



## CONTACT INFORMATION

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06/30/86

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: WESTLAKE MINE

ALTERNATE NAMES:

MERGED MINES PROPERTY  
DEL RAY SILVER  
WESTLAKE TUNGSTEN PROPERTY

GILA COUNTY MILS NUMBER: 108

LOCATION: TOWNSHIP 1 S RANGE 15 E SECTION 31 QUARTER SW  
LATITUDE: N 33DEG 18MIN 02SEC LONGITUDE: W 110DEG 51MIN 25SEC  
TOPO MAP NAME: PINAL PEAK - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

TUNGSTEN  
COPPER  
SILVER  
GOLD

BIBLIOGRAPHY:

ADMMR WESTLAKE MINE FILE  
WILSON, E.D. "TUNG DPSTS AZ" AZBM BULL 148,  
P. 29; 1941  
CLAIMS EXTEND INTO SEC 36-T1S-R14.5E &  
SEC 1-T2S-R14E

3850 1/4 SW  
(PINAL RANCH) 16

3685

3684

17°30"

GOVERNMENT SPRING 6.2 MI.

3682

3681

3680



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date July 31, 1939

Mine Westlake Tungsten

District Globe Mining District--Gila County.

Location Pinal Mts.--6 to 8 Miles south  
of Globe

Former name

Owner Mrs. B. H. Westlake

Address Globe, Arizona

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Tungsten- Lead and Gold

Men Employed none

Production Rate none

Mill: Type & Cap.

Power: Amt. & Type none

Operations: Present None--Except assessment work.

Operations Planned Trying to interest capital to develop and install mill.

Number Claims, Title, etc. 52 unpatented mining claims  
One 5 acre water right  
One fractional claim

Description: Topog. & Geog. Elevation between 5,000 and 6,000 feet -  
rugged mountains - heavily timbered.

Mine Workings: Amt. & Condition Numerous shallow shafts - open cuts -  
Assessment holes and short tunnels. Exposing a  
number of veins and ledges.  
No systematic development.

(over)

Geology & Mineralization Granite and related igneous rocks and Pinal schists.  
Mineralized veins - striking NE and SW. Also E and W. -  
Pegmatite dikes - Tungsten in the form of Wolframite - lead and  
galena with gold and silver in Quartz veins - Hematite is the  
accompanying iron mineralizer.

Ore: Positive & Probable, Ore Dumps, Tailings No appreciable tonnage or in dumps.

Mine, Mill Equipment & Flow Sheet none

Road Conditions, Route Good county roads direct to property.  
Mountain roads to various workings.

Water Supply Water runs in Russel Canyon - on property - 6 to 8 months of year.  
Several good dam sites to supply sufficient water for mill operations

Brief History 30 tons of tungsten ore milled at O'Brien Mill in Globe -  
giving  $4\frac{1}{2}\%$   $WO_3$  returns.

Special Problems, Reports Filed Letter from E. H. Westlake.  
Need mill and financing of development.

Remarks 14 mineralized ledges - showing Tungsten - lead - gold and silver - Needs  
development to warrant installation of mill.

If property for sale: Price, terms and address to negotiate. Priced \$160,000 - ten years  
\$300 minimum monthly payment - 10% royalty.

Signed.....From letter - E. H. Westlake.....

Use additional sheets if necessary.

make up owner's report  
on Blue Sheet

- 1- Waxlake Jungsten
- 2- Get map of patented  
claims -

Hefner  
Deduct from \$1.00

Mrs. Westgate  
% Mrs. Clive Braley  
Miami, Phone-----179-R

August 19, 1953

Mrs. B. H. Westlake  
Box 1831  
Globe, Arizona

Dear Mrs. Westlake:

We are returning herewith  
the Lund Report on the Westlake Tungsten Property  
as requested in your letter of July 31st.

Yours very truly,

R. I. C. Manning  
Director

vd

A

d

O

J

Globe, Arizona,  
July 31st, 1953.

Mr. Mark Gemmill,  
Field Engineer, Mineral Resource Dept.,  
Chamber of Commerce Building,  
Prescott, Arizona.

Dear Mr. Gemmill :-


I am sorry not to have kept my promise to mail you copy of the Lund report on the Westlake Tungsten Property. I went immediately up to the mine, and we became so absorbed in getting in the camp and drilling equipment that I lost sight of everything else.

I am forwarding to you the only copy I have of the report--the original was lost. Please return this copy to me after you have read it--make any copy from it that you care to; or if you wish me to send you a copy after its return to me, I will make the copy and send it to you.

My son expects to be drilling within the week, and I am looking forward to your early visit to the property.

If you will write me of your coming, we will meet you and show you the way--I think that it might be difficult for you to find our camp.

Yours very truly,

  
Brice H. Westlake.

Globe, Arizona,  
Box 1831.



September 5, 1950

Mr. B. H. Westlake  
Box 1831  
Globe, Arizona

Dear Mr. Westlake:

Your letter and sample arrived during my absence and the office sent the sample to the Arizona Bureau of Mines at Tucson for identification.

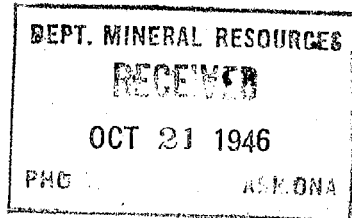
I do not see how it would be possible for any of us to visit your property before several weeks hence (we can only get around over the state once a year on our present budget) and I would suggest that you get some local engineer at Globe to make you a report.

The tungsten business looks better and there is quite an active demand.

Yours very truly,

Chas. H. Dunning  
Director

CHD:mh



Globe, Arizona,  
Oct. 18th, 1946.

Mr. J. S. Coupal,  
Arizona Title Bldg.,  
Phoenix, Arizona.

Dear Mr. Coupal :-

I trust that the enclosed will give the desired information.

I have about ten tons of ore on hand, which I intended to ship to Tucson; but just when I was ready to ship, was informed that the Ryan Bros. mill had closed down. Can you tell me anything about their future plans ?

Have been informed that party by name of Steinfelt in Tucson, buys tungsten ore, and contemplates building mill near Tucson, will you please give me any information you may have on this; and will thank you very much for information regarding the purchase of tungsten ore under the new stock-piling bill.

Have just opened up splendid ore, in 30 ft. cut on Tungsten hill. The three tons taken out, assayed 3.3% tungsten, \$2.10 gold, \$4.33 silver. Same grade of ore showing in the face of cut.

Am marooned here on the property--no car, and do not get down to Globe to any of the meetings, so am pretty much in the dark about what is going on.

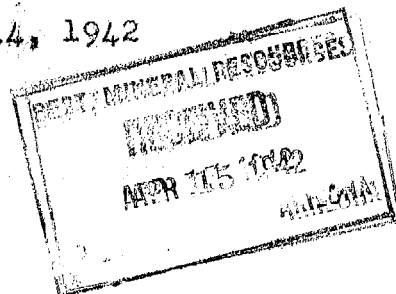
Thanking you for any assistance you may give me in locating ore buyer or milling facilities,

Yours very truly,

*Brian H. Westlake*

Box 1831.

April 14, 1942



Mrs. Brice H. Westlake  
Globe, Arizona

Dear Mrs. Westlake:

Mr. J. S. Coupal, of the State Department of Mineral Resources, has sent some mineral specimens of yours to us for identification (our file No. 19781).

The light brown minerals <sup>and dark</sup> and the light yellow-brown powder are all composed of the same thing. They are jarosite, which is an iron sulphate. I could not find any tungsten in any of this material.

The fact that some of the mineral is light brown and some is dark brown is due to a slight variation in the percentage composition, and the powdery form is composed of very minute crystals of the same mineral. The powdered material does not get into the voids and become consolidated into the harder rock, but both it and the harder rock were formed from the same sulphate-bearing solutions. The powdery material was probably formed later than the harder rock. The harder mineral may have been a replacement of original country rock by the sulphate solution, and when this rock was all replaced, the excess solution crystallized into the powdery material.

Yours very truly,

Robt. E. Heineman  
Mineralogist

REH:ep  
cc: Mr. Coupal ✓

August 22, 1941

Mrs. B. H. Westlake  
Globe, Arizona

Dear Mrs. Westlake:

Many thanks for your letter of August 18 and I hope that Mr. Borge may be able to readjust the relations in connection with the work on your tungsten property. I have not taken this matter up with the attorney I mentioned as I believe it most advisable to exhaust possible friendly negotiations such as you state have been started by Mr. Borge.

We will be glad to be of assistance to you at any and all times. With best wishes, I am

Very truly yours,

J. S. Coupal

JSC:LP

April 10, 1942

Dr. T. G. Chapman, Director  
Arizona Bureau of Mines  
University Station  
Tucson, Arizona

Dear Tom:

I am sending under separate cover two samples of ore from Mrs. Brice H. Westlake, Globe. Both of these samples come from the tungsten veins on the Westlake property.

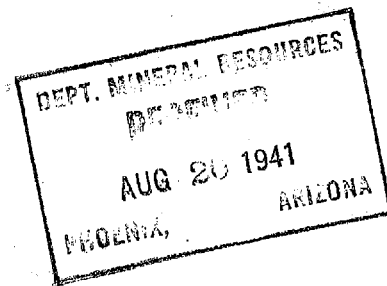
One has a fine yellow powder which may or may not contain some tungsten minerals. The other sample has two shades of brown dense material which we would also like to have identified. Mrs. Westlake has the peculiar theory that the powdered material somehow or other gets into the voids and becomes consolidated into the harder rock. I told her that this was probably the reverse of what actually happened and I would appreciate some mention of how the brown powder is formed.

Many thanks for your kind attention to this matter.

Very truly yours,

J. S. Coupal

JSC:LP



Globe, Arizona,  
August 18th, 1941.

Mr. J. S. Coupal,  
Title and Trust Building,  
Phoenix, Arizona.

Dear Mr. Coupal :

Intended to have telephoned you before leaving town this afternoon; but was on my way home before I remembered. Mr. Borge is making one more effort to bring this man Lund to his senses: if that effort fails, we are going to have to take very definite action against him.

If the situation becomes such that I have to cancel the contract; or Mr. Borge can not force him to remove the location notices from the Millvale property, I will most surely appreciate your assistance.

I will write you in few days, and let you know what the situation is--might possibly come to Phoenix or telephone you.

Thanking you very sincerely for your proffered assistance,

Yours very truly,

*B. H. Westlake*

August 1941

Mrs. Brice H. Westlake,  
Globe,  
Arizona.

My dear Mrs. Westlake:

I am enclosing herewith for your records a copy of mine owners report which has been prepared from the information furnished on your Western Group.

I shall be glad to submit a copy of this report to anyone making inquiry for a property such as yours.

Yours very truly,

Charles F. Willis  
Chairman, Board of Governors

CFW-jrf  
encl.

File under

Western Group.

(Jungsten)

Mrs BH Westlake

owner

---

When time is available

Make mine owners

report



17 June 1941

Mrs. Brice H. Westlake,  
Globe,  
Arizona.

My dear Mrs. Westlake:

In the absence of Mr. J. S. Coupal, I am taking the liberty of acknowledging receipt of your letter of June 15.

I shall be glad to call this letter to Mr. Coupal's attention at the first opportunity.

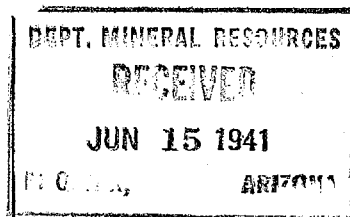
However, in the meantime, I should appreciate your filling out in detail the enclosed mine owners report and returning to this office so that the information may be available on your property.

Thanking you in advance, I am

Yours very truly,

Jess R. Fickas  
Secretary to Mr. Coupal

jrf



Globe, Arizona,  
June 15th, 1941.

Mr. J. S. Coupal,  
Director, Dept. Mineral Resources,  
Phoenix, Arizona.

Dear Mr. Coupal :

Complying with your suggestion, that I place on file with you, a description of the Western group of claims: this group consists of twenty-four claims--unpatented, unsurveyed. All of the claims are contiguous except the Anna, which is reserved for mill site for this group, and lies across Russell canon with the mill site right on the water. Highway runs clear across the Western group and right down to the mill site on the Anna.

The Black Wolf vein, the Porphrey Mt. vein, the Apex vein, the Big Boulder vein and the Centipede vein all cross this group; also two lead veins cross the group. In mill report which I have, five tons of ore from Black Wolf gave return of  $3\frac{1}{2}\%$  tungsten; three tons from Centipede vein (20 ft. tunnel) gave return of  $4\%$  tungsten, and  $3\frac{1}{2}$  tons from the Big Boulder gave return of  $4\frac{1}{2}\%$  tungsten. This ore was handpicked, but not to a very great extent.

The only developement on this group consists of 20 ft. tunnel on the Centipede, open cut and small caved shaft on the Black Wolf, open cuts on the Big Boulder, and small open cuts on various other claims.

Price on this group is \$60,000 net to me; \$100 on signing of contract; \$100 per month for the next two months, and thereafter \$200 minimum per month for duration of contract: same to apply on purchase price. Balance of purchase price to be paid out of royalty. Operations to be continuous until purchase price is paid.

With the roads, timber and water at hand, and with small mill on the Anna, I feel sure that small outlay of money will put this property on paying basis.

Work is progressing on the Moonshine and Millvale groups.

Thanking you in advance for any assistance you may give me in contacting parties looking for tungsten property,

Yours very truly,

*Brice H. Westlake*

7 November 1940

Mr. James K. Little  
802 Haas Building,  
Los Angeles, California.

My dear Mr. Little:

Complying with request contained in your letter of November 4, I am enclosing herewith a copy of mine owners report covering the WESTLAKE TUNGSTEN MINE located in the Globe Mining District, Gila County, Arizona.

I should suggest that you write directly to Mrs. Brice E. Westlake at Globe, Arizona, regarding an option and terms.

Assuring you of my desire to be helpful,  
I am

Yours very truly,

J. S. Coupal  
Director

JSC-jrf  
encl.

Send mistake report  
& suggest the price  
Buses for Thomas  
Johnson

JAS.K.LITTLE.

NOVEMBER 4th, 1940.

Mr.J.S.Coupal  
Director of Mineral Resources  
State of Arizona.

Dear Sir;

Information from Mr.E.J.Belleau, before he left Los Angeles that 50 claims known as the Westlake property was available, and if I contact you I could receive all the information.

Is it possible to secure an engineers report on the property, as I understand this is Wolframite property and runs pretty high in W.O.3.


Can you secure for Mr. Belleau and myself an option on this property, and under what terms can same be secured.

What is the distance from the property to the mill, and approx cost of milling.

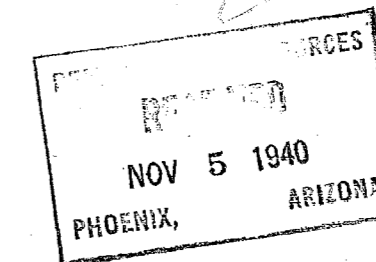
If the terms are satisfactory we will have our people inspect the property, but they will not inspect any property unless they have an option.

Hopeing that you will be able to fill this order, as we are still working and waiting for a report from our people on the ORD property.

yours very truly

  
JAS.K.LITTLE  
802 HAAS BLDG  
LOS ANGELES, CALIFORNIA

JL: wj.



August 11, 1939

Mr. B. H. Westlake,  
Globe,  
Arizona.

Dear Mrs. Westlake:

I thank you for your letter of July 31 describing your property.

I was glad to know of the determination of the tourmaline in the samples you submitted. I should also be interested to know how your new deal on your tungsten property is progressing. The next time I am in Globe, I shall try and get in touch with you regarding it.

Yours very truly,

J. S. Coupal  
Director

JSC-jrf

Globe, Arizona,  
Aug 24, 1950.

Mr. Charles Dunning,  
Phoenix, Arizona.

Dear Mr. Dunning:\*\*

I am forwarding to you a non-metallic material today. I am wondering if this substance may be used by some of the industrialist--such as oil refining co., potteries, glass people, ornamental brick, or for glazing enameled kitchen equipment.

Some eastern people are interested in my tungsten property, with whom I might make a deal if I could furnish them with some kind of a geologist's report. I wonder if your department could help me out on this. They write me that they are ready to sign up on the deal at once if I will furnish this report.

Thanking you for any assistance you may give me in trying to close this deal.

Yours very truly,

Globe, Arizona,  
Box 1831.

*B. H. Westlake*

*Sample sent to  
Aug. 25, 1950  
O.R.C.*

WESTLAKE GROUP

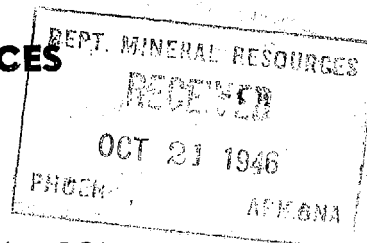
GILA COUNTY

NJN WR 10/19/84: Nick Eilertson, (c) visited and reported his Merchant #1-4 claims cover part of the Westlake Group (f) Gila County. The area would be that including samples 1, 3, 10 of the file's sample map. Mr. Eilertson's planned work is to clean out the east adit shown on the Pinal Peak topo. Surface samples brought in showed wolframite and scheelite mineralization in workable quantities.

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DEPARTMENT OF MINERAL RESOURCES  
State of Arizona  
MINE OWNER'S REPORT



Date Oct. 18th, 1946.

1. Mine:  WESTLAKE TUNGSTEN PROPERTY
2. Location: Sec..... Twp..... Range..... Nearest Town Globe  
Distance 11 mi. Direction south-west Road Condition good county road
3. Mining District & County: Gila Mining District, Gila County.
4. Former Name of Mine: Merged Mines, Inc.
5. Owner:  Mrs. B. H. Westlake  
Address: Globe, Arizona, Box 1831.
6. Operator: Blackard & Hood (lessees on two claims)  
Address: Globe, Arizona.
7. Principal Minerals: Tungsten, copper, silver, molybdenum, gold.
8. Number of Claims: Fifty Lode Lode Placer  
Patented..... Unpatented..... Unpatented.
9. Type of Surrounding Terrain: Very rugged  
Elevation at main workings, about 5,800 ft.; two tunnels at  
elevation of about 4,800 ft.
10. Geology & Mineralization: Country rock, granite and shist; minerali-  
zation is contained in twelve fissure veins, averaging in width  
from 3 to 25 feet, and running the full length of the claims,  
which lie in a solid block
11. Dimension & Value of Ore Body:  
Mill report on 30 tons sent to mill at Globe, assayed 4 1/2% tungsten  
Three and three-fourths tons shipped to Tucson, " 3.3 "  
Eight tons shipped to Met. Reserve, Phoenix, " 1.74 "  
About ten tons now on the ground, estimate will not fall below  
3 1/2% tungsten. On the ore shipped to Tucson, Mr. Finley, who  
sampled and assayed the ore, gave \$7.73 in gold.

12. Ore "Blocked Out" or "In Sight":  
 .....  
 .....  
 .....

Ore Probable: The number of veins, the length and width of same, and  
 ..... the ore which has been taken from surface cuts, would indicate  
 ..... an immense and valuable ore body.

13. Mine Workings—Amount and Condition:

No.	Feet	Condition
Shafts numerous	small surface	cuts.
Raises		
Tunnels	four old tunnels; two new tunnels, 6 and 20 ft.	
Crosscuts	60, 110, 200, 200 ft.	
Stopes		

14. Water Supply: Water in creek, 6 months in year, dam sites and water  
 ..... flow to conserve water for any kind of operations.

15. Brief History:  
 .....  
 .....  
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 .....  
 .....

16. Signature: *Mrs. B. H. Westlake*

17. If Property for Sale, List Approximate Price and Terms:  
 ..... Price \$160,000, reasonable terms; this quotation subject to former  
 ..... sale or lease.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT

Date Feb 28, 1947

1. Mine: Westlake Tungsten
2. Location: Sec. <sup>536</sup> S 1 Twp. <sup>T 1 S</sup> <sub>7 2 S</sub> Range. <sup>R 14 E</sup> <sub>R 14 E</sub> Nearest Town Globe  
Distance 12 Mi. Direction N Road Condition Good
3. Mining District & County: Globe Gila
4. Former Name of Mine: <sup>Silver</sup> Del Rey Mines Inc. Merged Mines Inc.
5. Owner: Mrs B. H. Westlake  
Address: Box 1831 Globe, Ariz
6. Operator: Same  
Address:
7. Principal Minerals: Tungsten
8. Number of Claims: 50 Lode  Placer   
Patented  Unpatented
9. Type of Surrounding Terrain: Rugged N slope at  
Pinal Mt. 12 Mi. from Globe El. of property
10. Geology & Mineralization:
11. Dimension & Value of Ore Body:

12. Ore "Blocked Out" or "In Sight":.....  
 .....  
 .....

Ore Probable:.....  
 .....

13. Mine Workings—Amount and Condition:.....

No.	Feet	Condition
Shafts.....		
Raises.....		
Tunnels.....		
Crosscuts.....		
Stopes.....		

14. Water Supply:.....  
 .....

15. Brief History:.....  
 .....  
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 .....  
 .....  
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16. Signature:.....  
 .....

17. If Property for Sale, List Approximate Price and Terms:.....  
 .....

MW-32

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

Date June 17, 1941

Mine - Western Group

Location

Mining District & County - Gila Co., Ariz.

Former Name

Owner - Brice H. Westlake

Address - Globe, Arizona

Operator

Address

President, Owing. Co.

President, Operating Co.

Gen. Mgr.

Principal Minerals - Tungsten

Mine Supt.

Production Rate

Mill Supt.

Mill: Type & Cap.

Men Employed

Operations: Present

NAME OF MINE: WESTLAKE ✓		COUNTY: GILA CO.
		DISTRICT: E
		METALS: W
OPERATOR AND ADDRESS:		MINE STATUS
DATE:		DATE:
5/1/44	Owner: Mrs. Bryce H. Westlake 718 W. McDowell Rd., Phoenix	5/1/44 Closed ✓
	Operator: Harry Dean 2017 N. Laurel Ave. Phoenix	

Operations: Planned

Number Claims, Title, etc. - 24 unpatented claims.

All claims are contiguous, except the Anna, which is reserved for mill site for this group, and lies across Russell Canyon with the mill site right on the water. Highway runs clear across the Western Group and right down to the mill site on the Anna. Black Wolf vein, Porphyry Mt. vein, the Apex vein, the Big Boulder vein and the Centipede vein all cross this group. Also two lead veins cross the group.

Description: Topography & Geography -

Mine Workings: Amt. & Condition - 20 ft. tunnel on the Centipede. Opencut and small caved shaft on the Black Wolf. Opencuts on the Big Boulder.

Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet. - Mill report shows 5 tons of ore from Black Wolf gave return of  $3\frac{1}{2}\%$  tungsten; 3 tons from the Centipede vein (20-ft. tunnel) gave return of  $4\%$  tungsten;  $3\frac{1}{2}$  tons from the Big Boulder gave return of  $4\frac{1}{2}\%$  tungsten. This ore was hand picked, but not to a very great extent.

Road Conditions, Route - Highway runs across Western Group and down to mill site on the Anna.

Water Supply

Brief History

Special Problems, Reports Filed

Remarks - With the roads, timber and water at hand, and with small mill on the Anna, I feel sure that small outlay of money will put this property on a paying basis.

If property for sale: Price, terms and address to negotiate  $\frac{1}{2}$  \$60,000 net; \$100 on signing of contract; \$100 per month for the next two months, and thereafter \$200 minimum per month for duration of contract; same to apply on purchase price. Balance of purchase price to be paid out of royalty. Operations to be continuous until purchase price is paid.

(SIGNED) Brice H. Westlake

Westlake Tungsten  
(old Saphire Del Roy)

50 claims

Lode, unpatented

S 36 T 7 S R 17 E <sup>1712</sup>

S 1 T 2 S R 19 E

Strike N E

Dip

Granite host

Tungsten Hill vein

Assay W O<sub>2</sub>  
Wollastonite Tungsten

CC

A 4

A 9 Pb

Zinc 0.9

Moonshine

27

Desire

17770

Tungsten mill  
either way  
costs 3000.

at 1725.00  
2,200 net  
discuss

at 30

return of 1750

1943

see with

Part 17-C

29

P. H. LUND ENGINEERING CORPORATION  
MINING ENGINEERING AND PETROLEUM  
GEOLOGY REPORTS ON OIL, GAS AND  
MINING PROJECTS

San Antonio, Texas, Office  
309 Marshall Street

December 1, 1939

REPORT ON MOONSHINE GROUP

OF

TUNGSTEN ORE MINING CLAIMS

INTRODUCTION:

1. The writer made an examination of the Moonshine Group of mining claims during the early part of July, 1939, for the purpose of determining the character and extent of the ore bodies, and recommend a milling and mining process for the most economical method of extracting the metallic values.
2. Accompanying on the examination, were J. R. Cano, of San Antonio, Texas, a disinterested party, and the owner of the property.
3. The examination required consider time on account of the rugged nature of the mountains in that locality. Considerable climbing had to be done in order to cover the entire vein system and study the geological conditions under which they occur.
4. The following report on findings is herewith submitted:

LOCATION:

5. The property in question is located at an altitude of approximately 6,000 feet A. S. L. on the Pinal Mountain Group which comprises a part of the Globe Mining District, Gila County, Arizona. The distance from Globe, and railroad facilities, is about twelve miles.

ACCESSIBILITY:

6. The locality in which this group of mining claims is located is reached over a well graded mountain road which, although steep and winding, permits of handling supplies in and ore out, by trucks, as well as automobile travel. Climatic conditions permit passing over the road at all seasons of the year.

PROPERTY IN QUESTION:

7. The property consists of eight full mining claims, each 600 feet by 1500 feet, and a fraction about 600 feet by 700 feet, containing altogether, approximately 170 acres of mineral land.
8. The names of the claims are as follows: The CONTACT, IRON HORSE, DIORITE, COLD SPRINGS, TUNGSTEN HILL, MOONSHINE, BONITO, OLD MILL, and the fraction SILVIA. These claims are held by "lode claim location" requiring annual assessment work.



GEOLOGY:

9. The rock formation (Country Rock) is Schistose, Granite, Syenite, and Quartz-porphry. Granite predominates and forms the foot wall of true fissure veins. A large quartz-porphry dyke appears close to the group of claims in question.
10. Decomposed outcrops of the veins contain large quantities of Gossen, commonly called in mining parlance "Iron Hat".

THE VEIN SYSTEM:

11. The veins on this property are of the true "Fissure" type, containing potent characteristics of remarkable persistancy in maintaining their course of parallelism in this and adjoining property.
12. True fissure veins have their origin in dislocations caused by extensive movements of the earth's crust and are, therefore, believed to extend indefinitely in depth, suggesting permanence and long life mines in the majority of cases.
13. The veins are exposed and outcrop two to ten feet in width the entire length of the claims in question.

DEVELOPMENT WORK:

14. Considerable work in the form of open cuts, trenches and shallow shafts, has been done on this property. All the work done on the ore veins and, consequently, a lot of ore is exposed and now laying on the surface.
15. The most work has been done on the Moonshine and Benito claims where several open cuts, adits and shallow shafts and short tunnels have been driven into the ore bodies, all of which show excellent ore deposits, carrying good values in the tungsten, silver and gold.

MINERAL VALUES:

16. The existing mineral values in the veins on this property, as far as the writer was able to determine from the amount of development work done, the deepest of which is not over 20 feet, consists chiefly of tungsten, but a considerable portion of the ore contains a good quantity of silver with some galena and a small quantity of gold, all of which can be recovered with proper milling equipment installed on the property.
17. According to information given by the owner, several mill run samples containing  $2\frac{1}{2}$  tons of ore each, were shipped from the property during December, 1929, The writer was shown a certified copy of the results obtained, copy of which is given herewith.

18. 1929:

December 8,	50 sacks from surface	3.6% $WO_3$
December 20,	$2\frac{1}{2}$ tons mill run	2.6% "
December 23,	$2\frac{1}{4}$ " " "	4.6% "
December 26,	$2\frac{1}{2}$ " " "	2.4% "

19. 1930:

January 14,	2 $\frac{1}{2}$	tons mill run	3.0% WO <sub>3</sub>
February 26,	2 $\frac{3}{4}$	" " "	4.7% "
February 28,	2 $\frac{3}{4}$	" " "	4.0% "

20. Average WO<sub>3</sub> (tungsten) contents -- 3.55%, which, at \$16.00 per unit (the price of tungsten at the time this examination was made) is \$56.80 per ton of mine run ore.

21. This ore was sampled by the Edward C. O'Brine & Co., metallurgists, who were at that time located in Globe, Arizona. The certificates are signed by W. X. Osborn, Superintendent.

22. As the ore from these mill runs was only tested for tungsten, other minerals value were not taken into consideration, but assays from fair average samples of the vein, taken by the owner as the development work progressed, gave 25 to 40 ounces per ton in silver and from .057 oz. to .17 oz. in gold per ton. Therefore, estimating the tungsten at \$16.00 per unit, the silver at 70¢ per ounce, and the gold at \$35.00 per ounce, the average gross mineral value of the ore on this property is as follows:

23. Gold . . . . .	. \$	3.95
Silver . . . . .		22.75
Tungsten . . . . .		56.80
	Total	<u>\$ 83.50 per ton.</u>

ADJACENT PROPERTY:

24. The property in question is joined on the south by a property belonging to Mr. Frank Samsel from which considerable tungsten ore has been mined and treated in a small concentration mill on the property.

25. Approximately a total of 300 tons of ore was mined and milled on the Samsel property and the tungsten concentrates sold to the General Electric Company. The concentrates had an average value of \$40.00 per ton in tungsten, but in as much as the milling facilities on the Samsel property were not up to date and not provided with machinery that would save the gold and silver contents of the ore, these values were lost in the tailings.

26. The vein system on the Samsel property is identical with that on the Moonshine group in as much as the veins continue from the Samsel mine into and through the group of claims under consideration.

ECONOMIC CONDITIONS:

27. Mining and milling facilities are favorable and transportation of supplies into the property, as well as ore to be hauled out, can be accomplished by trucks over a well graded mountain road.

28. Water for milling operations can be obtained from nearby creeks during the wet, or rainy, season and from shallow wells near creek beds during the dry season.

29. Small retaining dams could be erected at a small cost across creek channels which would help store surplus water for future mining and milling operations.
30. An abundance of timber for all mining and ordinary building purposes exist on the property. The climatic conditions of the locality admit of surface work as well as mill work during all parts of the year.

RECOMMENDATIONS:

31. The valuation of an ore body, the ascertaining of its continuity, and the recommendation for mining and milling operations and extraction of mineral values, are based on the amount of ore exposed in the development work done on the vein.
32. In the development work on this property, sufficient ore is exposed to warrant planning the installation of a reduction plant for the extraction of mineral values. The continuity of the veins is plainly indicated by the many outcrops on the property and the assurance of a long life mining operation is a reasonable certainty.
33. However, before recommending installation of a mill, and the class of machinery necessary for the treatment of the ore, it is necessary to open up veins to the extent of at least 25 feet or more in depth at several places along the veins for the purpose of ascertaining more thoroughly the character of the ore.
34. It is, therefore, recommended that a shaft be sunk twenty five feet or more, following the ore chute, on the Moonshine claim and at other suitable places on other claims. The ore thus exposed must be carefully sampled and mill samples sent to assayers and mining supply houses capable of analyzing the classes of mineral content of the ore.
35. The sampling must be done by a mining engineer who is an expert in that class of work, and too much stress cannot be emphasized on the importance of taking, arranging and identifying ore samples. The entire success of this, or any other mining enterprise, depends on the installation of the right kind of machinery in the reduction mills and that machinery cannot be selected until a thorough sampling of the ore body has been accomplished.

SUMMARY AND CONCLUSION:

36. In summing up this property, and existing conditions in connection therewith, we must take into consideration that, with all the desirable circumstances surrounding this proposition, it must be classed only as a favorable prospect.
37. However, it contains:
  1. A true fissure vein, two to ten feet wide, extending the entire length of all the claims.
  2. An enormous body of ore with predominating values in tungsten as well as minor quantities of gold and silver.
  3. An abundance of timber for all mining operations.
  4. Excellent transportation facilities for supplies and close proximity to shipping points.

38. Therefore, with due consideration to all circumstances surrounding this proposition, and from the facts disclosed by this examination, I am of the opinion that the Moonshine group of mining claims can be developed into an ideal mining property of long life duration, and without hesitation, I recommend complete development of the property and the installation of a suitable re-duction plant at as early a time as possible.

(Note following Appendix)

\*\*\*\*\*

APPENDIX

SUPPLEMENTARY REPORT - THE MOONSHINE GROUP OF MINING CLAIMS

February 15, 1940.

1. For the purpose of a better understanding of the mineral values on the Moonshine group of mining claims, and their potential development possibilities, copies of mill run results and assay certificates on ore taken from adjoining property is herewith given, together with flow sheet adaptable to the treatment of ores on the Moonshine property.

2. MILL RUN TESTS: (Approximately 30 tons of ore was used).

- a. Ore on which the following mill run tests were made was taken from the extension of the vein on the CONTACT claim, in the working tunnel of the Mt. MEDERA claim, which joins the CONTACT on the south. The CONTACT being the southernmost claim on the Moonshine group.
- b. The various mill run lots were sampled by the Edward G. O'Brine & Company, assayers and metallurgists, at that time located in Globe, Arizona.

3. Quantity of Ore	Name of Mining Claim	WO <sub>3</sub>	Value per ton is based on New York metal quotations of February 1, 1940.
50 sacks	Surface outcrop	3.6%	\$86.40
	Mt. Medara claim		
2 1/4 tons	" " "	2.6%	62.40
2 1/4 "	" " "	3.9	93.60
2 1/4 "	" " "	2.4%	57.60
2 1/2 "	" " "	4.6%	110.40
50 sacks	" " "	3.0%	72.00
2 1/4 tons	Del Ray Tunnel	7.3%	175.52
2 1/4 "	" " "	2.5%	60.00
2 1/4 "	" " "	3.0%	72.00
2 1/4 "	McDonald Claim	4.7%	112.00
2 1/4 "	" " "	3.0%	72.00
2 1/4 "	" " "	4.0%	96.00

Signed :

Edward G. O'Brine & Co.,  
Per Walter X. Osborn, Supt.

ASSAY SAMPLES:

4. This sampling was done by Mr. Gohring, examining engineer for the U. S. Reconstruction Finance Corporation, Washington, D. C., and by other mining engineers, as follows:

<u>5. Width of Veins</u>	<u>Description and Location</u>	<u>WO<sub>3</sub></u>	<u>Oz. Silver</u>	<u>Oz. Gold</u>	<u>Value per ton</u>
Samples taken by Mr. Gohring for R.F.C. appraisalment.					
2'	Manganese 150' north of main shaft	.45	2.20	.02	\$ 11.05
12'	Open cut	1.76	2.00	.02	43.18
20'	South section main shaft	.29	.48	.04	8.43
4'	Open cut 15' main shaft	.97	.78	.02	23.61
23'	30' south main shaft	.90		.02	21.40
12'	Main shaft 15' from surface at bottom cut	6.91		.02	159.63
22'	Drift at bottom of main shaft	.53		.02	12.89
2'	West cross-cut	.47	.63	.04	12.73
6'	Bottom of shaft	5.24	1.06	.04	120.52
6'	Open cut 70' tunnel	1.12			28.02
3'	Face 70' tunnel	.48		.04	12.44
12'	40' from portal 70' tunnel, Mn. ore	.41	5.48	.08	15.94
8'	Crumpler shaft vein	.58	5.02	.30	27.70
2'	Cut at creek		4.28	.30	27.70
* 2'	Face of 160' tunnel				
	* Samples No. 16 and 17, no values.				

6. SAMPLES TAKEN BY WALTER X. OSBORN - MINING ENGINEER

2'	Main vein above and W. of Crumpler shaft	2.22	2.96	.02	\$ 74.55
20'	Open cut S.B.E. claim		16.02	.16	17.93

7. SAMPLES TAKEN BY F. H. HAYES - MINING ENGINEER

6'	Bottom main shaft	7.00			161.00
12'	South face open cut 32' from main shaft	.80	1.30	.80	47.40
	Mill tailings	.70			16.10

8. SAMPLES TAKEN BY F. SAMSEL

	Grab samples from Juniper Tree 20' of surface	10.90		.26	17.49
	Grab sample 200' South S. Monument S. B. E.		4.25	.68	27.08
	Grab sample S. Monument S.B.E. Claim	52.69		.08	61.84
	Grab sample from 160' tunnel dump	.64	4.92	.08	12.98

From Tunnel on S.B.E.	.51	13.10	.02	15.80
Grab sample chlorides from surface, Crumpler shaft		2.23	.20	16.08
Grab sample from dump, oxide ore, South Crumpler claim		39.00	1.60	86.03
Grab sample from dump, oxide ore, North Crumpler claim		10.62	.50	25.35
6" Oxide seam, Crumpler shaft		20.02	.80	43.41
2" Vein, open cut 100' from Creek, S.B.E. claim		41.38	.60	52.86
Grab sample near monument S.B.E.		60.46	.40	66.33
Grab sample at shaft S.B.E.		19.50	.12	19.21
Chlorides open cut above tunnel		23.00	.02	18.40
12" Vein, oxide ore, Crumpler		6.74	.24	13.85

9. SAMPLES TAKEN BY WALTER X. OSBORNE - MINING ENGINEER

2' Vein, oxide seam, Crumpler		7.02	.16	11.00
Manganese ore above Crumpler shaft		3.06	.02	3.05
8" Seam above Crumpler shaft		2.69		2.07
2' Vein, prospect hole 200' South Crumpler		9.24	.74	33.00

10. A sample of tungsten ore from bottom of shaft on the Crumpler assayed by E. A. Jacobs, showed 33.2% tungsten valued at \$763.60 per ton.

The samples and mill run tests herewith shown contained tungsten of very high grade and practically free from impurities.

11. FLOW SHEET ADAPTABLE TO THE TREATMENT OF TUNGSTEN ORE ON MOONSHINE GROUP OF MINING CLAIMS.

12. Metallic contents of veins consist of Gold, Silver, Galena, Pyrite, Wolframite and Hubnerite.

13. The treatment of the ore is briefly outlined as follows:

(Concentration depends basically on the wet gravity methods, although the ore may be amenable to flotation process).

14. a. Breaking, crushing, screening and classifying.

b. Gravity concentration.

c. Roasting to magnetize pyrite.

d. Drying of tungsten concentrates.

15. It is recommendable to crush the ore down to around  $\frac{1}{2}$ " to  $\frac{3}{4}$ " in jaw crusher, sorting this material in a bin and then feeding it to a constant rate of speed to a ball mill with trommel screen on the discharge end so that 8-mesh oversize material would be returned to the mill for further regrinding and the undersize from the screen would go to Wilfley tables which would make a combined concentrate of all materials.

16. These concentrates would then go to a regrinding mill for uniformity of parts and operated in close circuit with a classifier to make a 65-mesh overflow.

The 65-mesh product would go to a flotation machine where the metallic contents would be taken out and the tailings would consist of the tungsten concentrates.

17. The tungsten concentrates should then be dried and slightly roasted and passed over a magnetic machine to remove materials if any, necessary to raise the grade of tungsten concentrates.

Respectfully submitted,

The F.H. Lund Engineering Corporation,

(Signed)

By: P. H. Lund, President.

NOTE:

The following assays were run after the attached report by Mr. P. H. Lund.

ARIZONA TESTING LABORATORIES  
ANALYTICAL AND CONSULTING CHEMISTS  
ASSAYERS, MINING ENGINEERS

Phone 3-6272

823 East Van Buren St.  
Certificate of Analysis  
Phoenix, Arizona. 8/23/43

P. O. Box 1888

No. 48579

Sample of tungsten ore received August 18, 1943

From Metals Reserve Company

Marked W. W. Snow, Engineer

Tungsten Lot P-3

Moisture

1.00%

Analysis on dry basis

Tungsten WO<sub>3</sub>

1.74% (\$50.46 per ton-tungsten  
at \$29.00 per unit as of  
8/1/50)

Respectfully submitted

(Signed)

Arizona Testing Laboratories  
Registered Assayers  
Claude R. McLean  
Chief Chemist.

The above assay was on a shipment of 8.22 net dry tons of tungsten ore from the Westlake claims 12 miles southwest of Globe, for which they received \$268.63, the shipment being paid for by the Metals Reserve Co.

\*\*\*\*\*

E. A. Jacobs  
Registered Assayer

Certificate of Assay  
Certificate No. 39991

30 South Main Street  
P. O. Box 1889  
Tucson, Arizona  
June 8, 1942

Sample submitted by E. Fernstrom

Serial  
102692

Sample Marked  
B. H. Westlake

Tungsten Trioxide 3.33% WO<sub>3</sub>

Very respectfully

E. A. Jacobs, Assayer

The above shipment of 3.76 tons of tungsten ore of 12.48 units at \$18.00 per unit brought \$224.64. The shipment was paid for by the E. Fernstrom Custom Mill, Tucson, Arizona.



*ead*

MW-32

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

Date June 17, 1941

Mine - Western Group

Location

Mining District & County - Gila Co., Ariz.

Former Name

Owner - Brice H. Westlake

Address - Globe, Arizona

Operator

Address

President, Owning Co.

President, Operating Co.

Gen. Mgr.

Principal Minerals - Tungsten

Mine Supt.

Production Rate

Mill Supt.

Mill: Type & Cap.

Men Employed

Power: Amt. & Type

Operations: Present

Operations: Planned

Number Claims, Title, etc. - 24 unpatented claims.

All claims are contiguous, except the Anna, which is reserved for mill site for this group, and lies across Russell Canyon with the mill site right on the water. Highway runs clear across the Western Group and right down to the mill site on the Anna. Black Wolf vein, Porphyry Mt. vein, the Apex vein, the Big Boulder vein and the Centipede vein all cross this group. Also two lead veins cross the group.

Description: Topography & Geography -

Mine Workings: Amt. & Condition - 20 ft. tunnel on the Centipede

Opencut and small caved shaft on the Black Wolf,  
Opencuts on the Big Boulder.

## Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet - Mill report shows 5 tons of ore from Black Wolf gave return of  $3\frac{1}{2}\%$  tungsten; 3 tons from the Centipede vein (20-ft. tunnel) gave return of 4% tungsten;  $3\frac{1}{2}$  tons from the Big Boulder gave return of  $4\frac{1}{2}\%$  tungsten. This ore was hand picked, but not to a very great extent.

Road Conditions, Route - Highway runs across Western Group and down to mill site on the Anna.

Water Supply

Brief History

Special Problems, Reports Filed

Remarks - With the roads, timber and water at hand, and with small mill on the Anna, I feel sure that small outlay of money will put this property on a paying basis.

If property for sale: Price, terms and address to negotiate - \$60,000 net; \$100 on signing of contract; \$100 per month for the next two months, and thereafter \$200 minimum per month for duration of contract; same to apply on purchase price. Balance of purchase price to be paid out of royalty. Operations to be continuous until purchase price is paid.

(SIGNED) Brice H. Westlake

MW-32

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

Date June 17, 1941

Name - Western Group

Location

Mining District & County - Gila Co., Ariz.

Former Name

Owner - Brice H. Westlake

Address - Globe, Arizona

Operator

Address

President, Owning Co.

President, Operating Co.

Gen. Mgr.

Principal Minerals - Tungsten

Mine Supt.

Production Rate

Mill Supt.

Mill: Type & Cap.

Men Employed

Power: Amt. & Type

Operations: Present

Operations: Planned

Number Claims, Title, etc. - 24 unpatented claims.

All claims are contiguous, except the Anna, which is reserved for mill site for this group, and lies across Russell Canyon with the mill site right on the water. Highway runs clear across the Western Group and right down to the mill site on the Anna. Black Wolf vein, Porphyry Mt. vein, the Apex vein, the Big Boulder vein and the Centipede vein all cross this group. Also two lead veins cross the group.

Description: Topography & Geography -

Mine Workings: Amt. & Condition - 20 ft. tunnel on the Centipede

Opencut and small caved shaft on the Black Wolf.  
Opencuts on the Big Boulder.

## Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

## Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet - Mill report shows 5 tons of ore from Black Wolf gave return of  $3\frac{1}{2}\%$  tungsten; 3 tons from the Centipede vein (20-ft. tunnel) gave return of 4% tungsten;  $3\frac{1}{2}$  tons from the Big Boulder gave return of  $4\frac{1}{2}\%$  tungsten. This ore was hand picked, but not to a very great extent.

Road Conditions, Route - Highway runs across Western Group and down to mill site on the Anna.

## Water Supply

## Brief History

## Special Problems, Reports Filed

Remarks - With the roads, timber and water at hand, and with small mill on the Anna, I feel sure that small outlay of money will put this property on a paying basis.

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(SIGNED) Brice H. Westlake

MW-32

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

Date June 17, 1941

Mine - Western Group

Location

Mining District & County - Gila Co., Ariz.

Former Name

Owner - Brice H. Westlake

Address - Globe, Arizona

Operator

Address

President, Owning Co.

President, Operating Co.

Gen. Mgr.

Principal Minerals - Tungsten

Mine Supt.

Production Rate

Mill Supt.

Mill: Type & Cap.

Men Employed

Power: Amt. & Type

Operations: Present

Operations: Planned

Number Claims, Title, etc. - 24 unpatented claims.

All claims are contiguous, except the Anna, which is reserved for mill site for this group, and lies across Russell Canyon with the mill site right on the water. Highway runs clear across the Western Group and right down to the mill site on the Anna. Black Wolf vein, Porphyry Mt. vein, the Apex vein, the Big Boulder vein and the Centipede vein all cross this group. Also two lead veins cross the group.

Description: Topography & Geography -

Mine Workings: Amt. & Condition - 20 ft. tunnel on the Centipede

Opencut and small caved shaft on the Black Wolf.  
Opencuts on the Big Boulder.

Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet - Mill report shows 5 tons of ore from Black Wolf gave return of  $3\frac{1}{2}\%$  tungsten; 3 tons from the Centipede vein (20-ft. tunnel) gave return of 4% tungsten;  $3\frac{1}{2}$  tons from the Big Boulder gave return of  $4\frac{1}{2}\%$  tungsten. This ore was hand picked, but not to a very great extent.

Road Conditions, Route - Highway runs across Western Group and down to mill site on the Anna.

Water Supply

Brief History

Special Problems, Reports Filed

Remarks - With the roads, timber and water at hand, and with small mill on the Anna, I feel sure that small outlay of money will put this property on a paying basis.

If property for sale: Price, terms and address to negotiate - \$60,000 net; \$100 on signing of contract; \$100 per month for the next two months, and thereafter \$200 minimum per month for duration of contract; same to apply on purchase price. Balance of purchase price to be paid out of royalty. Operations to be continuous until purchase price is paid.

(SIGNED) Brice H. Westlake

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

Date 17 June 1941

- 1. Mine
- 3. Mining District & County
- 4. Former name
- 7. Operator
- 9. President, Owning Co.
- 10. Gen. Mgr.
- 11. Mine Supt.
- 12. Mill Supt.
- 13. Men Employed
- 14. Operations: Present

Western Group  
Gila County  
Arizona  
Bruce H. Westlake

- 2. Location
- 6. Address (Owner)
- 8. Address (Operator)
- 9A. President, Operating Co.
- 14. Principal Minerals
- 15. Production Rate
- 16. Mill: Type & Cap.
- 17. Power: Amt. & Type

Globe, Arizona  
tungsten

- 9. Operations: Planned
- 20. Number Claims, Title, etc.

24 unpatented claims

All claims are contiguous, except the Anna, which is reserved for mill site for this group, and lies across Russell Canyon with the mill site right on the water. Highway runs clear across the western group and right down to the mill site on the Anna. Black Wolf vein, the Porphyry Mt. Union vein, the Big Boulder vein and the Centipede vein all cross this group, also two local veins cross the group.

- 21. Mine Workings: Amt. & Condition

20 ft tunnels on the Centipede open cut and small shafts on the Black Wolf. open cuts on the Big Boulder

Geology & Mineralization

Ore: Positive & Probable, Ore Dumps, Tailings

A. Dimensions and Value of Ore body

Mine, Mill Equipment & Flow-Sheet

Road Conditions, Route

Water Supply

Brief History

Special Problems, Reports Filed

Remarks

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

with the roads, timber + water at hand, and with mine all on the Anna, I feel sure that a small outlay of money will pay for this property on a paying basis.

Use additional sheets if necessary.

In mine report I have, 5 tons of ore from black wolf gave return of 3 1/2% tungsten; 3 tons from Antipell vein (26ft tunnel) gave return of 4% tungsten; and 3 1/2 tons from the Big member gave return of 4 1/2% tungsten. This ore was handpicked, but not to a very great extent.

Highway runs across western group + down to mine site on the Anna.

\$60,000<sup>00</sup> net; \$100<sup>00</sup> on signing of contract; \$100<sup>00</sup> per month for the next two months, and thereafter 200<sup>00</sup> per month for duration of contract. Balance of purchase price to be paid out of royalty. Continuations until purchase price is paid.

52: Signature Bruce H. Wisthaler



DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date July 31, 1939

Mine Westlake Tungsten

District Globe Mining District--Gila County.

Location Final Mts.--6 to 8 Miles south  
of Globe

Former name

Owner Mrs. B. H. Westlake

Address Globe, Arizona

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Tungsten- Lead and Gold

Men Employed none

Production Rate none

Mill: Type & Cap.

Power: Amt. & Type none

Operations: Present None--Except assessment work.

Operations Planned Trying to interest capital to develop and install mill.

Number Claims, Title, etc. 58 unpatented mining claims  
One 5 acre water right  
One fractional claim

Description: Topog. & Geog. Elevation between 5,000 and 6,000 feet -  
rugged mountains - heavily timbered.

Mine Workings: Amt. & Condition Numerous shallow shafts - open cuts -  
Assessment holes and short tunnels. Exposing a  
number of veins and ledges.  
No systematic development.

Geology & Mineralization Granite and related igneous rocks and Pinal schists.  
Mineralized veins - striking NE and SW. Also E and W. -  
Pegmatite dikes - Tungsten in the form of Wolframite - lead and  
galena with gold and silver in Quartz veins - Hematite is the  
accompanying iron mineralizer.

Ore: Positive & Probable, Ore Dumps, Tailings No appreciable tonnage or in dumps.

Mine, Mill Equipment & Flow Sheet none

Road Conditions, Route Good county roads direct to property.  
Mountain roads to various workings.

Water Supply Water runs in Russel Canyon - on property - 6 to 8 months of year.  
Several good dam sites to supply sufficient water for mill operations

Brief History 50 tons of tungsten ore milled at O'Brien Mill in Globe -  
giving 4 1/2% WO<sub>3</sub> returns.

Special Problems, Reports Filed Letter from D. H. Westlake.  
Need mill and financing of development.

Remarks 14 mineralized ledges - showing Tungsten - lead - gold and silver - Needs  
development to warrant installation of mill.

If property for sale: Price, terms and address to negotiate. Priced \$180,000 - ten years  
\$300 minimum monthly payment - 10% royalty.

Signed.....From letter - D. H. Westlake.....

Use additional sheets if necessary.

MW-15

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date 7/21/39

Mine *Wishlake Tungsten.*

District *Globe Mining Dist. - Gila County.*

Location *Paria Mts. 6 to 8 miles South of Globe.*

Former name \_\_\_\_\_

Owner *Mr. B.H. Wishlake*

Address *Globe, Arizona*

Operator \_\_\_\_\_

Address \_\_\_\_\_

President \_\_\_\_\_

Gen. Mgr. \_\_\_\_\_

Mine Supt. \_\_\_\_\_

Mill Supt. \_\_\_\_\_

Principal Metals *Tungsten Lead & Gold*

Men Employed *none*

Production Rate *none*

Mill: Type & Cap. \_\_\_\_\_

Power: Amt. & Type \_\_\_\_\_

Operations: Present *none - except assessment work.*

Operations Planned *Trying to interest capital to ~~use~~ develop and install mill.*

Number Claims, Title, etc. *52 unpatented mining claims  
one 5 acre water right  
one fractional claim.*

Description: Topog. & Geog. *Elevation between 5000 & 6000 feet - rugged mountains - heavily timbered.*

Mine Workings: Amt. & Condition *Numerous shallow shafts - open cuts - assessment holes and short tunnels exposing a number of veins and ledges.  
No systematic development.*

**Geology & Mineralization** Granite & related igneous rocks and  
fossil schists. Mineralized zones - striking N. & S.W.  
also E. & W. - Pyrite dikes - Tungsten in the  
form of wolframite - lead or galena, with gold & silver in  
Ore: Positive & Probable, Ore Dumps, Tailings quartz veins - Hematite in the  
appreciable accompanying iron mineralization.  
No drainage developed on ore dumps.

**Mine, Mill Equipment & Flow Sheet**  
none.

**Road Conditions, Route** Good county roads direct to property.  
Mountain roads to various workings.

**Water Supply** Water runs in River canyon - flows on property to the  
E. mouth of year. Several good dam sites to supply  
sufficient water for mill operations.

**Brief History** 30 tons of tungsten ore drilled at O'Brien mill in  
Glen - giving 4 1/2 % WO<sub>3</sub> return.

**Special Problems, Reports Filed**  
Letter from B.H. Motlake.  
Need mill & financing of development.

**Remarks** 14 mineralized ledges - showing Tungsten - Lead -  
Gold & Silver - needs development & transport  
for installation of mill.

**If property for sale: Price, terms and address to negotiate.**  
Price \$160,000 - Ten years \$200,000 monthly  
payment - 10% royalty.

Signed John Lister - B.H. Motlake -

Globe, Arizona,  
July 31st, 1939.

Mr. J. S. Coupal, Director,  
Dept. of Mineral Resources,  
Phoenix, Arizona.

Dear Sir :

Herewith I give you the information concerning the tungsten property, which consists of fifty-four claims, all of which are unpatented lode claims.

Good roads cross the property from northeast to southwest and from the southeast to the northwest.

All of the claims, except three, are heavily timbered; providing timber for every possible use.

Water runs in Russell canon, immediately pass the mill-site for six or eight months of the year; and in the canon and above the mill-site, there are several splendid dam-sites where water can be conserved for large operations.

There are about fourteen mineralized ledges on the group, with northeast-southwest trend, and to the best of my judgement, they are contact veins, fissure and pegmatite veins, and are from three to fifty feet wide. There are two fissure veins running east and west, and carrying galena with some silver and gold. Hematite is the accompanying iron in these veins.

The minerals in the northeast-southwest ledges are tungsten, copper, silver and some gold. The accompanying iron in these is a heavy sulphide. Owing to the heavy sulphide, combined with the moisture from rain and snow and the freezing and thawing in this district, the ore at the surface is much leached, particularly so, would be the copper and silver. Where the tungsten comes in a glassy unbroken quartz, the values remain. Thirty tons of this surface tungsten, milled in the O'Brien mill at Globe (a very little inefficient mill), gave mill return of  $4\frac{1}{2}\%$  tungsten. The O'Brien Co. milled the ore and bought the concentrates on their own assay and mill report; so I believe that one could count on this report being conservative.

It is a milling proposition; we do not figure that we have shipping ore: but with some depth, it is quite possible that the sulphides will carry copper and silver to pay to send direct to the smelter. It is my opinion that

with a modest expenditure for sufficient developement to reach below the leached zone, and for a small milling unit to start twith, the property will take care of all expenditures from there on.

The property is not open for contract at the present time; but should the present arrangements fall through, the terms for lease and option to buy would be the following:

Price of property, one hundred and sixty thousand (\$160,000) dollars: ten years in which to make full payment.

Three hundred dollars minimum monthly payments, beginning with signing of contract, continuing until full purchase price is paid.

Ten per cent royalty on all minerals removed from hte property; royalty to be free and clear of all mining, milling and other expense, except the smelter charges on ores or concentrates sent by lessees to smelter. Royalty and minimum monthly payments to apply on the purchase price; royalty for the month in which paid would apply on the minimum payment.

Assessment work, to protect the property under the Federal Mining Laws, to be completed by January 1st, of each and every year during the life of the contract, and an affidavit of labor to that effect to be placed of record on or before January 1st of each year.

I wish to note, that of the mentioned fifty-four claims, one is the five acre water-right, and one is a fraction of a claim.

Yours very truly,

  
Owner.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date 7-31-39

✓  
Mine Westlake Tungsten

Location Globe, Arizona

District

Former name

Address Globe, Arizona

Owner ✓ B. H. Westlake

Address

Operator

Gen. Mgr.

President

Mill Supt.

Mine Supt.

Men Employed

Principal Metals Tungsten, lead, gold

Mill: Type & Cap.

Production Rate

Power: Amt. & Type

Operations: Present

Operations Planned

Number Claims, Title, etc. 52 unpatented mining claims  
one - 5 acre water right  
one - fractional

Description: Topog. & Geog. All claims, except 3, heavily timbered

Mine Workings: Amt. & Condition

**Geology & Mineralization** 14 mineralized ledges trending N.E. and S.W., fissure pegmatite veins varying from 3' to 50' in width - one east-west vein carrying galena, gold, silver. The northwest bearing fissures carry tungsten

**Ore: Positive & Probable, Ore Dumps, Tailings** Copper, silver and some gold - surface ores much leached

**Mine, Mill Equipment & Flow Sheet** 30 tons of tungsten milled at O'Brien Mill in Globe giving  $4\frac{1}{2}\%$  returns - a milling proposition

**Road Conditions, Route** Good condition

**Water Supply** Water runs in Russell canyon six to eight months per year - several good dam sites

**Brief History**

**Special Problems, Reports Filed**

**Remarks**

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

Not for sale at present

Priced at \$160,000 - ten years

\$300 minimum monthly payments

10% royalty in all mineral removed excepting smelter charges - royalty

to apply on payment price - assessment work to be completed by lessee by Jan. 1

Signed..... B. H. Westlake.....

Use additional sheets if necessary.



northeastward-trending sill-like bodies of fine-grained dark-gray to black rock as much as 300 feet wide. Microscopically, this dark-colored rock is seen to be a diorite porphyry that has undergone considerable silicification.

Cutting the dark-gray intrusive on the west side of the canyon are two parallel quartz veins, 17 feet apart, that strike northwestward and dip  $80^{\circ}$  to  $85^{\circ}$  SW. When seen in May, 1941, they had been opened by surface cuts, by a lower adit, and by two adits some 50 feet higher up the slope; these adits are each more than 40 feet long. As thus exposed, the veins average about 8 inches in width within the dark-gray rock but are not traceable beyond its borders. Their filling consists of coarse-grained, shiny, grayish-white quartz with minor calcite and scattered masses of tourmaline, hematite, wolframite, and sparse scheelite. A few small specks of copper stain are apparent in places. The wolframite is to form fairly coarse particles, commonly up to an inch in diameter, surrounded by thin crusts of scheelite. The vein walls show alteration to coarse sericite.

Some 100 feet farther north, a short adit has been driven on a similar parallel vein, which appears to contain more abundant tourmaline.

On the east side of the canyon, a 30-foot adit has opened a quartz vein similar in strike and dip to those on the west side. This vein ranges in width from less than an inch to more than a foot and cuts both the dark intrusive and the tilted beds. It shows much iron stain, but nothing was learned as to its tungsten content.

Surface equipment includes a small gravity plant, a compressor, and an 800-foot aerial tramway connecting the camp with the end of the road. Water is obtained from the bed of the canyon, whose altitude here approximates 5,000 feet.

#### PINAL MOUNTAINS

##### SAMSEL CLAIMS

The Samsel group of sixteen unpatented claims is on the southwestern slope of the Pinal Mountains, 14 miles by road from Globe. In 1940 these claims were held by Frank Samsel and under lease to the Pinal Tungsten Mines, Inc.

This ground was located for gold, silver, and lead deposits many years ago. Intermittent work has been done on its tungsten deposits since about 1924, and several tons of concentrates have been produced. Equipment includes a 600-foot aerial tram and a small gravity mill. Water is obtained from a spring and a shallow well.

This part of the Pinal Mountains has been carved into steep-sided, southwestward-draining canyons tributary to Mineral Creek. Pre-Cambrian Pinal schist, intruded on the northwest by Madera diorite and granodiorite, is the prevailing formation.

The principal vein occurs in a fissure that strikes N.  $25^{\circ}$  to  $30^{\circ}$  E., dips about  $80^{\circ}$  NW., and is traceable for some 3,000 feet. It has

been complexly faulted and cuts metamorphosed sericitic schist that strikes and dips about parallel to the vein. The vein filling consists of granular, glassy, grayish-white quartz, ranging from a thin seam to 4 or 5 feet in thickness, in which tungsten occurs as rather small particles of wolframite. Other minerals in the quartz include pyrite, galena, and gold and silver in unidentified form. Oxidized iron and lead minerals are locally prominent in the outcrops. This vein has been stoped for a length of 60 feet by a depth of 20 feet from the surface.

Early in 1940 the Pinal Tungsten Mines, Inc., completed a 280-foot adit designed to cut the principal vein at a point northeast of the stope and some distance below the surface workings. This adit penetrates some thin bodies of pyritic molybdenite and terminates at a fault that strikes N.  $50^{\circ}$  E. and dips  $65^{\circ}$  to  $75^{\circ}$  NW.

##### WESTLAKE CLAIMS

The Westlake group of fifty unpatented claims is on the northern and southwestern slopes of the Pinal Mountains, some 10 miles by road from Globe.

Many of these claims were located long ago for silver and copper. During 1917-29, while held by the late Jerome Clark, the Del Rey Silver Mines Company and the Merged Mines, Inc., were formed to exploit them. When visited in June, 1940, the group was held by Mrs. B. H. Westlake who had acquired it in 1929. In June, 1941, it was reported to have been taken over by the Moonshine Group Mining Company.

Ranging in altitude from about 4,500 to 6,000 feet, this region is well wooded and fairly well watered. It is made up largely of pre-Cambrian Pinal schist intruded in places by Madera diorite and granodiorite.

The claims cover several veins of prevailing northeastward strike and northwestward dip. They consist principally of granular glassy grayish-white quartz, locally with bodies of pyrite, galena, chalcopryrite, chalcocite, hematite, and gold and silver in unidentified combination. Wolframite, locally with sparse scheelite, occurs at several places, particularly in the Big Boulder and Centipede veins, which are in the southwestern part of the group, and in the Moonshine area, in the eastern part.

Up to June, 1940, development of the veins had been limited to a few short adits and shallow surface openings.

##### OTHER DEPOSITS

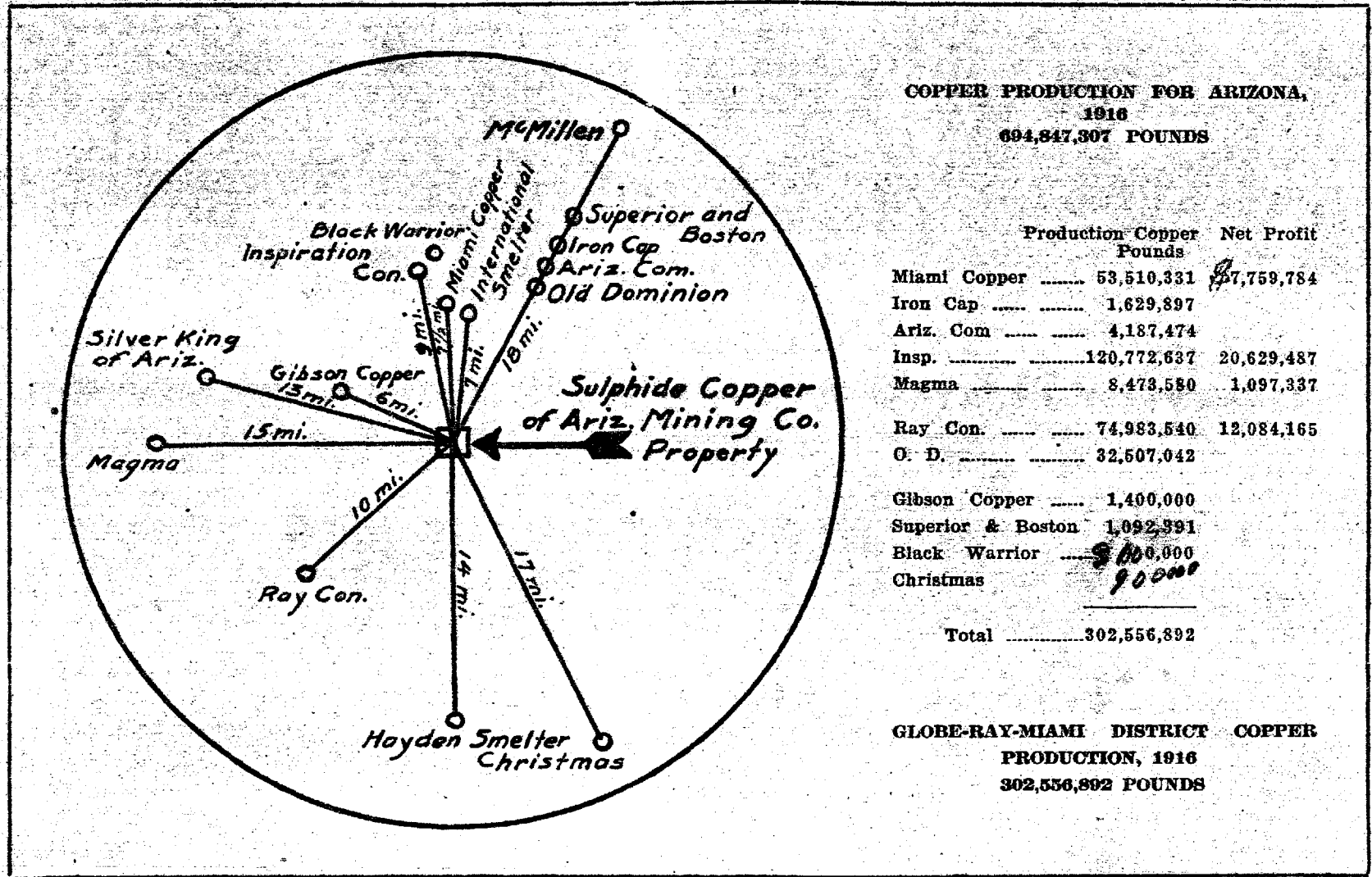
Tungsten mineralization is reported to occur also in the Doak and Bobtail mine areas in the southern part of the Pinal Mountains.

#### PINTO CREEK REGION

##### WAGNER CLAIMS

The Wagner group of ten unpatented claims is on lower Pinto Creek, 23 miles by road, via Horrel's ranch, from Miami. When visited in March, 1940, these claims were held by V. E.

Westlake Claims  
 Gila Co MILS 108



**COPPER PRODUCTION FOR ARIZONA,  
 1916  
 694,847,307 POUNDS**

	Production Copper Pounds	Net Profit
Miami Copper	53,510,331	\$7,759,784
Iron Cap	1,629,897	
Ariz. Com.	4,187,474	
Insp.	120,772,637	20,629,487
Magma	8,473,580	1,097,337
Ray Con.	74,983,540	12,084,165
O. D.	32,507,042	
Gibson Copper	1,400,000	
Superior & Boston	1,092,391	
Black Warrior	900,000	
Christmas	90,000	
<b>Total</b>	<b>302,556,892</b>	

**GLOBE-RAY-MIAMI DISTRICT COPPER  
 PRODUCTION, 1916  
 302,556,892 POUNDS**

%	CLAIM	%	CLAIM	%	CLAIM	%	CLAIM
1 1.00 WO <sub>3</sub>	MILLVALE #2	26 2.29 WO <sub>3</sub>	TEXAS	42 1.00 WO <sub>3</sub>	TEXAS	58 78.00 Pb	PB
2 1.08 "	SYLVIA	27 1.78 "	TEXAS	43 .96 "	"	59 46.89 Pb	"
3 1.14 "	MILLVALE #2	28 8.00 "	"	44 1.12 "	"	60 12.69 Cu	BILL
4 2.34 "	CENTPEDE	29 2.00 "	"	45 .58 "	"	61 22.03 Cu	"
5 2.4 "	SYLVIA FRACTION	30 6.91 "	"	46 1.00 "	"		
6 2.6 "	MT. MADERA	31 2.10 "	"	47 .58 "	"		
7 3.0 "	MOONSHIRE	32 .96 "	"	48 50.8 "	"		
8 3.6 "	TUNGSTEN HILL #2	33 3.10 "	"	49 .5 "	SILVER BELL		
9 4.0 "	IRON HORSE	34 40.0 "	"	50 .64 "	"		
10 4.18 "	MILLVALE #2	35 5.24 "	"	51 10.6 oz. Ag.	"		
11 4.6 "	DIORITE	36 3.20 "	"	52 82.36 oz. Ag.	"		
12 4.7 "	CONTACT	37 1.12 "	"	53 33.88 oz. Ag.	"		
13 10.10 "	MILLVALE	38 .75 "	"	54 22.20 oz. Ag.	"		
14 3.9 "	MT. MADERA	39 .45 "	"	55 19.35 oz. Ag.	"		
15 2.4 "	"	40 1.20 "	SILVER BELL	56 5.22 % Cu.	"		
16 4.6 "	"	41 .41 "	"	57 10.00 % Pb	"		
17 3.0 "	"						
18 7.3 "	DEL REY TUNNEL						
19 2.5 "	"						
20 3.0 "	"						
21 4.7 "	TUNGSTEN HILL						
22 3.0 "	"						
23 4.0 "	"						
24 .99 "	TEXAS						
25 3.60 "	"						

