

Copied Oct. 5, 1916,

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MAY 15 1916

AUG 28 1916

Plotted

(4-683.)

Mineral Survey No. 3283

Lot No.

Arizona Land District.

FIELD NOTES

OF THE SURVEY OF THE MINING CLAIM OF

George T. Ballachey

KNOWN AS THE

RAGNAROK MINE, RAGNAROK WEST MINE, NINETY-FIVE (95) MINE LODES

Oro Blanco Mining District.

Santa Cruz County, Arizona.

Section 36, Township 22 S., Range 10 E., G. & S.R.M.

Surveyed under instructions dated March 30th., 1916.

by Paul E. Fernald

U. S. ~~Deputy~~ Mineral Surveyor

Claim located See Location Notices

Survey commenced April 29th., 1916.

Survey completed May 7th., 1916.

6-100

Address of Claimant's Attorney:-

Ben C. Hill,

P.O. Box 448. Tucson, Ariz.

U.S. MINERAL SURVEY NO. 3283.

<p>Feet.</p> <p>300.00</p> <p>414.00</p> <p>600.00</p> <p>146.00</p> <p>230.00</p> <p>1500.00</p> <p>287.00</p> <p>300.00</p> <p>600.00</p>	<p><u>RAGNAROK MINE LODE.</u></p> <p>Beginning at Cor. No. 1</p> <p>A 4½ foot galvanized iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 1 - Rag.</p> <p>Whence the S.E. Cor. of Sec. 36, T. 22 S., R. 10 E., G. & S. R. M. bears S 26° 30½' E, 1995.4 feet.</p> <p>This Cor. is identical with the N.E. Cor. of the "Parallel" Lode, Unsurveyed, and the N.W. Cor. of the "Australitz" Lode, unsurveyed.</p> <p>Thence N 64° 13' E</p> <p>South End Center - monument of stones 3 feet high.</p> <p>Crosses small gulch running North.</p> <p>To Cor. No. 2, identical with the N.E. Cor. of the Australitz Lode, Unsurveyed.</p> <p>A 4½ foot galvanized iron pipe with claw base, set 1½ feet in the ground with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 2 - Rag.</p> <p>Whence the old S.E. Cor. of location, a monument of stones, bears N 64° 13' E, 12.62 feet.</p> <p>Oak B.T., 10 inches in diameter, scribed B.T. 3283, bears S 89° 32' E, 38.16 ft.</p> <p>Thence N 25° 47' W</p> <p>Crosses small gulch running N.E.</p> <p>Cor. No. 1, Ninety Five (95) Mine Lode, this survey, herein-after described.</p> <p>To Cor. No. 3, identical with Cor. No. 2, Ragnarok West Mine Lode, this survey.</p> <p>A 4½ foot galvanized iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 3 - Rag.</p> <p>Thence S 164° 13' W</p> <p>Crosses small gulch running N. - N.W.</p> <p>North End Center - monument of stones 3 feet high.</p> <p>To Cor. No. 4</p>
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S 3

A 4 1/2 foot galv.iron pipe with claw base, set 1 1/2 feet in the ground,with mound of stones. Brass cap on pipe stamped U.S.Mineral Survey No.3283, 4 - Rag.

Thence S 25° 47' E

159.93 Intersects line 4 - I, Ragnarok West Mine Lode; N 55° 40' W,

149.80 Feet from Cor.No.1.

1500.00 To Cor.No.1, the point of beginning.

RAGNAROK WEST MINE LODE.

Beginning at Cor.No.1.

A 4 1/2 foot galv.iron pipe with claw base, set 1 1/2 feet in the ground, with mound of stones. Brass Cap on pipe stamped U.S.Mineral Survey No.3283, 1 - Rag.W.

Whence the S.E.Cor.of Sec.36, T 22 S, R 10 E, G. & S. R. M. bears S 24° 54' E, 3205.8 ft.

Cor.No.4, Ragnarok Mine Lode, this survey, bears N 40° 13 1/2' W, 299.27 ft.

Thence N 35° 20' E

300.00 South End Center - monument of stones 3 feet high.

600.00 Corner No.2, identical with Cor.No.3, Ragnarok Mine Lode,

this survey, heretofore described. Brass cap marked additionally for this corner 2 - Rag.W.

Thence N 55° 40' W

240.00 Crosses small gulch running N.E.

780.00 Crosses small gulch running N.E.

1500.00 To Cor.No.3.

A 4 1/2 foot galv.iron pipe with claw base, set 1 1/2 feet in the ground, with mound of stones. Brass cap on pipe stamped U.S.Mineral Survey No.3283, 3 - Rag.W.

Whence an Oak B.T. bears N 37° 27' W, 167.10 ft. Tree is

10 inches in diameter, scribed B.T. 3283.

Thence S 35° 20' W

300.00 North end center - monument of stones 3 feet high.

304.00 Crosses small gulch running North.

600.00 To Cor.No.4.

A 4 1/2 foot galv.iron pipe with claw base, set 1 1/2 feet in the ground, with mound of stones. Brass cap on pipe

U.S. MINERAL SURVEY NO. 3283.

stamped U.S. Mineral Survey No. 3283, 4 - Rag. W.

- 520.00 Crosses small gulch running N.E.
- 1350.20 Intersects line 4 - 1, Ragnarok Mine Lode, this survey, S 25° 47' E, 159.93 feet from Cor. No. 4.
- 1500.00 To Cor. No. 1, the point of beginning.

NINETY FIVE (95) MINE LODE.

Beginning at Cor. No. 1, identical with the N.W. Cor. of the "Continuation" Lode, Unsurveyed.

A 4½ foot galv. iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 1 - 95.

Whence the S.E. Cor. of Section 36, T 22 S, R 10 E, G. & S. R. M. bears S 11° 18' E, 2298.3 feet.

- 300.00 South End Center - monument of stones 3 feet high.
- 367.00 Crosses road running N.W.
- 410.00 Crosses main gulch running N.W.
- 600.00 To Cor. No. 2, on N.W. Side-line Continuation Lode, Unsurveyed. A 4½ foot galv. iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass Cap on pipe stamped U.S. Mineral Survey No. 3283, 2 - 95.

Thence N 25° 47' W

- 1500.00 To Cor. No. 3, A 4½ foot galv. iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 3 - 95.

Thence S 38° 0' W

- 300.00 North end center - monument of stones 3 feet high.
- 475.00 Crosses main gulch running West.
- 543.00 Crosses road running W. - N.W.
- 600.00 To Cor. No. 4.

A 4½ foot galv. iron pipe with claw base, set 1½ feet in the ground, with mound of stones. Brass cap on pipe stamped U.S. Mineral Survey No. 3283, 4 - 95.

Thence S 25° 47' E

230.01 Cor.No.3 Ragnarok Mine Lode, this survey, heretofore described.

1500.00 To Cor.No.1, the point of beginning.

* * * * *

Magnetic Variation at all corners - 13° 45' E.

All corners are identical with the respective corners of location, except Cor.No.2,, Ragnarok Mine Lode, as shown in description of same.

No natural bearing objects available except where specifically noted.

* * * * *

LODE LINES. As near as can be determined from present

development, the veins of the several locations embraced in this survey, extend as follows from their respective discovery points:-

Ragnarok Mine Lode. N 25° 47' W, 1500. feet.

Ragnarok West Mine Lode. N 55° 40' W, 1500. feet.

Ninety Five (95) Mine Lode. N. 25° 47' W, 1500. feet.

AREAS.

Total area Ragnarok Mine Lode. 20.661 acres

" " Ragnarok West Mine Lode. 20.658 "
Area in conflict with Ragnarok Mine Lode, this survey - - 2.133 acres.

Total area Ninety Five (95) Mine Lode. 18.536 "

LOCATION.

This survey is located in section 36, T 22 S, R 10 E, G. & S. R. ^BM., in the Oro Blanco Mining District, Santa Cruz County, Arizona, and lies within the Coronado National Forest.

ADJOINING AND CONFLICTING CLAIMS.

On the South the "Continuation Lode", unsurveyed, A.H.Noon, Claimant, joins the Ninety Five (95) Mine Lode and the Ragnarok Mine Lode. The Australitz Lode, unsurveyed, A.H.Noon, Claimant, joins the South End of the Ragnarok Mine Lode, and the Parallel Lode, Unserved, A.H.Noon, Claimant, has its N.E.Cor. identical with Cor.No.1 of

U.S. MINERAL SURVEY NO. 3283.

the Ragnarok Mine Lode.

00.083 IMPROVEMENTS.

I certify that the value of the labor and improvements made upon or for the benefit of each of the locations embraced in this survey, by the claimant or its grantors, is not less than Five Hundred Dollars, and that said improvements consist of:-

00.083 Ragnarok Mine Lode.

No.1. The point of discovery, on outcrop of ledge at South End Center.

No.2. Cut and tunnel running N.W., center of mouth of cut bears N 30° 38' W, 221. feet from Cor.No.2. Cut is 5x25 to 13 ft. face, thence tunnel 4x6½ - 150 ft. long.

Value \$1650.00

No.3. Vertical shaft 5x9 - 41 ft. deep, solid crib timbered.

00.083 Center of shaft bears N 72° 27' W, 339. ft. from Cor.No.2.

Value \$800.00

No.4. Irregular cut N.- N.W. into hill, the center of which

00.083 bears N 66° 3' W, 464. feet from Cor.No.2. Average dimensions of cut are 50x100 to 30 ft. face.

Value \$2000.00

Ragnarok West Mine Lode.

No.1 The point of discovery, on outcrop of ledge at South End Center.

00.083 No.2. Shaft 4x6 - 10 ft. deep, the center of which bears S 87° 15' W, 435. ft. from Cor.No.2.

Value \$50.00

No.3. Cut and tunnel, the center of mouth of which bears

S 45° 11' E, 640. feet from Cor.No.3. Cut is in W.- N.W. 5x39 to 12 ft. face, thence tunnel 4x6 - 105 ft. long.

From point 47 feet in from mouth of tunnel, a cross-cut runs S.- S.W. 4x6 - 23 feet long.

Value \$1480.00

No.4. Irregular cut S.W. into hill, the center of which

bears S 21° 0' E, 387. feet from Cor.No.3. Average dimensions

14x30 to 8 ft.face.

Value \$350.00

Ninety Five (95) Mine Lode. No.1. The point of discovery, on outcrop of ledge at South End Center.

No.2. Vertical shaft 4x6 - 14 feet deep, center bears S 48° 59' W, 298. feet from Cor.No.2.

Value \$90.00

No.3. Cut and tunnel in S.W., center mouth of cut bears S 74° 29' W, 232. feet from Cor.No.2. Cut is 3 1/2 x 25 to 12 feet face, thence tunnel 3 1/2 x 7 - 42 feet long.

Value \$500.00

No.4. Cut and tunnel in S.W., the center of mouth of cut bears N 59° 16' W, 399. feet from Cor.No.2. Cut is 4x12 to 13 ft. face, thence tunnel 4x6 - 28 feet long.

Value \$350.00

No.5. Cut S.W. into hill, the center of which bears N 59° 33' W 890. feet from Cor.No.2. Average dimensions of cut

10x25 to 14.ft.face. Value \$250.00

OTHER IMPROVEMENTS.

On the Ninety-Five (95) Mine Lode, an adobe house 16x30 feet, the N. Corner of which bears N 82° 30' E, 152.6 feet from Cor.

No.4. The point of discovery, on outcrop of ledge at South End Center. INSTRUMENT.

This survey was made with Buff-Mining Transit No.7905.

The courses were deflected from the true meridian as determined from direct solar observations. Distances were measured with Deitzgen 350 and 100 foot steel tapes.

REPORT.

Corners of the Continuation, Australitz and Parallel Lodes, Unsurveyed, are stone monuments 3 feet or more in height, white-washed.

The S.E. Cor. of Section 36, T 22 S, R 10 E, G. & S.R.M. is a stone 10x12, - 18 inches above ground. Marked with six notches on all four sides. Monument of stones 3 feet south.

U.S. MINERAL SURVEY NO. 3283.

After diligent search, I was unable to locate the E $\frac{1}{4}$ Cor., N.E. Cor., N $\frac{1}{4}$ Cor., and N.W. Cor. of Sec. 36, and the E $\frac{1}{4}$ Cor. of Sec. 25, T 22 S., R 10 E, and have reason to believe that same were never set. I have therefore tied the Cors. No. I of the locations embraced in this survey to the S.E. Cor. of Sec. 36, T 22 S., R 10 E, the nearest land monument that I was able to identify.

Paul E. Fernald.

U.S. Mineral Surveyor

Tucson, Ariz. May 12th, 1916,

DIRECT SOLAR OBSERVATIONS FOR TRUE MERIDIAN.

Saturday, April 29th. 1916. 3.08 P.M. Decl. N $14^{\circ} 35'$
 Base - Cor.No. I Ragnarok Mine Lode. Lat. N $31^{\circ} 29'$
 Line - Line I-2 Ragnarok Mine Lode.
 Direct. Defl. R. $10^{\circ} 31'$. A. $49^{\circ} 34'$. Alt. Cor. - $1'$
 Reverse. " R. $11^{\circ} 18'$. A. $48^{\circ} 45'$.
 Av. result S $64^{\circ} 13' W$.

Sunday, April 30th. 1916. 8.37 A.M. Decl. N $14^{\circ} 48'$
 Base - peg on line 4-I Ragnarok Mine Lode. Lat. N $31^{\circ} 29'$
 Line - line 4-I Ragnarok Mine Lode.
 Direct. Defl. L. $60^{\circ} 12'$. A. $35^{\circ} 37'$. Alt. Cor. - $1'$
 Reverse. " L. $59^{\circ} 52'$. A. $36^{\circ} 7'$
 Av. result S $25^{\circ} 47' E$.

MAY 15 1916 10
AUG 28 1916

FINAL OATHS FOR SURVEYS.

LIST OF NAMES.

A list of the names of the individuals employed by Paul E. Fernald
 United States ~~Deputy~~ 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
George T. Ballachey
 known as the Ragnarok Mine, Ragnarok West Mine, Ninety-Five (95) Mine lodes.
 and showing the respective capacities in which they acted.

Herman H. Stoll _____, Chainman.
 _____, Chainman.
 _____, Axman.
 _____, Flagman.

FINAL OATHS OF ASSISTANTS.

~~xxx~~ I, Herman H. Stoll
~~and xxx~~ _____, do solemnly swear that ^I~~xxx~~ assisted Paul E. Fernald
 _____, United States ~~Deputy~~ Mineral Surveyor, in marking the corners and surveying
 the boundaries of the mining claim of George T. Ballachey

 known as the Ragnarok Mine, Ragnarok West Mine, Ninety Five (95) Mine lodes.
 represented in the foregoing field notes as having been surveyed by said ~~deputy~~ 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 instructions
 furnished by the United States Surveyor-General for Arizona.

Herman H. Stoll _____, Chainman.
 _____, Chainman.
 _____, Axman.
 _____, Flagman.

Subscribed and sworn to by the above-named persons before me this 8th.

day of May, 19 16.

A. McDonald
 Notary Public Pima Co.,
 Ariz.

my commission expires Jan. 5 1919.

AUG. 28. 1916

(4-686.)

FINAL OATH OF U. S. ~~DEPUTY~~ MINERAL SURVEYOR

I, Paul E. Fernald, U. S. ~~Deputy~~ Mineral Surveyor, do solemnly swear that, in pursuance of instructions received from the United States Surveyor General for Arizona, dated March 30th. 1916., 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 George T. Ballachey, known as the RAGNAROK MINE, RAGNAROK WEST MINE, NINETY FIVE (95) MINE LODES, situate in Oro Blanco Mining District, Santa Cruz County, Arizona, in Section 36, Township No. 22 S., Range No. 10 E. G. & S. R. 3rd, and designated as Survey No. 3283, 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 perpetuated in strict accordance with the law, official regulations and instructions thereunder; 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.

Paul E. Fernald.

U. S. ~~Deputy~~ Mineral Surveyor.

Subscribed and sworn to by the said Paul E. Fernald,
 U. S. ~~Deputy~~ Mineral Surveyor, before me _____
 _____ this 10th.
 day of May, 1916.

W. McDonald

Notary Public
Pima Co., Ariz.

My Commission expires
Jan 5 1919.

STATE OF ARIZONA, }
COUNTY OF PIMA. } ss.

I, ... R.B.Vinson, County Recorder in and for the
County of Pima, State of Arizona, do hereby certify that the above and foregoing is a full, true and correct copy
of a Location Notice of the Ragnarok Mine, located by J.M.Kirkpatrick,
January 1st, 1888.

as appears of record now in my office in Book .. Z .. Rec. of Mines Pages .. 574

IN WITNESS WHEREOF, I have hereunto set my hand

and affixed my official seal, at my office in Tucson,

this .. 28th, day of

March, A. D. 1916

R.B. Vinson
County Recorder of Pima County, Arizona.



RAGNAROK MINE

Notice of Location is hereby given that the undersigned, in compliance with the requirements of the Mining Act of Congress approved May 10, 1872, has this day located and claimed ^{fifteen hundred} 1500 linear feet along the course of this lead, lode or vein of mineral bearing quartz and ^{three hundred} 300 feet in width on each side of the middle of said lead, lode or vein, situated in the Oro Blanco Mining District, County of Pima, Arizona, and more particularly described as follows: to-wit:

Commencing at ^{this} ~~the~~ monument of stones being the center of the Southeast end of claim and upon which this notice is posted, thence in a northeasterly direction 300 feet to ~~the~~ a monument of stones, thence in a northwesterly direction 1500 feet to a monument of stones, thence in a southwesterly direction 300 feet to a monument of stones being the center of the northwest end of claim, thence in a southwesterly direction 300 feet to the monument of stones, thence in a southeasterly direction 1500 feet to a monument of stones, thence in a northeasterly direction 300 feet to the place of beginning. This claim is situated about two miles south of the Ostrich Mill and was formerly known as the "Old Stiff" Mine. The necessary amount of work required by law not having been done for the year 1887, it is hereby relocated and shall be known as the "Ragnarok Mine".

Located January 1st, 1888. Filed and recorded at request of J. M. Kirkpatrick Jan. 1, 1888 at 10.30 A.M. in Book D Page 158. District records

G. J. Phillip, Recorder.
J. M. Kirkpatrick,
Locator.

Filed and recorded at request of J. M. Kirkpatrick February 15, 1888 at 9:30 A.M.
A. B. Sampson,
County Recorder.

STATE OF ARIZONA, }
COUNTY OF PIMA. } ss.

I, R.B. Vinson, County Recorder in and for the
County of Pima, State of Arizona, do hereby certify that the above and foregoing is a full, true and correct copy
of a Location Notice.. of the Ragnarok West Mine.. Located.. by J. M..
Kirkpatrick, .. January 1st, .. 1892.....

as appears of record now in my office in Book C.C. Rec., of Mines ... Pages.. 512.....

IN WITNESS WHEREOF, I have hereunto set my hand

and affixed my official seal, at my office in Tucson,

this 28th, day of

March,, A. D. 191. 6.

..... R.B. Vinson
County Recorder of Pima County, Arizona.



RAGNAROK WEST MINE.

15

Notice of Location is hereby given that the undersigned in compliance with the requirements of the Mining Act of Congress approved May 10, 1872, has this day located and claimed ^{fifteen hundred} 1500 linear feet along the course of this lead, lode or vein of mineral bearing quartz and ^{three hundred} 300 feet in width on each side of the middle of said lead, lode or vein situated in the Oro Blanco Mining District, County of Pima, Arizona, and more particularly described as follows, to-wit:

Commencing at this monument of stones being the center of the southeast end of the claim, upon which this Notice is posted, thence northeast 300 feet to a monument of stones, thence northwest 1500 feet to a monument of stones, thence southwest 300 feet to a monument of stones, being the center of the northwest end of claim, thence southwest 300 feet to a monument of stones, thence southeast 1500 feet to a monument of stones, thence ^{north} ~~south~~ east 300 feet to the place of beginning

This claim is the first extension in a ^{north} ~~south~~ westerly direction of the Ragnarok Mine and adjoins the same. It is hereby relocated on account of the assessment work not having been done for the year 1891 required by law and shall be known as the "Ragnarok West Mine".

Relocated January 1st, 1892. Filed and recorded at request of J. M. Kirkpatrick January 2, 1892 at 8:40 A.M. in Book D, page 277 District Records, Oro Blanco Mining District, Pima County, Arizona.

G. J. Phillip,
Deputy Recorder.

Locator,
J. M. Kirkpatrick.

Filed and recorded at request of J. M. Kirkpatrick
March 7, A.D., 1892 at 1:30 P.M.

Chas. A. Shibell,
County Recorder.

STATE OF ARIZONA, }
COUNTY OF PIMA. } ss.

I, R.B. Vinson County Recorder in and for the
County of Pima, State of Arizona, do hereby certify that the above and foregoing is a full, true and correct copy
of a Location Notice of the Ninety-Five Mine, Located by J.M.
Kirkpatrick, and George Stevens, January 1st, 1895.

.....
as appears of record now in my office in Book .. E.E. Rec., of Mines..... Pages.. 322.....

IN WITNESS WHEREOF, I have hereunto set my hand

and affixed my official seal, at my office in Tucson,

this 28th..... day of

March,....., A. D. 1916.

R.B. Vinson

County Recorder of Pima County, Arizona.



NINETY-FIVE MINE.

Notice of Location is hereby given that the undersigned, in compliance with the requirements of the Mining Act of Congress, approved May 10, 1872, have this day located and claimed 1500 *fifteen hundred* linear feet along the course of this lead, load or vein of mineral bearing quartz and ~~300~~ *three hundred* feet in width on each side of the middle of said lead, load or vein, situated in the Oro Blanco Mining District, County of Pima, Arizona, and more particularly particularly described as follows: to wit:

Commencing at this monument of stone, being the center of the southeast end of the claim and upon which this notice is posted, thence southwest 300 feet to a monument of stones, thence northwest 1500 feet to a monument of stones, thence northeast 300 feet to a monument of stones, being the center of the northwest end of claim, thence northeast 300 feet to a monument of stones, thence southeast 1500 feet to a monument of stones, thence southwest 300 feet to the place of beginning.

This claim is located and adjoins the Ragnarok Mine and is parallel with the same lying on the northeast side of the above named Ragnarok Mine and shall be known as the Ninety-five *[95]* Mine located January 1, 1895.

Locators;
 J. M. Kirkpatrick,
 George Stevens.

Filed and recorded at request of J. M. Kirkpatrick
 January 9, 1895 at 9 A. M.

Chas. A. Shibell,
 County Recorder.

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

Department of the Interior,

OFFICE OF U. S. SURVEYOR-GENERAL,

Phoenix, Arizona,

October 5, 1916.

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

George T. Ballachey

known as the Ragnarok Mine, Ragnarok West Mine, Ninety-Five (95) Mine lodes situate in Oro Blanco

Mining District, Santa Cruz County, Arizona,

in Section 36, Township No. 22 S., Range No. 10 E., and

designated as Survey No. 3283, 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 each of said mining claims by claimant or his grantors, and that said improvements consist of 7 cuts, 4 tunnels, 3 shafts and 1 crosscut, total value \$7520.

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,

October 5, 1916

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

George T. Ballachey

known as the Ragnarok Mine, Ragnarok West Mine, Ninety-Five (95) Mines lodes.

situate in Oro Blanco mining district,

Santa Cruz County, Arizona.

in Section 36, Township No. 22 S., Range No. 10 E.

designated as Survey No. 3283

executed by Paul E. Fernald, U. S. Deputy Mineral

Surveyor, April 29-May 7, 1916, under my instructions dated

March 30, 1916, have been critically examined and the necessary cor-

rections and explanations made, and the said Field Notes and Return, and the Survey they describe,

are hereby approved. A true copy of the copy of the location certificate filed by the applicant for

survey is included in the field notes.

[Handwritten signature]

U. S. Surveyor-General for Arizona.