



## **CONTACT INFORMATION**

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07/18/88

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: REPUBLICAN

ALTERNATE NAMES:

YAVAPAI COUNTY MILS NUMBER: 776B

LOCATION: TOWNSHIP 10 N RANGE 2 E SECTION 29 QUARTER E2  
LATITUDE: N 34DEG 13MIN 04SEC LONGITUDE: W 112DEG 09MIN 42SEC  
TOPO MAP NAME: BUMBLE BEE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:  
GOLD

BIBLIOGRAPHY:

USGS BUMBLE BEE QUAD  
ADMMR REPUBLICAN MINE FILE  
DATA ON THIS PROPERTY MAY ALSO BE INCLUDED IN  
ADMMR GREEN CUP MINE FILE (KAP 7/88)



ARIZONA  
MACHINERY  
COMPANY, Inc.  
~~231 N. CORTEZ STREET~~  
221 W. Gurley Street,  
PRESCOTT, ARIZONA

Plat 284 29  
10N, 2E

OWNER'S REPORT

by

✓ R. H. BARNWELL.

on the

✓ REPUBLICAN MINE

Black Canyon District

Yavapai County

Arizona.

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✓ BUTER-BARNWELL MINING CO., INC.

Bumble Bee, Arizona.

✓

REPORT ON THE REPUBLICAN MINE.

CHARACTER OF THE PROSPECT:

Gold-quartz vein in a granite schist formation located in the Black Canyon Mining District, 28 miles South of the Humboldt Smelter, and 18 miles from Mayer (the best railroad loading point).

PROPERTY:

The property is made up of a group of six mining claims, recorded and the assessment work completed, known as the Republican Claims of which three join end to end and one across covering the entire length of a 4000 foot Primary Vein as determined by surface outcroppings. And two claims end to end covering 3000 feet of the Junior Vein. Also a mill site claim surrounding a small spring whereon has been developed a small amount of water from which has been taken the domestic supply for the camp. At the present time the spring is developing about 1000 gallons of water per day and has greater possibilities.

ROADS:

One of the main Highways leading from Phoenix to Prescott passes within one mile of the property. A road has been built from the Highway to Shaft No. 2, with a maximum grade of about 12% and this grade for a length of less than 500 feet. The Highway to the Humboldt Smelter is a very good dirt road.

WATER:

In Bumble Bee Wash about  $1\frac{1}{2}$  miles to the Southeast water has been developed in one or two wells; while at the Bumble Bee Post Office 2 miles southwest from the shaft is a spring which is flowing about 10 miner's inches of water. This water is available for mill purposes, altho it might be necessary to purchase it from its present owner if taken at the point of origin. This stream flows underground and on to the surface about three quarters of a mile from the point of origin to Government land open for mill site locations. This point (mill site location) is about 8000 feet in a direct line to Shaft No. 2.

TIMBER:

No native timber is available in this territory.

GEOLOGY:

Country rock is granite and cerussite schist dipping about 85° to the East and striking in a north and south direction and extends for some 30 miles.

In the immediate vicinity of the prospect the formation is 3 to 4 miles wide with many quartz leads running parallel with the formation, at times for several miles thru the country.



A volcanic capping covers the territory east of Bumble Bee Wash at an elevation of about 3000 feet; the capping is probably 200 feet thick. The elevation of the bottom of the Wash is about 2000 feet. The elevation at Shaft No. 2 is around 2500 feet and the elevation of Bland Mt. three-quarters of a mile northwest from Shaft No. 2, is about 3200 feet. The Republican vein strikes North 40° West, or in other words, diagonally across the granite formation.

#### MINERALS:

The history of Black Canyon and Bumble Bee Wash shows that a great deal of placer gold has been taken out of the creek bottoms at several places during the past 50 years. There have been mining operations in this vicinity as evidenced by old shafts some 30 to 40 feet deep; one on the Republican vein a thousand feet northwest of our present No. 2 shaft, and out of this old shaft there was apparently taken considerable free milling ore, as evidenced by an old arastra.

Several assays from this hold show values; some ranging up to \$40 a ton, with a general average of about \$10.00.

There is another vein (Republican Jr.) striking about North 10° West from a point 100 feet to the Southeast of No. 2 Shaft for a length of about 3000 feet, covered by 2 of the above six claims. At a point on this vein some 1500 feet northwest are two old shafts about 50 feet deep, - another arastra, and ore lying around on the surface, some of which will go as high as \$90 a ton. We estimate the average value of this shaft at \$10 per ton. It is our opinion that this vein is a feeder to the Republican Vein.

On top of Bland Hill is a group of claims upon which considerable assessment work has been done during the past 20 odd years. We have been told by oldtimers in the district that there is a considerable body of low grade ore, all of which could be very profitably recovered with an up-to-date mill in this vicinity. During the past 1½ years we have been prospecting this Republican vein thru-out its entire length and have had some 250 fire assays made of the 8 or 10 outcroppings and the old shaft referred to. These 250 assays give a general average of about \$20 per ton, and free gold can be panned out of almost any quartz rock taken off this vein.

#### SHAFT NO. 2.

This shaft was started about 1000 feet from the south-easterly end of the Republican vein, and after passing thru an "iron-clay" capping we encountered a 6" quartz stringer, honeycombed and carrying considerable free gold and hematite which assays from \$10 to \$70. This stringer extends down 25 feet where it is cut off by a 6" layer of volcanic mud, immediately underneath which the quartz stringer widened to about 10 inches with increased assay values. The stringer continued down to about 45 feet below the surface at which point it was again cut off by this volcanic mud which is about 3 feet in thickness, and again under this mud the stringer is still wider and richer. Some of the ore at this point assayed as high as \$260 per ton, and from this point to the 65 foot level the ore values held up remarkably well, few of the assays going below \$50. (See Sample #2 John Herman Assay Report - attached hereto). At this level (65 feet) the quartz lead

thickened very rapidly until at the 70 foot level it was about 4 feet thick but not so high in value. It then commenced to become thinner, until at the 62 foot level it thinned down to only a few inches.

At about 75 feet on the southerly side of the shaft this volcanic mud intrusion was found and it extended across the shaft sloping down towards the Northwest about 25° from the horizontal. This volcanic mud intrusion is about 8 feet thick vertically, underneath which we opened up another quartz stringer about 18 inches wide; very well mineralized carrying both sulphide and oxide of iron, and the full thickness of the stringer assaying about \$50 a ton. All indications point to a more highly mineralized vein below this level. Throughout the entire depth of this shaft the vein matter has been very soft except the quartz. So much so, that two out of five drill holes have been sunk with a ground auger. Water was encountered at the 50 foot level and continues to the bottom. About 3 tons of water are made in 24 hours. The foot wall and hanging wall are well defined and solid, and need very little timber. They are about 7 feet apart and everything between them shows value.

#### EQUIPMENT:

On the collar of the Shaft is a 20 foot gallows frame and a 4 cylinder hoist good for at least 500 feet in depth; 2-500 lbs. capacity buckets; new cable; assortment of drill steel; picks, shovels; powder magazine large enough to hold a ton of powder.

SUTER-BARNWELL MINING COMPANY, INC.,

By R. H. Barnwell, Pres.

VALUES.

Assays from samples of ore taken on this property show the following values:

Average sample from Republican No. 1 Shaft	-----	\$5.20	per ton
Surface sample from " " "	-----	1.65	" "
Sample of gouge Republican No. 2 shaft near surface	-----	1.60	" "
" " " " at 65 feet	-----	5.55	" "
Average sample Republican Jr. vein Shaft No. 2	-----	53.47	" "
" " " No. 2 Shaft 55 to 65 ft.	-----	65.31	" "
" " " " 65 " 90 "	-----	55.19	" "
Sample from 65 ft. level Republican No. 2 Shaft	-----	8.90	" "
" 70 ft. " " "	-----	20.25	" "
" 90 ft. " " "	-----	18.40	" "
" " " " "	-----	43.60	" "
Sulphide " " " "	-----	132.80	" "
" " " " "	-----	227.70	" "

The average values of the assays of the samples taken is \$47.65 per ton of ore. The two samples marked Sulphide were made up of the sulphides and gangue at that depth. If these two samples are omitted from the average it is \$23.52 per ton of ore but it is believed that the average for the mine will be greater than this last figure because of the apparent large increase in sulphides below the 90 foot level.

An average of 12 assays of samples taken from different parts of the vein show 1.76 ounces of silver per ton.

The results of this sampling and assaying show the tendency of the vein to increase in richness with depth.

Several pannings of ore taken from various parts of the vein all show good colors with a large amount of sulphides.

Samples by Bernard Hasleronck.

✓  
SUTER-BARNWELL MINING CO. INC.,

HUMBLE BEE, ARIZONA.  
- - - - -

I, ALDEN H. TRAFFORD, Secretary of the SUTER-BARNWELL  
MINING COMPANY, INC., do hereby certify that the at-  
tached is a true and complete transcript of an

ENGINEER'S REPORT

on the

REPUBLICAN MINE

BLACK CANYON MINING DISTRICT

Yavapai County,

Arizona.

which was prepared by George A. Kirkbride, M. E., President  
of the STANDARD ORES CORPORATION of Prescott, Arizona, in  
February, 1930.

By: Alden H. Trafford,  
Secretary.

STANDARD ORES CORPORATION  
Mining Engineers Metallurgists

Lawler Block

Geo. A. Kirkbride  
President-Mgr.

Prescott, Arizona.

ENGINEERS REPORT

for

R. H. BARNWELL

on the

REPUBLICAN MINE

Black Canyon District

Yavapai County

Arizona.

February - - - - - 1930.

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Standard Ores Report No. 198

Preliminary Report.



#### LOCATION:

The property is located in the Black Canyon Mining District, two miles in a northerly direction from Bumblebee, Arizona, Section 28 and 29, Township 10 N., Range 2 E.

The smelter of the Southwest Metals Co. is twenty-eight miles north of the property and on the Black Canyon Highway and offers a convenient market for shipping grade ore.

Climatic conditions are excellent for year around work and the property is accessible at all times. A good mine road connects the main No. 2 working shaft with the Black Canyon highway a distance of approximately one mile.

Elevation at property is about 2500 feet.

#### GENERAL GEOLOGY:

Due to limited time spent on the property (less than  $\frac{1}{2}$  day) it is impossible to do justice to the geology which is extremely complicated and interesting.

There are lenses of granite, schist and what I would usually classify as granitic porphyry, all striking in a general northerly and southerly direction.

The claims, totaling six in number, are located along the general trend of the mineral bearing quartz leads and the same geology with much evidence of faulting is noticeable on the entire acreage.

#### NATURE OF DEPOSIT:

The Republican main vein is a quite prominent quartz cropping extending the length of the property.

The present work, which consists of a single compartment shaft about 100 feet deep, shows the vein to be lenticular in form.

No samples were taken and I have accepted the assays of samples taken by Mr. Barnwell as a basis for this report.

Where exposed the vein has a width of from a few inches to nine feet. Assay values were reported as being from \$10 to \$200. per ton to a depth of 82 feet.

This vein dips about 80° Northeast and has a well defined hanging wall. The formation next to the vein gives much evidence of having been thoroughly shaken and crushed by what would appear to be longitudinal movement although there are, at this point, no indications of bad faulting. The strike of this vein is approximately N 40° West and crosses the general trend of the country rock.

The Republican Junior claim, which runs at about a 50° angle to the main vein and follows more nearly the general strike of the formation, has a very fair showing. A strong quartz cropping is in evidence for a length of about 2000 feet.

There has been considerable prospecting and two shafts sunk to a depth of 50 feet. Mr. Barnwell states that various cropping samples taken along the strike of this vein gave values averaging about \$10 per ton gold.

There is much evidence of faulting in the immediate vicinity of the two 50 foot shafts and there are several quartz stringers that apparently intersect this vein at right angles.

The geological conditions here are much more complicated than on the main Republican claim and would warrant much study previous to doing any appreciable amount of development work.

I am informed that considerable ore was removed from this vein and milled by the old Arrastra method in the early days.

#### GENERAL:

The history of Black Canyon and Bumble Bee Wash shows that a great deal of placer gold has been taken from creek bottoms at several places during the past 50 years.

Mining operations in recent years have been few and confined mostly to prospect cuts and force forth for assessment work. At this time following each storm placer mining is done in both American and Mexican gulches, which originate on the Republican Group, with fairly profitable results.

Mountains rising to a height of nearly 800 feet and crossing the general strike of the main Republican vein are probably the source of the placer gold.

Several pans of the ore from the various veins gave good colors and would indicate that the values given by Mr. Barnwell are correct.

#### WATER TIMBER LABOR:

There is no native timber available on the property. Water may be developed in Bumble Bee wash a distance of one and one-half miles, sufficient for a small mill operation.

Labor is obtainable at the usual rate for miners and timbermen.

**EQUIPMENT:**

On the collar of the shaft is a 20 foot gallows frame and a 4 cylinder hoist good for at least 500 feet in depth; two 500 lbs. capacity buckets; new cables; assortment of drill steel, picks, shovels, power magazine large enough to hold a ton of powder.

**RESUME AND CONCLUSIONS:**

1. The nature of the veins is indicative of deep seated deposits.
2. The veins have a good longitudinal extent in the instance of the main vein and Republican Junior.
3. Value of the ore is commercial.
4. Management and organization is competent and efficient in every way.
5. Potential possibilities for a tonnage of mill ore are very good.

It is therefore recommend that development be carried along on the following lines:

Sink present working shaft to a depth of 200 feet. Drift along main vein north for a distance of about 700 feet. Cross cut all parallel veins at this point.

Make a complete geological survey of the entire group of claims with particular reference to contacting dikes, faulting, and so forth while sinking the main shaft.

If the above outlined development proves prolific as to ore shoots a two compartment shaft should be raised to surface at the 700 foot point in the drift and arrangements made for the construction of a mill of sufficient capacity to meet tonnage conditions.

Respectfully submitted:

STANDARD ORES CORPORATION  
Engineers

(Signed) Geo. A. Kirkbride, M. E.  
President.

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

May be Reproduced

1. Information from: Elery "Bud" Brown

Address: 4845 S. 36th Drive, Phoenix, Arizona 85041

Phone: \_\_\_\_\_

2. Mine: Republican 3. ADMMR Mine File: Republican

4. County: Yavapai MILS Number: 776B

5. District: (minning) \_\_\_\_\_ (or mineral) \_\_\_\_\_

6. Township: 10 N Range 2 E Sec(s) 29

7. USGS Topographic Map: Bumble Bee 7.5'

8. Location (descriptive): \_\_\_\_\_

9. Number of Claims: Patented \_\_\_\_\_ Unpatented \_\_\_\_\_

10. Owner(s): (if different from above) Same as above

11. Address: \_\_\_\_\_

12. Operating Company: \_\_\_\_\_

13. Pertinent People and/or Firm: \_\_\_\_\_

14. Commodities: Copper, gold

15. Operational Status: Prospect, new work planned

16. Summary of information received, comments, etc.: \_\_\_\_\_

Mr. Brown reported he plans to clean out a 95 foot deep shaft on his Republic No. 2 claim (no such claim is listed on the BLM microfiche and he is likely refering to a claim he has on the old Republican property) using the money and expertise of an investor who is going to commit a minimum of \$30,000 for that and other work on the property. Mr. Brown is going to turn over ownership of his equipment to the investor. A small mine contractor named Digman of Meyer is going to do the shaft work for \$8,000. Mr. Brown hopes to prove up sulfide ore high in gold content.

Mr. Brown also reported that he took a 500 pound sample of his ore to D & M Specialty of San Fernando California. According to Mr. Brown the entire sample was ground to minus 1100 mesh (sic) and tabled to produce a high grade concentrate. He admitted that it appeared that D & M primarily wanted to sell their process and was trying to prove it would work.

Date: July 1988

Ken Phillips  
(Signature) AzDMMR



## VALUES.

Assays from sampled of ore taken on this property show the following values:

Average sample from Republican No. 1 Shaft	-----	\$ 5.20	per ton
Surface sample from " " " "	-----	1.65	" "
Sample of gouge Republican No. 2 Shaft near surface	--	1.60	" "
" " " " " " " " at 65 feet	--	5.35	" "
Average sample Republican Jr. vein Shaft No. 2	-----	33.47	" "
" " " " " " " " No. 2 Shaft 55 to 65 ft.	--	65.31	" "
" " " " " " " " " " 65 " 90 "	---	55.19	" "
Sample from 65 ft. level Republican No. 2 Shaft	-----	8.90	" "
" " 70 " " " " " " " "	-----	20.25	" "
" " 90 " " " " " " " "	-----	18.40	" "
" " " " " " " " " "	-----	43.60	" "
Sulphide " " " " " " " " " "	-----	132.80	" "
" " " " " " " " " "	-----	227.70	" "

The average values of the assays of the samples taken is \$47.65 per ton of ore. The two samples marked Sulphide were made up of the sulphides and gangue at that depth. If these two samples are omitted from the average it is \$23.52 per ton of ore but it is believed that the average for the mine will be greater than this last figure because of the apparent large increase in sulphides below the 90 foot level.

An average of 12 assays of samples taken from different parts of the vein show 1.76 ounces of silver per ton.

The results of this sampling and assaying show the tendency of the vein to increase in richness with depth.

Several pannings of ore taken from various parts of the vein all show good colors with a large amount of sulphides.

## ORGANIZATION.

*cont*  
The company is incorporated under the laws of the State of Arizona for 250000 shares of common stock with a par value of \$1.00 per share. This stock is at present all owned by the incorporators.

## EQUIPMENT.

*cont*  
On the collar of the shaft is a 20 foot gallows frame and a 4 cylinder hoist good for at least 500 feet in depth; two 500 pound capacity buckets; new cables, assortment of steel drills, picks and shovels. A powder magazine large enough to hold a ton of powder is located at a convenient but safe distance from the shaft.

Samples by Bernard Washburn

OWNER'S REPORT

OWNER

by

R. H. BARNWELL.

on the

REPUBLICAN MINE

Black Canyon District

Yavapai County

Arizona.

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SUTER-BARNWELL MINING CO., INC.

Bumble Bee, Arizona.



## REPORT ON THE REPUBLICAN MINE.

CHARACTER OF THE PROSPECT. Cold-quartz vein in a granite schist formation located in the Black Canyon Mining District, 28 miles South of the Humboldt Smelter, and 18 miles from Mayer (the best railroad loading point).

PROPERTY. The property is made up of a group of six mining claims-recorded and the assessment work completed, known as the Republican Claims of which three join end to end and one across covering the entire length of a 4000-foot Primary Vein as determined by surface outcroppings. And two claims end to end covering 3000 feet of the Junior Vein. Also a mill site claim surrounding a small spring whereon has been developed a small amount of water from which has been taken the domestic supply for the camp. At the present time the spring is developing about 1000 gallons of water per day and has greater possibilities.

ROADS. One of the main Highways leading from Phoenix to Prescott passes within one mile of the property. A road has been built from the Highway to Shaft No. 2, with a maximum grade of about 12% and this grade for a length of less than 500 feet. The Highway to the Humboldt Smelter is a very good dirt road.

WATER. In Bumble Bee Wash about  $1\frac{1}{2}$  miles to the Southeast water has been developed in one or two wells; while at the Bumble Bee Postoffice 2 miles southwest from the Shaft is a spring which is flowing about 10 miner's inches of water. This water is available for mill purposes, altho it might be necessary to purchase it from its present owner if taken at the point of origin. This stream flows underground and on to the surface about three quarters of a mile from the point of origin to Government land open for mill site locations. This point (mill site location) is about 8000 feet in a direct line to Shaft No. 2.

TIMBER. No native timber is available in this territory.

GEOLOGY: Country rock is granite and cerussite schist dipping about 85° to the East and striking in a north and south direction and extends for some 30 miles.

In the immediate vicinity of the prospect the formation is 3 to 4 miles wide with many quartz leads running parallel with the formation, at times for several miles thru the country.

A volcanic capping covers the territory east of Bumble Bee Wash at an elevation of about 3000 feet; the capping is probably 200 feet thick. The elevation of the bottom of the Wash is about 2000 feet. The elevation at Shaft No. 2 is around 2500 feet and the elevation of Bland Mt. three-quarters of a mile northwest from Shaft No. 2, is about 3200 feet. The Republican vein strikes North 40° West, or in other words, diagonally across the granite formation.

MINERALS. The history of Black Canyon and Bumble Bee Wash shows that a great deal of placer gold has been taken out of the creek bottoms at several places during the past 50 years. There have been mining operations in this vicinity as evidenced by old shafts some 30 or 40 feet deep; one on the Republican vein a thousand feet northwest of our present No. 2 shaft, and out of this old shaft there was apparently taken considerable free milling ore, as evidenced by an old arastra.

Several assays from this hold show values; some ranging up to \$40 a ton, with a general average of about \$10.00.

There is another vein (Republican Jr.) striking about North 10° West from a point 100 feet to the Southeast of No. 2 Shaft for a length of about 3000 feet, covered by 2 of the above six claims. At a point on this vein some 1500 feet northwest are two old shafts about 50 feet deep, -another arastra, and ore lying around on the surface, some of which will go as high as \$90 a ton. We estimate the average value of this shaft at \$10 per ton. It is our opinion that this vein is a feeder to the Republican Vein.



On top of Bland hill is a group of claims upon which considerable assessment work has been done during the past 20 odd years. We have been told by old-timers in the district, that there is a considerable body of low grade ore, all of which could be very profitably recovered with an up-to-date mill in this vicinity. During the past 1½ years we have been prospecting this Republican vein thru-out its entire length and have had some 250 fire assays made of the 8 or 10 outcroppings and the old shaft referred to. These 250 assays give a general average of about \$20 per ton, and free gold can be panned out of almost any quartz rock taken off this vein.

SHAFT NO.2. This shaft was started about 1000 feet from the southeasterly end of the Republican vein, and after passing thru and "iron-clay" capping we encountered a 6" quartz stringer, honeycombed and carrying considerable free gold and hematite which assays from \$10 to \$70. This stringer extends down 25 feet where it is cut off by a 6" layer of volcanic mud, immediately underneath which the quartz stringer widened to about 10 inches with increased assay values. The stringer continued down to about 45 feet below the surface at which point it was again cut off by this volcanic mud which is about 3 feet in thickness, and again under this mud the stringer is still wider and richer. Some of the ore at this point assayed as high as \$260 per ton, and from this point to the 65-foot level the ore values held up remarkably well, few of the assays going below \$50. (See Sample #2-John Herman Assay Report-attached hereto.) At this level (65 feet) the quartz lead thickened very rapidly until at the 70 foot level it was about 4 feet thick but not so high in value. It then commenced to become thinner, until at the 62 foot level it thinned down to only a few inches.

At about 75 feet on the southerly side of the shaft this volcanic mud intrusion was found and it extended across the shaft sloping down towards the Northwest about 25° from the horizontal. This volcanic mud intrusion is about 8 feet thick vertically, underneath which we opened up another quartz stringer about 18 inches wide; very well mineralized carrying both sulphide and oxide of iron, and the full thickness of

the stringer assaying about \$30 a ton. All indications point to a more highly mineralized vein below this level. Thruout the entire depth of this shaft the vein matter has been very soft except the quartz. So much so, that two out of five drill holes have been sunk with a ground auger. Water was encountered at the 50-foot level and continues to the bottom. About 3 tons of water are made in 24 hours. The foot well and hangingwall are well defined and solid, and need very little timber. They are about 7 feet apart and every thing between them shows value.

EQUIPMENT. On the collar of the Shaft is a 20-foot gallows frame and a 4 cylinder hoist good for at least 500 feet in depth; 2-500 lbs. capacity buckets; new cable; assortment of drill steel; picks, shovels; powder magazine large enough to hold a ton of powder.

SUTER-BARNWELL MINING COMPANY, INC.

By R. H. Barnwell, Pres.



SUTER-BARNWELL MINING CO. INC.,

BUMBLE BEE, ARIZONA.

- - - - -

I, ALDEN H. TRAFFORD, Secretary of the SUTER-BARNWELL  
MINING COMPANY, INC., do hereby certify that the at-  
tached is a true and complete transcript of an

ENGINEER'S REPORT

on the

REPUBLICAN MINE

BLACK CANYON MINING DISTRICT

YAVAPAI COUNTY,

ARIZONA.

which was prepared by George A. Kirkbride, M.E., President  
of the STANDARD ORES CORPORATION of Prescott, Arizona, in  
February 1930.

By: Alden H. Trafford.  
Secretary.

STANDARD ORES CORPORATION  
Mining Engineers Metallurgists

Lawler Block

Geo. A. Kirkbride  
President-Mgr.

Prescott, Arizona.

ENGINEERS REPORT

for

R. H. BARNWELL

on the

REPUBLICAN MINE

BLACK CANYON DISTRICT

YAVAPAI COUNTY

ARIZONA.

February - - - - - 1930.

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Standard Ores Report No. 198

Preliminary Report.



## LOCATION

The property is located in the Black Canyon Mining District, two miles in a northerly direction from Bumblebee, Arizona, Section 28 and 29, Township 10 N. Range 2 E.

The smelter of the Southwest Metals Co. is twenty-eight miles north of the property and on the Black Canyon Highway and offers a convenient market for shipping grade ore.

Climatic conditions are excellent for year around work and the property is accessible at all times. A good mine road connects the main No. 2 working shaft with the Black Canyon highway a distance of approximately one mile.

Elevation at property is about 2500 feet.

## GENERAL GEOLOGY.

Due to limited time spent on the property (less than 1/2 day) it is impossible to do justice to the geology which is extremely complicated and interesting.

There are lenses of granite, schist and what I would usually classify as granitic porphyry, all striking in a general northerly and southerly direction.

The claims, totaling six in number, are located along the general trend of the mineral bearing quartz leads and the same geology with much evidence of faulting is noticeable on the entire acreage.

## NATURE OF DEPOSIT

« The Republican main vein is a quite prominent quartz cropping extending the length of the property.

The present work, which consists of a single compartment shaft about 100 feet deep, shows the vein to be lenticular in form.

No samples were taken and I have accepted the assays of samples taken by Mr. Barnwell as a basis for this report.

Group, with fairly profitable results.

Mountains rising to a height of nearly 800 feet and crossing the general strike of the main Republican vein are probably the source of the placer gold.

Several pans of the ore from the various veins gave good colors and would indicate that the values given by Mr. Barnwell are correct.

#### WATER TIMBER LABOR

There is no native timber available on the property. Water may be developed in Bumblebee wash a distance of one and one-half miles, sufficient for a small mill operation.

Labor is obtainable at the usual rate for miners and timbermen.

#### EQUIPMENT

On the collar of the shaft is a 20 foot gallows frame and a 4 cylinder hoist good for at least 500 feet in depth; two 500 lbs. capacity buckets; new cables; assortment of drill steel, picks; shovels, power magazine large enough to hold a ton of powder.

#### RESUME AND CONCLUSIONS

1. The nature of the veins is indicative of deep seated deposits.
2. The veins have a good longitudinal extent in the instance of the main vein and Republican Junior.
3. Value of the ore is commercial.
4. Management and organization is competent and efficient in every way.
5. Potential possibilities for a tonnage of mill ore are very good.

It is therefore recommended that development be carried along on the following lines:

Sink present working shaft to a depth of 200 feet.



Where exposed the vein has a width of from a few inches to nine feet. Assay values were reported as being from \$10 to \$200. per ton to a depth of 82 feet.

This vein dips about 80° Northeast and has a well defined hanging wall. The formation next to the vein gives much evidence of having been thoroughly shaken and crushed by what would appear to be longitudinal movement although there are, at this point, no indications of bad faulting. The strike of this vein is approximately N 40° West and crosses the general trend of the country rock.

The Republican Junior claim, which runs at about a 30° angle to the main vein and follows more nearly the general strike of the formation, has a very fair showing. A strong quartz cropping is in evidence for a length of about 2000 feet.

There has been considerable prospecting and two shafts sunk to a dept of 50 feet. Mr. Barnwell states that various cropping samples taken along the strike of this vein gave values averaging about \$10 per ton gold.

There is much evidence of faulting in the immediate vicinity of the two 50 foot shafts and there are several quartz stringers that apparently intersect this vein at right angles.

The geological conditions here are much more complicated than on the main Republican claim and would warrant much study previous to doing any appreciable amount of development work.

I am informed that considerable ore was removed from this vein and milled by the old Arrastra method in the early days.

#### GENERAL

The history of Black Canyon and Bumblee Wash shows that a great deal of placer gold has been taken from creek bottoms at several places during the past 50 years.

Mining operations in recent years have been few and confined mostly to prospect cuts and so forth for assessment work. At this time following each storm placer mining is done in both American and Mexican gulches, which originate on the Republican

Drift along main vein north for a distance of about 700 feet.  
Cross out all parallel veins at this point.

Make a complete geological survey of the entire group of claims with particular reference to contacting dikes, faulting, and so forth while sinking the main shaft.

If the above outlined development proves prolific as to ore shoots a two compartment shaft should be raised to surface at the 700 foot point in the drift and arrangements made for the construction of a mill of sufficient capacity to meet tonnage conditions.

Respectfully submitted:

STANDARD ORES CORPORATION  
Engineers

(Signed) Geo. A. Kirkbride, M.E.  
Pres.



INTERNAL RESOURCES

Arizona

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ARIZONA DEPARTMENT OF MINERAL RESOURCES  
MINERAL BUILDING, FAIRGROUNDS  
PHOENIX, ARIZONA

July 14, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Republican Mine (Yavapai County)	gold
(Property)	(ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

*Frank P. Knight*

FRANK P. KNIGHT,  
Director.

Enc: Mine Owner's Report