750.00
Adv.	44,500.00	37,500.00
	65,375.00	55,250 00

69.02

2275) 157,032

80.40

2275) 114689

Memorandum. Costs

Mr. I. A. Mines Company
Re-Docket DMEG-2688 Dangler.
Sheelite Chief & Silver Bell Mines.
White Pine County, Nevada.

Comparison of costs as presented by applicant and estimated by this office.

1. Independent Contractor. (From adit level)

a. Contractor to furnish all labor for mucking loading, hauling and dumping, and installing track, pipe, ventilating equipment and timber.

b. House and board labor.

c. Furnish explosives, drill steel, bits, drilling machines, raise service hoists.

d. Repair and maintain all above equipment.

Operator to furnish

a. Compressed air, water, electric power.

b. Battery tramming motor and mine cars.

c. Rail and ties, fittings, switches, air and water pipe, vent tube delivered on dump.

d. Ventilating fans and power lead to same.

e. Timber, wedges, nails, etc.

f. Operation of small tractor for snow removal.

Adit Level Contractor		By us.
5-X7 drift = X Cut.	25.00 ft.	21.00 ft.
Timbering (10%)	5.00 ft.	3.00 ft.
Raising, timbering and Chute. 2 Cut.	31.00 ft.	26.00 ft.
3 Cut.	36.00 ft.	31.00 ft.

Contractor		By us
1200 ft. @ 25.00/ft. = 30,000.00		at 21.00/ft. 25200.00
Timber 10% @ 5.00/ft = 600.00		5.00/ft. 600.00
450 ft. Rails @ 31.00/ft = 13,900.00		26.00/ft. 11,700.00
	44,500.00	37,500.00

Operator.

2. Supervision, Labor, Consultants

1. Superintendent, 8 mo. 600.00/mo.	4,800.00	4,800.00
Foreman 8 mo. 550.00/mo	4,400.00	
Engineer, 8 mo. 100.00/mo.	800.00	800.00
Pohmer, 208 days @ 16.00	3,328.00	3,328.00
	13,328.00	8,928.00

3. Operating Materials & Supplies

Dumping: Drills & Xanb (12.00)	5,760.00?	24 inch 31 ft. at 117.00 m.	783.00
Rails 2 comp.	3,128.00	90 m. 270 ft. @ 117.00	3,059.00
4 Rail Stations	768.00	4 Rail Stations	768.00
Fuel, oil, etc	3,536.00		3,536.00
	12,692.00		8,146.00

30" Rail, 2400 ft. 12 tons @ 88.60	1063.00	1063.00
Fish Plates, Splice Bolts, ties,	617.00	617.00

Pipe, Ventilation and Power lines, 1200 ft. 2.77/ft	3324.00	3324.00
	5004.00	5004.00

4. Operating Equipment

To be purchased. None.

To be rented None

To be furnished by Operator

		Value
1 Battery Hammer.		
$230.00 mo. 18 mo.	$2,990.00	New. 8,500.00
10 Mini Cars. $200/mo		
each. 18 months	2,080.00	" 2,400.00
Diesel Compressor. 315 CFM.		
$505.00 mo. 8 mo.	4,040.00	8,500.00
Diesel Elec. Generator		
477.50 mo. 8 mo.	3,820.00	5,000.00
2 Vent Fans.		
17.00 mo. 8 mo	272.00	800.00
Pickup truck. 1100 miles mo.		
$.09 per mile 8 mo	792.00	1800.00
Service truck 600 miles mo		
8 mo. $0.14/mile	672.00	3000.00
Diesel electric Generator		
15 K.W. $175.00 mo. 8 mo.	1,400.00	3000.00
Water Pressure tank.		
$5.00 mo. 8 mos	40.00	40.00
	16,106.00	33,900.00

1/60th = $565.00

8 months 4,400.00

5. Rehabilitation & Repairs.

30" Rock, fish ladder, baffle

apishes, lade. 1.35 ft, 1900 ft. 2,565.00

Pipe, 1900 ft. 1" & 3" 12 ds

& 74 ds. ft. Fittings. 95 ds. ft. 1,805.00

Levy head, & fuse. 75 ft. 1,425.00

Straightening adit.

3000 cu. ft. $.60 cu. ft. 1,800.00

7,595.00 — 7,595.00

6. New Bldgs. Improvements, Installation.

Dam House. 150.00

Power Line. 12 ds. 486.00

Power & Warehouse. 1,500.00

Pool tank. 600.00

Water tank 644.00

Underground power line. 210.00

3,590.00 — 3,590.00

7. Miscellaneous.

Repairs & maintenance.

8 months.	5031.00	150. mo.	1,200.00
Surveying 50 mo.	400.00		400.00
Road maintenance 7 mo.	3,500.00		1,400.00
Accountant	2,238.00	150 mo. 8 mo.	1,200.00
Water family 1.40 day.	2,912.00		2,912.00
8 months 26 days each	[illegible]		[illegible]
Camp, chrs. etc.	1,466.00		960.00
	15,547.00		8,072.00

8. Contingencies.

Detail Audit.	Omaha	Bids
Carpentry	44,500.00	37,500.00
Superintendent	13,328.00	8,928.00
Supplies	17,696.00	13,150.00
Rehab. - Repair	7,595.00	7,595.00
New Bldg.	3,590.00	3,590.00
Misc.	15,547.00	8,072.00
	102,256.00	78,835.00
Contingencies		2,165
		81,000

M.I.A. MINES COMPANY.

ORE PRODUCTION FOR STOPPER MILL AND CONCENTRATES PRODUCED

SUMMARIZED FROM COMPANY MONTHLY REPORTS
PREPARED BY R.L. BRITTHIN, MANAGER

1955	ORE PRODUCTION FOR STOPPER MILL TONS	% WO_3	MILLED AT STOPPER MILL TONS	% WO_3	MILL ORE INVENTORY TONS	% WO_3
FEB.	180.0	1.00				
DEC.	110.0	2.00				
MCH	60.0	1.25	186.5	1.56	72.5	—
APR	332.0	1.46	293.5	1.46	111.0	—
MAY	496.0	1.27	479	1.31	128.0	—
JUNE	1120.0	1.31	362.5	1.31	1855	—
ADJUSTING EST. PRODUCTION	111.0	—	-0-	—	111.0	—
	1396.0	—	1321.5	—	74.5	—
JULY	545.0	1.58	200.5	1.58	419.0	1.58
AUG	317.0	1.13	450.0	—	286.0	1.13
SEPT	308.0	1.25	424.0	—	230.0	1.25
OCT	362.0	1.10	272.0	—	320.0	1.10
NOV	313.0	1.05	349.0	—	344.0	1.05
DEC	490.0	1.10	578.5	—	255.5	1.10
1956						
JAN	452.0	0.94	606.5	—	108.0	0.94
FEB	426.0	1.00	416.5	—	117.5	1.00
MCH	549.5	0.75	457.0	—	210.0	0.75
APR	477.0	1.00	531.0	—	156.0	1.00
MAY	194.0	1.00	350.0	—	-0-	—
TOTALS	5956.5		5956.5	—	-0-	—

	ESTIMATED CONCENTRATE RECOVERY AT MILL DRY LBS	% WO_3	LBS WO_3		LOW GRADE STOCKPILE AT MINE PRODUCTION TONS	% WO_3	ON HAND TONS	% WO_3
	—	—	—				600	0.40
	—	—	—				600	0.40
	7056	66	4657				600	0.40
	10500	66	6930				600	0.40
	16016	66	10571		125	0.50	725	0.42
	11608	66	7661				725	0.42
	—	—	—				—	—
	45180	66	29819		125	0.50	725	0.42
	8949	66	5906				725	0.42
	12177	65	7915		235	0.40	960	0.41
	14367	65	9339		176	0.38	1,136	0.41
	8298	65	5394		157	0.41	1,293	0.40
	8897	65	5783				1,293	0.40
	14799	60-65 AVG 62½	9249				1,293	0.40
	11577	60	6946				1,293	0.40
	7756	60	4654				1,293	0.40
	7411	65	4817		27	0.40	1,320	0.40
	11375	65	7361				1,320	0.40
	11437	65	7434				1,320	0.40
TOTALS	162173	64.5	104617	= 5230.85 Units	720	0.40	1,320	0.40
LESS: INVENTORY MAY 14, 1956	250	65	163	= 8.15 Units				
TOTAL EST. CONCENTRATE PRODUCTION LOTS 1 TO 13	161923	64.5	104454	= 5222.70 Units				

NOTE:
METHOD OF CALCULATING MIXED LOTS

LOT NO. 10

	TONS BEFORE SORTING	TONS AFTER SORTING	% AFTER SORTING
OMER AREA	430	325 =	46.85 *
COMPANY AREA	473	380 =	53.15
TOTAL TONS	903	715 =	100.00

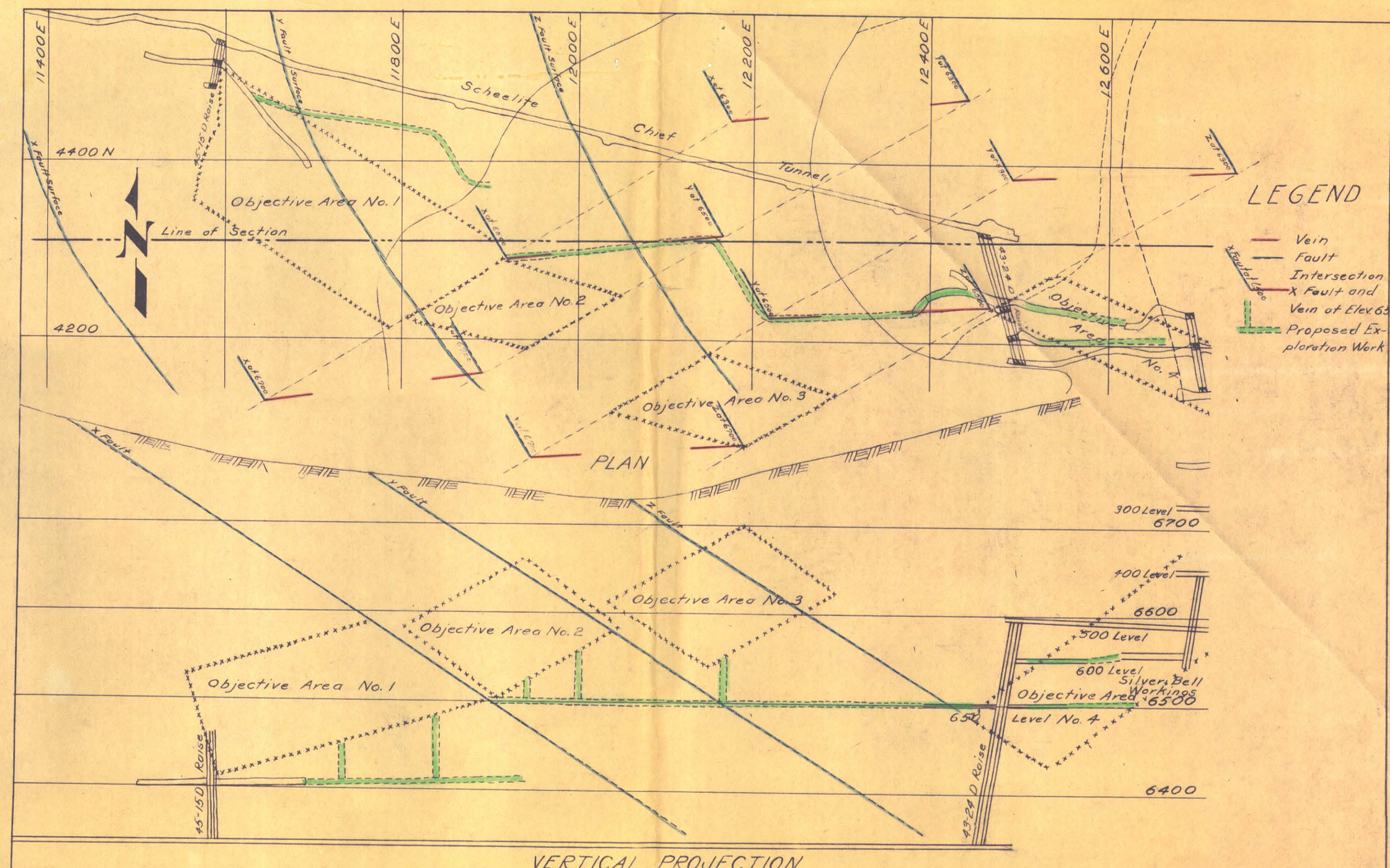
NOTE: SORTING LOSS IS 20% TO 30% DEPENDING ON TYPE OF ORE.

NOTE:
LOT NO 13 TO CSH IS ESTIMATED
~~IS ESTIMATED~~ AT $62.00 PER UNIT
FINAL SETTLEMENT NOT YET RECEIVED

SETTLEMENT OF CONCENTRATES SHIPPED

SHIPPED TO	LOT NO	UNITS	% WO_3	AMOUNT	Av. Price Per Unit	OMER 5% ROYALTY
C.W. JONES, BISHOP, CAL.	1	319.675	65.43	$21347.09	$61.057	$1067.35
" " "	2	442.644	65.42	26710.22	60.342	1335.51
" " "	3	407.303	64.35	24607.80	60.416	1230.39
" " "	4	564.547	66.355	32677.96	57.884	1633.90
" " "	5	555.514	65.14	31481.12	56.65	1574.06
" " "	6	413.783	67.31	24448.59	59.157	1222.43
" " "	7	367.380	66.44	21791.76	59.317	1089.59
" " "	7-5	12.573	69.88	655.11	52.132	32.76
" " "	8	190.982	65.89	11478.51	60.103	573.93
" " "	9	299.875	65.945	18003.81	60.038	FROM OLD STORES OF CO. NO OMER -0-
MINERALS ENGINEERING CO. SALT LAKE CITY	10	453.649	66.12	27239.36	60.045	*45% FROM OMER MILL ORE PRODUCTION 612.89
" " " "	11	364.631	64.28	21731.09	59.577	59% 641.07
GENERAL SERVICE ADMIN. SAN FRANCISCO	12	391.691	65.33	24254.11	61.925	87/27% 1061.12
" " " "	13	363.609	65.00	22543.20	62.00	1127.16
		5177.451	—	$309,068.13	59.677	$13201.16

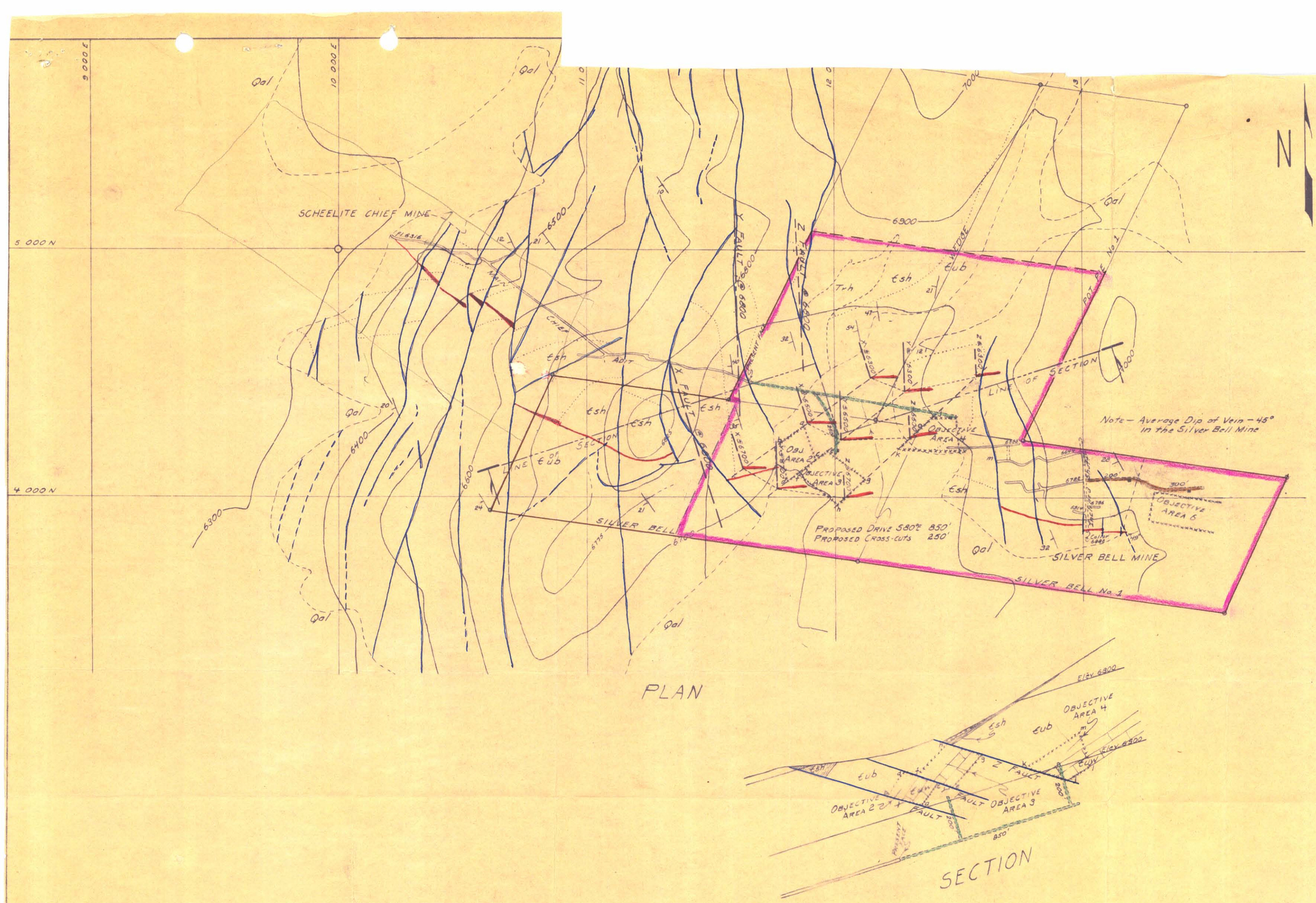
* SHOULD BE 46.85% AND ROYALTY $632.08
DIFFERENCE $25.19 TOO SMALL TO ADJUST.



REFERENCES		WORK			
Base Maps D.M. Lemmon U.S.G.S. C-1107		DRAWN Schroder	8-1-54	COMBINED METALS REDUCTION CO. Pioche, Nevada	MINERVA TUNGSTEN PROPERTY. EXPLORATION PROPOSALS Scheelite Chief and Silver Bell Mine Areas
		TRACED			
		CHECKED R.G. Lee	8-2-54		
		APPROVED			

SCALE 1" = 100'

B-877



PLAN

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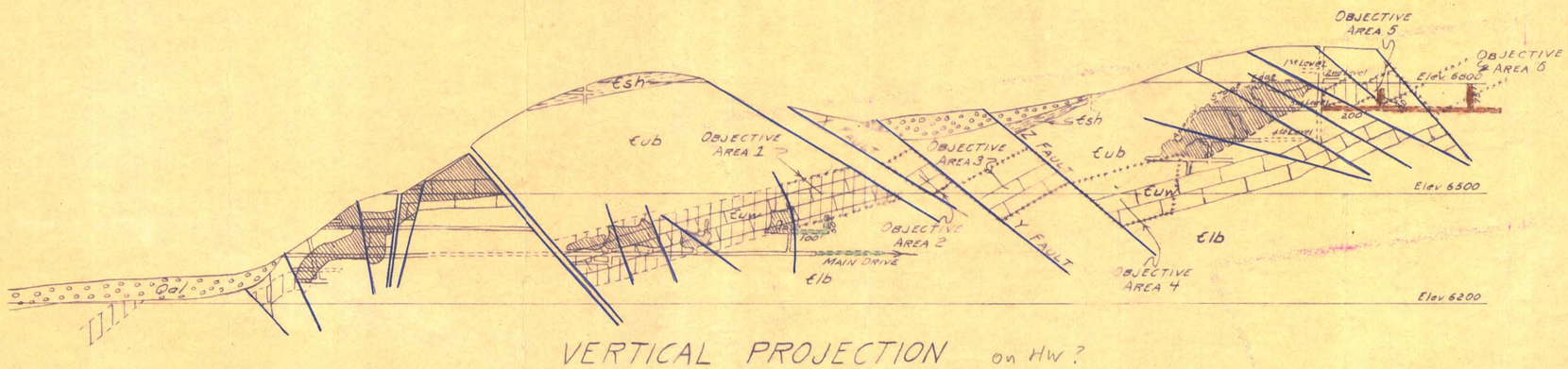


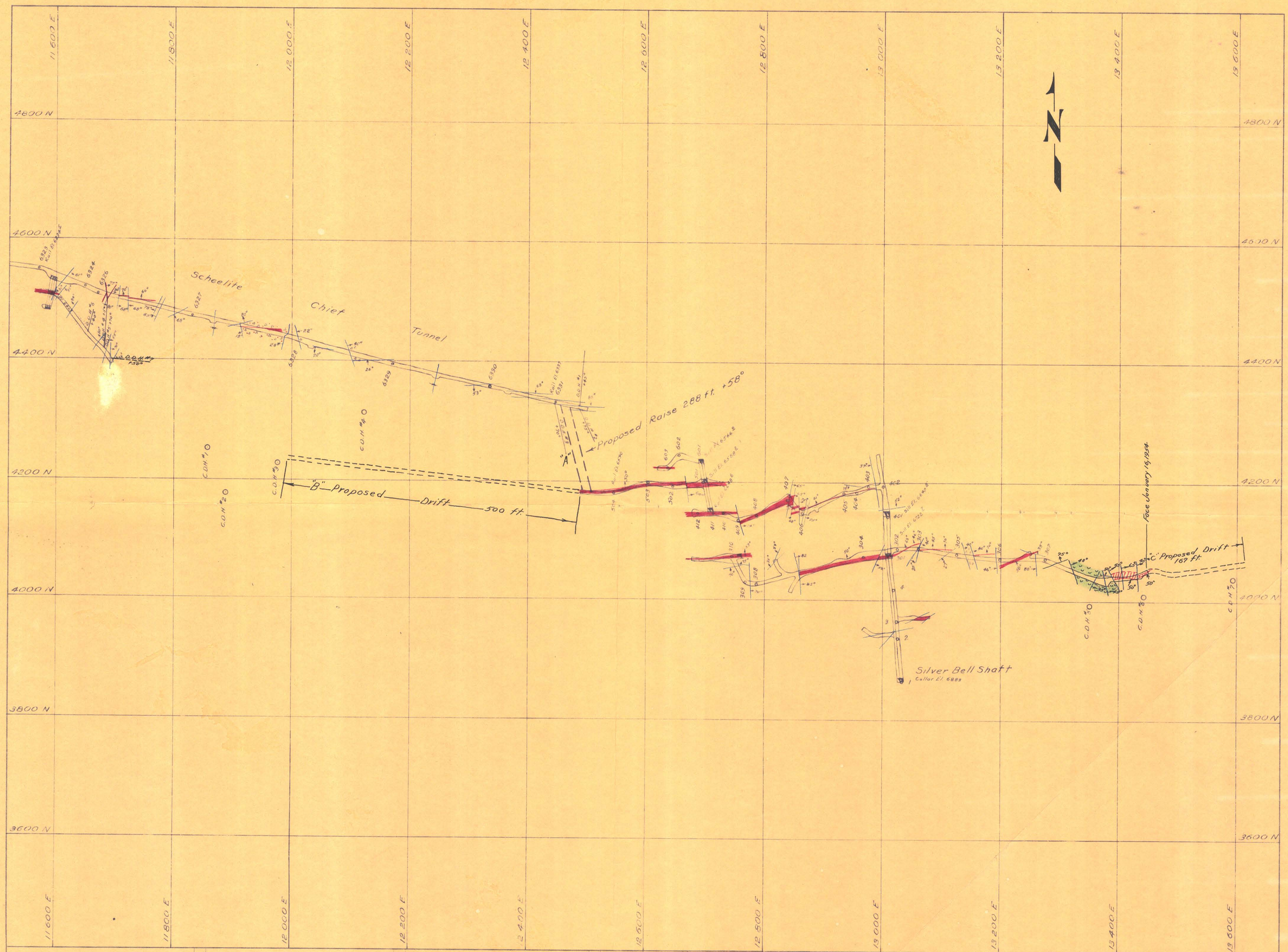
VERTICAL PROJECTION on Hw?

REVISIONS	REFERENCES	WORK			
	BASE MAPS – D.M. LEMMON U.S.G.S.	DRAWN R.H. GOODE	8-1-52	COMBINED METALS REDUCTION CO. PIOCHE, NEVADA	MINERVA TUNGSTEN PROPERTY ~EXPLORATION PROPOSALS~ SCHEELITE CHIEF AND SILVER BELL MINE AREAS
		TRACED			
		CHECKED P. GEMMILL	8-5-52		
		APPROVED			

SCALE 1" = 300'

C-1107

Salt Lake Blue



REVISIONS	REFERENCES	WORK	DRAWN O.E. Schrader 1-14-54
			TRACED
			CHECKED R.H. Godbe 1-14-54
			APPROVED

COMBINED METALS REDUCTION CO.
MINERVA TUNSTEN PROP
M.I.A. MINES
WHITE PINE CO. NEV.

COMPOSITE SILVER BELL AND EAST END SCHEELITE CHIEF MINE

SCALE 1" = 100'

C-1112

Printed on Imperial Cloth–Salt Lake Blue