

FEB 27 1940

4-683

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

1

MINERAL SURVEY NO. 4231

Arizona Land District.

FIELD NOTES

Of The Survey Of The Mining Claim Of

MAGMA COPPER COMPANY

Known As The

HORSESHOE NO. 1, HORSESHOE NO. 2, and SILVER TIP EXTENSION NO. 2

PIONEER lodes Mining District,

PINAL County, ARIZONA

25 & 36 12 E
Section 30 & 31, Township 1 S., Range 13 E

Surveyed under instructions dated December 7, 1939.

by Ralph L. Motz
U.S. Mineral Surveyor, G.L.O.,

Claim located see location notices, 19

Survey commenced January 21, 1940

Survey completed January 26, 1940

Address of claimant's attorney, Edward W. Rice,
P.O.Box 893, Globe, Arizona.

DATES OF AMENDED LOCATIONS

may 17, 1939.

MINERAL SURVEY NO. 4231 - HORSESHOE NO. 1

Feet

Mineral Survey No. 4231 was made with a Gurley & Sons Precise Transit, light mountain model, with horizontal limb 6.25 inches in diameter, having two double opposite verniers, and full vertical circle 5 inches in diameter, having one double vernier; the verniers read to one minute of arc; the eye-piece is equipped with a prismatic eye piece with colored glass slide for making direct observations upon the sun. The instrument was in good condition at the time of survey and all adjustments were in good order. A p.m. altitude observation of the sun for azimuth, and at noon on the meridian for latitude, were made at Cor. No. 4 of the Horseshoe No. 1 lode, the details of which observations are shown in the calculation sheets submitted herewith for examination. All azimuths in this record are referred to the true meridian thus determined, by the method of deflection angles and calculated courses.

The lines were measured with a Keuffel & Esser steel tape, 100 feet in length, graduated to feet, tenths and hundredths of feet for the entire length; a Keuffel & Esser steel tape, 300 feet in length, graduated to feet, tenths and hundredths of feet for the entire length; a Lufkin steel tape, 25 feet in length, graduated to feet, inches and fractions of inches for the entire length. All tapes were compared with a Lufkin standard steel tape at the time of beginning the survey, and found correct.

All lines and connections of this survey were run by direct methods.

The magnetic variation observed at each corner of the survey gave a uniform value of $14^{\circ} 15' E$.

HORSESHOE NO. 1

Beginning at Cor. No. 1 of the Horseshoe No. 1 lode,

Identical with Cor. No. 4 Survey No. 2995 Horse Shoe lode and situated on line 4-1 Survey No. 2995 Silver Tip Extension lode

Set an iron post, 2 inches in diameter, 3 feet long, 18 inches in the ground, with iron cap, for Cor. No. 1 mkd. HS-4-2995; H1-1-4231; from which

A dacite ledge, 41x98 ins., 62 ins. above ground bears N. $5^{\circ} 02' E$, 11 ft., mkd. BR x H1-1-4231

A dacite ledge, 50x67 ins., 123 inches above ground bears S. $3^{\circ} 10' W$, 23.0 ft., mkd. BR x H1-1-4231

The $\frac{1}{4}$ Sec. Cor. between Secs. 25 and 36, T. 1 S., R 12 E., G. & S. R. ~~Box~~ M., bears S. $19^{\circ} 48' W$, 76.0 ft. dist., an iron post with brass cap, properly set and marked as described in the official record.

Thence N. $88^{\circ} 26' E$.

149.6 To Cor. No. 2

Identical with Cor. No. 4, Survey No. 2995 Silver Tip Extension and with Cor. No. 1 Survey No. 4093 Silver Tip Extension No. 1 lodes

An iron pipe, with iron cap, 3 ins. diam., 30 ins. above ground, in a mound of rocks, 4-2995; 1-STE1-4093; which I mark H1-2-4231 for this claim. mkd.

Thence N. $88^{\circ} 49' E$.

Feet	
1340.25	Cor. No. 4 Horseshoe No. 2 lode of this survey
1344.88	To Cor. No. 3
	Situating on line 4-1 Survey No. 4093 Silver Tip Extension No. 1 lode; and on line 4-5 of the Horseshoe No. 2 lode of this survey
	Set an iron pipe, 2 ins. diameter, 3 ft. long, with iron cap, 18 inches in the ground for Cor. No. 3 from which
	A dacite ledge, 39x41 ins., 43 ins. above ground bears S. 20° 11' W., 7.6 ft., mkd. BR x H1-3-4231
	A dacite ledge, with vertical face 10x30 ft., facing southeast bears N. 2° 55' E., 28.2 ft., mkd. BR x H1-3-4231
	The original location for the northeast corner, bears N. 1° 27' W., 9.7 ft. being a post, 4 inches square, 24 inches above ground, in a mound of rocks.
	Thence S. 1° 27' E.
290.3	To intersect lode line at original location for the east end center, being a mound of rocks, 3 feet high, 3 feet base
590.3	To Cor. No. 4
	Identical with Cor. No. 3 of the Horseshoe No. 2 lode of this survey, where I
	Set an iron pipe, 3 ft. long, 2 ins. diameter, with iron cap, 18 inches in the ground for Cor. No. 4; mkd. H1-4-4231; H2-3-4231; from which
	A dacite ledge, 37x48 ins., 22 ins. above ground, bears S. 87° 35' E., 5.1 ft. mkd. BR x H1-4-4231
	A dacite ledge, 50x145 ins.; 72 ins. above ground, bears S. 61° 52' W., 25.0 ft., mkd. BR x H1-4-4231
	Thence S. 88° 24' W.
1444.48	An iron pipe, 2 ins. diameter, 3 ft. long, with iron cap, set 12 ins. in the ground to bedrock, surrounded with mound of rocks, for witness, Cor. to Cor. No. 5, mkd. WC-H1-5-4231
1494.48	Cor. No. 5
	Identical with point for Cor. No. 5, Sur. No. 2995 Horse Shoe lode.
	This corner falls on the side of a vertical cliff where a permanent monument can not be established
	Thence N. 1° 27' W.
300.00	Intersect lode line at original location for the west end center, being a mound of rocks, 3 feet high, 3 feet base.
599.76	Intersect line 4-1 Survey No. 2995 Silver Tip Extension lode, at S. 88° 20' 30" W. 149.6 ft. from Cor. No. 4.
600.0	Cor. No. 1, and place of beginning.
	-HORSESHOE NO. 2-
	Beginning at Cor. No. 1 of the Horseshoe No. 2 lode
	Identical with Cor. No. 1 of the Silver Tip Extension No. 2 lode of this survey.

Feet	
	Set an iron pipe, 2 ins. diameter, 3 ft. long, 18 ins. in the ground, with iron cap, for Cor. No. 1, mkd. H2-1-4231; STE2-1-4231; from which A dacite ledge, 65x113 ins., 80 ins. above ground bears S. 84° 12' E., 8.6 ft. dist., mkd. BR x H2-1-4231 A dacite ledge, 43x164 ins., 49 ins. above ground bears S. 73° 23' W., 8.5 ft. dist., mkd. BR x H2-1-4231 The Cor. of Secs. 25 and 36, T. 1 S., R. 12 E., and Secs. 30 and 31, T. 1 S., R. 13 E., G. & S. R. East M. bears S. 79° 19' W., 377.0 ft. dist., an iron pipe with brass cap, properly set and marked as described in the official record. Thence S. 1° 54' E.
210.0	Center Highway, Globe to Superior, 30 ft. wide, course northeasterly
300.0	To intersect lode line at Original location for the east end center, being a mound of rocks 3 ft. high, 3 ft. base
415.0	Center Queen Creek, 30 ft. wide, course southwesterly
600.0	Cor. No. 2 Set an iron pipe, 2 ins. diameter, 3 ft. long, 6 ins. in the ground to bed rock, surrounded by monument of rocks, with iron cap, for Cor. No. 2, mkd. H2-2-4231; from which A dacite rock in place, 90x122 ins., 63 ins. above ground, bears N. 75° 08' E., 21.5 ft. mkd. BR x H2-2-4231 A dacite rock in place, 38x41 ins., 27 ins. above ground, bears S. 20° 02' W., 7.15 ft., mkd. BR x H2-2-4231 Thence N. 87° 35' W.
625.0	Center Queen Creek, 50 ft. wide, course southwesterly
831.68	Intersect line 1-2 Sur. No. 4150 Spring lode, at a point from which Cor. No. 2 bears S. 9° 40' 30" W., 245.76 ft. dist.
1232.0	Center Highway, Globe to Superior, 30 ft. wide, course southerly
1330.3	Intersect line 3-4 Sur. No. 4150 Spring lode, at a point from which Cor. No. 3 bears S. 9° 40' 30" W., 522.78 ft. dist.
1489.3	Cor. No. 3 which is identical with Cor. No. 4 of the Horseshoe No. 1 lode of this survey Thence N. 1° 54' W.
300.0	To intersect lode line at Original location for the west end center, being a mound of rocks, 3 ft. high, 3 ft. base.
590.3	Cor. No. 4 Situated on line 4-1 Sur. No. 4093 Silver Tip Extension No. 1 lode and on line 2-3 of the Horseshoe No. 1 lode of this survey, where I

Feet	
	Set an iron pipe, 2 ins. diameter, 3 ft. long, with iron cap, 18 ins. in the ground, for Cor. No. 4, mkd. H2-4-4231
	A corner of the location bears N. 1° 54' W., 9.7 ft. dist.
	Thence N. 88° 49' E.
4.63	Cor. No. 3 of the Horseshoe No. 1 lode of this survey
139.95	Cor. No. 5
	Identical with Cor. No. 4 Sur. No. 4093 Silver Tip Extension No. 1 lode and with Cor. No. 2 of the Silver Tip Extension No. 2 lode of this survey, being an
	Iron pipe, 12 ins. above a monument, 4 ft. diam, 2 ft. high, mkd. 4-STEL-4093; H2-5-4231; STE2-2-4231; from which
	A dacite ledge, vertical face 10x35 ft., facing northeast bears S. 66° 24' W., 15.5 ft., mkd. BR x H2-5-4231
	A dacite ledge, vertical face 25x75 ft., facing east bears N. 8° 10' W., 15.0 ft., mkd. BR x H2-5-4231
	Cor. No. 4 Sur. No. 4150 Spring lode bears N. 35° 03' E., 323.67 ft. dist.
	Thence S. 87° 37' E.
139.84	Intersect line 3-4 Sur. No. 4150 Spring lode at a point from which Cor. No. 3 bears S. 9° 40' 30" W., 1125.10 ft. dist.
638.46	Intersect line 1-2 Sur. No. 4150 Spring lode, at a point from which Cor. No. 2 bears S. 9° 40' 30" W., 848.36 ft. dist.
1348.9	Cor. No. 1 and place of beginning.
	SILVER TIP EXTENSION NO. 2
	Beginning at Cor. No. 1 of the Silver Tip Extension No. 2 lode, which is identical with Cor. No. 1 of the Horseshoe No. 2 lode of this survey
	Thence N. 87° 37' W.
710.44	Intersect line 1-2 Sur. No. 4150 Spring lode, at a point from which Cor. No. 1 bears N. 9° 40' 30" E., 551.44 ft. dist.
1209.06	Intersect line 3-4 Sur. No. 4150 Spring lode at a point from which Cor. No. 4 bears N. 9° 40' 30" E., 274.7 ft. dist. Cor. No. 1 said lode bears N. 65° 10' E. 600.2 ft. from Cor. No. 4 thereof.
1348.9	Cor. No. 2
	Identical with Cor. No. 5 of the Horseshoe No. 2 lode of this survey
	Thence N. 1° 33' W.
300.0	To intersect lode line at Original location for the west end center, being a mound of rocks, 3 ft. high, 3 ft. base

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Feet	
600.0	<p>Cor. No. 3, on line 2-3, Sur. No. 4093, Silver Tip Extension No. 1 lode.</p> <p>Set an iron pipe, 2 ins. diam., 3 ft. long, with iron cap, 12 ins. in the ground to bed rock, surrounded with monument of rocks, for Cor. No. 3, mkd. STE2-3-4231; from which</p> <p>Cor. No. 3 Sur. No. 4093. Silver Tip Extension No. 1 lode bears N. 88° 49' E., 4.54 ft. dist.</p> <p>Thence S. 87° 37' E.</p>
4.55	<p>Intersect line 3-4 Sur. No. 4093 Silver Tip Extension No. 1 lode at a point from which Cor. No. 3 bears N. 1° 07' W. 0.28 ft. and Cor. No. 4 bears S. 1° 07' E., 599.72 ft.</p>
1497.5	<p>Cor. No. 4</p> <p>Set an iron pipe 2 ins. diam., 3 ft. long, with iron cap, 18 ins. in the ground for Cor. No. 4; mkd. STE2-4-4231; from which</p> <p>A dacite rock in place, 20x58 ins., 49 ins. above ground bears S. 42° 05' W., 6.9 ft., mkd. BR x STE2-4-4231</p> <p>A dacite bluff, vertical face 7x17 ft. facing south, bears N. 23° 30' E., 17.5 ft.</p> <p>Thence S. 1° 33' E.</p> <p>To intersect lode line at</p>
300.0	<p>Original location for the east end center, being a mound of rocks, 3 ft. high, 3 ft. base</p>
590.0	<p>Cor. No. 5</p> <p>Set an iron pipe; 2 ins. diam., 3 ft. long, with iron cap, 18 ins. in the ground for Cor. No. 5; mkd. STE2-5-4231; from which</p> <p>A dacite ledge, 24x54 ins., 58 ins. above ground, bears N. 87° 54' W., 14.9 ft. mkd. BR x STE2-5-4231</p> <p>A dacite bluff, vertical face 11x18 ft., facing west, bears N. 15° 10' W., 8.9 ft., mkd. BR x STE2-5-4231</p> <p>A corner of the location bears S. 1° 33' E., 10.0 ft.</p> <p>Thence S. 88° 30' W.</p>
148.2	<p>Cor. No. 1 and place of beginning.</p> <p>LODE LINES.</p> <p>The presumed course of the vein of each of the several lode locations embraced in this survey, counted from the respective points of discovery, is as follows:</p> <p>Horseshoe No. 1 lode, N. 88° 24' E., 82 ft.; and, S. 88° 24' W., 1412.48 ft.</p> <p>Horseshoe No. 2 lode, N. 87° 35' W., 75 ft.; and, S. 87° 35' E., 1414.3 ft.</p> <p>Silver Tip Extension No. 2 lode, N. 87° 37' W., 186 ft.; and, S. 87° 37' E., 1311.5 ft.</p>

only
4.54
3
599.7

AREAS.

Total area Horseshoe No. 1 lode,	acres.
Area in conflict with	20.434
Sur. No. 2995 Silver Tip Extension lode,	nominal
Total area, Horseshoe No. 2 lode - - - - -	20.425
Area in conflict with	
Sur. No. 4150 Spring lode - - - - -	6.841
Horseshoe No. 1 lode of this survey - - - - -	0.031
Total area, Silver Tip Extension No. 2 lode	20.562
Area in conflict with	
Sur. No. 4093 Silver Tip Extension No. 1 lode -	0.031
Sur. No. 4150 Spring lode - - - - -	4.690

LOCATION.

This survey is located in SE¹ SE² and Lot 6, Sec. 25, the NE¹ NE² and Lot 1, sec. 36, T. 1 S.; R 12 E.; and Lot 4, sec. 30 and lot 1, sec. 31, T. 1 S., R 13 E., G. & S. R. Book M., within the Crook National Forest.

The survey of the claims of this survey is identical with or within the lines of location as marked on the ground.

EXPENDITURE OF \$500

I certify that the value of the labor and improvements made upon or for the benefit of each of the lode locations embraced in said mining claim by the claimant or its grantors is as shown, and that said improvements consist of:

HORSESHOE NO. 1

No. 1 The discovery cut of the Horseshoe No. 1 lode, the face of which being the discovery point is on the center line, 82 ft. from the east end center; 4 ft. wide, 10 ft. face, running West 12 ft. to face.

Value \$50

No. 2 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 69° 20' W., 390 ft. from Cor. No. 3, running South 283 ft. This drill hole has been started on the Silver Tip Extension No. 1 lode, Sur. No. 4093 and ends in the Horseshoe No. 1 lode, being of equal benefit to these two lode claims. Therefore an undivided 1/2 is allotted to each.

Total Value \$1216.90
Value 1/2 interest \$608.45

No. 3 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 47° 30' W., 182 ft. from Cor. No. 3 of the Horseshoe No. 1 lode, running South 197 ft. This drill hole has been started on Survey No. 4093 Silver Tip Extension No. 1 lode and ends in the Horseshoe No. 1 lode, being of equal benefit to these two lode claims. Therefore an undivided 1/2 interest is allotted to each.

Total value \$847.10
Value 1/2 interest \$423.55

HORSESHOE NO. 2

No. 1 The discovery cut of the Horseshoe No. 2 lode, the face of which being the discovery point is on the center line 75 ft. from the west end center; 6 ft. wide, 10 ft. face running N. 25° W., 12 ft. to face.

Value \$75

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SILVER TIP EXTENSION NO. 2.

- No. 1 The discovery cut of the Silver Tip Extension No. 2 lode, the face of which being the discovery point is on the center line 186 ft. from the west end center; 6 ft. wide, 10 ft. face, running N. 20° W., 14.0 ft. to face
Value \$80
- No. 2 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 5° 10' E., 135 ft. from Cor. No. 2 of the Silver Tip Extension No. 2 lode; running South 211 ft. This drill hole starts on the Silver Tip Extension No. 2 lode and ends on the Horseshoe No. 2 lode of this survey, being of equal benefit to both lode claims.
Value \$907.30
Value of 1/2 interest \$453.65
- No. 3 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 67° 35' E., 354 ft. from Cor. No. 2 of the Silver Tip Extension No. 2 lode; running South 157 ft. This drill hole starts on the Silver Tip Extension No. 2 lode and ends on the Horseshoe No. 2 lode of this survey, being of equal benefit to both lode claims. Value \$675.10
Value 1/2 interest, \$337.55
- No. 4 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 69° 45' E., 450 ft. from Cor. No. 2 of the Silver Tip Extension No. 2 lode; running N. 75° E., 1252 ft. This drill hole starts on the Silver Tip Extension No. 2 lode and ends on the Silver Tip Extension No. 3 lode, unsurveyed, being of equal benefit to both lode claims.
Total Value \$5383.60
Value of 1/2 interest \$2691.80
- No. 5 A diamond drill hole, horizontal from the 2000 ft. level, the start of which bears N. 69° 45' E., 450 ft. from Cor. No. 2 of the Silver Tip Extension No. 2 lode; running S. 73° 30' E., 1250 ft. This drill hole starts on the Silver Tip Extension No. 2 lode, runs through Horseshoe No. 2 lode and ends on the Horseshoe No. 3 lode. This drill hole is of equal benefit to the three lode claims.
Total Value \$5375.00
Value of 1/3 interest \$1791.67
- These claims are three of a group of mining claims consisting of 150 locations owned by the claimant in the vicinity of Superior, Pinal County, Arizona, a plat of which is herewith filed with the notes of this survey. The names of said claims are as follows:— The Windsor lode, Lot 37; Surpriser No. 2 lode, Lot 38; Hub lode, Lot 41; Irene lode, Lot 42; Sur. No. 2144 Silver and Copper Pocket, Queen No. 2, Silver Tip and Blackfoot lodes; Sur. Nos. 2479 and 2860 Safety lode; Sur. No. 2860 Girtrude, Quien Sabe, Red Cloud, Wedge, Sunnyside, Caledonia, Republic, Skyward, Golden Eagle, New Calumet, Excelsior, Golden Eagle Extension, Gold Crown and Square Deal lodes; Sur. No. 2929 Silveride lode; Sur. No. 2930 A San Francisco, Oakland, Rain Cloud, Oversight, Queen Fraction and Sacramento lodes; Sur. No. 2994 Monarch, Reddy Pay, Jumbo, Shark, Fraction, Oversight No. 1 and Oversight No. 3 lodes; Sur. No. 2995 Silver Tip Extension and Horse Shoe lodes; Sur. No. 4093 Silver Tip Extension No. 1 lode; Sur. No. 4092 Overlook lode; Sur. No. 4150 Spring lode; Sur. No. 4231 (this survey) Horseshoe No. 1, Horseshoe No. 2 and Silver Tip Extension No. 2 lodes; and the following unsurveyed claims— Ash No. 1, Ash No. 2, Ash No. 3, Ash No. 4, Ash No. 5, Ash No. 6, Ash No. 7, Ash No. 8, Ash No. 9, Ash No. 10, Ash No. 11, Ash No. 12, Ash No. 13, Ash No. 14, Ash No. 15, Ash No. 16, Ace, Apex, Aldridge,

Blackfoot No. 1, Blackfoot No. 2, Blackfoot No. 3, Blackfoot No. 4, Blackfoot No. 5, Black Rock No. 1, Elm, Elm No. 1, Elm No. 2, El Capitan, El Colonel, East Extension, Gunn Fraction, Horse Shoe No. 3, Horse Shoe No. 4, Hard Rock No. 8, Hard Rock No. 9, Hard Rock No. 10, Hard Rock No. 13, Hard Rock No. 14, Happy Hunch, Jack Rabbit, Lake Erie No. 3, Lake Erie No. 4, Lake Erie No. 8, Life Saver, Magma, Magma No. 1, Magma Extension, Magma Extension No. 1, Magma Extension No. 2, Magma Extension No. 3, Magma Extension No. 4, Magma Extension No. 5, Magma Extension No. 6, Magma Extension Fraction, Magma View, Monarch No. 1, My Own, Nadene, Nadene No. 1, New Lake, Oak, Oak No. 1, Oak No. 2, Oak No. 3, Oak No. 4, Oak No. 5, Oak No. 6, Oak No. 7, Oak No. 8, Oak No. 9, Oak No. 12, Oak No. 14, Oak No. 15, Oak No. 16, Oak No. 17, Oak No. 18, Oak No. 19, Oak No. 20, Oak No. 21, Oak No. 22, Oak No. 23, Oak No. 24, Oak No. 25, Oak No. 26, Oak No. 27, Oak No. 28, Oak No. 29, Oak No. 30, Oak No. 31, Oak No. 32, Oversight No. 7, Palace No. 1, Silver Tip Extension No. 3, Silver Tip Extension No. 4, Sitting Bull, Whitefoot No. 1, Whitefoot No. 2, Whitefoot No. 3 and Whitefoot No. 4 lodes. Also Sur. No. 4149 Florence Adams, Baltic, North Queen, Black Rock and Yellow Coat lodes.

These claims are all being developed by the Claimant's No. 2 working shaft, which is a three-compartment shaft 4x14 ft. in the clear, part timbered and part lined with concrete, 3600 ft. deep, concreted to 3200 ft., located on Sur. No. 2144 Silver Tip lode.

Total Value \$402,500

Value of a 1/150th interest \$2683.33

From this shaft the following levels have been driven:

No. depth	Length feet	size feet	Value per foot	Total Value
1600	3900	6x7	\$16.50	\$ 64,350
1800	4560	6x7	\$16.50	\$ 75,240
2000	10000	7x8	\$20.00	\$200,000
2250	3060	6x7	\$16.50	\$ 50,490
2550	8240	8x8	\$26.00	\$214,240
2800	2830	8x8	\$26.00	\$ 73,580
3000	5165	8x8	\$26.00	\$134,290
3200	3420	8x8	\$26.00	\$ 88,920
3600	2950	8x8	\$26.00	\$ 76,700

Total Value \$ 977,810

Value of a 1/150th interest \$ 6,518.73

The above levels are shown on a separate accompanying map. The 2000 ft. and 2550 ft. levels enter the Silver Tip Extension No. 2 lode of this survey; and the 2550 ft., 2800 ft., and 3000 ft. levels enter the Horseshoe No. 1 lode of this survey.

The 150 claims owned by the claimant are shown on another accompanying map, together with the 2000 ft. level.

OTHER CORNER DESCRIPTIONS.

Sur. No. 2995 Horse Shoe lode:— Cor. No. 4 was a post, properly set and mkd, which I changed to an iron pipe. Cor. No. 5 falls on an abrupt cliff. The witness corner for Cor. No. 5 is a post properly set and mkd. I find line 4-5 to be as reported. Silver Tip Extension lode: Cor. No. 4 is an iron pipe properly set and mkd. Cor. No. 1 is a post properly set and mkd. I find line 4-1 to be S. 88° 20' 30" W. instead of S. 88° 20' W. as

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reported.

~~S. 89° 52' E. 2643.3 ft. Line 1 to 2 to be as reported~~

Sur. No. 4093 Silver Tip Extension No. 1 lode:- Cors. 1, 3 and 4 are iron pipes, properly set and mkd. I find line 3-4 and 4-1 to be as reported in the official returns.

Sur. No. 4150 Spring lode:- Cors. 1, 2 and 4 are iron pipes properly set and marked. Cor. No. 3 falls in the main Highway. The witness corner is a post, properly mkd. and fastened to the retaining wall. I check the courses and distances of all lines, and find the tie to the section corner as reported.

I do not check the course and distance of the east half of the line between Secs. 25 and 36, finding same to be S. 89° 34' 30" E. 2632.5 ft. instead of S. 89° 52' E. 2643.3' ft. as reported.

FINAL OATHS FOR SURVEYS

LIST OF NAMES

A list of the names of the individuals employed by Ralph L. Motz
G.L.O.,

~~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 _____

MAGMA COPPER COMPANY

known as the Horseshoe No. 1, Horseshoe No. 2 and Silver Tip Extension
No. 2 lodes

and showing the respective capacities in which they acted.

_____Gordon Barnard_____, *Chainman.*

_____, *Chainman.*

_____, *Asman.*

_____, *Flagman.*

FINAL OATHS OF ASSISTANTS

~~Wex~~ I, Gordon Barnard

and _____, do solemnly swear that ~~we~~ I assisted Ralph L. Motz

_____, ~~United States~~ Mineral Surveyor, ^{G.L.O.,} in marking the corners and surveying

the boundaries of the mining claim of Magma Copper Company

known as the Horseshoe No. 1, Horseshoe No. 2 and Silver Tip Extension
No. 2 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 Office Cadastral Engineer, at Phoenix, Arizona

Gordon Barnard_____, *Chainman.*

_____, *Chainman.*

_____, *Asman.*

_____, *Flagman*

Subscribed and sworn to by the above-named persons before me this 27th

day of January, 19 40

W.A. Miescher
Notary Public, in and for the County
of Cochise, State of Arizona.

2-3-41

FINAL OATH OF ~~U.S.~~ MINERAL SURVEYOR, G.L.O.

I, Ralph L. Motz, ~~U.S.~~ Mineral Surveyor, G.L.O.

do solemnly swear that, in pursuance of instructions received from the Office Cadastral Engineer, at Phoenix, Arizona, dated December 7, 1939,

I have, in strict conformity to the laws of the United States, the official regulations and instructions thereunder, and the instructions of said Office Cadastral Engineer, faithfully and correctly executed the survey of the mining claim of

MAGMA COPPER COMPANY, known as the Horseshoe No. 1, Horseshoe No. 2 and Silver Tip Extension No. 2 lodes,

situate in Pioneer Mining District,

Pinal County, Arizona, in Section

25 & 36 Township No. 1 S., Range No. R 12 E
30 & 31, Range No. R 13 E

and designated as Survey No. 4231, 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 Office Cadastral Engineer with said instructions, and that all 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 its

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.

Ralph L. Motz
~~U.S.~~ Mineral Surveyor) G.L.O.

Subscribed and sworn to by the said Ralph L. Motz

~~U.S.~~ Mineral Surveyor, before me W. H. Miescher, Notary Public

this 27th

day of January, 19 40

W. H. Miescher

Notary Public, in and for the
County of Coconino, State of
Arizona.
My commission expires

OFFICE CADASTRAL ENGINEER'S FINAL CERTIFICATE ON FIELD NOTES

United States
Department of the Interior

GENERAL LAND OFFICE
PUBLIC SURVEY OFFICE

Phoenix, Arizona

May 4, 1940

I, Office Cadastral Engineer, at Phoenix, Arizona

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

Magna Copper Company

known as the HORSESHOE NO. 1, HORSESHOE NO. 2, and SILVER TIP EXTENSION NO. 2 lodes situate in Pioneer

Mining District Pinal County Arizona

in Sections 25 & 36, Township No. 1 S., Range No. 12 E., 30 & 31, 13 E., and

designated as Survey No. 4231, 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.

I further certify that Five Hundred Dollars worth of labor has been expended or improvements made upon, or for the benefit of, each location embraced in said mining claim by claimant or its grantors, and that said improvements consist of 3 cuts & 6 drill holes, total value \$14,610. \$5,515.47 of which is credited to claims other than those in this survey. A 1/150 interest, value \$9202.06, in the main working shaft and the levels therefrom, is credited to each of the claims in this survey; total value credited to this survey, \$36,700.71

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 District Land Office at Phoenix, Arizona is correct and in conformity with the foregoing Field Notes.

Sherman C. Fiske

Office Cadastral Engineer.

CERTIFICATE OF APPROVAL OF FIELD NOTES AND SURVEY OF MINING CLAIM

UNITED STATES DEPARTMENT OF THE INTERIOR GENERAL LAND OFFICE PUBLIC SURVEY OFFICE

At Phoenix, Arizona,

May 4, 1940

I, Office Cadastral Engineer at Phoenix, Arizona

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

Magma Copper Company

, known as the

HORSESHOE NO. 1, HORSESHOE NO. 2, and SILVER TIP EXTENSION NO. 2 lodes

situate in Pioneer mining district,

Pinal County, Arizona

25 & 36 1 S., 12 E.,

in Sections 30 & 31, Township No., Range No. 13 E.

, designated as Survey No. 4231

executed by Ralph L. Motz, Mineral

Surveyor, January 21 - 26, 1940, under my instructions dated

December 7, 1939, 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.

Sherman C. Fiske Office Cadastral Engineer.