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PRINTED: 01/29/2004

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: REEF MINE

ALTERNATE NAMES:

TUNGSTEN REEF
EXPOSED REEF
SITRIC

COCHISE COUNTY MILS NUMBER: 129

LOCATION: TOWNSHIP 23 S RANGE 20 E SECTION 23 QUARTER N2
LATITUDE: N 31DEG 25MIN 37SEC LONGITUDE: W 110DEG 17MIN 18SEC
TOPO MAP NAME: MILLER PEAK - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

TUNGSTEN
GOLD LODE
SILVER
LEAD
COPPER OXIDE
ZINC
TELLURIUM DELETERIOUS?

BIBLIOGRAPHY:

KEITH, S.B., 1973, AZBM BULL. 187, P. 67
ADMMR REEF MINE FILE
USBM RI 5650
WEBER, R.H., 1950 U OF A THESIS, P 122-150
AZBM B148 TUNGSTEN DEPST OF AZ, P. 48, WILSON
USBM OFR MLA 1-94, P. 24,36,50-1,94,146,-7

PRINTED: 06/20/2002

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USBM MIA 1-94 P. 24, 146-147, 94, 50-51, 36

02/26/87

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TUNGSTEN REEF MINE

COCHISE COU

SEE: ABM # 148 p. 48
ABM # 180 p. 280
USBM RI 5650 pp. 27-32

See: Eagle Picher Confidential files "T" Now in this file.

Also SEE REEF EXTENSION MINE file

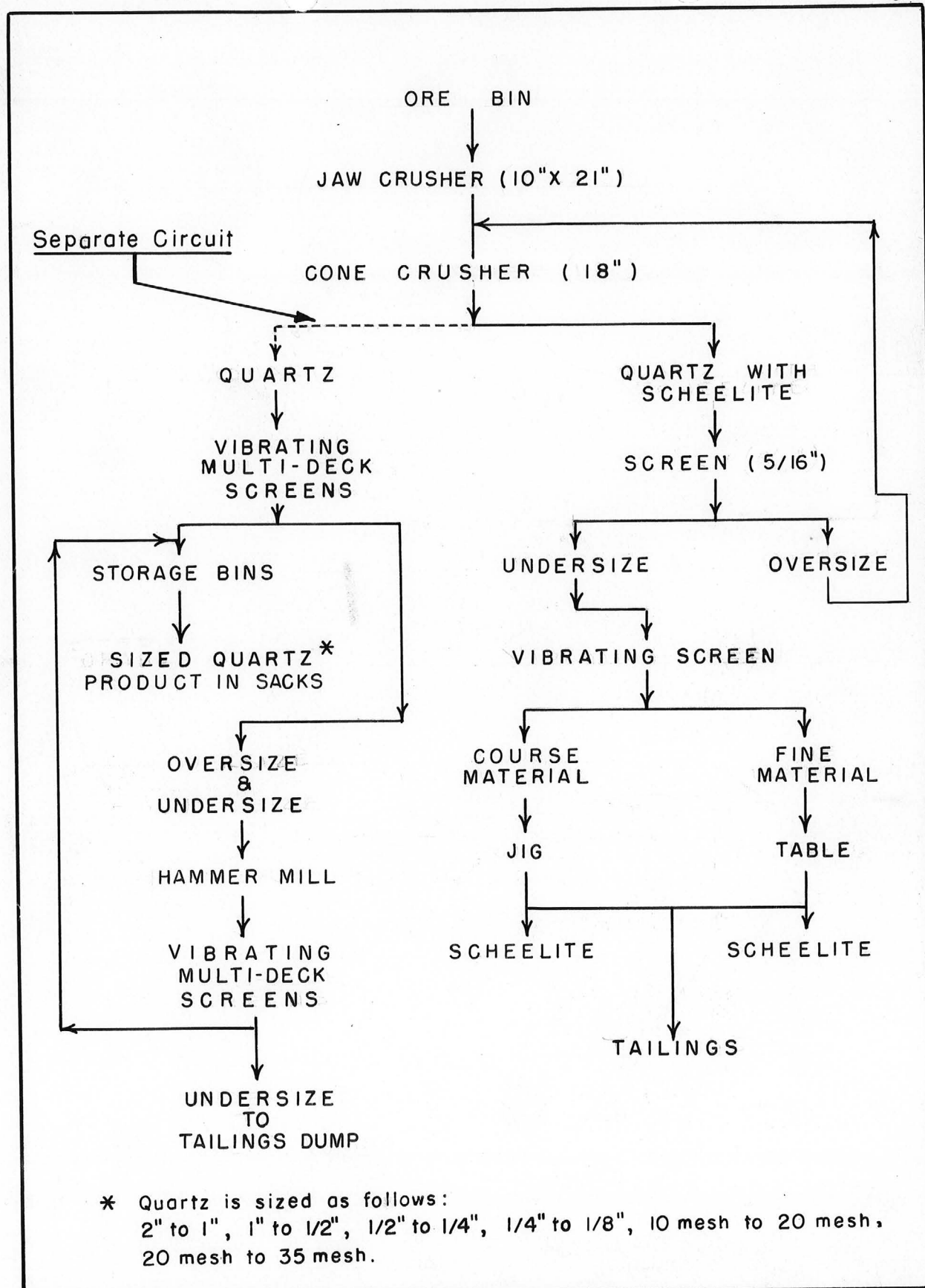


Fig. 11-Simple flowsheet of quartz crushing plant and scheelite mill at the Tungsten Reef Mine

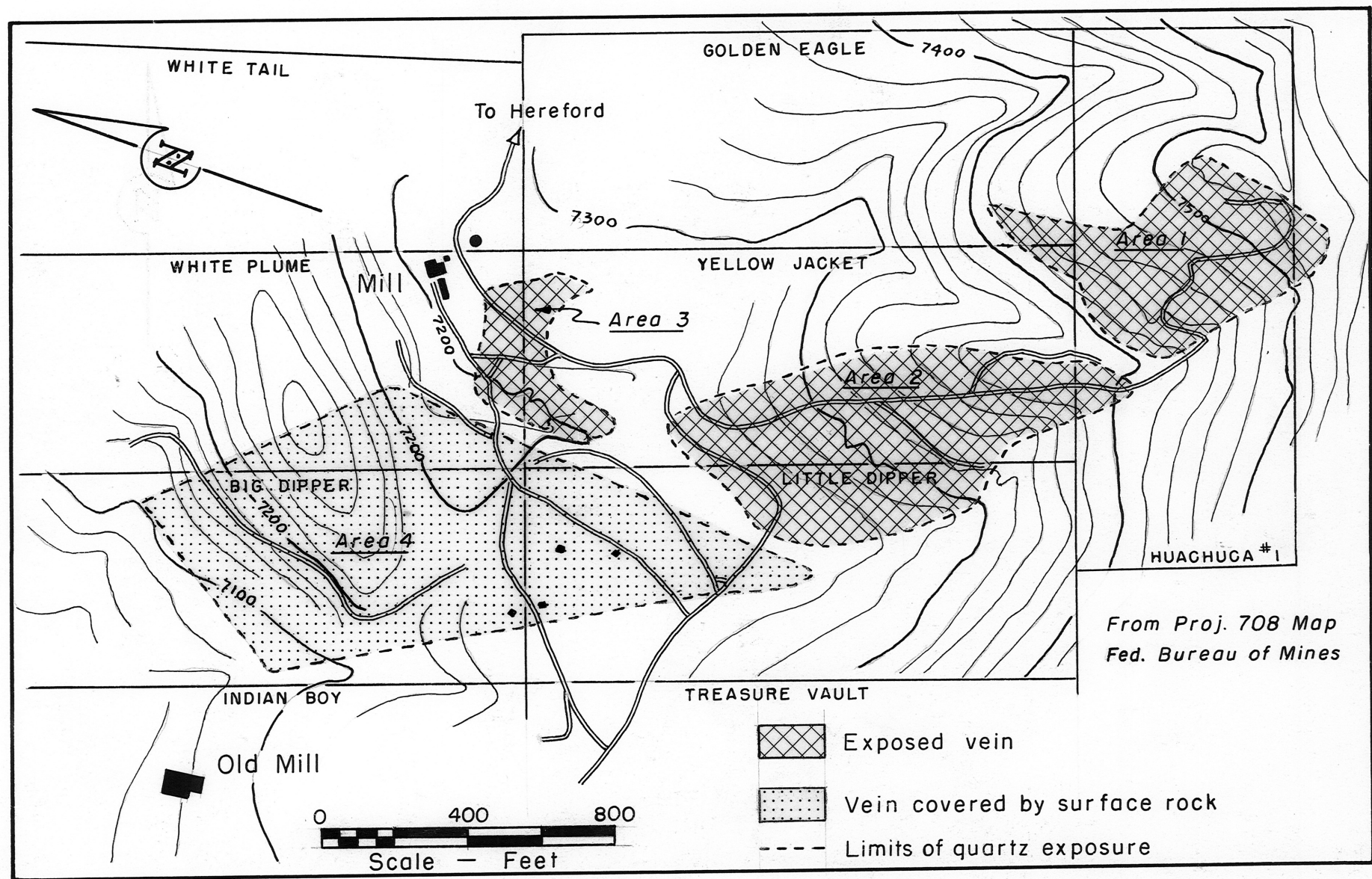


Fig. 12-Tungsten Reef Property, Cochise County, Ariz.

Tungsten (Scheelite). gold. MT-16x
18 claims - 9 of which are patented.
Equipped with mill for concentration
work. Has \$2.00 gold content which
calls for cyaniding.
Estimated 380,000 tons fully developed
and 890,000 tons partly developed.
From 12,000 tons milled amaze
shows 0.5% Tungstic acid. \$2.00 in
Gold. # Good mine road -
water ample.
See owner for terms.
Huachuca Mt. District - Cochise County.

Harry Schwartz
Co Area Engineer
Fort Huachuca, Arizona.



NAME OF MINE: TUNGSTEN REEF

COUNTY: COCHISE

DISTRICT: Hartford S

METALS: W

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

5/1/44 J.J. Seaman, Hereford

DATE:

5/1/44 Developing

Idle

2/15/45 Shipping

1/46 Idle

2/15/45 Intermittent shipments of concentrates assaying from
70 to 74% WO3

TUNGSTEN REEF

W

Cochise

2 - 5

T 23 S, R 20 E

John Seamen, 622 Sonora Ave., Glendale

'45

Tungsten Reef mine
~~Owner~~ Lease holder

John Seaman
622 Sonora Ave
613 Hazel ST.
Glendale - California

(3-7-45)

From Axel L. Johnson
April 7, 1956

Received your letter of April 4, reg. the Tungsten Reef Mine, on my return to Tucson last night from the Clifton-Safford trip. Accordingly, I am sending some additional information on same.

I met Mr. L. H. Seaman in the Copper Queen Hotel, Bisbee, Arizona, on Jan. 4, 1956, and following is the information that I received from this interview, as recorded in my field notes.

Owner L. H. Seaman, Hereford, Ariz.

No. Men Working 2 ---- L. H. Seaman and George Seaman.

Present Work Using a 1/2 yard gasoline shovel in open pit operations in the mining of the scheelite ore. In the past few months, operations have been more or less intermittent, but they expect to work full time from now on. He stated that they expect to produce about 100 tons of scheelite ore per week, mill the ore in their mill, and produce about 1 ton of concentrate per week. He stated that he had shipped to date 2700 lbs. of concentrates running about 76% to the General Services Administration at San Francisco.

Ore Values Better than 1% tungsten ore (scheelite)

Milling Facilities Mr. Seaman stated that he has a small mill on the property for concentrating the ore. This mill consists of a jaw crusher, cone crusher, small jig, and a table.

The above are notes from my visit with Mr. Seaman on Jan. 4, and I did not visit the property at that time. I believe, however, that the information received from Mr. Seaman at the time was fairly accurate. I do not know, however, if his expected production was accomplished, as expected.

LOS ANGELES, CALIFORNIA

December 26th, 1923.

Mr. A.J. Clark,
Hollywood, California.

Dear Sir:

In the pages following you will find my report on the property of the Tungsten Reef Mines Company.

On examining this property it became apparent that there was no economical method of accurately determining the contents of this Ore in Tungsten, so no attempt was made to sample, but the contents are estimated from the milling results and from panning tests made all over the property.

Bound in this report will be found a map, showing the limits of the ore bodies estimated, and pictures which will give you an idea as to the appearance of the property and ore bodies.

Yours very truly,

(Signed) Frank W. Royer
Mining Engineer.

C O P Y

REPORT ON THE TUNGSTEN REEF MINES

COCHISE COUNTY

ARIZONA

BY

FRANK W. ROYER

December, 1923.

LOCATION:

The Tungsten Reef Mines are located in the Huachuca Mountains, in the southern part of Cochise County, Arizona, a few miles north of the Mexican line.

The nearest Railway station is about 14 miles east of the mine, across the San Pedro valley. The copper Camp of Bisbee is 34 miles to the Northeast. The elevation of the mines is 7,200 feet above the sea level.

From the railway station of Hereford, on the main line of the El Paso and Southwestern Railroad, the mine is reached over a nearly level wagon road across the San Pedro valley for a distance of 12 miles, and then two miles of steep trail in which a rise of 2,000 feet above the valley is made. Hereford is the mail and telegraph station.

PROPERTY:

Consists of eighteen claims, nine of which are patented. Of the remaining claims four are placer claims, three mill sites and two cover sources of water supply.

TITLES:

Titles were not examined, but I understand have been abstracted and brought up to date and can be examined at the office of the Company.

ECONOMIC CONDITIONS:

Climate: The climate at the mine is delightful, for at this altitude in southern Arizona the summers are not hot, and during the winter some snow falls, but the weather is never cold. The rainfall is about 24 inches, most of which falls in July and August.

Labor: Due to the climatic conditions and the nearness to the copper camps experienced men are easily obtainable. Mexican labor is plentiful and is obtained for \$2.75 to \$3.00 per day.

Water: Water for domestic purposes is obtained from nearby springs located on the property of the Company. These springs are said to make enough water to supply the needs of the camp and a three hundred ton mill. Considerable water can be developed in the canyons below the mine should these springs fail.

Wood: Wood for small mine timbers and for domestic fuel is obtained from the hills surrounding the mine which are covered with pine.

Power: There is no source of power in this country except that made by burning wood. For the mining and milling of 300 tons per day a power plant could be put in at the R. R. station of Hereford, where oil could be obtained, and the power generated there, sent to the mine and mill.

Camp and Dwellings: The present camp is at the mine and consists of a number of dwellings, mostly in poor repair. The camp site is a beautiful one, located in the pine timber, and could quickly be put into condition to handle from 40 to 100 men.

HISTORY:

This property was first taken up in 1900 as gold and silver claims, and due to the veins being exposed, was called the Exposed Reef. A Mill to treat this ore was put up at, or near, the location of the present Smith mill -- this was a 50 ton cyanide plant. Considerable ore was worked from the upper portions of the vein, but the values were evidently too low grade to pay. In 1906 a new mill was built, lower down on the property, to work the ores that were exposed in the lower workings. This mill was a 100 ton cyanide plant. This mill was not a success and was closed down in 1907. From 1907 to 1916 those mines remained closed. In 1916 due to the price of tungsten, these mines were again opened. Mr. Porter says in his report:

"At this time one of the miners named Steel, who had worked in these mines for gold and silver, remembered that the ore contained a lot of heavy mineral. He told Mr. O. T. Smith, who had been mining for tungsten for many years for the Primos Chemical Company. Smith staked Steel to go and sample some of this mineral, which proved to be very fine sheelite, and then quietly obtained an option on the property for \$40,000.00, after which he put up a small test mill, and milled 12,000 tons of ore obtained from all parts of the property, producing about 75 tons of Sheelite Concentrates averaging 72% W. O. 3, proving the mine to be the largest body of developed ore in the U. S."

The mines were purchased in May, 1918, by the Tungsten Reef Mines Company,

who fixed up the Smith mill to treat 100 tons per day, and at the same time purchased the machinery for a larger and more modern mill.

Before all this machinery was on the ground the demand for tungsten dropped off and the mine was closed down and has remained closed down until the present time.

ORE BODIES:

The exposure of the vein on this property is unusual. The vein is a large, bedded white quartz vein, lying between beds of impure limestone. The vein is from 4 to 20 feet thick, is pure white in color, whereas the foot and hanging wall limestones are dark brown or black. The vein dips at an angle of about 10 degrees to the west. On the upper portion of this vein (see map) the hanging wall has been entirely exposed. In this section a large number of pits have been sunk and considerable ore has been extracted, which was milled for the gold and silver as well as for the tungsten contents.

Underground in this same section, there is an area of 29 acres in which the vein is exposed, at the points where the vein goes underground and lower down where it is exposed by several tunnels and outcrops along the edge of the bluff. An inspection of the map accompanying this report will illustrate clearly the lay of this deposit.

TONNAGE OF ORE AVAILABLE:

For the convenience I have divided the tonnages of ore in this mine into FULLY DEVELOPED ore, and PARTIALLY DEVELOPED ore.

The Fully Developed ore is that tonnage of ore, from which the hanging wall has been entirely eroded. The thickness of this ore is exposed by many pits and shafts, and this tonnage can be said to be exposed on four or more sides.

ORE BODY No. 1 -- covers an area of 7.3 acres and has an average thickness of 8 feet. 13 cubic feet of this material will make one ton, so in this section there are 190,000 tons of ore.

ORE BODY No. 2, -- is located just below Ore Body No. 1, and is a part of the same ore body. This ore body covers an area of 11.4 acres having a thickness of 5 feet, making a total of 190,000 tons.

These two orebodies are fully exposed, and the tonnages above estimated are in such shape that ore can be mined from any section.

TOTAL TONNAGE FULLY DEVELOPED ORE:

Block No. 1	-----	190,000
Block No. 2	-----	<u>190,000</u>
TOTAL		380,000

Partially developed ore. The partially developed tonnage of ore is that part of the ore body which extends from the lower limits of ore body No. 2 underneath the surface, being again exposed by the workings further down the slope, where the vein or bed again outcrops. This section of 29 acres in extent contains an ore body which is estimated to be 9 feet thick, contains 890,000 tons of ore. Considerable development work will be necessary before this ore can be extracted.

TOTAL TONNAGES ESTIMATED ORE:

Fully Developed Ore	-----	380,000 tons
Partly Developed Ore	-----	<u>890,000 tons</u>
TOTAL		1,270,000

VALUES:

The ore consists of nearly pure silica, analysis showing 90% and over, containing values in Gold, Silver and Tungsten.

The value of the tungsten is in the Mineral Scheelite, and this mineral comes in irregular bunches and disseminates through the quartz. The gold and silver are also very irregularly distributed and to attempt to determine the value of this deposit in scheelite and gold is economically impossible. A small tonnage of ore has been mined and milled from the ore bodies No. 1 and No. 2 and the product shipped from milling this tonnage indicates a value in tungstic acid of 0.5% per ton. Aside from the data regarding the value that we get from the shipments, a large number of pannings from openings all over the property, all show scheelite in the pan and occasional pans, taken by me, give as much as 5% scheelite.

During the production of Tungsten on this property, the product was selling from \$17.00 to \$30.00 per unit of 20 pounds or at a price of 75¢ to \$1.50 per pound, and it is reported that nearly as much of the tungsten concentrates were stolen as were shipped by the company. Some stealing undoubtedly took place, but to what extent one is at present unable to estimate.

From the data obtained from the records of concentrates shipped, and from pannings made by me, I estimate that all the ore estimated as Fully Developed

ore, if milled without sorting or cleaning off the surface debris (which frequently contains more scheelite than the solid ore), will produce 0.5% tungsten in a concentrate running 70 to 75% W. O. 3, and if an iron concentrate be made and saved about \$1.00 per ton of original ore, in gold and silver, can be obtained in a concentrate running from \$200.00 to \$300.00 per ton.

An attempt was made by me to determine in a general way the values in the Partly Developed Ore Bodies. Sample cuts were made at intervals of 20 feet in one of the lower tunnels. These tunnels had been opened a number of years and the quartz vein was broken up and shattered, and while the samples taken were large it is doubtful if the proper proportion of the friable minerals were obtained. Scheelite is very friable and is a most difficult mineral to sample under ordinary circumstances, and in this case, where the quartz is shattered and broken up and the scheelite comes in blocks in the quartz, it is quite impossible to sample unless mill runs be made.

At the breast of the lower tunnel, after a round of shots were fired, breaking down about 5 tons of ore, a grab sample weighing 10 pounds was taken off this pile and assayed for tungsten, giving a result of 1.32%. This pile was then carefully shoveled over and every tenth shovel was put in a large canvas and the larger pieces broken down, and this sample then reduced to 120 pounds, which was sacked and shipped to Los Angeles. In Los Angeles this entire sample was crushed to 3/8 mesh and sampled, and the sample assayed. This sample gave gold 62 cents, silver 0.3 ounces and 0.15 W.O.3, Upon receiving this assay the entire sample weighing one hundred pounds, was run over a small concentrating table. This sample was concentrated without sizing or further crushing, and the concentrates obtained were weighed and assayed for W.O.3, and the returns then figured back on the original sample. This method gave a return of 0.32% W.O.3 for the original ore. This much was saved, but this is a crude method of concentration, so it is evident that the original sample contained from 0.40 to 0.50% W.O.3.

Several other samples taken were treated in the same way, getting parallel results, as those given above as regards tungsten. The results in gold and silver, obtained from some ten samples taken to determine these values were from 53 cents to \$4.95 per ton, the average of ten samples being \$2.02 in gold and silver.

The samples taken in these workings showed considerable tungsten to the eye and in the pan, and indicate a tungsten content of around 0.50% with about \$2.00 in gold and silver. It is true that much higher values than these can be obtained by picking the samples, but my effort was to obtain the data regarding what may be expected when mining and milling the entire mass of ore.

Silica Contents: The silica contents of this ore is around 90% free silica and after being mined and crushed to one half inch or finer, and placed in the dumps at the mill, will probably contain around \$1.00 in gold and silver value. The nearby smelters at Douglas are in great need of material of this sort for the proper fluxing of the ores that they work, and in the case of railroad communications there is a possibility that the rejected material on the dump could be sold at from \$2.00 to \$3.00 per ton, net to the mining company. The smelters are at present paying a bonus on silica and during the past years have paid as high as \$1.75 per ton for tailings that contained 75% free silica, whereas your ore and the reject dump at your mill will be a product containing 90% silica, and is more desirable. It is possible that the smelter will not be attracted to securing this product until after you have several hundred thousand tons on the dump, for a small or uncertain tonnage is of little value to them.

Record of shipments of concentrates from ore milled in Smith Mill prior to purchase this property by Tungsten Reef Mines Company:

DATE	WEIGHT DRY TONS	PERCENT	PRICE PER UNIT	TOTAL
<u>1916</u>		WO3	of 20 lbs.	
Dec.6	2.077	78.44	\$17.00	\$ 2,769.64
Dec.19	2.2638	77.23	17 .00	2,972.22
<u>1917</u>				
Jan.3	2.9835	76.19	17.00	3,864.32
Jan.9	1.6907	75.67	17.00	2,174.96
Jan.15	1.5680	75.05	17.00	2,000.61
Jan.27	1.2272	73.80	17.00	1,539.72
Feb.3	1,3047	74.33	17.00	1,648.65
Feb.9 & 16	2.4510	66.74	17.00	2,780.89
Mar.6	1.6640	74.81	20.00	2,469.83
Mar.20	2.0665	67.7	16.00	2,238.43
Apr.10	1.5850	70.67	16.00	1,794.47
Apr.21	4.4485	74.18	16.00	5,297.84
May 3	2.0710	76.15	16.00	2,523.31
May 7	2.0690	78.01	16.00	2,582.44
May 16	1.6430	75.23	16.00	1,977.65
June 1	2.0105	75.52	18.00	2,732.99
June 18	2.1350	75.93	18.00	2,917.99
July 6	This shipment lost by R.R.			
July 11	1.1515	75.50	22.75	1,977.85
July 21	1.0345	72.54	23.60	1,771.00
Aug.1	1.1560	71.30	23.60	2,186.27
Aug.6	1.1600	69.54	24.50	1,976.33
Aug.13	1,2775	72.54	22.00	2,043.76
Aug.20	1,0335	70.56	22.00	1,607.90
Aug.24	1,0370	72.28	22.00	1,649.00
Sept.2	1.0950	68.52	22.00	2,281.79
Sept.14	0.9835	64.88	24.00	1,534.93
Sept.26	1,4670	64.28	24.00	2,267.60
Oct.3	1.1600	62.90	23.50	1,703.08
Oct.12	1.0780	60.00	23.50	1,523.63
Oct.19	1.0245	70.14	23.50	1,690.37
Oct.29	1.0345	69.50	23.50	1,701.01
Nov.16	1.2180	69.40	23.50	1,986.44
Nov.21	1,3435	72.72	23.50	2,300.80
Nov.28	1,0365	70.12	23.50	1,711.82
Dec.8	1.0525	69.40	23.50	1,720.33
Dec.19	1.039	72.40	23.50	1,771.52
<u>1918</u>				
Jan.2	1.9345	67.20	23.50	1,637.55
Jan.30	1,5825	73.66	23.50	2,745.22
Fe.18	1.0885	73.00	21.00	1,664.67
Mar.4	0.5060	73.00	25.00	935.45
Mar.28	0.8425	70.3	25.00	1,470.67
Apr.5	<u>1,1470</u>	70.00	20.00	<u>1,450.00</u>
TOTAL	63.8799			\$93,526.10

No record was kept of the weight of the ore milled, but the assumption made by several parties who saw the mill before the new machinery was added, say that between 8,000 tons and 12,000 tons of ore were milled to produce the above amount of concentrates. Assuming that the average grade of the concentrates shipped was 72% WO₃, in the 64 tons shipped there were contained 4600 units of WO₃, if this was produced from 8,000 tons ore the saving would be 0.575% WO₃ per ton of ore milled. If 12,000 tons were milled to produce this amount of concentrates, then the saving per ton or original ore milled would be 0.384% WO₃ per ton.

It is claimed by people who lived in the neighborhood and who had no interest

in the operations, that a large amount of concentrates were stolen as no watch was kept on the operations, and as the produce made was worth nearly a dollar a pound and found a ready sale to the numerous ore purchasers. It is also claimed that the company shipped concentrates that are not given on these sheets.

The evidence obtained from above tabulation indicates that the saving in this mill was around 0.50% WO_3 per ton of ore treated. This ore was taken from the most accessible place near the mill and should represent the average value of the ore bodies No. 1 and No. 2.

After his property was purchased in May, 1918, the mill was remodelled and, I understand, about 15 tons of 72% concentrates were made in the mill and shipped east. This milling indicated considerably better than 0.50% WO_3 was saved, I am informed.

ESTIMATED WORKING COSTS (300 Ton Basis).

To work this property economically it will be necessary to arrange some manner to handle the ore easily, and for this purpose I suggest an incline be driven from the proposed location of the top of the aerial tramway up through the center of the ore body to the outcrop, 1400 feet of this distance will be underground, and 1700 feet surface cut through the vein. The underground portion should be driven in the soft limestone underneath the vein using the vein as the hanging wall or roof of the workings, in which case practically no timber would be necessary. Off this incline levels could be driven at intervals of two hundred feet through which the ore could be trammed to the incline where it could be lowered to the top of the tramway bins.

The surface ores can be worked very cheaply, as the quartz, due to being shattered, drills readily, and a short hole breaks a large tonnage, none of which would have to be blockholed. A compressor placed on a caterpillar tractor with locations of this tractor for three machines spaced five feet apart, and operated by two men, would be able to drill all the holes necessary in one shift to break 300 tons. All holes drilled in the surface ore body will be at right angles to the fracturing, and each hole will break from six to eight tons of material.

The handling of this material after breaking could be by means of a small steam or electrically driven shovel, which would also be located on a caterpillar tractor.

With proper equipment, and working on the basis of 300 tons per day, ore should be put in the top of the crusher bin at the upper end of the tramway for 75¢ per ton or less.

MILLING COSTS: should also be low for this entire mass of quartz has been fractured and shattered by movement, so that a slight blow of a hammer on a good sized rock will break it into many pieces. Tests made by me in crushing to 10 mesh, showed that this size could easily and quickly be attained.

The ore crushed so easily that it was noticed by the men running the crusher, who were inclined to believe that the material was calcite or soft limestone instead of quartz.

Most of the scheelite is concentrated out of this material when it is crushed to one half inch size, and I do not believe that there will ever be an occasion to crush over one quarter part of the tonnage finer than 8 mesh. The milling flow sheet in the Smith mill, was crushers to Simons disk, Jigs, with middlings to rolls and from rolls to tables. 75% of the scheelite was recovered on jigging.

The total cost of milling, including the cost of aerial tramming from mine to mill, should be less than 75¢ per ton when working on a 300 ton basis.

General expense and all other expenses should not exceed 25¢ per ton.

Summary Estimated Costs:

Mining-surface ore -----	\$.75¢
Milling -----	.75¢
General -----	.85¢
TOTAL	\$1.75 per ton.

EQUIPMENT ON GROUND:

An inventory of the equipment on the ground that could be used in a new mill was not made. I am informed that just before this plant was closed down that \$30,000 worth of machinery was purchased, and is on the grounds. A large new Gyratory crusher is on the ground and can easily and quickly be set up. In the old mill is a nearly new Simons Disc crusher which could be used in a new mill. A large amount of water and air pipe are piled at various places on the surface. Several boilers, both new and old, are located at various places on the ground, on or the road to the mine. Much of the machinery in the Smith mill and on the

ground could and would be used in a new mill, and in equipping the mine.

At the mine is camping equipment which with a little fixing would be sufficient to accomodate from 40 to 75 men.

CONCLUSIONS:

This property offers some unusual mining features. The ore is so fully exposed, especially on the upper section, that there is absolutely no question as to the existence of the tonnage figured. The determination of the valuable contents in this tonnage is economically impossible, as the values are so distributed that an average content could only be arrived at by milling several tons from different places. From milling some 12,000 tons and from pannings taken at many places over the surface, an average of 0.50% tungstic acid and \$2.00 in gold is arrived at. The costs of equipping this property, due to the machinery on the ground, should be low, and the working costs on a three hundred ton basis should not reach \$2.00 per ton. The tailings or rejected portions of this ore, due to its desirability as a flux at the nearby smelters, is a possible future asset which should not be overlooked.

Yours very truly

(Signed) FRANK W. ROYER
Mining Engineer.

C O P Y 3-38-38

(Of copy of report furnished by Elgin B. Holt)

TUNGSTEN REEF MINE

COCHISE COUNTY

NJN WR 6/8/84: Rick Renn (c) reported that Goldsil will drill for assessment work this year to maintain its unpatented claims surrounding its Forest Service lease at the Tungsten Reef Mine (file) in Cochise County.

Mine Visit to the Reef Mine in the Huachuca Mts. Two men were dismantling the mill building, no one else around. GWI WR 11/5/66

Phone call from Charles Bryson, regarding deal that he, Irvin Bryson and Harry McClain are working with the Forest Service & BLM to mine at the Reef mine in the Huachuca Mts. GWI WR 12/26/70

MG WR 7/30/82: Reviewed packet of information sent by Ken Phillips concerning an application for a federal prospecting permit submitted to the Coronado National Forest by Energy Reserves Group, Inc. (ERG), 1746 Cole Blvd., Suite 250, Golden, Colorado 80401. Met with Mr. R. B. Tippeconnic, Forest Supervisor (Coronado) and Mr. J. M. Borens, Jr., Lands Forester, to discuss this application. I recommended that the Forest Service award ERG a permit to carry out their proposed exploration program on the Reef mine property in Cochise County. (SW $\frac{1}{4}$, Sec. 14, T23S R20E.)

MG WR 8/6/82: Mr. J. M. (Mile) Borens, Jr., Lands Forester of the Coronado National Forest, Tucson office, reports that on August 2 the Forest Service recommendations concerning an exploration permit on the Reef Mine in Cochise County, requested by Energy Reserves Group, Inc., have been returned to the Sierra Vista Ranger District for a re-submittal by that district office.

NJN WR 5/6/83: Howard Wurtz of the Forest Service Zone Office visited to look at the Tungsten Reef Mine file, Cochise County. He reported that Energy Reserves Group has completed their exploration project at the mine. They would like to mine precious metal bearing flux and sell it to the smelters at the rate of 6,000 ton/day. Mr. Wurtz doubts they could sell that quantity. The Forest Service is considering their lease application for a period of 5 years. After this they would be required to reclaim the area so that it could be used as a campground or picnic area by the Forest Service.

NJN WR 7/15/83: Richard Renn of Goldsil Resources Ltd., 5353 W. Dartmouth Ave., Suite 400, Denver, Colorado 80227, Phone (303) 989-0897, visited. He reported that Goldsil Resources is a new company formed of people who used to be with Energy Reserves mineral group. The company will go public in Vancouver soon. They have picked up the properties that Energy Reserves used to have such as the Reef Mine, Cochise County. Other properties they are active at in Arizona include the Austerlitz Mine and Margarita Group both in Santa Cruz County, a potential silver property near Tombstone, Cochise County, located at T20S, R23E Sec. 27, 28, 33, 34 (combination state and private leased) on which drilling will commence next week. The company is currently looking for volcanogenic exhalite targets in Arizona but will welcome any type of precious metal submittals. *actually the Jackpot claims*

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

O.D.I.

Date Feb 16, 1945

Name of Mine Jungsten Reef

Owner or Operator J. J. + L. H. Oelmann

Address Hereford Ave

Mine Location Huachuca Mts

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production.....; Development.....; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months

Approx. present rate per 3 months

Anticipated rate next 3 months

If in distant future check (X) here

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars
Light or Service Trucks
Ore Hauling Trucks	<u>1</u>	<u>336</u>
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Jungsten Concentrates

REMARKS:

.....
.....
.....
.....

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By

George A. Hallam

REPORT TO OPA ON ACTIVE MINING PROJECT

Bv



WAR DEPARTMENT

~~XX~~

~~XX~~

OFFICE OF THE AREA ENGINEER
FORT HUACHUCA, ARIZONA

~~ADDRESSES REFER TO THE OFFICE~~
~~AND NOT TO ANY INDIVIDUAL~~

IN REPLY REFER TO

January 23, 1942

Mr. J. S. Coupal, Director
Dept. of Mineral Resources
518 Title and Trust Bldg.
Phoenix, Arizona

Dear Mr. Coupal:

I am returning herewith the copy of the
"Report on the Tungsten Reef Mine" which you
were good enough to lend me, together with
two additional copies.

Thanking you very much for the courtesy
extended me, I am,

Yours very truly,

Harry Schwartz
Harry Schwartz

HS/hb

Encl:

3 reports



United States Department of the Interior

OFFICE OF HEARINGS AND APPEALS

INTERIOR BOARD OF LAND APPEALS

4015 WILSON BOULEVARD

ARLINGTON, VIRGINIA 22203

ENERGY RESERVES GROUP, INC.

IBLA 84-554

Decided October 29, 1985

Appeal from a decision of the Arizona State Office, Bureau of Land Management, rejecting prospecting permit application A 16816.

Affirmed.

1. Mineral Lands: Prospecting Permits

The Department of the Interior has no authority to issue a prospecting permit for hardrock minerals on acquired lands subject to sec. 402, Reorganization Plan No. 3 of 1946 (60 Stat. 1099), without the consent of the Forest Service, U.S. Department of Agriculture.

APPEARANCES: Keith M. Crouch, Esq., Denver, Colorado, for appellant.

OPINION BY ADMINISTRATIVE JUDGE IRWIN

Energy Reserves Group, Inc., has appealed from the March 30, 1984, decision of the Arizona State Office, Bureau of Land Management (BLM), which rejected its prospecting permit application, A 16816, for hardrock minerals gold, silver, and tungsten. Appellant filed the application on May 13, 1981, for the 184.57 acres of acquired land in Mineral Survey 2449, including portions of secs. 14, 15, and 23, T. 23 S., R. 20 E., Gila and Salt River Meridian, Cochise County, Arizona.

The BLM decision outlines the applicable law governing prospecting for hardrock minerals on these acquired lands:

The above described lands were acquired by the United States Department of Agriculture [sic], Forest Service (FS) under the Department of Agriculture Organic Act of August 3, 1956. (7 U.S.C. 428a).

The above cited Act does not authorize mineral development on Forest Service acquired lands. Therefore, on September 2, 1958, Public Law 85-862 [72 Stat. 1571] was enacted by Congress

in order to facilitate the administration, management, and consolidation of the national forests, all lands

INDEX CODE:

43 CFR 3500.0-3(b)(2)

43 CFR 3501.2-6(a) and (d)

of the United States within the exterior boundaries of national forests which were or hereafter are acquired for or in connection with the national forests or transferred to the Forest Service, Department of Agriculture, for administration and protection substantially in accordance with national forest regulations, policies, and procedures, [* * *] notwithstanding the provisions of any other Act, are hereby made subject to the Weeks Act of March 1, 1911 (36 Stat. 961), as amended, and to all laws, rules, and regulations applicable to national forest lands acquired thereunder.

43 CFR 3500.0-3(b)(2) sets out the specific authorities for leasing hardrock minerals on acquired lands. Subsection (i) refers to the authority transferred to the Secretary of Interior by the Reorganization Plan No. 3 of 1946, Section 402 (60 Stat. 1099). As applies to this case, the authority stems from the following source:

Act of March 4, 1917 (Ch. 179, 39 Stat. 1150, [16 U.S.C. § 520 (1982)])

The Secretary of Agriculture is authorized, under general regulations to be prescribed by him, to permit the prospecting, development, and utilization of the mineral resources of the lands acquired under the Act of March 1, 1911, known as the Weeks law, upon such terms and for specified periods or otherwise, as he may deem to be for the best interests of the United States. * * *

Reorganization Plan No. 3 provides, with respect to the category listed above, that "mineral development on such lands shall be authorized by the Secretary of the Interior only when he is advised by the Secretary of Agriculture [that such development will not interfere with the primary purposes for which the land was acquired and only in accordance with such conditions as may be specified by the Secretary of Agriculture in order to protect such purposes.]" [See 16 U.S.C. § 520 note (1982).]

The Forest Service, U.S. Department of Agriculture, prepared an environmental assessment (EA) analyzing the prospecting permit proposal. In the accompanying decision notice, dated February 2, 1984, the Forest Service concluded that although prospecting activities would not have significant environmental impacts, a potential mining operation could. It noted that if prospecting reveals sufficient minerals, the prospector is eligible for a preference right lease to mine as outlined in the proposal. The Regional Forester, Coronado National Forest, chose denial of the prospecting permit out of five alternatives analyzed by the EA:


It is my decision to select Alternative E [no action] which denies the application. This alternative eliminates conflicts with recreation development, and use and quality of recreation experiences. This alternative satisfies recreation management objectives, eliminates impacts to the physical environment, assures public safety on the Carr Canyon Road, and meets public desires.

BLM rejected appellant's application, citing 43 CFR 3501.2-6(a). That regulation provides that "prospecting permits may be issued only with the consent of the head or other appropriate official of the executive department * * * having jurisdiction over the lands containing the deposits * * *."

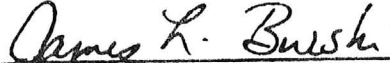
On appeal to the Board, appellant argues that the BLM decision was arbitrary, capricious, and erroneous, given the Forest Service determination that prospecting, in itself, would not cause undue adverse impacts. Appellant asserts that the Forest Service conclusion that mining activity on the subject land would adversely affect recreational objectives was unsupported. Appellant submits that the statutes and regulations governing the issuance of preference right leases would provide adequate safeguards. Appellant asserts the impacts of mining cannot be addressed until exploration is complete, and points out that Goldsil Mining & Milling, Inc., successor in interest to the appellant, owns 17 mining claims adjacent to the subject tract and plans an integrated exploration for both the claims and the subject tract. Appellant argues it can explore in a manner consistent with recreational and other multiple-use management objectives.

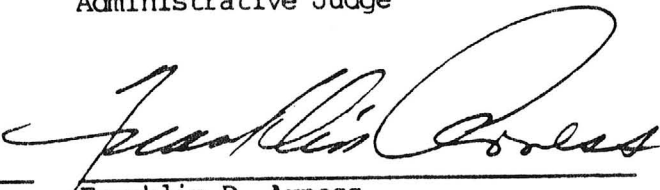
[1] BLM's decision must be affirmed. 43 CFR 3501.2-6(d) provides: "The Reorganization Plan and the Acts provide that mineral development may be permitted only with the consent of the Secretary of Agriculture and subject to such conditions as he may prescribe to protect the purposes for which the lands were acquired * * *. An application will be rejected if the Secretary of Agriculture does not give his consent." See Henry N. Gerritsen, 3 IBLA 90 (1971); ^acf. John W. Jewell, 53 IBLA 179 (1981).^b Because the Forest Service has withheld its consent, the Secretary of the Interior cannot issue the permit and the application was properly rejected.

Therefore, pursuant to the the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision of the Arizona State Office is affirmed.


Will A. Irwin
Administrative Judge

We concur:


James L. Burski
Administrative Judge


Franklin D. Arness
Administrative Judge

a) GFS(MIN) 25(1971)

b) GFS(MIN) 83(1981)

↘ *Breccia Pipes Prospect.*

The Breccia Pipes Prospect consists of the properties described below which are subject to an assignment and agreement with the Rocky Mountain Energy Company and Mono Power Company which provides that Goldsil Resources will receive a 7% royalty interest (inclusive of other royalties burdening the properties as described below) from uranium ores produced from the following properties:

A. 28 unpatented lode mining claims which are burdened by a 5% minemouth/2½% yellow-cake royalty in favor of Quest, Inc., an Arizona corporation, and a mining lease covering nine unpatented lode mining claims which reserves to the lessors a 6% minemouth/sliding-scale yellow-cake royalty. These 37 claims cover approximately 740 acres located in Coconino County, Arizona; and,

B. 5 State of Arizona prospecting permits covering 1,280 acres in Coconino County, Arizona. If these properties are converted to state leases, the state will receive a royalty equal to 5% of the net value of the minerals produced, less processing and transportation costs and taxes, if any, levied on production.

↘ *Carr Canyon. Tungsten Reef (?)*

The Carr Canyon Prospect, located in Cochise County, Arizona, consists of 17 unpatented lode mining claims owned by Goldsil Resources covering approximately 340 acres and a May 11, 1981 prospecting application and permit for gold, silver, and tungsten covering 184.57 acres of federal acquired land. A request for approval of assignment of the application to Goldsil Resources has been submitted to the federal government. The royalty rate for federal leases on acquired lands are negotiated at the time a permittee seeks to convert a prospect permit to a lease.

Flume Gulch Prospect.

The Flume Gulch Prospect consists of approximately 1,840 acres located in Silver Bow and Deer Lodge Counties, Montana. Goldsil Resources owns the following material interests in this prospect, all of which are burdened by a 2% net smelter return royalty interest in favor of the Bear Creek Mining Company: 84 unpatented lode mining claims; a mining lease with option to purchase covering the mineral estate in a 160 acre tract which reserves to lessor a 5% net smelter return royalty (Goldsil Resources may purchase the lessor's interest at any time prior to May 6, 1996 by paying \$400,000); and a mining lease with option to purchase covering four patented lode mining claims which reserves to lessor a 4½% net smelter return royalty (Goldsil Resources may purchase the lessor's interest at any time prior to April 1, 1996, for \$500,000). The properties in this prospect are subject to a joint venture agreement with Noranda Exploration, Inc., pursuant to which Noranda must expend \$500,000 in exploration, development and maintenance of the properties over the following time frames in order to earn a 50% interest in the joint venture properties: \$30,000 by December 31, 1982, (already fulfilled); an additional \$90,000 by December 31, 1983; an additional \$120,000 by December 31, 1984; and an additional \$260,000 by December 31, 1985. If Noranda fails to fulfill these expenditure requirements, its interest in the Properties will be conveyed to Goldsil Resources, without recourse to Noranda.

October Mine.

The October Mine is a uranium property which is owned by the Atlas Corporation. Pursuant to the terms of an agreement with Atlas, Goldsil Resources will receive a minimum of \$1.50 per pound of contained uranium and a maximum of \$3.00 per pound of contained uranium royalty (depending on the price of uranium) for the first 150,000 pounds of contained uranium mined from a 500 by 1,250 foot (14 acres) tract in Mesa County, Colorado. After 150,000 pounds of contained uranium are produced from the "Royalty Area," the Goldsil Resources royalty interest will terminate.

Peaches and Harvey Mines.

The Peaches and Harvey Mines are uranium properties situated on a contiguous group of 135 unpatented lode mining claims covering approximately 2,480 acres located in Mesa County, Colorado. These properties are owned by J. R. Bond, C. F. Ince, F. C. Booth, and L. E. Booth, subject to Goldsil

FROM GOLDSIL MINING AND⁴³ MILLING PROSPECTS 1913

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine R Tungsten Reef Mine Date Sept. 14, 1956
District Huachuca (Hartford) Dist., Cochise Co. Engineer Axel L. Johnson
Subject: Present Status --- Information from Mr. L. H. Seaman, Owner.

Location See report of May 2, 1956

Number of Claims 9 patented claims.

Owner L. H. Seaman, Hereford, Ariz.

Operator Same as above. Last operated Jan. 1st to April 16, 1956.

Principal Minerals Tungsten ore in the form of scheelite.

Number of Men employed None at present, may do some work later.

Production Rate None at present. Last shipment of concentrates made on April 16.

Ore Values & Milling & Marketing Facilities See report of May 2, 1956.

Present Operations None.

Proposed Plans 3 different plans proposed.

(1) To operate the mine himself, with the help of his brother George, without hiring any help. Mr. Seaman, on account of poor ~~body~~ health, would be dependent on his brother George to do most of the work. George is now on the coast, but is expected to return in a few days. Until then, he does not know if brother George will consider resuming work on mining operations. He estimates that he and his brother would be able to mine from 15 to 25 tons of ore per week, running about 3 % with some sorting.

(2) To hire a couple of miners for the work, in which ~~in~~ case the production should be doubled, or from 30 to 50 tons per week.

(3) If Mr. Seaman decides not to operate the property himself, he will consider selling or leasing out the property to some operator. Mr. Seaman estimates that, by the addition of some milling equipment, production can be stepped up to a maximum of 200 tons per day, and that the ore should average close to 1 %, using a shovel and trucks in open pit operation.

Terms of Lease or Sale

Mr. Seaman states that the property is for sale for \$ 200,000 cash, but may accept a 10 % royalty, with a \$2,000 per month guarantee to a responsible party.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Tungsten Reef Mine

Date May 2, 1956

District Huachuca (Hartford) Dist. - Cochise Co. Engineer Axel L. Johnson

Subject: Present Status --- Information from Mr. L. H. Seaman, Owner.

Location At Tungsten Reef in the Huachuca Mts., 35 miles west of Bisbee. Take state road no. 92, for 28 miles west of Bisbee. Turn left (west) at Fletcher's store, and drive about 7 miles on a Forest Service road to the mine.

Number of Claims 9 patented mining claims.

Owner L. H. Seaman, Hereford, Ariz.

Operator Same as above.

Principal Minerals Tungsten ore in the form of scheelite.

Number of men employed Mr. L. H. Seaman is working the mine himself, with the assistance of his brother, George Seaman.

Production Rate Mr. Seaman states that his own poor health, in addition to several weeks illness of his brother George, has prevented them from operating the mine, except on part time. He states that the mine has been worked, since the first of the year, an average of about 2 days per week, from which an average of about 10 tons of scheelite ore per week has been produced. He reports that, since Jan. 1, 4,100 lbs. of concentrates has been shipped to the General Service Administration, and that previous to Jan. 1, 2,700 lbs. of concentrates were shipped.

Ore Values The scheelite ore, which is mined selectively, with some hand sorting, is reported to contain from 1 % to 5 % in tungsten values. Mr. Seaman reports that the concentrates sent to the GSA runs about 75 %, with a small penalty for lead.

Milling and Marketing Facilities A small mill on the mine site is used for milling the ore. The milling equipment consists, principally of a jaw crusher, a cone crusher, screens, 1 -- 16" x 30" jig, and one Wilfley table. Capacity about one ton per hour. Concentrates are shipped directly to the General Service Corp.

Present Operations Open pit operations are used in the mining of the ore. A 3/8 yard Bay City gasoline shovel loads directly into a truck which takes the ore to the mill for milling. Selective mining, with some hand sorting is being done to keep the grade of ore up well above 1 %. The mill is operated intermittently. After the ore bin at the mill has been filled, the mining operations are shut down and the mill is started.

Proposed Plans Mr. Seaman states that he will continue to mine and mill as is being done at present, with he and his brother doing all the work. He does not believe in employing additional labor on account of the bookkeeping, supervising, liability insurance, etc., which this would necessitate.

Remarks I did not get up to Tungsten Reef to inspect the operations personally, as I found out that neither Mr. L. H. Seaman or his brother George ~~was~~^{were} up there, and also that the road up there was in quite bad shape. I contacted Mr. Seaman at his home near Nicksville.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Tungsten Reef Mine
(Called the "Reef Mine" by new operators)
District Huachuca (Hartford) Mining District

Date March 10, 1954.
Engineer Axel L. Johnson

Subject: Present Status --- Personal Visit & information from Geo. A. Smith, Gen. Supt.

Location At Tungsten Reef, in Huachuca Mts. 35 miles west of Bisbee.

Number of Claims A number of patented mining claims, comprising an area of approximately 160 acres.

Owner Mr. L. H. Seaman, Hereford, Arizona.

Lessees and Operators Minerals Development Corporation.

The controlling interest in the company was recently acquired by a group of new stockholders. These men are residing in San Francisco, Calif. A new lease was signed by L. H. Seaman, the owner, and the new management last December. This lease specifies certain royalties, and contains an option to purchase.

Officers Francis H. Frederick, President, 930 De Young Bldg., San Francisco, Calif.
Arthur B. Griffiths, Secretary, 930 De Young Bldg., San Francisco, Calif.
George A. Smith, General Mine Superintendent, Box 309, Bisbee, Ariz.

Principal Minerals Tungsten ore in the form of scheelite. Quartz.

Number of Men Employed 25 men, 20 of which are engaged in the construction of the new mill, and the remainder truck drivers and bull dozer operators. Operators expect to employ about the same number of men when they get into actual mine operation.

Production Rate Mine is not in operation. Company at present constructing new mill. Company expects to get into operation, producing quartz, about April 1st., and to have a tungsten plant in operation by August.

Geology See Report of March 13, 1952.

Ore Values See Report of March 13, 1952.

Mill Construction ---- Quartz unit

The quartz crushing and screening plant, when finished, will consist of one jaw crusher, one gyratory crusher, one Allis Chalmers Pulverator (hammer mill), a series of 3 screens for sizing the material, a weighing and bagging arrangement, blowers for dust protection, and a 3 Diesel unit power plant (2-60KW units & 1-75 KW unit)

Mill will have a capacity of 6 tons of rock per hour, 5 tons of which will be marketable, and 4 tons of which is expected to be 99 % pure. Company expects to operate the mill 3 shifts per day, and 7 days per week.

Mill Construction ----- Tungsten unit

Operators plan on beginning construction of this unit in June or July, and to have this finished in August. The mill will be of a rather small capacity, and will consist of one jig, 2 tables, and 2 flotation cells. A sorting plant, which was used by the former operators, will also be used in connection with their tungsten concentration. Operators will dismantle all the equipment from the old tungsten mill, which was used by the previous operators, and use whatever of this equipment that they can in the construction of their new mill at the new mill site. Water will be available from a series of springs on the mountain above the mine. Two ---10,000 gal. storage tanks are available for use.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT
Page 2.

Mine Tungsten Reef Mine
(called "Reef Mine" by new operators)
District Huachuca (Hartford) Mining District

Date March 10, 1954
Engineer Axel L. Johnson

Subject: Present Status --- Personal Visit & information from Geo. A. Smith, Gen. Supt.

Markets for Quartz

(1) Gasolene refineries use the quartz as a catalytic agent in the refining of high octane gasolene. Most of the quartz material used for this purpose is from 24 to 32 mesh, with some larger sizes up to 1 1/4 inch. Quartz of 99% SiO₂ is in most demand, and commands a price up to \$125 per ton.

(2) Fine sizes, from 100 mesh to 300 mesh is wanted by the paint companies and the ore smelters.

Prices for Quartz

(1) 24 to 32 mesh and 99 % SiO₂ ----up to \$125 per ton.

(2) 24 to 32 mesh with lower than 99 % SiO₂ content -----\$40 to \$100 per ton.

(3) Other sizes ----- from \$15 per ton and up.

(Company claims to have a large number of outstanding orders for quartz from oil companies, a large percentage of which they hope to obtain a price of \$125 per ton.)

Proposed Mining Operations Operators will mine the quartz rock and tungsten ore by open pit methods. The quartz vein is a flat blanket vein, from 3 to 20 ft. in thickness, and ~~and~~ dipping about 10 to 15 degrees. A sizeable area of this vein has already been stripped. The overburden overlying the vein is from 6 ft. to 12 ft. thick.

Operators are now starting work, using an HD 5 Allis Chalmers tractor shovel. Later on, they expect to add a power shovel to their mining equipment. Double Drum Scrapers will also be used to a certain extent.

Until the tungsten mill is finished, the high grade tungsten areas will be by passed, and, where by-passing is impractical, this high grade tungsten ore will be stock-piled for future milling.

After the tungsten mill is finished, the high grade tungsten areas will be blasted ~~and~~ scraped out, and transported to the mill separately, and run through the tungsten unit for the recovery of the tungsten. The remainder of the quartz rock, by far the larger tonnage, will be mined as a quartz product, and will be crushed and sized at the quartz plant.

DEPARTMENT OF MINERAL RESOURCES

FIELD ENGINEERS REPORT

Mine	Tungsten Reef Mine	Date	Jan. 13, 1954
	(Called the "Reef Mine" by the new officials)		
District	Huachuca (Hartford) Mining District	Engineer	Axel L. Johnson

Subject: Present Status ---- Information from Nick Gregovich, Nicksville, Ariz.

Location For location and general information of the property, see my report on this property under date of March 13, 1952.

Owners Minerals Development Corp., RFD, Hereford, Arizona.
Stock in the company now controlled by new stockholders.

Officers Francis H. Fredericks, President, RFD, Hereford, Arizona.
James McGavoc, Superintendent, RFD, Hereford, Arizona.

Operators Property operated by the owners, as shown above.

Principal Minerals Tungsten ore in the form of scheelite. Quartz.

Number of Men Employed 8

Production Rate None at present. Expect to produce quartz, and grind same, and sell this to oil refineries---production of this is scheduled to start in the very near future. Operators expect to produce tungsten ore at some future date.

Present Operations Operators now moving rock and dirt, leveling up a place for a new mill site. Operators will move the old mill at the property to this new location, which is more favorably situated, and in closer proximity to the ore body.

Future Plans Operators expect to mine quartz rock, grind same to about the ~~six~~ size of wheat grains, and sell this product to oil refineries. Oil refineries are reported as paying as high as \$100 per ton for this silica product.

Operators are reported as planning to mine their tungsten ore at some later date, and mill same at a new mill they plan to construct at the same mill site.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Tungsten Reef Mine

Date Sept. 8, 1954

District Huachuca (Hartford) Mining District
Cochise Co.

Engineer Axel L. Johnson

Subject: Present Status ---- Personal Visit & Information from Mr. L. H. Seaman, owner.

Location At Tungsten Reef, in Huachuca Mts., 35 miles west of Bisbee. Take state road no. 92. Turn left (west) at Fletcher's store, which is 8 miles south of Fry, and traverse approx. 7 miles of Forest Service road to the mine.

Number of Claims * 9 patented claims.

Owner L. H. Seaman, Hereford, Ariz.

Present Status Mr. L. H. Seaman has cancelled the lease of the Minerals Development Corporation for failure of this company to ~~pay~~ live up to the lease agreement and pay their royalties.

An auction sale of all the Minerals Development Corporation's milling, crushing and screening equipment and all their machinery on the premises, together with approx. 100 tons of sorted ore and about 450 lb. of tungsten concentrates was scheduled to be held on the premises at 11:30 A. M. on Aug. 8. This was a government auction sale to satisfy the government's claims of withholding taxes from mine employees, which had not been paid by the lessees and operators, the Minerals Development Corp. Government's claim is \$15,250.

There being insufficient bidders and bids on this equipment, the sale was postponed until Sept. 22, 1954, at 11:30 A. M.

A copy of the Government Notice reads as follows:

"Following described personal property seized from the Minerals Development Corp., Box 309, Bisbee, Ariz. under warrants for distraint for the non-payment of assessed taxes due will be sold as provided by Sect. 3690, Internal Revenue Code at public auction on date above at the premises of the mine-----" B. H. Yaeger, Collection Officer.

A complete description of the property to be sold followed.

Minimum acceptable offer was reported to be \$15,250.

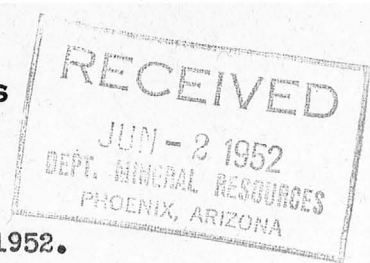
There is reported to be an old chattel mortgage outstanding against milling machinery and other machinery at the Tungsten Reef, the amount of same being \$90,000. According to Mr. B. H. Yaeger, the government man, this chattel mortgage does not have much value, because most of the items specified in this chattel mortgage have since been removed. However, it may have considerable nuisance value. One or two mining machinery companies are also reported to have some equity in some of the equipment.

It is, therefore, quite possible that anyone purchasing this equipment from the government may be involved in ~~controversy~~ controversy or even in a law suit, regarding the ownership of the equipment. The government man, Mr. Yaeger stated that the government will not guarantee a title to the machinery and equipment.

Reason for the failure of the Minerals Development Corp. This company, who had built a large crushing, grinding, and screening plant at the mine in order to process quartz for sale to gasoline refineries to be used as a catalytic agent in the refining of high octane gasoline, was forced to close down for failure to pay their indebtedness. They were reported as having shipped out only one shipment of quartz, amounting to 375 tons. The belief was expressed that it took them so long to fill the orders that they had from the gasoline refineries (on account of mill construction etc.) that these orders were cancelled.

Plans of the Owner Mr. L. H. Seaman, the owner of the property wishes to sell to the right people, who are reliable. Terms asked are \$300,000 total, with \$25,000 down, and the balance payable at 10 % royalty of the mine proceeds, with a minimum payment of \$1500 per month. Mr. Seaman, on the other hand, may decide to operate the property himself.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT



Mine Tungsten Reef Mine

Date May 13, 1952.

District Huachuca (Hartford) Mining Dist.

Engineer Axel L. Johnson

Subject: Present Status--- Personal Visit.

Preview For location and other information see report on this property under date of March 13, 1952.

Owners Minerals Development Corp., Dallas, Texas.

Operators Same as above.

Officers Len Acton, Pres., Dallas, Texas.
Hugh W. Coke, General Manager, Copper Queen Hotel, Bisbee, Ariz.

Metals Present Tungsten in the form of scheelite.

Production Rate No production as yet.

Men Employed 10 men working on the construction of the mill.

Proposed Plans The mill is now not expected to be ready until about Sept. 1.
Mining operations will be started as soon as the mill is finished and ready for operation. See my report of March 13, 1952 for their plan of operation.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

~~FIELD ENGINEERS REPORT~~

NEWS ITEM

Mine Tungsten Reef Mine

Date March 13, 1952

District Huachuca (Hartford) Mining Dist.

Engineer Axel L. Johnson

Subject: News Item ---- Source of Information ---Hugh W. Coke

Location At Tungsten Reef, in Huachuca Mts. near Ft. Huachuca.

Number of Claims A number of patented claims, comprising an area of approximately 160 acres.

Owners Minerals Development Corp., Dallas, Texas. Acquired the property from Mr. L. H. Seeman, the former owner quite recently, the final papers being signed about Feb. 1, 1952.

Operators Same as above.

Officers Len Acton, President, Box 239, Dallas, Texas.
Hugh W. Coke, General Manager, Copper Queen Hotel, Bisbee, Ariz.

Metals Mined Tungsten ore in the form of scheelite.

Men Employed 10 men at the present time.

Production Rate No production as yet. Expect to be ready for production in 60 to 90 days.

Milling Facilities Milling facilities will be provided, as follows:

The company bought the old El Oro Gold Mining Co. mill near Wickenburg. They will use what equipment they can from this mill, and supplement same with new equipment, so as to provide a modern mill for milling their tungsten ore (capacity 50 tons per 8 hr. operation). This mill will consist of coarse and secondary crushers, jiggs and tables, with provision ~~with~~ for a minor amount of ~~flotation~~ flotation for treating a small amount of the ore that is excessively high in impurities. The ore will be crushed to one-quarter inch only, as this has been found by tests to be the proper crushing size.

The ore will be hand picked before going into the mill. This hand picking will be done over a conveyor belt under a black light. About 150 to 200 tons will be delivered to this conveyor belt every 8 hrs., and it is expected that from 100 to 150 tons of this will be sorted out by the hand pickers, leaving about 50 tons of scheelite ore to go through the mill. The sorting plant and the mill will be operated only for 8 hrs. daily.

Geology Ore deposit consists of a blanket vein, ~~the width of same being~~ from 3 to 15 ft. in thickness, with an average of 5 to 6 ft. ~~thick~~. The vein dips about 10 degrees, and the surface dips slightly in the same direction as the vein. The upper section of the vein is exposed on the surface. The hanging wall is limestone, and the footwall is granite. The vein consists of quartz, and the scheelite occurs as pockets in this quartz vein.

Ore Values Old records from old production shows an average of about 1/2 per cent WO_3 , after sorting. It is hoped by efficient sorting that the average content of the ore going into the mill will be close to 1 per cent WO_3 .

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

~~FIELD ENGINEERS REPORT~~

NEWS ITEM page 2

Mine Tungsten Reef Mine

Date March 13, 1952

District Huachuca (Hartford) Mining Dist.

Engineer Axel L. Johnson

Subject: News Item --- Source of Information --- Hugh W. Coke

Past Production Considerable production from this property in the First World War. Considerable production from the property in 1938-1942, when it was operated by Mr. Seeman by open cuts in the hillside.

Present Operations 10 men have been engaged for some time. 5 small pre-fabricated houses have been built on the property, and the company have now started preparing the mill site. The old El Oro mill will now be dismantled and parts of same to be used will be taken up to the property, and the construction of the new mill will be started very soon. The company expect to be ready for operation in from 60 to 90 days.

Proposed Plans of Operation The ore will be mined by open pit method of operation. A power shovel will load the ore into 2 or 3 trucks, which will haul the ore to the sorting plant at the mill. The company expects a production rate of from ~~100~~ 150 to 200 tons per day. Both the mine and the mill will be operated day shift only.

Miscellaneous The company does not expect to treat custom ore. Furthermore, it would not be practical to treat custom ore at this mill. First, it is situated near the top of the mountains at an elevation of 7200 ft., and reached after a long hard grade. Second, the mill was designed to treat this particular kind of ore, ~~as~~ the flow sheet being determined after considerable research and testing, and, consequently, may not be adaptable for treating other tungsten ores from other properties.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

NEWS REPORT

Mine Tungsten Reef Mine Date Nov. 16, 1951
District Huachuca (Hartford) Mining Dist. Engineer Axel L. Johnson
Subject: News Report --- from rumors

Location At Tungsten Reef

Owners Mrs. Clark, et. al.

Operator Len Acton, leaser---- leasing from Mrs. Clark, et. al.
Tungsten Reef Mining Co.

Metals Present Tungsten minerals

Remarks It is rumored that a new company has been formed called the Tungsten Reef Mining Co. in order to mine tungsten ore at Tungsten Reef. Mr. Len Acton is to be in charge of the operations. It is said that they contemplate starting operations soon, and that they expect to build a mill to treat the ore.

STATUS OF DORMANT MINES

MINE NAME: TUNGSTEN REEF MINE

LOCATION: Cochise County, Huachuca Mts. Carr canyon, 35 mi. West of Bisbee

OWNER AND/OR LEASEE: L.H. Seeman (Owner)

ADDRESS: Hereford Arizona

APPROXIMATE PRODUCTION (Year of 1945): (March 1941 to Feb. 1942)
(none)

COPPER _____ Lbs. LEAD _____ Lbs.

ZINC _____ Lbs. (OTHER) 40500 Lbs. Average 72.79 %
Sheelite concentrates W03

CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:

- (A) Easily available ore worked out.
X (B) Increased costs, but have quantity similar to past grade of ore.
(C) Too close a margin to develop more ore.
(D) _____

If you have ore ready to mine please give your estimate of the amount of metal (name each metal) that you could produce in one year (after allowing 60 days to get started) if there were premiums above present market prices. Name amount with a low premium, and amount at a high premium; such as:

Copper at $22\frac{1}{2}\phi$ plus 5¢ premium..... 1,000,000 Lbs.
Copper at $22\frac{1}{2}\phi$ plus 10¢ premium..... 1,500,000 Lbs.

Tungsten at \$28.50 plus \$ 10 40500 Lbs

\$ 28.50 plus \$20 80000 Lbs

If you do not have ore ready to mine please discuss the following:

- (A) Do you think a reasonable development program would produce a justified tonnage of commercial ore at above mine?

Yes

- (B) With a premium price (guaranteed for one year) could you carry out such a development program yourself? What premium?

Yes, at a premium that would bring the price of
tungsten equal, or on a par with other costs

- (C) If you could not do this yourself, would a quick drilling program by some government agency (at government expense) be sufficient?

- (D) Or would you prefer a loan plan similar to the arrangements during World War II?

I would be interested in a loan plan to rebuild
concentrating plant, but donot know what the arrangements were

How about a combination plan in two stages such as follows?

Stage 1: Government engineers review project and, if a little drilling appears to be justified and a preliminary key to the situation, such drilling program to be agreed upon by owner and government engineer, paid for by the government, but let by contract.

Stage 2: If results of drilling (or without drilling) justify underground development and/or production equipment, same to be obtainable via a mortgage loan on property.

Please discuss the above: This property has been sampled

by the Bureau of Mines. Our records show a total production
(three hundred and eleven thousand, 227)
of 311,227.lbs.of high grade concentrates.and the worked out area
has been estimated to be something less than 10%

SUGGESTIONS:

DATE Aug 7, 1950

SIGNATURE L.H. Seeman

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

MT-16

REPORT BY:
A. Brodie Campbell

Date May 14, 1942

1. Mine Tungsten Reef
2. Mining District & County Huachuca Dist.,
Cochise Co.
3. Former name Exposed Reef Tungsten Co.
4. Location End Carr Canon Road,
Huachuca Mts.
5. Owner J. J. Seaman, half owner. Indef.
lease on other half.
6. Address (Owner) Hereford, Ariz.
7. Operator Same
8. Address (Operator) Same
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals Scheelite. Some galena
14. Men Employed 7 to 10
15. Production Rate 75 tons/ week. 1000 lbs. conc.
16. Mill: Type & Cap. Gravity. 2 tons/hr.
17. Power: Amt. & Type 2 port. comp. with 330 cu. ft./ min. 5 gas auto engines.
18. Operations: Present Mining and milling.
19. Operations Planned Mine and mill.
20. Number Claims, Title, etc. 9 patented claims. 5 held by location.
21. Description: Topography & Geography Very rugged and mountainous. 7500' elev. Fair
amount of precipitation. Fair stand of timber.
22. Mine Workings: Amt. & Condition Several thousand feet of drifting and stoping. For the
most part in fair shape. Considerable portion of stopes back filled.

23. Geology & Mineralization quartz veins varying from 18' 6' thick. They nearly are flat, parallel, coarsely crystalline and not over 10' apart at the most. These veins lie on top of limestone. At the upper edge they are covered with a light detrital overburden. At the lower exposure there is considerable lime overburden. Some scheelite is visible with a lamp in all exposures. Quite rich pockets occur at irregular intervals.
24. Ore: Positive & Probable, Ore Dumps, Tailings There is a large quantity of ore present. Estimate about 500,000 tons available. Estimate that over all grade might be $\frac{1}{2}\%$ WO_3 .

24-A Vein Width, Length, Value, etc. See Bureau of Mines. Test Report Data of 1941. Blanket vein of several acres in extent. Might possibly run $\frac{1}{2}\%$ WO_3 thru-out.

25. Mine, Mill Equipment & Flow Sheet 3 jack-hammers with set-ups. 2 port. comps. with 330 cu. ft. capacity. Mill: Mine run to crusher, to rolls, to screen, over-size to jig, undersize to table. Jig tail and table midd. are re-ground in rolls, and re-run. Recovery is 15# conc. to 1 ton ore. I estimate that the tails will run $\frac{1}{2}\%$ WO_3 .
26. Road Conditions, Route Fair mountain road from Carr Canon Jct. Very steep and rocky. Best way to get there is to go to Fry and inquire for the Carr Canon road. This road was built by CCC. Has had very little upkeep in last year.

27. Water Supply Comes by gravity from springs. Just sufficient for present demands. Sufficient water could be developed for major operation.

28. Brief History Purportedly started as a gold mine in the '80s. Quite a bit of old ponderous equipment lying around. Started tungsten production in World War I. Has had intermittent production since.

29. Special Problems, Reports Filed Tungsten deposits of Arizona. Wilson 1941. Special Bureau of Mines (U.S.) Field report on property in 1941 for War Dept. Unavailable through U.S.B.M. Have to go to War Dept.

30. Remarks This is the largest exposure of tungsten bearing rock in the southern part of the state. The size of operation that could be maintained during emergency operations would be limited by the water supply. It is fairly safe to estimate that 300,000 tons of $\frac{1}{2}\%$ ore could be produced.

31. If property for sale: Price, terms and address to negotiate. Think that the present owners are satisfied unless big money were offered. Making nice money on present operation.

32. Signed.....

33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA

OWNERS MINE REPORT

MT-16

REPORT BY:
A. Brodie Campbell

Date May 14, 1942

1. Mine **Tungsten Reef**
2. Mining District & County **Huachuca Dist., Cochise Co.**
3. Former name **Exposed Reef Tungsten Co.**
4. Location **End Carr Canon Road, Huachuca Mts.**
5. Owner **J. J. Seaman, half owner. Indef. lease on other half.**
6. Address (Owner) **Hereford, Ariz.**
7. Operator **Same**
8. Address (Operator) **Same**
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals **Scheelite. Some galena**
14. Men Employed **7 to 10**
15. Production Rate **75 tons/ week. 1000 lbs. conc.**
16. Mill: Type & Cap. **Gravity. 2 tons/hr.**
17. Power: Amt. & Type **2 port. comp. with 330 cu. ft./ min. 5 gas auto engines.**
18. Operations: Present **Mining and milling.**
19. Operations Planned **Mine and mill.**
20. Number Claims, Title, etc. **9 patented claims. 5 held by location.**
21. Description: Topography & Geography **Very rugged and mountainous. 7500' elev. Fair amount of precipitation. Fair stand of timber.**
22. Mine Workings: Amt. & Condition **Several thousand feet of drifting and stoping. For the most part in fair shape. Considerable portion of stopes back filled.**

23. Geology & Mineralization quartz veins varying from 18' 6' thick. They nearly are flat, parallel, coarsely crystalline and not over 10' apart at the most. These veins lie on top of limestone. At the upper edge they are covered with a light detrital overburden. At the lower exposure there is considerable lime overburden. Some scheelite is visible with a lamp in all exposures. Quite rich pockets occur at irregular intervals.
24. Ore: Positive & Probable, Ore Dumps, Tailings There is a large quantity of ore present. Estimate about 500,000 tons available. Estimate that over all grade might be $\frac{1}{2}\%$ WO_3 .
- 24-A Vein Width, Length, Value, etc. See Bureau of Mines. Test Report Data of 1941. Blanket vein of several acres in extent. Might possibly run $\frac{1}{2}\%$ WO_3 thru-out.
25. Mine, Mill Equipment & Flow Sheet 3 jack-hammers with set-ups. 2 port. comps. with 330 cu. ft. capacity. Mill: Mine run to crusher, to rolls, to screen, over-size to jig, undersize to table. Jig tail and table midd. are re-ground in rolls, and re-run. Recovery is 15% conc. to 1 ton ore. I estimate that the tails will run $\frac{1}{2}\%$ WO_3 .
26. Road Conditions, Route Fair mountain road from Carr Canon Jct. Very steep and rocky. Best way to get there is to go to Fry and inquire for the Carr Canon road. This road was built by CCC. Has had very little upkeep in last year.
27. Water Supply Comes by gravity from springs. Just sufficient for present demands. Sufficient water could be developed for major operation.
28. Brief History Purportedly started as a gold mine in the '80s. Quite a bit of old ponderous equipment lying around. Started tungsten production in World War I. Has had intermittent production since.
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DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

REPORT BY:

A. Brodie Campbell

MT-16

Date May 14, 1942

1. Mine Tungsten Reef
2. Mining District & County Huachuca Dist., Cochise Co.
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5. Owner J. J. Seaman, half owner. Indef. lease on other half.
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7. Operator Same
8. Address (Operator) Same
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals Scheelite. Some galena
14. Men Employed 7 to 10
15. Production Rate 75 tons/ week. 1000 lbs. conc.
16. Mill: Type & Cap. Gravity. 2 tons/hr.
17. Power: Amt. & Type 2 port. comp. with 330 cu. ft./ min. 5 gas auto engines.
18. Operations: Present Mining and milling.
19. Operations Planned Mine and mill.
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25. Mine, Mill Equipment & Flow Sheet 3 jack-hammers with set-ups. 2 port. comps. with 330 cu. ft. capacity. Mill: Mine run to crusher, to rolls, to screen, over-size to jig, undersize to table. Jig tail and table midd. are re-ground in rolls, and re-run. Recovery is 15# conc. to 1 ton ore. I estimate that the tails will run $\frac{1}{2}\%$ WO_3 :
26. Road Conditions, Route Fair mountain road from Carr Canon Jct. Very steep and rocky. Best way to get there is to go to Fry and inquire for the Carr Canon road. This road was built by CCC. Has had very little upkeep in last year.
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31. If property for sale: Price, terms and address to negotiate. Think that the present owners are satisfied unless big money were offered. Making nice money on present operation.
32. Signed.....
33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona
MINE OWNER'S REPORT

Date: November 16, 1941

1. Mine: TUNGSTEN REEF MINE
2. Location: 14 miles from Hereford, Arizona.
3. Mining District & County: Huachuca Mountain Mining District, Cochise County.
4. Former Name:
5. Owner: Leased to - John Seeman
6. Address: 613 Hazel Street, Glendale, California.
7. Operator:
8. Address (Operator):
9. President, Owning Co:
- 9A. President - Operating Co:
10. Gen. Mgr:
14. Principal Minerals: Tungsten (gold).
11. Mine Supt:
15. Production Rate:
12. Mill Supt:
16. Mill - Type & Cap:
13. Men Employed: 6 to 10 men.
17. Power - Amt. & Type:
18. Operations - Present: Mining, milling and shipping scheelite concentrates.
19. Operations - Planned:
20. Number Claims, Title, etc: 18 claims, 9 of which are patented.
21. Description - Topography & Geography: Located high up in Huachuca Mountains, elevation 2,000 feet above foot of mountains; steep grade for 2 miles; well timbered. Average 24" rainfall - mainly July and August.
22. Mine Workings - Amt. & Condition: Open cuts and quarry and some underground workings - all accessible. 29 acres of exposed vein in underground workings. Dip 10 degrees.

23. Geology & Mineralization: Bedded quartz vein lying between two beds of impure limestone (dark brown color). The vein is from 4 to 20 feet thick - pure white quartz, dipping about 10 degrees.

24. Ore - Positive & Probable, Ore Dumps, Tailings:

Estimated 380,000 tons fully developed
890,000 tons partly developed

24A. Dimensions and Value of Ore body: 4 to 20 feet in thickness. Values in tungsten (scheelite), gold and silver. Results from 12,000 tons milled showed 0.5% tungstic acid and \$2.00 in gold.

25. Mine, Mill Equipment & Flow Sheet: Concentrating mill; Gyratory Crusher; Simons Disk Crusher, Tables.
Now operating.

26. Road Conditions, Route: Road south from Fort Huachuca, paved to Bright Spot Cafe, then 3 miles mine road in which gain 2,000 feet elevation. Road OK, but steep grades.

27. Water Supply: Ample water for milling and domestic use. Well timbered camp area.

28. Brief History: Has been steadily in operation making a high grade scheelite concentrate. Values in gold being stacked in tailings.

29. Special Problems, Reports Filed: Detailed Report by F. W. Royer, Mining Engineer, dated 12-26-1923 on file in office.

30. Remarks:

31. If property for sale - Price, terms and address to negotiate:

For Sale - See lessee for terms.

32. Signature: JOHN SEEMAN, Lessee
613 Hazel Street,
Glendale, California.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
MINE OWNER'S REPORT

- Date 11/16 - 1941
1. Mine Tungsten Reef.
 2. Location 2 miles E. of Highway from Bitter & Ft. Huachuca from Route Sp. 14 miles from Newport Station.
 3. Mining District & County Huachuca Mt. Mining District - Cochise County.
 4. Former name
 5. Owner LEASED TO
 6. Address (Owner)
 7. Operator John Keeman.
 8. Address (Operator) 613 Hazel St. GLENDALE - CALIF.
 9. President, Owning Co. —
 - 9A. President, Operating Co.
 10. Gen. Mgr. —
 14. Principal Minerals TUNGSTEN (GOLD)
 11. Mine Supt. —
 15. Production Rate
 12. Mill Supt. —
 16. Mill: Type & Cap. —
 13. Men Employed 6 to 10 men.
 17. Power: Amt. & Type —
 18. Operations: Present Mining & milling and shipping scheelite concentrates.
 19. Operations: Planned
 20. Number Claims, Title, etc. 18 claims - 9 of which are patented.
 21. Description: Topography & Geography Located high up in Huachuca Mts. Elevation 2000 ft. above foot of mountains - steep grade - for 2 miles - well timbered. Average 24" rainfall. - mainly July & August.
 22. Mine Workings: Amt. & Condition Open cuts and quarry and some under ground workings - all accessible. - 29 acres of exposed vein in under ground workings. Dip - 10 degrees.

(over)

23. Geology & Mineralization

Bed of quartz vein - lignite between two beds of impure limestone - (dark brown color). The vein is from 4 to 20 ft. thick - pure white quartz - dipping about 10 degrees.

24. Ore: Positive & Probable, Ore Dumps, Tailings

Estimated 380,000 tons fully developed.
890,000 " partly "

24A. Dimensions and Value of Ore body

4 to 20 feet in thickness.
Values in Tungsten (scheelite) Gold & Bitum.
Results from 12,000 tons milled showed
0.5% Tungstic Acid and \$2.00 in gold.

25. Mine, Mill Equipment & Flow-Sheet

Concentrating mill. Gyratory crusher,
Simon Disk Crusher, tables.
Now operating.

26. Road Conditions, Route

Road South from Ft. Huachuca - passed to
Britt's Spot Cafe - Then 3 miles mine road
in which gain 2000 ft. elevation. Road OK.
but steep grades.

27. Water Supply

Ample water for milling & domestic use.
Mill located at camp area.

28. Brief History

Has been steadily in operation making a
high grade scheelite concentrate.
Values in gold being stacked in tailings.

29. Special Problems, Reports Filed

Detailed Report by F.W. Rogers - Mining Engineer
dated 12/26/23 in file in office.

30. Remarks

31. If property for sale: Price, terms and address to negotiate.

For sale - see lease for terms.
John. Newman - leasee -

32. Signature.....

33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona
MINE OWNER'S REPORT

Date: November 16, 1941

1. Mine: TUNGSTEN REEF MINE
2. Location: 14 miles from Hereford, Arizona.
3. Mining District & County: Huachuca Mountain Mining District, Cochise County.
4. Former Name:
5. Owner: Leased to - John Seeman
6. Address: 613 Hazel Street, Glendale, California.
7. Operator:
8. Address (Operator):
9. President, Owning Co:
- 9A. President - Operating Co:
10. Gen. Mgr:
14. Principal Minerals: Tungsten (gold).
11. Mine Supt:
15. Production Rate:
12. Mill Supt:
16. Mill - Type & Cap:
13. Men Employed: 6 to 10 men.
17. Power - Amt. & Type:
18. Operations - Present: Mining, milling and shipping scheelite concentrates.
19. Operations - Planned:
20. Number Claims, Title, etc: 18 claims, 9 of which are patented.
21. Description - Topography & Geography: Located high up in Huachuca Mountains, elevation 2,000 feet above foot of mountains; steep grade for 2 miles; well timbered. Average 24" rainfall - mainly July and August.
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25. Mine, Mill Equipment & Flow Sheet: Concentrating mill; Gyratory Crusher; Simons Disk Crusher, Tables.
Now operating.

26. Road Conditions, Route: Road south from Fort Huachuca, paved to Bright Spot Cafe, then 3 miles mine road in which gain 2,000 feet elevation. Road OK, but steep grades.

27. Water Supply: Ample water for milling and domestic use. Well timbered camp area.

28. Brief History: Has been steadily in operation making a high grade scheelite concentrate. Values in gold being stacked in tailings.

29. Special Problems, Reports Filed: Detailed Report by F. W. Royer, Mining Engineer, dated 12-26-1923 on file in office.

30. Remarks:

31. If property for sale - Price, terms and address to negotiate:

For Sale - See lessee for terms.

32. Signature: JOHN SEEMAN, Lessee
613 Hazel Street,
Glendale, California.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona
MINE OWNER'S REPORT

Date: November 16, 1941

1. Mine: TUNGSTEN REEF MINE
2. Location: 14 miles from Hereford, Arizona.
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7. Operator:
8. Address (Operator):
9. President, Owning Co:
- 9A. President - Operating Co:
10. Gen. Mgr:
14. Principal Minerals: Tungsten (gold).
11. Mine Supt:
15. Production Rate:
12. Mill Supt:
16. Mill - Type & Cap:
13. Men Employed: 6 to 10 men.
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18. Operations - Present: Mining, milling and shipping scheelite concentrates.
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20. Number Claims, Title, etc: 18 claims, 9 of which are patented.
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Estimated 380,000 tons fully developed
890,000 tons partly developed

24A. Dimensions and Value of Ore body: 4 to 20 feet in thickness. Values in tungsten (scheelite), gold and silver. Results from 12,000 tons milled showed 0.5% tungstic acid and \$2.00 in gold.

25. Mine, Mill Equipment & Flow Sheet: Concentrating mill; Gyrotory Crusher; Simons Disk Crusher, Tables.
Now operating.

26. Road Conditions, Route: Road south from Fort Huachuca, paved to Bright Spot Cafe, then 3 miles mine road in which gain 2,000 feet elevation. Road OK, but steep grades.

27. Water Supply: Ample water for milling and domestic use. Well timbered camp area.

28. Brief History: Has been steadily in operation making a high grade scheelite concentrate. Values in gold being stacked in tailings.

29. Special Problems, Reports Filed: Detailed Report by F. W. Royer, Mining Engineer, dated 12-26-1923 on file in office.

30. Remarks:

31. If property for sale - Price, terms and address to negotiate:

For Sale - See lessee for terms.

32. Signature: JOHN SEEMAN, Lessee
613 Hazel Street,
Glendale, California.

THE TUNGSTEN REEF MINE

COCHISE COUNTY

ARIZONA

I made a trip to the Tungsten Reef Mine on the 3rd of April, 1938, it being about a three hour drive from Tucson by Ft. Huachuca, but going by Tombstone makes a better trip and is a better road. The mine is located about seven miles from the Fletcher Store, - on the Carr Canyon road which leaves the main Ft. Huachuca-Bisbee highway about 12 miles from Ft. Huachuca. This Carr Canyon road is a road put in by the Forest Service, C.C.C. boys, about 1934. Much of it is intermediate gear work and is about thirty minutes from the store to the mine.

I found Mr. J.J. Seeman, (Post Office address Hereford, Arizona), operating his mill. He was very considerate and showed and told me, I believe, everything he thought would be of interest. He impressed me as a man upon whose word a man could depend entirely, and has had considerable experience in mining and milling, doing a great deal of leasing probably. He at one time had charge of the mill at Sierra Pinto, Sonora, Mexico.

He took a five year lease on this property in 1934, has rigged himself up a strictly rawhide mill, capable of putting through about $2\frac{1}{2}$ tons of ore an hour. The mill consists of a gyratory run by a Studebaker automobile engine, followed by a home made hammer mill driven by a 1910 Pierce Arrow. The life of the hammers in the mill is about 75 tons. The ore then goes to a vibrating screen of about 15 mesh; the over size from this to a 3-compartment jig; and the under-size to a couple of tables. The tables, jig, and screens are powered with a 4-cylinder Star engine. He only operates the hammer mill when he accumulates a batch of coarse, oversize ore. Most of the ore he brings down from the mine is fine. He says that his heads must go about 1% in tungsten to be of much value to him and estimates that his tails run about 1 pound per ton in very fine mineral which he is unable to catch on the tables. On a fairly good days operation he probably puts through from 20 to 25 tons, but estimates that he is only able to operate about $2\frac{1}{2}$ to $3\frac{1}{2}$ days of a week due to his various mechanical troubles of one kind or another. He figures that he has milled about 3,000 tons a year for the past $2\frac{1}{2}$ years, but he gave me no figures as to his production in that time excepting to say that his last sales consisted of 5 tons of 71% material. Most of his sales have been made to a party in Denver by the name of Taylor, who, he says, does better by him than J.G. Clark who is buying for the Vanadium Corporation, but I judged from what he said that he is only getting about \$18 a unit on a \$22 market.

Seeman still has about $1\frac{1}{2}$ years to go on his lease, but they have verbally promised him an extension for another 5 years; but he seems to feel skeptical as to whether they will make good on their promise as the ground is now owned in a couple of estates. The old owners, Porter and Clark, were miners and men whom he knew and had worked with, but they are now both dead and Mrs. Clark also died about a year ago. The Los Angeles lawyer who is administrator for the Clark estate, brought suit against the company for about \$8,000 which the Clarks had advanced the company for assessment work and necessary upkeep expenses. He obtained judgement, which now stands over the property. Seeman did not tell me the conditions of his lease, but I expect it is a straight 10% royalty with certain purchase clauses if he can meet them. He keeps up the assessment work and other necessary expenses. It seems that the company has promised to reimburse him to a certain extent in event they should sell or make a deal during the time of his lease. The Tungsten Reef Company now consists of the heirs of Porter and Clark, and a few small stock holders, among whom is Geo. Kreig, of Los Angeles, who is Secretary of the company, and who is important because of knowledge of the affairs of the company.

Going over the ground in the light of the Royer report, I would think that there was a very fair chance of his estimated tonnage being within reason; but my guess would be that his grade is about double what might be expected; in other words I would guess the to run about .25 tungstic acid.

Seeman says that about 1930 the Vanadium Corporation spent about \$35,000 in sampling and examining the property. There are four quite extensive cross trenches to be seen that are about a foot to a foot and a half deep, extending over the upper 7.3 acres that Royer tells of. Seeman says that these trenches were useless for sampling all the ore and I quite agree with his idea. He did not know who was the engineer, or who were the people responsible for the Vanadium Corporation's work. In fact, I question whether it may not have been the Molybdenum Corporation instead of the Vanadium Corporation who did the work.

In the fall of 1937 "Placers Management" had a surveyor and engineer on the ground for a couple of months, mapping and sampling. The engineer's name was Bramming. He expressed himself to Seeman as very much interested in the proposition, but said the company turned it down as being too small for them. As near as Seeman understood the "Placers Management" is a large dredging operating company; I could hardly see the connection between their customary work and a quartz mine as this to be.

Many of their survey stakes are in evidence and their map might be worth having if it could be gotten.

Much of the vein is exposed on the surface, but in many places it is covered by over burden or the uneroded altered limestone. 4 to 6 feet would probably account for most of the over burden where it occurs, though there may be places where it would be 15 or 20 feet to the vein. Seeman has done considerable underground work and you get the impression that the vein is made up of a hanging wall vein and a foot wall vein, sometimes three to five or six feet interconnected with links of quartz from 2 to 15 inches wide; in fact many places from 25 to 50% of the material between the hanging wall and foot wall vein would be vein quartz. In fact many of these connecting links give him some of his best grade ore. Again there are other places where it would appear that he might have three veins, foot, hanging and intermediate all being cross-linked. The scheelite, as would be expected, is irregular and spotted, but Seeman believes that the foot-wall and connecting links are probably of better grade than the hanging wall portion. The waste material between the hanging and foot wall portions of the vein is probably a badly weathered and altered limestone, is dark to black in color, light weight, porous, and probably represents the impure portion of the limestone. Seeman, naturally, has been prospecting for and mining the high grade portions that he has been able to find. But it is evident that the high grade and the low grade may be one place as well as another. He has found no system to follow in prospecting. Sometimes where he would start a little work in perfectly barren quartz he would get into high grade ore, so he says that he sees no reason why he could not expect the average grade ore to occur any place as well as any other place.

Walking around over the surface of the old pits would lead a person to become rather pessimistic of finding ore, but after going underground and seeing where he has worked, looking at it as against what he has evidently taken out, you can be more enthused that the entire body has a chance of making a low grade mill head. He has done considerable working of ore at the mine, throwing back into the gob chunks of quartz which were apparently barren and this is easier because of the ore breaking much finer than the unmineralized quartz. In fact his fines are so much higher grade that he sweeps with a broom the floor of his working drifts before leaving them. In his milling he is unable to save, or get paid for, any of the gold in the ore, but he firmly believes that all of the ore will average from \$1 to \$2 a ton in gold and silver and that if mining in a large way he could pay for the operation with the gold and silver alone. His idea of a larger operation

is to begin at the lower end of the vein showings, strip any over burden or remaining wall rock with a shovel and then work up grade on the vein itself; which idea does not seem out of place, within its limits.

A person named J.G. Clark has some surrounding and adjoining claims and also a small mill somewhere in the country, but he has not been able to do much, and Seeman says has tried very hard to get hold of the Reef mine.

Places through the vein blotches of galena are found. At present the galena is always thrown out, as it will contaminate their concentrate. He said the galena is not particularly high grade in gold and silver.

He expressed himself as believing there was plenty of water from their various springs to operate a 200 ton mill.

It would look to me as though the only way in which the property could well be sampled and checked for values would be to rig up a small mill and put down a number of test pits or shafts through the vein, and sample in 5 or 10 ton lots; or for that matter, put through the mill all the vein matter coming out of the pits. A portable compressor and truck would be needed for such work as this.

They are able to cut all the small pine timber that they need for stulls on the ground.

It would look as though the price they are asking for it at present, and the terms, are too high for the showing they have. But I believe it is something worth keeping in mind and watching in event they drop their sights and some one else does not take it up.

Heemans has working with him a son and a son-in-law named Reynolds. Reynolds looks after the mill and the son tries to take care of the hauling and handling of the material. Has a total of about 12 men on his payroll. I took it from the way he spoke that he was paying about \$3 $\frac{1}{2}$ a day. Says that he has made a little money in the operation since he has been there, but about as fast as he gets a few dollars ahead, some kind of accident happens around the mill or to the family to absorb it. Working all Mexicans. He is hauling the ore from the mine down to the mill about 3/4 mile in a model A dump truck, which is a wreck.

Suite 705, No 811 West 7th St.,
Los Angeles, California.

April 19, 1938.

Kindly return - Holt.

Mr. E.B.Holt,
Ford Hotel,
Phoenix, Arizona.

Dear Mr. Holt:

Acknowledging the receipt of your letter of the 5th inst., I beg to state that I am willing to recommend to the Board the sale of the mine property upon the following amendments, to-wit;

Sale price, \$160,000.00, payable \$25,000.00 at the time of the exercise of the option to purchase; remainder, or \$135,000.00, payable in six years from and after May 1st, 1938, by installments of \$22,500.00 each on said date and on the same date in the ensuing successive six years, until said balance is paid and satisfied. Provided, however, that the corporation shall be entitled to a royalty as heretofore fixed, and determined, in the option, the sum of which royalties for each year being equal to, and guaranteed to be equal to, said installments of the purchase price.

The gist of the foregoing suggestions is:

1. That the original down payment of \$35,000.00 is cut down to \$25,000.00, and the balance extended over a period of six years, instead of three.

2. The original agreement, or option, except as herein proposed to be amended, will be deemed to be in full force and effect.

The expiring date of the option is not far away, namely, the 1st day of May, prox., and I cannot hold out to you at this time any extension of the option beyond said date.

I thank you for Mr Morton's letter which was read with much interest. I feel that if his people are looking the class of property that we have, they would want to give it favorable consideration for a closer inspection. Mr. Morton's letter is returned herewith.

Very truly yours,

TUNGSTEN REEF MINES COMPANY

By

George Krieg
George Krieg, Secretary.

GK:c

*May 1938
White phones
TR 2186.
2 p.m.*

Ford Hotel, Phoenix, Arizona,
April 30, 1935.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Company,
Suite 705, 811 N. 7th St.,
Los Angeles, Calif.

Dear Mr. Krieg:

Referring again to your letter of the 19th of April, in which you revised terms etc. I mailed this letter to Mr. E. D. Morton, of the Eagle-Picher Company and he wrote me, under date of April 23rd, stating:

"We are in receipt of your letter of the 21st, enclosing Mr. Krieg's letter of the 19th.

"We are not interested in following up a deal on the Tungsten Reef mine at the present time. I have not entirely dismissed the idea of trying to work out an operation there; but it will involve much more preliminary work than taking a few hand samples and assaying them, and I know it will be several months before we can get down to considering it.

"We shall have to take chances that the property will still be open for a deal, should we later wish to investigate.

"If we should go to Mr. Krieg for a deal within any reasonable time, we will explain to him that we expect him to protect you in the outcome.

"The tungsten market is in a bad way right now and I have been unable to find anyone who seems to know what is happening.

"We are returning Mr. Krieg's letter."

Now, Mr. Krieg, my option expires tomorrow, May 1st, and I am not going to ask you to extend it. However, I wish to point out to you strongly that I like Mr. Morton's attitude in the matter and I believe it would pay you in the end to play along with him. Under present political and economic conditions, it is next to impossible to put over a mining deal no matter with whom one is dealing. Hence, I wish you would consider seriously what Mr. Morton has to say; for his company is by far the best "prospect" in this State to handle your property, should these people decide to investigate at a later time.

Thanking you for your cooperation and with kind personal regards, I am

Very truly yours,

cc - Al Morton
J C Besley
J J Beeman

Elgin B. Holt.

Suite 705, 811 West 7th St.,
Los Angeles, California.

January 31st, 1938.

Mr. E.B.Holt,
Catalina Hotel,
Tucson, Arizona.

Dear Sir:-

Tungsten Reef Mines Company, a corporation, hereby gives you the exclusive option or right for a period of ninety (90) days from date hereof, to purchase its mining properties and water rights, including a subsisting contract with John J. Seeman, consisting of nine patented and nine unpatented mining claims, situated in the Hartford Mining District, in the Huachuca Mountains, County of Cochise, State of Arizona, as more fully appears from the official records of said County, to which reference is hereby made for a particular description of said properties and water rights, for the hereby agreed sum of One Hundred Sixty Thousand Dollars, (\$160,000.00), payable as follows:

\$35,000.00 on or before ninety days (90) days from date hereof;

Remainder, or \$125,000.00, shall be paid at the rate of \$35,000.00 per year, computed from the date of said first payment, except that the final payment shall not exceed \$20,000.00.

Time is of the essence of said initial payment and failure or neglect to pay the same within the time above limited therefor, shall ipso facto terminate this option.

All of said deferred payments shall be paid out of the throughput of said mines, determined at the rate of 50¢ per ton, hereby guaranteed to equal \$35,000.00 each year of the three year period and \$20,000.00 during the last year.

Purchaser shall execute and deliver to Seller concurrently with the exercise of this option and said initial payment under it, a written obligation conditioned for the operation and maintenance of said mine; including an obligation to acquire and install thereon and therein the necessary equipment designed to treat the ore from said mine of a daily capacity of not less than 250 tons and to operate the same, unless restrained by strikes, riots or other unanticipated causes, until all of said deferred payments are severally paid and discharged; and such other and further matters as the Seller deem meet.

Your endorsed approval of the foregoing will constitute the acceptance of the foregoing option.

APPROVED:



Very truly yours,

TUNGSTEN REEF MINES CO.,

By


Secretary.

Ford Hotel, Phoenix, Ariz.,
April 5, 1936.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Company,
Suite 703, 811 S. 7th St.,
Los Angeles, Calif.

Dear Mr. Krieg:

I am herewith enclosing a letter I have just received from Mr. E. D. Morton, General Manager of the Eagle-Fisher Mining & Smelting Company in Arizona, by which you will note he states he visited your property and spent a pleasant day with Mr. Seaman on April 3rd.

You will also note his reactions were favorable and that he will submit the property to the Eastern officials of his company when they come to Tucson, etc., etc.; but he is afraid the cash and terms will frighten them away from a closer inspection; also that he will let me know the results of their consideration.

I am writing you about the matter for the purpose of putting you in direct touch with these people, who are by far the best prospects I know of in this State, as they are actively and successfully operating the Montana Mine, at Ruby, Arizona, and have ample funds at their command with which to carry out any work they may undertake, or might undertake, at your property.

The main bone of contention is the rather large \$35,000 cash payment you ask. However, should they go ahead and examine the mine and should it then meet their approval, I am sure they would be willing to make some arrangement with you whereby a reasonable amount of cash might be paid over when and if a final option is drawn.

In short, as this is a splendid chance to do business with responsible mining operators, I suggest that you write to Mr. Morton immediately indicating any new arrangement you might have in mind along the above lines, mailing me a copy of any and all correspondence. Should a deal finally result, Mr. Morton has agreed to see that we are taken care of along equitable lines. My reasons for asking you to get in direct contact with Mr. Morton is to save time and delay should I continue to handle all negotiations myself.

Very sincerely yours,

Elgin E. Holt.

cc - E. Morton
J. Seaman
J. Wesley

Ford Hotel, Phoenix, Arizona,
March 26, 1935.

Mr. Geo. Krieg, Secretary,
Tungsten Reef Mines Co.,
Suite 705, 511 W. 7th St.,
Los Angeles, Calif.

Dear Mr. Krieg:

For some time I have not written you; but am writing to advise that Col. Besley and I have been in close correspondence with our parties trying to put over a deal on your property. We have been hampered a great deal through the fear of tungsten operators that the tariff may be lowered on this metal as well as other metals. In which regard we have been advised that there is a conference now in session at Washington between Government officials, mine owners and others in order to determine just what action will be taken regarding the duties on metals. Of course, mine owners all over the United States are standing out for protective tariffs; but we cannot tell what will happen as Roosevelt and Hull seem to be committed to lower tariffs in order to encourage international commerce - many think at the expense of our own industries.

I am writing more particularly to advise that yesterday I had a talk with Mr. E. D. Morton, General Manager of the Eagle-Picher Mining and Smelting Company, now actively operating in this State at Ruby, Arizona. These people are reaching out for other mines with ample mill tonnage. Morton was greatly interested in my description of Tungsten Reef and asked me to mail him a copy of Royer's Report, which am sending him today. He said he would try to run over from Tucson personally next week, unless something unforeseen comes up to prevent, in order to give the mine the once over. If we could interest these people, they not only have ample money; but they are skilled mining operators and would make no mistake in the design of any mill they might erect to treat the ore. This, of course, is only one of the possibilities we have for making a deal. Col. Besley is now recovered from his accident sufficiently so he is beginning to attend to his correspondence again. He has also taken up this property with his own crowd and something may come up in this direction in our favor.

In short, we are doing all we can at this end to put a deal over that will mean money in the pockets of all concerned.

With kind personal regards, I am

Very truly yours,

Elgin Bryce Holt.

cc - Besley - Seeman.

Ford Hotel, Phoenix, Ariz.,
March 26, 1938.

Mr. E. L. Morton,
General Manager,
Eagle-Richer Mining & S. Co.,
P. O. Box 1268, Tucson, Arizona.

Dear Mr. Morton:

Per our conversation of yesterday, I am herewith enclosing copy of report on Tungsten Reef mine by Frank M. Royer, which kindly return at your convenience. I hold an option on this property in behalf of Col. J. C. Besley and myself, executed by George Krieg, Secretary of Tungsten Reef Mines Company, Suite 705, 811 W. 7th St., Los Angeles, Calif. Address of Col. Besley is 2101 E. Elm St., Tucson, Arizona.

Property is now being worked by J. J. Seeman, Hereford, Arizona; but Mr. Seeman lives at the mine and gets his mail at Hereford.

To reach property: Go to Fort Huachuca; thence 11 miles S. E. along Naco Highway to Fletcher's Store; thence up mountain to right 6 miles to property following a good road built and kept in order by Forest Service. The mine is located on extreme top of Huachuca Mountains in a nice little valley, at an elevation of 7,200 feet.

I am also enclosing copy of letter I wrote Mr. A. C. Steckel, Feb. 1, 1938, quoting price and terms, in which you will note purchase price from owners to ourselves is \$150,000. Also owners want \$35,000 cash on or before expiration of our option which occurs April 31, 1938. However we can get more time and am sure can arrange better terms all around if we can interest people able to go through with any deal in a large way, which mainly consists of building a mill of not less than 250 tons capacity.

We are asking \$200,000 for property which will give us 20% commission in the event of a deal. Hence, the total initial payment would be \$43,710. I met Mr. Krieg in Tucson during January and cautioned him against asking for a large down payment; but he insisted on getting at least \$35,000 cash in view of the large amount of ore now developed. If you are interested, in case you run out to mine, please advise me and I will do all I can to arrange terms to your entire satisfaction. In this regard, would suggest you go over to Los Angeles in order to deal directly with Mr. Krieg, in case you decide to have the mine examined.

This is I believe the largest body of milling ore now being offered for sale in this State. I rather think it will interest you and suggest strongly you look it over as soon as possible.

Very sincerely yours,

Elgin B. Holt.

cc - Col. J. C. Besley.

Catalina Hotel, Tucson, Ariz.,
February 2, 1938.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Company,
Suite 705, 811 W. 7th St.,
Los Angeles, Calif.

Dear Mr. Krieg:

I was very much pleased to receive the option on Tungsten Reef, which you kindly mailed me on January 31st. Yesterday, just as soon as your letter was in my hands, and after I had gone over it carefully, I wrote Mr. Steckel, enclosing a copy of the option with an agreement executed by me to transfer the same to him, provided he would comply with the terms thereof, and undertake the financing and operation of the mine in a large way; also that he mail me an agreement to protect Col. J. C. Besley and myself by adding a 20% commission to purchase price, same to be paid us pro-rata as and when payments are received by yourselves.

In my letter of instructions to Mr. Steckel, I also asked him to advise us immediately whether he was satisfied with terms and also whether he wants to go ahead with the deal or not; if so, to let me know at once just when he can send his engineer to examine the mine; that as we are having a mild winter, I do not think there will be any snow to speak of at property during February, etc. I also wrote him, in case he did not want to proceed in the matter, to return my offer at once, so we can deal with a strong New York group, we have interested in this property.

While the general terms of the option ^{are} reasonable, as to price, frankly, there is one serious defect, which I trust can be remedied if necessary, and that is the initial \$35,000.00 payment you ask to be paid on or before 90 days from date of option. I am just a little afraid that clause will more or less tend to discourage Mr. Steckel, or any other client, inasmuch as it will take nearly 3 months to examine the mine and get started on financing. It would have been much better to have granted 3 months within which to examine and accept or reject property; and if accepted, 3 months more within which to get work started and make the said initial payment. Suggest that you write me at once agreeing to this extension, if the same is deemed necessary by clients.

As I may leave here in a day or two for Phoenix, kindly address me care W. H. Lytle, Express Agent, Nogales, Arizona, as that is my one permanent address; then just as soon as I get a room in Phoenix, will write you giving my address there. In short, I will keep in close touch with all parties concerned in this matter; and if Steckel don't take property, we are in touch with people I believe will go ahead with the deal.

I have signed my approval of both the original and duplicate of option and herewith am returning the latter for your files.

Very sincerely yours,

cc - Seaman - Besley.

Elgin Bryce Holt.

Catalina Hotel, Tucson, Ariz.,
January 28, 1938.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Co.,
311 W. 7th Street ~~Bliss~~,
Suite 705, Los Angeles, Calif.

Dear Mr. Krieg:

I am writing again asking you to let me know what you have decided to do about the deal I have up with Mr. Steckel, concerning the Tungsten Reef Mine. I made a trip down into Sonora; but am again in Tucson stopping at the Catalina Hotel until I can dispose of this tungsten deal one way or the other.

Thanking you for an early reply, I am

Very sincerely yours,

Elgin Bryce Holt.

cc - JJSeaman
ACSteckel

Catalina Hotel, Tucson, Arizona,
January 8, 1938.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Company,
811 W. 7th Street Bldg.,
Suite 705, Los Angeles, Calif.

card 1/19/38

Dear Sir:

Referring to my letter to you of December 31st, 1937, I stated just as soon as I heard from my client, Mr. Steckel, I would let you know what he has to say.

I will preface my remarks by saying: I am now stopping at the Catalina Hotel, Tucson, Arizona, and expect to remain here during the winter months, at least; so a letter or wire directed to me at this address will reach me at any time.

Since coming here, I received a letter from Mr. Steckel, dated December 27, 1937, in which he stated he had received report by Frank S. Royer on Tungsten Reef, which I mailed him from Nogales on December 23rd. He stated: "This property seems to have some merit and will stand investigation. It is impossible for me, personally, to get away at this time, but I will have our Engineer from Denver look it over."

He further stated he had taken your property up with his associates in Pittsburg and suggests that I make him a proposition, including our commission, and if the proposition is fair, he believed his people would be interested in taking property over.

Now, Mr. Krieg, I believe this a splendid chance to make a deal on your property with responsible people who can provide such money as is needed to equip the mine with a large mill and put it on a paying basis. However, I am not inclined to ask Mr. Steckel to go to the expense of having the mine examined, until we can quote him a definite offer, which I am not in position to do at this time, inasmuch as you have not answered my letter of December 31st, in this regard.

In your letter of December 31st, you suggested that I come on to Los Angeles, inasmuch as all the officers and directors of the company are there, and that I would be able to obtain all the details regarding price, terms, etc.

In answer to the above suggestion, due to the fact that our client, Mr. Steckel, has already manifested a desire to have the mine examined by his engineer, and go ahead with the deal, if found reasonable, in case the engineer reports favorably, I suggest strongly, in order to save time and expense, that you talk the matter over with your associates, and write me immediately thereafter quoting price of property and terms, including Mr. Seemann's interest, plus a 20% commission to be paid Col. J. C. Beasley and myself, pro-rata as and when payments may be received by yourselves account purchase price. As we have made good headway at this end, I am now asking the cooperation of yourselves in the matter.

cc: JSeemann
ACSteckel
JBeasley

Very sincerely yours,
Elgin Bryce Holt.

KRIEG

State Hotel, Phoenix, Arizona,
December 31, 1937.

Mr. George Krieg, Secretary,
Tungsten Reef Mines Company,
811 W. 7th Street Building,
Suite 705, Los Angeles, Calif.

Dear Sir:

In answer to your letter of December 31st, I note Mr. Seaman, of Buxford, Arizona, has advised you of my communication of Dec. 18th, 1937, re- the Tungsten Reef Mine.

I have delayed answering until I could get a definite statement from my client, Mr. Steckel, of Carnegie, Pa. In this regard, since coming here, or that is yesterday I wired him asking for his decision about the matter and asking him when and if he could arrive here to visit property and, if the same meets with his approval, to go on to Los Angeles for a conference with yourselves, as you suggest; and today his Secretary wired that he was absent from Carnegie, but would be back next week. Today, I am writing him fully by airmail, requesting that on his return he wire me advising what he intends to do; so just as soon as I hear from him, will let you know what he has to say.

In the meantime, as Col. Bosley and myself have other clients to whom we would like to submit this property, it seems to me you could help us greatly if you would write me immediately quoting your exact terms, as to payments and terms. While both Mr. Steckel and our other clients have ample means of going through with any reasonable deal on a property of merit, we might as well face the fact now that it is going to take time in which to put over a deal; for in the first place, after any of our clients look the mine over, they will of course want time in which to examine and sample property and then time in which to raise necessary money, in case the mine stands up to what they want. Also, as to cash down payments, those, if any, must be cut down as low as possible, as hardly any moneyed crowd that I know will pay a large sum for the privilege of developing and equipping an old run down property.

In short, if you can see your way clear to do so, kindly write me as soon as possible outlining the following: 1. How long an option can you grant us now within which to examine property and, if satisfactory, within which to get finances together? 2. How much do you want for the mine, including Seaman's interest? 3. Please outline payments and terms. 4. Could you be willing to include in purchase price a 20% concession, to be not pro-rata as payments are received by yourselves?

Thanking you for an early reply, I am

Very sincerely yours,

cc - JJSeaman
JCHESLEY

Elgin Bryce Holt.

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

(02)

R. B. WHITE
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

SYMBOLS

DL = Day Letter
NM = Night Message
NL = Night Letter
LC = Deferred Cable
NLT = Cable Night Letter
Ship Radiogram

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

Received at 20-22 North Central Avenue, Phoenix, Arizona. Tel. 33173

USA9 25 NL 4 EXTRA=HEREFORD ARIZ 12 VIA NOGALES ARIZ 13 04

ELGIN HOLT=

06 - STATE HOTEL PHOENIX ARIZ=

COMPANY ADVISES ME GIVE YOU TO JANUARY FIFTEENTH NEXT SHOULD
MORE TIME BE REQUIRED A REASONABLE AMOUNT CAN BE ARRANGED
FOR=

J J SEEMAN.

THERE IS NO DEPENDABLE SUBSTITUTE FOR WESTERN UNION TIME

811 West Seventh Street Bldg.,
Suite 705
Los Angeles, California.

December 21st, 1937.

Mr. E. B. Holt,
State Hotel,
Phoenix, Arizona.

Dear Sir:-

Mr. John J. Seeman, at Hereford, Arizona, advises me of your communication to him of December 13th, 1937, in the matter of the Tungsten Reef Mine in the Huachuca Mountains, Arizona.

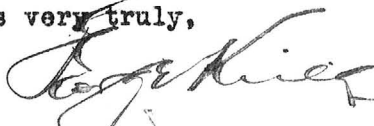
Apparently you have misconstrued the proposition submitted to you by Mr Seeman for the purchase of the Company's property.

The property is for sale, including Mr. Seeman's lease and bond, either for a cash price or on a term price basis.

In as much as all of the officers and directors of the Company are in Los Angeles, and further, that you may be able to obtain all of the details regarding price, terms etc., it would seem advisable, if you are sufficiently interested, to make a trip here to Los Angeles to discuss the matter further.

If you will advise me sufficiently ahead of time when you expect to arrive, I will endeavor to call a meeting of the Board of Directors to discuss the matter further with you at that time.

Yours very truly,



GEORGE KRIEG, Secretary,
TUNGSTEN REEF MINES COMPANY.

CC:

Mr. John J. Seeman,
Hereford, Arizona.

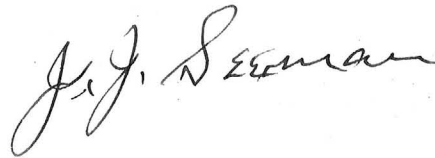
Hereford, Arizona.
December 24, 1937.

Mr. E. B. Holt,
State Hotel,
Phoenix, Arizona.

Dear Mr. Holt:

I received a letter from
Mr. George Krieg in which he enclosed a copy of a
letter sent to you, which is perfectly all right.

Yours truly,

A handwritten signature in cursive script, reading "J. J. Seeman". The signature is written in dark ink and is positioned below the typed name.

J. J. Seeman

Hereford, Arizona.
December 16, 1937.

Mr. E.B. Holt,
State Hotel,
Phoenix, Arizona.

Dear Mr. Holt:

Your letter of December 13th received and note what you say. I have written the Company in reference to the time Mr. Steckel is asking, a 6 months option. I doubt very much that they would grant that much time at this time.

I have written them the substance of your letter and asked them to give me an early reply. As to the time the Company would be willing to give them I cannot say off hand and therefore am writing them.

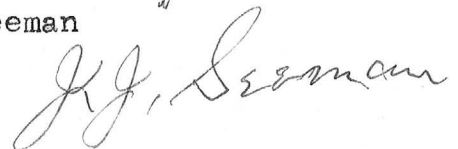
The only thing I have is my lease and bond which is still good for two years yet and as I told you with a verbal promise of five years extension of time.

What I had in mind, I think, I told you when you were here that the Company had made me an offer, a cash offer \$150,000.00 for the mine. And I figured if that amount could be raised in cash, that my part \$30,000.00, I can or will give reasonable time on and will allow a 10% commission.

What the Companys' answer will be, I do not know.

Yours truly,

J. J. Seeman



*Write Steckel letter
to come as soon as possible.*