



## **CONTACT INFORMATION**

Mining Records Curator  
Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

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Arizona Department of Mines and Mineral Resources Mining Collection

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02/24/86

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SURPRISE VENTURE

ALTERNATE NAMES:

BIG RED

MARICOPA COUNTY MILS NUMBER: 395

LOCATION: TOWNSHIP 2 N RANGE 7 E SECTION 9 QTR. C  
LATITUDE: N 33DEG 31MIN 50SEC LONGITUDE: W 111DEG 38MIN 31SEC  
TOPO MAP NAME: GRANITE REEF DAM - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:

TUNGSTEN-(M) W03 CONTENT -

PRIMARY

GOLD-(M) LODE-BYPRODUCT

BIBLIOGRAPHY:

ADMMR SURPRISE VENTURE FILE

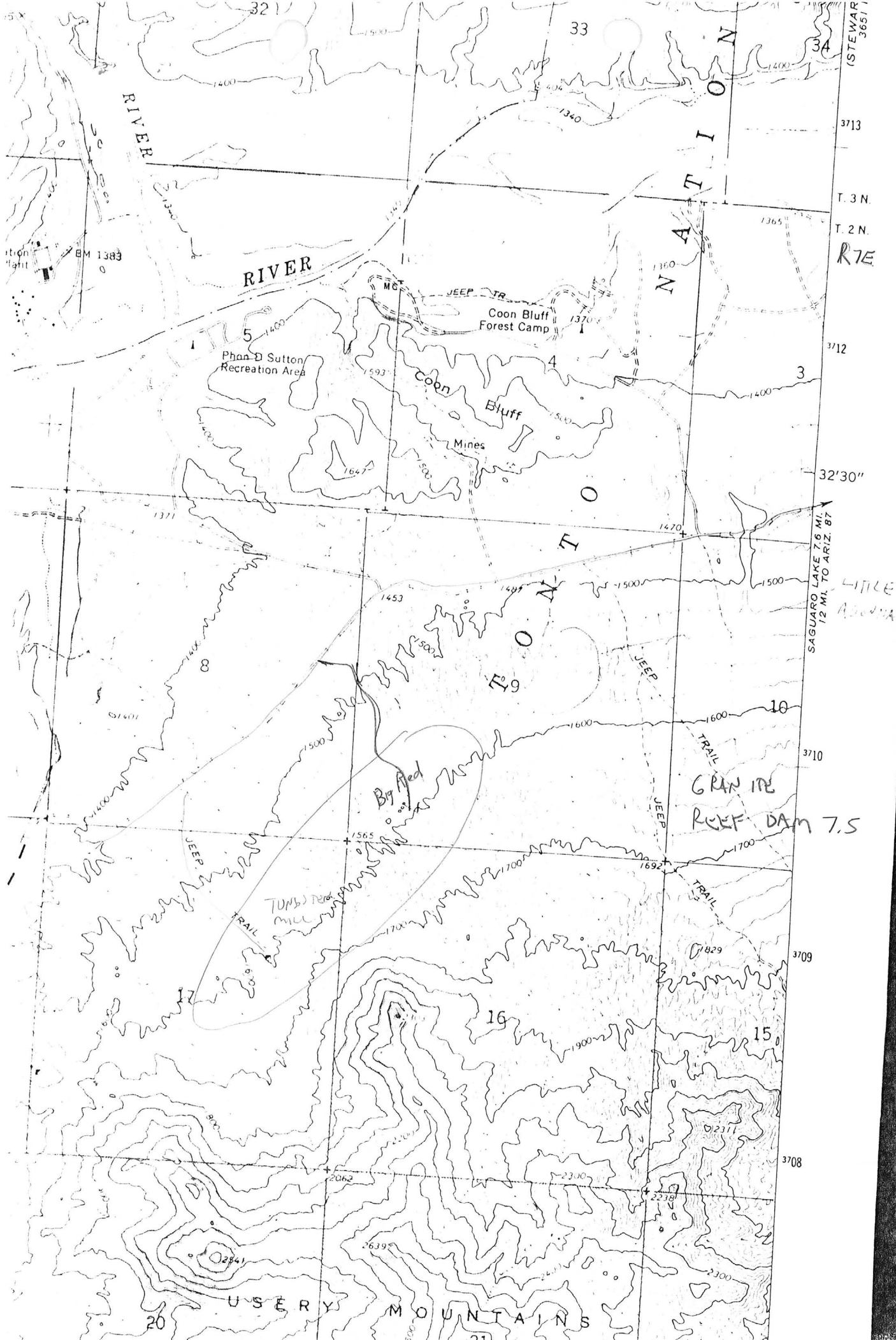
~~DECLARED NULL & VOID DEPT OF INTERIOR 8/72~~

SURPRISE VENTURE CLAIMS

MARICOPA COUNTY  
T2N R7E Sec 9

MILS Index # 395

USGS Granite Reef Dam, Az. 7.5 (Included in file)



(STEWART 3651)

T. 3 N.

T. 2 N.

R7E

SAGUARO LAKE 7.6 MI.  
12 MI. TO ARIZ. ST.

LITTLE  
AGUADA

GRANITE  
REEF DAM 7.5

USERY MOUNTAINS





SURPRISE VENTURE (A) LLC  
MARICOPA CO  
K

## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Edward Z. Fox, Director

### **NOTICE OF THE PRELIMINARY DECISION TO ISSUE AN INDIVIDUAL AQUIFER PROTECTION PERMIT**

Pursuant to Arizona Administrative Code, Title 18, Chapter 9, Article 1, the Director of the Arizona Department of Environmental Quality intends to issue an individual Aquifer Protection Permit to the following applicant(s):

Public Notice No. 28-94AZAP  
Big Red Mine  
Riggs Resources Corporation  
4029 West Hidalgo  
Phoenix, AZ 85041

On or about July 7, 1994

Aquifer Protection Permit No. P-102770

The proposed facility is located in Sections 9 and 17 of Township 2N, Range 7 E, Gila and Salt River Baseline and Meridian in Maricopa County, approximately 2 miles east of Granite Reef Dam. The facility will consist of an open pit and a small gravity separation plant. The pit material is relatively soft and will be loosened by mobile equipment. The loosened ore material will then be loaded into a truck and hauled to the processing plant. The first step at the processing plant will be to screen out the boulders. The material that passed through the screen will then be crushed to a fine gravel size. The next step will be to add water to the crushed material to form an ore-water slurry. This slurry will be the feed material to the centrifugal separators. The separators will produce a heavy sand concentrate and a waste sand material. The concentrate will be shipped off-site for further processing, while the waste sand material will be dewatered and transported back to the pit.

The processing facility is fairly small and will treat approximately 48 tons of ore pre day. The permit will limit the plant to processing a maximum of 90 tons per day. Also the plant can not use any chemicals in the separation process, and specifically it can not use any cyanide, frother or collector.

The aquifer will be protected by utilizing a concrete pad under the slurry and separators, and the settling ponds for the waste sand material will be concrete lined.

Water monitoring will consist of three parts. The first part will be to establish what the ambient water is in the mine area. Because the ground water in the mine area is very deep, this will be accomplished by sampling stream flows in the mine area during storm events. The second part, process solution sampling, will be used to determine if there are any potential

pollutants in the process water; and if there are pollutants, how concentrated are they. The third part will be to monitor to see if there is any solution release from the facility. Ground water wells will be dug below the facility to detect any solution release.

The permit and related materials are available for public review Monday through Friday 8:00 a.m. to 5:00 p.m. at the Arizona Department of Environmental Quality, Aquifer Protection Program Section, 3033 N. Central Avenue, 4th Floor, Phoenix, AZ 85012.

Persons may submit comments or request a public hearing on the proposed action, in writing, to Patrick Finton, ADEQ, APP Mining Unit, 3033 N. Central Avenue, Phoenix, AZ 85012 within thirty (30) days from the date of this notice. Public hearing request must include the reason for such request.

*Andy Kiggo*

**AMERICAN INFORMATION SERVICE**

**BIG  
RED  
MINE**

## HISTORY

Andrew J. Riggs made the original tungsten discovery, and filed a tungsten claim as Surprise Venture Mining Company with the Bureau of Land Management in the early 1970s. The mine was under development, and a shaft had been sunk in Section 17, when bordering land was withdrawn from mineral exploration in anticipation of construction of the proposed Orme Dam on the Salt River.

Plans for the Orme Dam have since been dropped, and in 1980, Riggs filed a lode claim with the Bureau of Land Management as Big Red Mining Company, claiming all minerals.

The claim is on file with the Bureau of Land Management, Public Land Records Office, 2400 Valley Bank Center, Phoenix, Arizona, 85073, lead numbers 102053-102055. (See enclosures)

While it would have been possible to reopen the claim on Section 17 by sinking a new shaft 50 feet or more from the border of the Bureau of Land Management withdrawal area, it was determined that it would be less expensive to strip mine an outcrop on claim 6, Section 9. The mill is presently located near the old mine shaft on Section 17, less than a half mile from the source of ore.

The claim has been surveyed. Big Red Mining Company is certain that it is operating outside the Bureau of Land Management withdrawal area, and in accordance with regulations.

The U. S. Forest Service, Mesa Ranger District, Tonto National Forest, 26 North MacDonald, Mesa, Arizona, 85201, has issued the necessary operating permits under Operating Plan #12-80-03-019. The permit has been renewed as required. (See enclosures)



ANDREW J. RIGGS

Andrew J. Riggs, 4029 W. Hidalgo, Phoenix, Arizona, 85041, (602+237-3396), has been a prospector and miner since his early 20s. He was formerly associated with his father-in-law, Charlie Pickering, in projects in the Cripple Creek, Colorado area, and in several Arizona locations.

He is 47, married to Jo Anna Riggs, and has lived at his current address for the last 13 years. He is the father of two married children.

Riggs is presently employed by Carnation Dairy. He is maintaining his regular employment while developing the Big Red Mine to the point that income will allow his full time attention.

John Gregory, Business Manager, 7459 E. Capri, Mesa, Arizona, 85208, has no active role in the day to day operation of the mine, other than to file appropriate papers with governmental agencies in a timely way.

Others associated with Riggs in the development of Big Red Mining Company are craftsmen, mechanics, electricians and others with the skills necessary to select, erect, maintain and operate the equipment required to develop the mine further. They, like Riggs, receive no compensation. They, too, will be devoting their full time efforts to operation of the mine as that becomes financially feasible.

# AMERICAN INFORMATION SERVICE

## BIG RED MINING COMPANY

Big Red Mine is a lode claim, discovered by Andrew J. Riggs of Phoenix, Arizona in the early 1970s. It is located approximately 45 minutes east of downtown Phoenix, by paved road, on U.S. government land in the Tonto National Forest.

The land is legally described as Sections 8, 9, 16, 17, Township 2 North, Range 7 East, GSR Meridian, Arizona, in the Goldfield Mining District of Arizona.

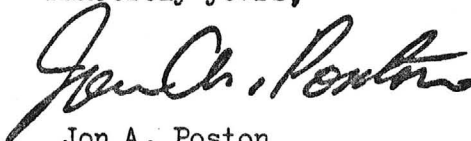
The claim on file with the Bureau of Land Management is for all minerals. Principal production is expected to be tungsten, (Wolfram), with some traces of silver and gold.

Big Red Mining Company has been gradually bringing the claim into production through the investment of personal funds, time, and effort. Riggs believes the mine can ultimately be brought into full production through gradual development of the claim, as is being done now. If that is necessary, he is prepared to do so. Riggs is determined not to incur debt using his claim as security, and thereby risk the loss of the claim, under any circumstance.

However, he is convinced that assay tests and work performed on the claim so far now justify full production. American Information Service shares the belief that it is economically justifiable, both to Big Red Mining Company, and to a potential investor, for Big Red Mining Company to share the proceeds of the mine in perpetuity in order to obtain the capital required to go into full production.

It is that proposal that is before you today. We urge your prompt and careful consideration.

Sincerely yours,



Jon A. Poston

JP:sjp  
May 28, 1983

709 South Toltec • Mesa, Arizona 85204 • (602) 833-4807

# ANDREW J. RIGGS FINANCIAL STATEMENT

December 2, 1982

## ASSETS

4/W drive truck with welder, air compressor	\$5,000.00
Front end loader	5,000.00
1973 6 yard dump truck	4,000.00
10 KW generator	1,500.00
15 KW generator	3,000.00
5 KW generator	1,000.00
Diamond jar crusher (12 x 36)	6,500.00
Pioneer roll crusher (40 x 20)	5,500.00
Garden of Denver roll crusher (7 x 5)	3,500.00
Wifley concentrating table	8,500.00
3,000 gallon water tank	800.00
Converter	2,000.00
10 ton hopper and auger	2,000.00
Chicago Pneumatic 80CFM air compressor	1,500.00
Ford winch truck	1,500.00
1975 International Tractor	3,000.00
Flat bed trailer	2,000.00
1964 3/4 ton Ford truck	1,000.00
1966 Plymouth	500.00
1975 Toyota	3,000.00
Boat and trailer	800.00
One-half acre of property and mobile home (Phoenix)	40,000.00
66 passenger school bus	2,000.00
Camper	1,000.00
Ingersoll Rand rotary drill	1,500.00
900 tons raw tungsten ore	<u>88,200.00</u>
TOTAL ASSETS	\$162,300.00

## LIABILITIES

Due on mobile home (residential)	1,485.00
Personal loan	<u>2,826.56</u>
TOTAL LIABILITIES	\$4,311.56
NET WORTH	\$157,987.44

## GEOLOGY AND ASSAY REPORTS

A recent government survey of the Big Red Mining Company claim (see page 33) reports "intense pale blue fluorescence", a characteristic indicating the presence of tungsten.

Assay reports are attached, also indicating the presence of tungsten in samples taken over a period from 1969 to December of 1982. The assay reports also show, in some cases, traces of gold and silver.

Also attached is a letter from Kelsey L. Boltz, Vice President of Nuclear Dynamics, dated 1972, and repeated here in part for readability. Boltz says "I observed the presence of indigenous scheelite mineralization which in several of the said locations appeared to be quite intense". Mr. Boltz is a mineral consultant, presently with Century Capital Corporation, 777 East Thomas Road, Phoenix, Arizona, 85014, 602+266-1131. (See page 34).



### Geology & Mineralization

The Usery Mountains are almost entirely composed of a coarse grained, almost pegmatitic granite dated as pre-cambrian in age by Wilson, Moore & Pierce. <sup>1/</sup> This source also maps a Laramide granitic intrusion in section 19 about 2 miles south west of the subject lands but was not investigated by this writer.

The lands investigated are composed almost entirely of the above mentioned coarse grained granite. Feldspar crystals up to 2" in length are common and the rock contains a large proportion of Biotite. Although this indicates a relatively deep seated origin, I believe this granite was near the top of the magma at the time of solidification because of minor schist inclusions - up to  $\pm 100'$  in long dimension - which are found scattered through the presently outcropping granite.

A swarm of small, discontinuous dikes which phase between aplite and quartz trend northeasterly from approximately the center of section 7 at least into the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of section 9. This band cannot be traced continuously on the surface but can be picked up intermittently over this strike length by float rocks.

Whether the aplite-quartz complex is genetically related to the Laramide intrusion to the south west is not known; however, this "belt" strikes toward it.

The granite near the aplite-quartz dikes has been altered and bleached and shows some iron staining. The Limonite staining in the bleached areas is probably from biotite altered to pyrite to limonite.

These bleached and altered zones show scattered yellow and pale blue fluorescence under a black light. Some of the quartz stringers which cut the zones containing scattered fluorescence show intense pale blue fluorescence.

### Improvements

The only improvements of a mining nature on the land is a shaft 10' x 12' in cross section which dips  $\pm 50^\circ$  from vertical and strikes S 39 E. This shaft at present is partially filled but is open for about 17.5' from the collar.

### Sampling

The claims were checked on the nights of August 28 and September 21, 1972, with a black light to determine the areas of best mineralization

<sup>1/</sup> Geologic map of Maricopa County, Arizona Bureau of Mines 1957.



UNION CARBIDE CORPORATION  
METALS DIVISION

PINE CREEK OPERATIONS • BISHOP, CALIFORNIA 93514

May 18, 1981

Mr. Andy Riggs  
Big Red Mining Company  
4029 W. Hidalgo  
Phoenix, AZ 85041

Dear Mr. Riggs:

The samples of tungsten ore submitted May 7, 1981 contain:

No. 1 ..... 0.27%  $WO_3$

No. 2 ..... 0.19%  $WO_3$

Yours very truly,

UNION CARBIDE CORPORATION  
METALS DIVISION

*George H. Brewer*  
George H. Brewer  
Metallurgist

GHB:cc

cc: C.R. Kurtak

**IRON KING ASSAY OFFICE**  
**ASSAY CERTIFICATE**

BOX 247 - PHONE 632 7410  
HUMBOLDT, ARIZONA 86329



ASSAY  
MADE  
FOR

Big Red Mining Co.  
Andy R. 88's  
4029 W. Hidalgo  
Phoenix, Az. 85011

Nov 17, 1982

[illegible]

## CHARGES

31.50

**ASSAYER**

ARIZONA STATE  
UNIVERSITY

DEPARTMENT OF CHEMISTRY

TEMPE, ARIZONA 85287

December 7, 1982

Mr. Andy Riggs  
Big Red Mining Co.  
4029 W. Hidalgo  
Phoenix, AZ 85041

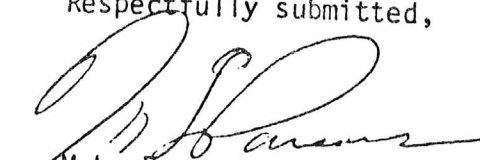
Dear Mr. Riggs,

This constitutes my report on the emission spectrographic analysis of your samples.

	Jar #1	Can #2
Majors > 1% (by weight)	Si, P, Mg, W, Fe, Ti, Ca	Si, P, Mg, W, Fe, Ca
Major-Minor ~ 1%	Al	Al, Zr
Minor 0.01-1%	Pb, Cr, Ni, Bi, Be, Cu, Na, Zr, Mn	Pb, Cr, Ni, Cu, Na, Ti, K, Mn
Minor Trace ~ 0.01%	V, Zn, Co	Zn, Co
Trace < 0.01%	Sn, Ag	Sn

If you have further questions, please don't hesitate to contact me.

Respectfully submitted,



M.L. Parsons  
Consulting Chemist

MLP/vrr

Encs.

# ECONOMICS

Investigation of the Big Red Mining Company claim has proceeded to the point where full-scale mining and processing operations are warranted. C. R. "Ray" Kurtak of Union Carbide Company, Bishop, California, 93514, has quoted a current market price of \$98.00 per 20 pound unit, at 15% purity. General circulation news media publications recently estimated that this price will increase by about four percent per year for the foreseeable future.

This does not take into account the fact that the leading world producers are Communist China, Russia, North Korea, South Korea and the United States, an important factor in a time of instability. Tungsten is essential to the national defense. Only a small part of world production goes into lamp filaments. More than nine tenths of the output is used in making high speed tool steel alloys for machining tools.

The economics are clear. On the basis of assay reports showing one-percent tungsten (see page 40), one ton of ore can be expected to yield 20 pounds of 15% pure ore with a value of \$98.00, to make a conservative estimate.

The most conservative estimate of the available raw ore deposit is 1,000,000 tons. However, it should be noted that the apex mining law will allow Big Red Mining Company to follow the vein to its point of depletion, and total reserves are likely to be far above 1,000,000 tons.

Big Red Mine has a current capacity to produce and process 24 tons of raw ore a day. The company wishes to bring this to 250 tons a day by expanding the mill and mine operations, and going to a 24-hour, 6-day a week schedule. Should demand warrant, and the reserve allow it, Big Red Mining Company would hope to reach 1,000 tons a day in twelve months.

Based on the lower production figure, gross revenues would be \$7,350,000.00 yearly.

To recapitulate the goals:

Daily raw ore processing target in 90 days	250 tons
Processed ore at 15% purity	5,000 pounds
Sold at \$98 per 20 lb. canister	\$24,500 weekly gross income
300 operating days, allowing 12 days for shutdowns, holidays, repairs.	\$7,350,000 annual tungsten gross
Raw ore extracted yearly	75,000 tons
Minimum mine life	13.3 years

### DEVELOPMENT REQUIREMENTS

Substantial additional equipment is required to expand Big Red Mining Companies tungsten mining and milling operations to allow the company to process 250 tons of raw ore per day.

Additional equipment required:

One 180 kilowatt generator	\$21,000
One each jaw and roll crushers	\$50,000
One centrifuge (gold recovery)	\$10,000
One bulldozer/loader, two dump trucks	\$80,000
Crawler drill, compressor, tools	\$15,000
Mine construction, mill setup	\$10,000
Pumps, tanks, water truck	\$10,000
Mine and mill engineering	\$2,000
Operating capital, 90 days	<u>\$30,000</u>
 TOTAL CAPITAL REQUIREMENT	 \$228,000

# AMERICAN INFORMATION SERVICE

## PROPOSAL

Big Red Mining Company proposes to offer a 1% (one percent) share of its gross revenue, prior to reductions for taxes, fees, operating expenses, and any and all other costs and charges, in perpetuity, in return for a cash investment of \$228,000.00.

Funds would be used solely for the purchase of equipment and for operating expenses to allow Big Red Mining Company to reach production and processing of 250 tons of tungsten ore per day.

Big Red Mining Company is prepared to pay 1% of gross revenue quarterly, or on any other mutually agreeable basis, commencing 90 days after receipt of a cashiers check or other acceptable negotiable instrument, and signature of appropriate legal documents.

Given the most conservative estimates, return on investment would be \$73,500.00 per year, for a period of 13.3 years, and a total return of \$975,550.00. These estimates do not take into account potential additional revenues from gold, silver or other minerals.

Additional information may be obtained by contacting:

Jon A. Poston, American Information Service, 709 S. Toltec, Mesa, Arizona 85204, 602+833-4807, or,

Andrew J. Riggs, Big Red Mining Company, 4029 W. Hidalgo, Phoenix, Arizona, 85041, 602+237-3396.

Your prompt consideration and action are invited.

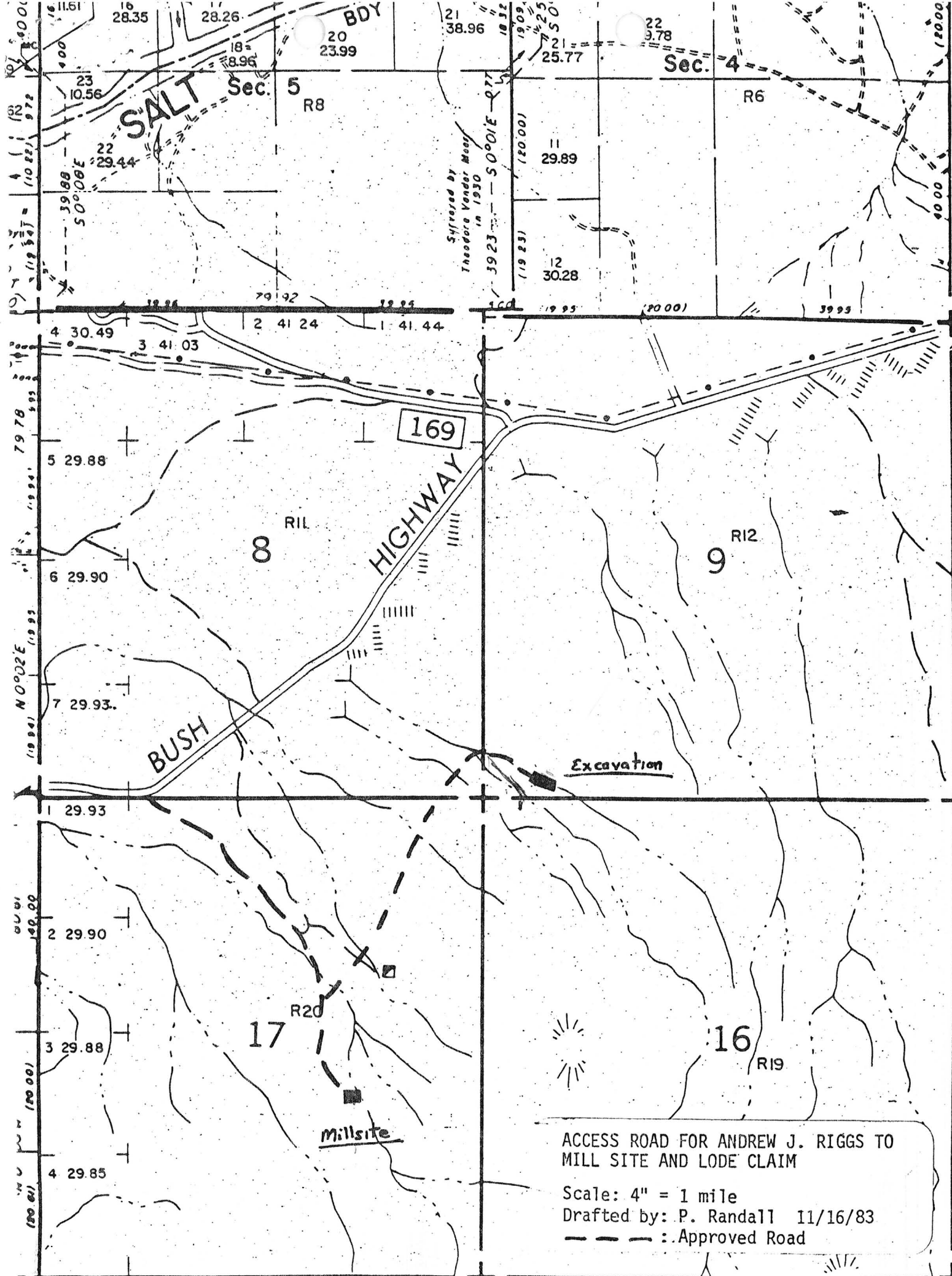
Sincerely yours,



Jon A. Poston

May 28, 1983





ACCESS ROAD FOR ANDREW J. RIGGS TO  
MILL SITE AND LODE CLAIM

Scale: 4" = 1 mile

Drafted by: P. Randall 11/16/83

--- Approved Road

SURPRISE VENTURE CLAIMS

MARICOPA COUNTY

KAP WR 10/18/85: George Shaffer reported he is the watchman at the Big Red Mine Tungsten (Surprise Venture Claims - file) Maricopa County.

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KAP WR 11/8/85: George Shaffer reported he is the watchman at the Big Red Mine Tungsten (see: Surprise Venture Claims - file) Maricopa County. Further he explained that the previous group of "engineers" that were supposedly operators made numerous errors and are no longer involved in the property. Along with being caretaker he is supposed to try to get the mine going. The necessary money is available. He has requested a visit by Department engineers to give him any advice we may have.

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KAP WR 12/20/85: In the company of Dick Beard, a visit was made to the Big Red Mine, Maricopa County (Surprise Venture - file) Maricopa County. The property is currently idle with George Shafer acting as caretaker. The mill is partially intact with reported plans being to put it back in to service. The open cut tungsten mine has been idle since a trial mill run was made. The deposit which consists of sparse scheelite in a granitic stockwork needs further sampling to delineate an ore reserve. Samples were collected for fluorescent analysis. A separate report of sample data and a field visit summary has been prepared.

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KAP WR 1/17/86: Explained to George Shaffer that the results of samples collected by Dick Beard and myself indicated that additional exploration should be carried out on the Big Red tungsten property, Surprise Venture Claims (file), Maricopa County.

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SURPRISE VENTURE CLAIMS

Also ~~Now~~ known as BIG RED MINING CO.

Maricopa County  
Goldfield District

Section 9, T2N, R7E.

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RRB WR 6/6/80: John Gregory phone 985-3200, called about markets for scheelite. His brother-in-law, Andrew J. Riggs, has the Surprise Venture Claims, now called BIG RED MINING CO. in Gold field District, Sec. 9, T2N, R7E, Maricopa County. Gregory says they are ready to start mining as soon as they can locate a market.

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The Big Red Mining Co. Claims #6, #7 and #8 are now owned by Andrew Riggs and John Gregory according to the BLM microfiche as of March 1982.

**GREGORY**

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John Gergory of Big Red Mining Corporation called in search of an investor. He reports that Union Carbide will take all he produces of scheelite, but he needs capital to get into production. He said he would not sell out to a big company because they would ruin the countryside. RRB WR 5/7/82

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RRB WR 8/19/83: Wayne Furra, 497 Valley Place, Prescott, AZ asked for names of mining attorneys. He is considering investing in Big Red Mining Company by buying the equipment required to produce a sheelite concentrate.

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KAP WR 12/6/83: Butch Snyder, Earth Trac Resources requested information on startup requirements for a new mine operation at the Big Red Mine (Andrew J. Riggs' Claims, he called them) Went over the "Pertinent Data for Prospective New Mining Operations" circular and discussed various startup requirements.

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RRB WR 2/3/84: Butch Snyder, 169 Bahia, Litchfield Park reports that he is mining the Big Red Tungsten Property, Maricopa County. and has designed the processing equipment himself. He says that he knows the ore body is there because some old man in Tucson told him that it is and satellite pictures show it.

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RRB WR 3/29/85: Visited the Big Red Mining's Surprise Venture Claims (f) in Sec. 9, T2N, R7E, Maricopa Co. Walked in form locked gate on Bush Highway. Their flowsheet has been changed to jigs and table following the jaw crushed and impact mill. They expect to be in production next month but are looking for an expert to adjust their table to increase the percent of recovery. I suggested Archie Stutenroth because of his experience tabling scheelite.

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COMPLETE AND MAIL TO  
STATE MINE INSPECTOR  
1624 WEST ADAMS, ROOM 208  
PHOENIX, ARIZONA 85007-2606

SURPLUS VENTURE (F)

FOR OFFICE USE ONLY  
START-UP NUMBER 76115188  
STATE NUMBER 115  
MSHA NUMBER Frank

## NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with the Arizona Revised Statute Section 27-303, we are submitting this written notice to the Arizona State Mine Inspector of our intent to start ☒ stop ☐ move ☐  
(Please check one) a mining operation.

If this is a move, please show last location: \_\_\_\_\_

If you have not operated a mine previously in Arizona, please check here: \_\_\_\_\_ If you want the Education and Training Division to assist with your mine safety training, please check here: ☒

If this operation will use Cyanide for leaching, please check here: \_\_\_\_\_

COMPANY NAME: Big Red Mining Co., Inc.

DIVISION: Riggs & Assoc

MINE OR PLANT NAME: Big Red TELEPHONE: 237-3396

CHIEF OFFICER: Andrew J. Riggs

COMPANY ADDRESS: 4029 W. Hidalgo

CITY: Phoenix STATE: AZ ZIP CODE: 85041

MINE OR PLANT LOCATION: (Include county and nearest town, as well as directions for locating property by vehicle: 6.2 miles south of blue

point bridge on east side off of  
Bush Highway

TYPE OF OPERATION: Surface PRINCIPAL PRODUCT: tungsten

STARTING DATE: 10/5/87 CLOSING DATE: \_\_\_\_\_ DURATION: \_\_\_\_\_

PERSON COMPLETING NOTICE: Sylvia R. Ray TITLE: Secretary

DATE NOTICE MAILED TO STATE MINE INSPECTOR: Oct. 5, 1987

MINE: BIG RED  
ADMMR FILE: SURPRISE VENTURE  
COUNTY: MARICOPA  
ENGINEERS: DICK BEARD & KEN A. PHILLIPS  
DATE: DECEMBER 19, 1985



SUBJECT: SAMPLES TAKEN AT THE BIG RED MINE

ADMMR NUMBER	LOCATION	FLUORESCENCE
28020	North side of pit across 4 feet. Reported to contain fluorescent scheelite.	Few tiny scheelite particles noted. Also some very small patches of powellite noted.
28021	Face of pit. Chip sample across 25 feet.	Very few tiny scheelite particles noted. Very little powellite.
28022	Selected from pre collected sample. Reportedly good fluorescence.	Almost no scheelite. 5-10 particles detected.
28023	Crushed head "ore" stockpile at mill site.	Almost no scheelite. Less 10 particles detected. Poorest of five samples.
28024	Specimen boulder. Reportedly good fluorescence.	Many tiny particles over at least 70 % of the rock. A few areas 1.5 X 2.5 inches have good fluorescence and may contain 1 - 3 percent scheelite.

MINE: BIG RED  
ADMMR FILE: SURPRISE VENTURE  
COUNTY: MARICOPA  
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28022	Selected from pre collected sample. Reportedly good fluorescence.	Almost no scheelite. 5-10 particles detected.
28023	Crushed head "ore" stockpile at mill site.	Almost no scheelite. Less 10 particles detected. Poorest of five samples.
28024	Specimen boulder. Reportedly good fluorescence.	Many tiny particles over at least 70 % of the rock. A few areas 1.5 X 2.5 inches have good fluorescence and may contain 1 - 3 percent scheelite.



Arizona Department of Mines and Mineral Resources

VERBAL INFORMATION SUMMARY

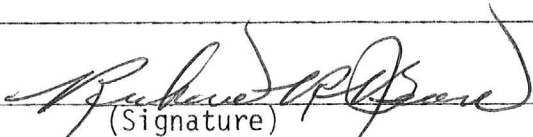
May be Reproduced

1. Information from: Jerry Ray (Telephone call)  
Address: 5443 West Edgemont, Phoenix 269-1387
2. Mine: Big Red Tungsten Mine 3. ADMMR Mine File Surprise Venture Claims
4. County: Maricopa 5. District Goldfield
6. Township 2N Range 7E Sec(s) 9 SW<sup>1/4</sup> AND 17 NW<sup>1/4</sup>
7. Location: Out Bush Highway by river
8. No. of Claims - Patented \_\_\_\_\_ Unpatented \_\_\_\_\_
9. Owner (if different from above) Andrew J. Riggs & John Gregory
10. Address: \_\_\_\_\_ 7459 E. Capri Ave, Mesa 85208
11. Operating Company: Big Red Mining Co.
12. Pertinent People and/or Firm: Jerry Ray
13. Commodities: Tungsten
14. Operational Status: Operating
15. Summary of information received, comments, etc.: \_\_\_\_\_

Ore grade ranges from .94% to 5% WO<sub>3</sub> increasing with depth. He is now using a 24" x 14" jaw crusher, 24" x 36" roll crusher, hammer mill, classifier, 18" Ø pulverizer, centrifuge and spiral separators. Takes it to -5/16" out of rolls to the hammer mill, then to classifier with the minus 20M going to the centrifuge and the plus 20M going to the pulverizer closed circuit with the classifier. When scheelite is observed in the tails from the centrifuge, it is shut down and the concentrate is removed and further concentrated in the spirals. He believes that his recovery is too low. He tried going to minus 40M with no improvement.

Recommendations: (1) Get assays of heads, tails and concentrates to determine percent recovery. This should be done under current operating conditions and after each change in procedure. (2) try a nonfoaming detergent in centrifuge (now using Tide). (3) screen and run fines and course separately. If necessary regrind course after first pass through centrifuge. (4) Contact Archie Stutenroth for advice.

Date: 9/30/84

  
(Signature)

ADMMR

T✓





## United States Department of the Interior

## OFFICE OF HEARINGS AND APPEALS

INTERIOR BOARD OF LAND APPEALS

4015 WILSON BOULEVARD

ARLINGTON, VIRGINIA 22203

## SURPRISE VENTURE ASSOCIATES

IBLA 71-116

Decided August 1, 1972

Appeal from decision by the Arizona land office rejecting petition (A 5392) for restoration of reclamation withdrawn lands to location and entry under the mining laws.

Set aside and remanded.

Mining Claims: LOCATABLE PUBLIC LANDS -- Withdrawn Lands -- revocation and restoration.

An application under the Act of April 23, 1932, 43 U.S.C. § 154, for restoration to mineral location and entry of reclamation withdrawn lands will ordinarily be rejected when the Bureau of Reclamation has recommended against it where there remains a possibility of the location of project features in the future, even though there are no project features on the land at the time of filing the petition for restoration.

Mining Claims: LOCATABLE PUBLIC LANDS -- Withdrawn Lands -- revocation and restoration -- special stipulations.

Where an applicant under the Act of April 23, 1932, 43 U.S.C. § 154, for restoration to mineral location and entry of reclamation withdrawn lands alleges that the lands contain valuable minerals, which can be removed before a proposed dam is completed, and that it is willing to operate in any way as directed for the protection of the interest of the United States, the case will be remanded for a mineral examination and report to determine whether the alleged mineral deposits are of sufficient value to make mining operations profitable.

APPEARANCES: Saunie Gravely on behalf of Surprise Venture Associates.

Index Code  
43CFR Subpart 3816(1972)  
43CFR 3816.3(1972)

7 IBLA 44

GFS(CON) 134(1972)  
GFS(MIN) 42(1972)

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Surprise Venture Claims

Date December 10, 1962

District Goldfield Dist., Maricopa County

Engineer Lewis A. Smith

Subject: Interview with R.H. Lankford, 3950 E. Washington, Phoenix.

Property: 3 unpatented lode claims.

Location: Sec. 9, T. 2 N., R. 7 E. (near Granite Reef Dam)

Owners: Andy Riggs, Phoenix  
R.H. Lankford, 3950 E. Washington (phone BR 5-9779 -Mrs. Shirley Hitchcock)  
✓ Donald L. Marvin, 4444 E. Van Buren, Phoenix.

Work: 12 x 12 foot shaft to a depth of 35 feet on an incline of 60 degrees E. The mineralization, so far, is in the hangingwall. It is planned to drive a crosscut into the hangingwall area.

Geology: The mineralization occurs in a fracture zone which trends N-NW and dips about 60 degrees E. The country rock is granite that contains sparsely disseminated specks of scheelite and hematite, or limonite which contains free gold. All of the mineralization thus far discovered, is in the hangingwall. According to assay reports the material along the hangingwall in the shaft shows \$12 to \$22 in tungsten, and from \$2.80 to \$40.00 in gold. The width of the mineralization is as yet unknown, but the proposed crosscut should determine this. A cover of decomposed granite and soil prevents the tracing of the fracture along the strike. Should the width prove sufficient, then a drift will be driven along the strike. It was suggested that the drillings from the blast holes be saved for samples. Lankford discounted the \$40.00 gold assay as most samples have indicated \$10-\$14 in gold. The mineralized specks or blebs appear to be associated with sericite in halos.