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MINERAL SURVEY No. 3873

Arizona Land District.

FIELD NOTES

OF THE SURVEY OF THE MINING CLAIM OF

Fred C. Roberts

KNOWN AS THE

COBROSO and COPPER CUT Lodes.

Helvetia Mining District,

Pima County, Arizona

Sections 21-28, Township 17 S., Range 16 E. G & S.R.M

Surveyed under instructions dated December 18, 19 22

by [Signature]

U. S. Mineral Surveyor.

Claim located See location notices, 19

Survey commenced December 19, 1922

Survey completed December 21, 1922

Address of claimant Fred C. Roberts 925 N. Tyndall Ave. Tucson, Arizona.

DATES OF AMENDED LOCATIONS.

Feet.

MINERAL SURVEY NO. 3873

COBROSO Lode.

Beginning at Cor. No.1, identical with Loc. Mon.

A limestone rock 7 X 10 X 4 ins. above ground, set 12 ins. in the ground, chiseled with cross(X) 1-C-3873, with md. of stone 3 1/2 ft base by 3 ft. high alongside, whence the 1/4 cor. bet. Secs. 21-28, T.17 S., R.16 E., E & S.R.M. brs. N. 50°41' W., 464.3 ft.

No other bearings are available.

Thence S. 23° 10' W.
Va. 13 30' E.

- 66.4 To Cor. No.1 Copper Cut lode of this Sur., hereinafter described.
300. To E. end center, on line 4-1 Copper Cut lode of this Sur.
- A pine post 4 ins. sq by 4 ft. high, set firmly in the ground and surrounded with md of stone 3 1/2 ft. base by 3 ft. high, scribed E. Cr. C.
600. To Cor. No.2, identical with Loc. Mon.
- A limestone rock 7 x 10 x 2 ins. above ground, set 12 ins. in the ground, chiseled with cross (x) 2-C- 3873 with md of stone 3 1/2 ft. base by 3 ft. high alongside.
- No bearings are available.
- Thence N. 58° 42' W.
Va. 13°30' E.
1500. To Cor. No.3, identical with Loc. Mon.
- A limestone rock 7 x 8 x 5 ins. above ground, set 12 ins in the ground, chiseled with cross (x) 3-C- 3873 with md of stone 3 1/2 ft base by 3 ft high alongside.
- No bearings are available.
- Thence N.23° 10' E.
Va. 13°30' E.
300. To W. end center.
- A pine post 4 ins sq by 4 ft high, set firmly in the ground and surrounded with md of stone 3 1/2 ft base by 3 ft high , scribed W. Cr. C.
600. To Cor. No.4, identical with Loc. Mon.
- A limestone rock 8 x 8 x 5 ins above ground, set 12 ins in the

feet.

MINERAL SURVEY NO. 3873.

COBROSO Lose- Cont'd.

ground, chiseled with cross (x) 4-C- 3873, with md of stone 3 1/2 ft. base by 3 ft. high alongside.

No bearings are available.

Thence S. 58° 42' E.
Va. 13 °30' E.

- 410.0 Gulch brs northerly.
790.0 Gulch brs northerly.
1500.0 To Cor. No. 1, the place of beginning.

COPPER CUT Lode.

Beginning at Cor. No.1, identical with Loc. Mon.

A limestone rock 10 x 10 x 2 ins. above ground, set 12 ins. in the ground, chiseled with cross (x) 1-CC- 3873 with md. of stone 3 1/2 ft. base by 3 ft. high, ^{along side} whence the 1/4 Cor. bet. Secs. 21-28, T. 17 S., R.16 E., brs. N. 43° 09' 30" W., 486.96 ft.

No other bearings are available.

Thence S. 89° 22' E.
Va. 13' 30' E.

- 275.0 Gulch brs. northeasterly.
300.0 To N. end center.

A pine post 4 ins. sq. by 4 ft. high, set firmly in the ground and surrounded with md. of stone 3 1/2 ft. base by 3 ft. high, scribed N. Cr. C C.

- 345.0 Road brs. northeasterly.
600.0 To cor. No. 2, identical with Loc. Mon.

A porphyry rock, in place 8 x 12 ins., showing 5 ins. above ground chiseled with cross (x) 2-CC- 3873, with md of stone 3 1/2 ft. base by 3 ft. high alongside.

No bearings are available.

Thence S. 23° 10' W.
Va. 13° 30' E.

660. Gulch brs northwesterly.
1304.8 To Cor. No.3, identical with Loc. Mon.

A porphyry rock 7 x 14 x 5 ins. above ground set 12 ins. in the ground, chiseled with cross (x) 3-CC- 3873 with md of stone 3 1/2

Feet .

MINERAL SURVEY No. 3873.

COPPER CUT Lode - Cont'd.

ft. base by 3 ft. high alongside.

No bearings are available.

Thence N. 89° 22' W.,
Va. 13° 30' E.,

300.0 To S. end center.

A pine post 4 ins Sq. by 4 ft. high, set firmly in the ground and surrounded with md. of stone 3 1/2 ft. base by 3 ft. high, Scribed S. Cr. C.C.

600.0 To Cor. No. 4, identical with Loc. Mon.

A quartzite rock, 7 x 7 x 8 ins above ground, set 12 ins. in the ground, chiseled with cross (X) 4-CC- 3873, with md. of stone 3 1/2 ft. base by 3 ft high alongside.

No bearings are available.

Thence N. 23° 10' E.
Va. 13° 30' E.

771.2 To Cor. No. 2 Cobroso Lode of this Sur., heretofore described.

1071.2 To E. end center Cobroso Lode of this Sur., heretofore described.

1304.8 To Cor. No. 1, the place of beginning.

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LODE LINES.

As near as can be determined from the present developments the veins of the several locations embraced in this claim extend as follows from their respective discovery points,-

Cobroso Lode, 112 ft.S.58° 42'E., and 1388.0 ft. N.58° 42'W..

Copper Cut Lode, 640. ft.N.23°10'E., and 664.8 ft. S.23° 10' W.,

AREA.

Total area Cobroso lode -----Acres.
-----20.453

Total area Copper Cut lode-----16.600 ✓

MINERAL SURVEY No. 3873.

The survey of each lode of this location is identical with the respective location as staked upon the ground.

LOCATION.

This survey is located in the N. 1/2 Sec. 28 and the S.E. 1/4 of the S.W. 1/4 Sec. 21, T.17 S., R. 16 E. G & S.R.M.

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EXPENDITURE OF FIVE HUNDRED DOLLARS.

I certify that the value of the labor and improvements made upon, ~~or for the benefit of,~~ each of the locations embraced in said mining claim by the claimant or his grantors is not less than five hundred dollars, and that said improvements consist of:

COBROSO Lode.

No.1 The discovery shaft, the center of which being the discovery point, is on the center line, 112 ft. from the center of line 1-2
4 x 6 ft. 35 ft. deep

Value \$350.

No.2 A shaft, the center of which brs from Cor. No.2, N. 37° W.,
325 ft. 4 x 6 ft., 50 ft. deep.

Value \$500.

No.3 A shaft, the center of which brs from Cor. No. 4 S. 39° 15'E.
815 ft. 4 x 6 ft. 40 ft. deep.

Value \$400.

No.4 A shaft, the center of which brs from Cor. No.4 S. 36° E.,
725 ft., 4 x 6 ft. 75 ft. deep.

Value \$750.

COPPER CUT Lode.

No. 1 The discovery point, on the center line, 640 feet from the center of line 1-2. A monument of stone 3 1/2 ft base by 3 ft. high.

No value.

No. 2 A shaft, the center of which brs from Cor. No.1, S.6° E.,
600 feet. 4 x 6 ft. 25 ft. deep.

Value \$ 250.

MINERAL SURVEY NO. 3873.

EXPENDITURE OF FIVE HUNDRED DOLLARS- Cont'd.

COPPER CUT Lode. Cont'd.

No. 3 A shaft, the center of which brs. from Cor. No:1 S. $10^{\circ} 30' W.$ 260 feet. 6 x 8 ft. (timbered) 125 ft. deep. At the 43 ft. level is a drift 4 x 6 ft. running N. $35^{\circ} E.$, 60 ft. Also a drift 4 x 6 ft running S. $50^{\circ} E.$, 20 ft. At the 125 ft. level is a drift 4 x 6 ft. running S. $30^{\circ} W.$, 25 ft.

Value of shaft and drifts\$ 3550.0

Other improvements.

A frame dwelling house, the S.W Cor. of which brs from Cor. No.4 Copper Cut lode N. $54^{\circ} 30' E.$, 580 ft. 12 x 18 ft. course of long sides N. $5^{\circ} E.$

A frame dwelling house, the S.W. Cor. of which brs from Cor. No.4 Copper Cut lode, N. $40^{\circ} E.$, 650 feet., 20 x 30 ft., course of long sides S. $88^{\circ} W.$,

A frame black smith house, the N.W. Cor. of which brs. from Cor. No. 1 Copper Cut lode, S. $19^{\circ} w.$, 290 feet., 14 x 20 ft., course of long sides N. $17^{\circ} E.$

INSTRUMENT.

This survey was made with a Gurley mountain transit, the courses were deflected from the true meridian as determined by direct solar observations. The distances were measured with a 500 ft. steel tape.

REPORT.

The lode line of each location of this claim was run directly upon the ground, and the corners were established by running around the claims.

The $1/4$ Cor. bet. Secs 21-28, T. 17 S. R. 16 E. consists of an iron pipe, 1 in. diam. with brass cap on top, stamped $1/4$ S-21-28.

MINERAL SURVEY NO. 3873.

ADJOINING CLAIMS.

On the North by the Black Horse lode, Unsur., Claimant unknown.

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do not include in transcript

SOLAR Observation.

Direct Solar Observation taken Wednesday, December 20, 1922 .

2.37 P.M. Solar time - Sun bisected. Lat. 32°56' - Lon. 110°43'

Difference in time- 10 H.

Apparent declination-23°25' 42.3"

$$\begin{array}{r} 25 \\ \hline 23^{\circ}26'08'' \\ \hline 90^{\circ} \end{array}$$

$$P = \frac{113^{\circ}26'}{\checkmark}$$

$$\begin{array}{r} L=32^{\circ}56' \\ H=22^{\circ}08' \\ P=113^{\circ}26' \\ \hline 2)168^{\circ}30' \\ \hline 84^{\circ}15' \checkmark \end{array}$$

$$\sin \frac{1}{2} A = \sqrt{\frac{\sin(S-L) \sin(S-H)}{\cos L \cos H}}$$

$$\begin{array}{l} S-L = 51^{\circ}19' \checkmark \\ S-H = 62^{\circ}07' \checkmark \end{array}$$

$$\begin{array}{r} 9.8924354 \checkmark \\ 9.9464040 \checkmark \\ 0.0760809 \checkmark \\ 0.0332438 \checkmark \\ \hline 2) 19.9481641 \\ \hline 9.9740820 = 70^{\circ}24' = \frac{1}{2} A. \end{array}$$

$$140^{\circ}48' = A$$

$$180 - 140^{\circ}48' = 39^{\circ}12' = \text{Course of Sun.}$$

$$\begin{array}{l} \frac{16^{\circ}02'}{23^{\circ}10'} = \text{Ang to left from Sun} \\ \neq \text{Course of line.} \checkmark \end{array}$$

Set up at Cor. No.1 Copper Cut lode, F S to Cor. No.4.

FINAL OATHS FOR SURVEYS.

LIST OF NAMES.

A list of the names of the individuals employed by T.N. Stevens
 United States Mineral Surveyor, to assist in running, measuring, and marking the lines, corners, and
 boundaries described in the foregoing field notes of the survey of the mining claim of _____
 _____ Fred C. Roberts _____
 known as the COBROSO and COPPER CUT Lodes _____
 and showing the respective capacities in which they acted.

W.H. Coplen _____, *Chainman.*
 _____, *Chainman.*
 _____, *Asman.*
 _____, *Flagman.*

FINAL OATHS OF ASSISTANTS.

We, I, W.H. Coplen _____
 and _____, do solemnly swear that we assisted _____
T.N. Stevens _____, United States Mineral Surveyor, in marking the corners and surveying
 the boundaries of the mining claim of Fred C. Roberts _____

 known as the Cobroso and Copper Cut Lodes _____
 represented in the foregoing field notes as having been surveyed by said mineral surveyor and under his
 direction; and that said survey has been in all respects, to the best of our knowledge and belief, faithfully
 and correctly executed, and the corner and boundary monuments established according to law and the instruc-
 tions furnished by the United States Surveyor-General for Arizona. _____

W.H. Coplen _____, *Chainman.*
 _____, *Chainman.*
 _____, *Asman.*
 _____, *Flagman*

Subscribed and sworn to by the above-named persons before me this fourth

day of January, 1923

W. H. Maquonthy
 Notary Public Pima Co., Ariz.

*My ems etc
 Feb 19, 1924*

FINAL OATH OF U. S. MINERAL SURVEYOR.

I, T.N. Stevens, U. S. Mineral Surveyor,
do solemnly swear that, in pursuance of instructions received from the United States
Surveyor General for Arizona, dated
December 18, 1922, I have, in strict conformity to the laws of the
United States, the official regulations and instructions thereunder, and the instructions
of said Surveyor General, faithfully and correctly executed the survey of the Mining
Claim of Fred C. Roberts
....., known as the
COBROSO and COPPER CUT Lodes
situate in Helvetia Mining District,
Pima County, Arizona, in Sections
21-28, Township No. 17 S., Range No. 16 E., G & S.R. M.
and designated as Survey No. 3873, as represented
in the foregoing field notes, which accurately show the boundaries of said mining claim
as distinctly marked by monuments on the ground, and described in the attached copy
of the location certificate, which was received by me from the Surveyor General with
said instructions, and that all the corners of said survey have been established and per-
petuated in strict accordance with the law, official regulations and instructions there-
under; and I do further solemnly swear that the foregoing are the true and original
field notes of said survey and my report therein, and that the labor expended and
improvements made upon said mining claim by claimant or his grantors
are as therein fully stated, and that the character, extent, location, and itemized value
thereof are specified therein with particularity and full detail, and that no portion of
said labor or improvements so credited to this claim has been included in the estimate
of expenditures upon any other claim.

T.N. Stevens
U. S. Mineral Surveyor.

Subscribed and sworn to by the said T. N. Stevens
U. S. Mineral Surveyor, before me R. W. Langworthy Notary
Public, Pima County, Arizona this fourth
day of January, 1923

R. W. Langworthy
Notary Public, Pima Co. Ariz

*my own copies
Feb 19, 1924*

U. S. SURVEYOR-GENERAL'S FINAL CERTIFICATE ON FIELD NOTES.

Department of the Interior,

OFFICE OF U. S. SURVEYOR-GENERAL,

Phoenix, Arizona.

January 31, 1923

I, U. S. Surveyor-General for District of Arizona

do hereby certify that the foregoing transcript of the Field Notes, return and approval of the survey of the mining claim of

Fred C. Roberts

known as the COBROSO and COPPER CUT Lodes

situate in Helvetia

Mining District, Pima County, Arizona

in Sections 21-28, Township No. 17 S., Range No. 16 E., and

designated as Survey No. 3873, has been correctly copied from the originals on file in this office; that said Field Notes furnish such an accurate description of said mining claim as will, if incorporated into a patent, serve fully to identify the premises, and that such reference is made therein to natural objects or permanent monuments as will perpetuate and fix the locus thereof.

And I further certify that five hundred dollars' worth of labor has been expended or improvements made upon said mining claim by claimant or his grantors, and that said improvements consist of 6 shafts and 3 drifts, total value \$5800.

and that no portion of said labor or improvements has been included in the estimate of expenditures upon any other claim.

I further certify that the plat thereof, filed in the U. S. Land Office at Phoenix,

Arizona, is correct and in conformity with the foregoing Field Notes.

Frank P. Trott

United States Surveyor-General for Arizona.

**SURVEYOR GENERAL'S CERTIFICATE OF APPROVAL OF FIELD NOTES
AND SURVEY OF MINING CLAIM**

**DEPARTMENT OF THE INTERIOR
OFFICE OF U. S. SURVEYOR GENERAL**

Phoenix, Arizona,

January 31, 1923

I, U. S. Surveyor General for District of Arizona

do hereby certify that the foregoing and hereto attached Field Notes and Return of the Survey of the Mining Claim of

Fred C. Roberts

, known as the

COBROSO and COPPER CUT Lodes

situate in Helvetia mining district,

Pima County, Arizona

in Section s 21 - 28, Township No. 17 S., Range No. 16 E.

, designated as Survey No. 3873

executed by T. N. Stevens, U. S. Mineral

Surveyor, December 19 - 21, 1922, under my instructions dated

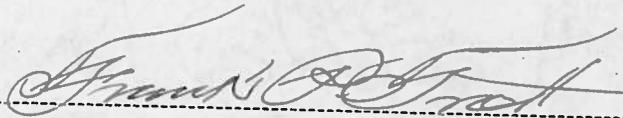
December 18, 1922, have been critically examined and the necessary

corrections and explanations made, and the said Field Notes and Return, and the survey they describe,

are hereby approved. The certified copy of the location certificate filed by the applicant for survey is

on file in this office and a true copy of said certified copy of said location certificate is included and

made a part of the transcript of the field notes.



U. S. Surveyor General for Arizona