

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MINERAL SURVEY NO. 4500

Arizona Land District.

FIELD NOTES

Of The Survey Of The Mining Claim Of

Magma Copper Company

Known As The

Red Cloud, Elm, Elm No. 1 and Elm No. 2 Lodes

Pioneer Mining District,

Pinal County, Arizona

Section 2, 36, Township 1 & 2S., Range 12E.

Surveyed under order dated June 9, 1959

by Harvey W. Smith  
Mineral Surveyor.

Claim located See reverse side, 19

Survey commenced Aug. 15, 1959

Survey completed Aug. 30, 1959

Address of claimant Box 37, Superior, Arizona

DATES OF AMENDED LOCATIONS

See reverse side

	Located	Recorded	Amended	Amended Recording
Red Cloud	8/15/03	10/7/03	7/10/09	7/15/09
Elm	3/2/26	3/8/26		
Elm No.1	3/2/26	3/8/26	5/15/59	5/22/59
Elm No.2	3/2/26	3/8/26	5/15/59	5/22/59

SURVEY NO. 4500

(1)

Chains  
Feet

This survey was made with a C.L. Berger & Sons transit, No.15045, with a horizontal limb  $6\frac{1}{2}$  ins. diam., having two double opposite verniers and full/circle<sup>vertricle</sup> 5 ins. diam., having one double vernier; the verniers read to one minute of arc. The instrument was in good condition at the time of the survey and all adjustments were in good order.

All azimuths in this record were determined by the method of horizontal-angles-right referred to the meridian established by the following direct observation on the sun: At 4:07 P.M. on Aug. 27, 1959 at Cor. No.3 of the Elm No.1 lode, latitude  $33^{\circ}17'37''N.$ , longitude  $111^{\circ}05'18''W.$ , turning from a reference point about 300 ft. southeast clockwise to the sun in a west direction.

True bearing of reference point.

$S.15^{\circ}15'E.$

The lines were measured with a Lufkin steel tape, 300 ft. in length, graduated every foot for 299 ft. and the remaining foot graduated to tenths and hundredths. The tape was compared to a standard at the beginning of the survey and found to be correct.

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

The magnetic declination observed at each corner of the survey gave a uniform value of  $13^{\circ}15'E.$

RED CLOUD LODGE

At Cor. No.1 of the Red Cloud lode

Set a galvanized iron post, 24 ins. long,  $\frac{3}{4}$  in. diam. in a concrete and rock base, 14 ins. in the ground, with a brass cap, 2 ins. diam., firmly fastened to the iron post; mkd. MS 4500 RC 1 X; from which

The south  $\frac{1}{4}$  cor., sec. 36, T.1S., R.12E., G.& S.R.B.&M., bears  $S.34^{\circ}58'20''E.$ , 441.34 ft. dist.; an iron post, 1 in. diam., 12 ins. above ground, firmly set, properly marked and witnessed as described in the official record.

Cor. No.1, Elm lode of this survey, bears  $S.58^{\circ}01'E.$ , 771.57 ft. dist.

A wooden post, 4x4 ins., 30 ins. above ground, set adjacent to iron post in a mound of stones.

Thence  $S.44^{\circ}58'45''W.$

494.0 Right bank, local drainage, 10 ft. wide, course  $N.65^{\circ}W.$

510.20 Intersect line between secs. 36, T.1S., R.12E. and sec.2 T.2S., R.12E., G.&S.R.B.&M. at a point from which the South  $\frac{1}{4}$ , sec. 36 bears  $S.89^{\circ}55'29''E.$ , 613.55 ft. dist.,

Chain Feet		Feet
	previously described.	
809.0	Unimproved road bears N.70°E. and S.60°W.	
965.0	Right bank, local drainage, 6 ft. wide, course, North	
1120.99	Intersect line 2-3, Elm No.2 lode, common with line 2-3, Elm lode, both of this survey.	
1210.0	Manganese vein, bears N.80°W. and S.80°E.	
1360.54	Intersect line 3-4, Elm No.2 lode of this survey.	
1498.30	Cor. No.2	
	Set a limestone, 24x8x4 ins., 12 ins. in the ground surrounded by a mound of stones, mkd. RC 2 4500 X; from which	
	Cor. No.3, Elm No.2 lode identical with Cor. No.2, Elm lode both of this survey, bears N.60°44'E., 337.56 ft. dist.	
	A wooden post 4x4 ins., 30 ins. above the ground, set adjacent to limestone marker surrounded by mound of stones.	
	Thence N.15°26'15"W.	
60.71	Intersect line 3-4, Elm No.2 lode of this survey.	
135.06	Cor. No.1, Sur. No.2860, Golden Eagle Extension lode.	
166.79	Intersect line 1-2, Elm No.2 lode of this survey.	
300.0	Lode line; discovery point bears N.44°58'45"E., 821.3 ft. dist.	
600.0	Cor. No.3, identical with Cor. No.2, Sur. No.2860, Excelsior lode, on line 4-1, Sur. No. 2860, Golden Eagle Extension lode.	
	Found remnant of stone marker for Sur. No.2860, mkd.2860 in place of which;	
	Set a galvanized iron post, 36 ins. long, 3/4 in. diam., in a rock base, 20 ins. diam., firmly fastened to the iron post, mkd. MS 2860 4500 E 2 RC 3 X; from which	
	A wood post, 4x4 ins, 30 ins. above ground set adjacent to the iron post.	
	Cor. No.3, Elm lode, identical with Cor. No. 2, Elm No.1 lode, both of this survey, bears N.60°48'48"E., 339.48 ft. dist.	
	Cor. No.2, Elm No.2 lode of this survey bears S.53°53'30"E., 527.65 ft. dist.	



SURVEY NO. 4500

(3)

Chains Feet	
	Thence N.44°58'45"E.
171.80	Intersect line between sec. 36, T.1S., R.12E., and sec. 2, T.2S., R.12E., G.&S.R.B.&M.; the south 1/2 cor., sec. 36, T.1S., R.12E., bears S.89°55'29"E., 1350.34 ft. dist., previously described.
379.59	Intersect line 2-3, Elm No. 1 lode of this survey.
496.0	Unimproved road bears S.43°E. and N.43°W.
635.0	Left bank, local drainage, 8 ft. wide, course, N.32°W.
1006.02	Intersect line 3-4, Elm No. 1 lode of this survey.
1300.0	Left bank local drainage, 8 ft. wide, course, N.63°W.
1498.30	Cor. No. 4 identical with Cor. No. 1, Sur. No. 2860, Excelsior lode.  Found a limestone 6x12 ins., 16 ins. above ground, firmly set mkd. 2860 E 1, Add marks 4500 RC 4 X; from which  A wooden post, 4x4 ins., 30 ins. above ground, set adjacent to the limestone.  Thence S.15°26'15"E.
216.95	Intersect line 3-4, Elm No. 1 lode, of this survey.
300.0	Lode line; discovery point bears S.44°58'45"W., 677.0 ft. dist.
315.0	Right bank, local drainage, 5 ft. wide, course N.73°W.
410.0	Right Bank, local drainage, 10 ft. wide, course N.39°W.
599.71	Intersect line 1-2, Elm No. 1 lode, common with line 3-4, Elm lode both of this survey.
600.0	Cor. No. 1 and place of beginning.
	<b>ELM LODE</b>  At Cor. No. 1 of the Elm lode  Set a galvanized iron post, 36 ins. long, 3/4 in. diam., wedged in a rock and soil base, 24 ins. in the ground with a brass cap, 2 ins. diam. firmly fastened to the iron post, mkd. MS 4500 E 1 X; from which  The south 1/2 cor., sec. 36, T.1S., R.12E., G.&S.R.B.&M. bears N.83°19'47"W., 404.22 ft. dist.; previously described.

SURVEY NO. 4500

(4)

Chains Feet	
	<p>A wooden post, 4x4 ins., 30 ins. above ground surrounded by stones set adjacent to the iron post.</p> <p>Cor. No.1 of the Red Cloud lode of this survey bears N.58°01'W., 771.57 ft. dist.</p> <p>Thence S.71°04'30"W.</p>
1348.0	Open cut, improvement No.4
1405.0	Right bank, local drainage, 5 ft. wide, course, N.02°E.
1500.0	<p>Cor. No.2, identical with Cor. No.3, Elm No.2 lode of this survey.</p> <p>Set a galvanized iron post, 24 ins. long, 3/4 in. diam. in a hole, 8 ins. deep into limestone bedrock, surrounded by a mound of stones; mkd. MS 4500 E2 E2 3 X; from which</p> <p>Cor. No.2, Red Cloud lode of this survey, bears S.60°44'W., 337.56 ft. dist.</p> <p>A wooden post, 4x4 ins., 30 ins. above ground surrounded by a mound of stones set adjacent to the iron post.</p> <p>Thence N.15°15'W.</p>
26.03	Manganese vein strikes N.85°W. and S.85°E.
105.59	Intersect line 1-2, Red Cloud lode of this survey.
106.10	Cor. No.2, Elm No.2 lode of this survey.
300.0	Lode line; discovery point bears N.71°04'30"E., 1453.00 ft. dist.
554.32	Intersect line between sec. 36, T.1S., R.12E. and sec.2, T.2S., R.12E., G.&S.R.B.&M. The south 1/4 cor. of sec. 36, bears S.89°55'29"E., 1163.33 ft. dist., previously described.
600.0	<p>Cor. No.3 identical with Cor. No.2, Elm No.1 lode of this survey.</p> <p>Set a galvanized iron post, 36 ins. long, 3/4 in. diam. wedged in a limestone rock and soil base, 12 ins. in the ground with a brass cap, 2 ins. diam., firmly fastened to the iron post, mkd. MS 4500-E 3 E1 2 X; from which</p> <p>Cor. No.3, Red Cloud lode of this survey, bears S.60°48'48"W., 339.48 ft. dist.</p>



SURVEY NO. 4500

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Chains Feet	
	Intersect line 4-1, Red Cloud lode of this survey. A wooden post, 4x4 ins., 30 ins. above ground set adjacent to the iron post.
	Thence N.71° 04' 30"E.
181.0	Unimproved road bears N.40° W. and S.40° E.
310.0	Left bank, local drainage, 10 ft. wide, course N.48° W.
358.0	Unimproved road bears N.50° W. and S.50° E.
975.06	Intersect line 4-1, Red Cloud lode of this survey.
1185.0	Left bank, local drainage, 5 ft. wide, course N.85° W.
1500.0	Cor. No.4, identical with Cor. No.1, Elm No.1 lode of this survey.  Set a galvanized iron post, 6 ft. long, 3/4 in. diam., by driving post into unconsolidated limestone soil for 5.5 ft.; a brass cap, 2 ins. diam. firmly fastened to post, mkd. MS 4500 E4 E1 1 X; from which  The south 1/2 cor. of sec. 36, T.1S., R.12E., G.& S.R.B.&M., bears S.24° 36' 41"W., 585.07 ft. dist.; previously described. A wooden post, 4x4 ins., 30 ins. above ground set adjacent to the iron post, surrounded by a mound of stones. Thence S.15° 15'E.
119.0	Right bank, local drainage, 5 ft. wide, course, West.
300.0	Lode line; discovery point bears S.71° 04' 30"W., 47.0 ft. dist.
551.86	Intersect line between sec. 36, T.1S., R.12E. and sec. 2, T.2S., R.12E., the south 1/2 cor. of sec. 36 bears N.89° 55' 29"W., 388.82 ft. dist.
600.0	Cor. No.1 and place of beginning.
<b>ELM NO.1 LODE</b>	
	At Cor. No.1 of the Elm No.1 lode, identical with Cor. No.4 of the Elm lode of this survey; previously described. Thence S.71° 04' 30"W.
310.0	Right bank, local drainage, 5 ft. wide, course N.85° W.

SURVEY NO. 4500

(6)

Chains Feet	
524.94	Intersect line 4-1, Red Cloud lode of this survey.
1142.0	Unimproved road bears N.50°W. and S.50°E.
1180.0	Right bank, local drainage, 10 ft. wide, course N.48°W.
1319.0	Unimproved road bears N.40°W. and S.40°E.
1500.0	Cor. No.2, identical with Cor. No.3, Elm lode of this survey; previously described. Thence N.15°15'W.
106.72	Intersect line 3-4, Red Cloud lode of this survey common with line 1-2, Sur. No.2860, Excelsior lode at a point from which Cor. No.4, Red Cloud lode identical with Cor. No.1, Sur. No.2860, Excelsior lode bears N.44°58'45"E., 1118.71 ft. dist.
187.12	Center line, U.S. Highway 60-70, bears N.63°E. and S.68°W.
191.42	Lode line; discovery point bears N.71°04'30"E., 1451.0 ft. dist.
382.84	Cor. No.3. Set a galvanized iron post, 36 ins. long, 3/4 in. diam. driven in a rock and soil base 28 ins., with a brass cap, 2 ins. diam. firmly fastened to the iron post, mkd. MS 4500 El 3 X; from which A mound of stones constructed adjacent to the iron post. Thence N.71°04'30"E.
175.0	Left bank, local drainage, 10 ft. wide, course N.12°W.
350.0	Center line, U.S. Highway 60-70, bears N.20°E. and S.25°W.
544.87	Intersect line 3-4, Red Cloud lode of this survey; common with line 1-2, Sur. No.2860, Excelsior lode at a point from which Cor. No.4 Red Cloud lode, identical with Cor. No.1, Sur. No.2860, Excelsior lode bears N.44°58'45"E., 492.28 ft. dist.
900.0	Left bank, local drainage, 8 ft. wide, course N.65°W.
973.79	Intersect line 4-1, Red Cloud lode of this survey.
1500.0	Cor. No.4 Set a galvanized iron post, 30 ins. long, 3/4 in. diam., driven in a limestone rock and soil base, 18 ins. in the ground, with a brass cap, 2 ins. diam., firmly fastened to the iron post, mkd. MS 4500 El 4 X; from which



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(7)

Chains- Feet	
	<p>A wooden post, 4x4 ins., 30 ins. above ground, set adjacent to the iron post.</p> <p>Thence S.15 15'E.</p>
191.42	<p>Lode line; discovery point bears S.71°04'30"W., 49.0 ft. dist.</p>
370.0	<p>Right bank, local drainage, 5 ft. wide, course S.85 W.</p>
382.84	<p>Cor. No.1 and place of beginning.</p>
	<p><b>ELM NO.2 LODE</b></p>
	<p>At Cor. No.1 of the Elm No.2 lode.</p> <p>Set a galvanized iron post, 36 ins. long, 3/4 in. diam., driven into a limestone rock base 30 ins., with a brass cap, 2 ins. diam., firmly fastened to the iron post, mkd. MS 4500 E2 1 X; from which</p>
	<p>An angle point for the sec. cor. at the S.W. cor. of sec. 36, T.1S., R.12E., G.&amp;S.R.B.&amp;M.; an iron post, 2 ins. diam., 12 ins. above ground, firmly set, properly marked and witnessed as described in the official record, bears N.34 39'22"W., 868.09 ft. dist.</p>
	<p>Cor. No.1, Sur. No.2860, Golden Eagle Extension lode, bears N.74 29'E., 532.52 ft. dist.</p> <p>A wooden post, 4x4 ins., 30 ins. above ground, set adjacent to the iron post.</p> <p>Thence N.71°04'30"E.</p>
533.50	<p>Intersect line 2-3, Red Cloud lode of this survey, common with line 4-1, Sur. No. 2860, Golden Eagle Extension lode at a point from which Cor. No.1 Golden Eagle Extension lode bears S.15 26'15"E., 31.73 ft. dist.</p>
862.24	<p>Cor. No.2, on line 2-3, Elm lode of this survey.</p> <p>Set a galvanized iron post, 36 ins. long, 3/4 in. diam., driven in a limestone rock base, 24 ins., with a brass cap, 2 ins. diam., firmly fastened to the iron post, mkd. MS 4500 E2 2 X; from which</p> <p>Cor. No.3, Red Cloud lode of this survey bears N.53 53'30"W., 527.65 ft. dist.</p> <p>A wooden post, 4x4 ins., 30 ins. above ground set adjacent to the iron post.</p> <p>Thence S.15°15'E.</p>

Chains Feet	<p>0.51 Intersect line 1-2, Red Cloud lode of this survey.</p> <p>66.03 Lode line; discovery point bears S.71°04'30"W., 67.0 ft. dist.</p> <p>80.0 Manganese vein strikes N.85°W. and S.85°E.</p> <p>106.10 Cor. No.3, identical with Cor. No.2, Elm lode of this survey; previously described.</p> <p style="padding-left: 40px;">Thence S.71°04'30"W.</p> <p>208.37 Intersect line 1-2, Red Cloud lode of this survey.</p> <p>328.39 Intersect line 2-3, Red Cloud lode of this survey.</p> <p>774.35 Intersect line 1-2, Sur. No.2860, Golden Eagle Extension lode at a point from which Cor. No.1 bears N.61°43'13"E., 456.56 ft. dist.</p> <p>862.24 Cor. No.4, on line 2-3, Sur. No.2860, Golden Eagle Extension lode.</p> <p style="padding-left: 40px;">Set a galvanized iron post, 24 ins. long, 3/4 in. diam., in a 14 in. hole drilled in bedrock, a mound of stones constructed around it, with a brass cap, 2 ins. diam., firmly fastened to the iron post, mkd. MS 4500 E2 4 X; from which</p> <p style="padding-left: 80px;">Cor. No.2, Sur. No.2860, Golden Eagle Extension lode bears S.16°26'E., 14.60 ft. dist.</p> <p style="padding-left: 80px;">A wooden post, 4x4 ins., 30 ins. above ground set adjacent to the iron post.</p> <p style="padding-left: 40px;">Thence N.15°15'W.</p> <p>40.07 Lode line; discovery point bears N.71°04'30"E., 795.24 ft. dist.</p> <p>106.10 Cor. No.1 and place of beginning.</p>
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Survey No. 4500

**AREAS**

	Acres
Total area Red Cloud lode	17.947
"    "    Elm lode	20.619
Area in conflict with Red Cloud lode of this survey	5.525
Total area Elm No.1 lode	13.156
Area in conflict with Red Cloud lode of this survey	6.823
Total area Elm No.2 lode	2.096
Area in conflict with Sur. No.2860, Golden Eagle Extension lode	0.917
Red Cloud lode of this survey	0.547



SURVEY NO. 4500

(9)

Chains Feet	LOCATION	Feet
	This survey is located in the S.W. $\frac{1}{4}$ and S.E. $\frac{1}{4}$ sec. 36, T.1S., R.12E. and N.W. $\frac{1}{4}$ and N.E. $\frac{1}{4}$ , sec. 2, T.2S., R.12E., G.&S.R.B.&M., Arizona.	
	The survey of the Red Cloud, Elm, Elm No.1 and Elm No.2 lodes is identical with the respective location or amended location as marked on the ground.	
	<b>EXPENDITURES</b>	
	The improvements and 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 are as follows:	
No.1	The discovery shaft of the Red Cloud lode is on the lode line 677.0 ft. from a point on line 4-1, 300.0 ft. from Cor. No.4; 6x15 ft., 8 ft. deep.	Value, \$200.
No.2	A cut, the south end of which bears S.70° 30' W., 570 ft. dist. from Cor. No.1 of the Red Cloud lode; 6 ft. wide, 8 ft. deep and running N.12° E., 25 ft.	Value, \$225.
No.3	A cut, the west end of which bears S.66° 30' W., 600 ft. dist. from Cor. No.1 of the Red Cloud lode; 7 ft. wide, 6 ft. deep and running east 20 ft.	Value, \$200.
No.4	A adit, the portal of which bears S.54° W., 583 ft. from Cor. No.1 of the Red Cloud lode; 4x6 ft. in size running S.20° W., 116 ft. thence N.70° W., 37 ft.	Value, \$3,000.
No.5	A adit, the portal of which bears S.48° 30' W., 760 ft. dist. from Cor. No.1 of the Red Cloud lode; 14x5 ft. in size and running S.60° E., 30 ft.	Value, \$1,500
No.6	A cut and adit, the west end of the cut bears N.81° 30' W., 510 ft. from Cor. No.1 of the Red Cloud lode; 6 ft. wide, 8 ft. deep and running N.45° E., 20 ft. into a	Value, \$450.
No.7	An open cut and adit, the west end of which bears N.88° W., 712 ft. from Cor. No.1 of the Red Cloud lode; 6 ft. wide, 12 ft. deep and running N.71° E., 40 ft. into	Value, \$2,000
No.1	The discovery cut of the Elm lode is on the lode line 47.0 ft. from a point on line 4-1, 300.0 ft. from Cor. No.4, 6x12 ft., 8 ft. deep.	Value, \$175.



Claims Feet	LOCATION
No.2	An incline shaft, the collar of which bears S.80°W., 232 ft. dist. from Cor. No.1 of the Elm lode; 5x8 ft. in size, 20 ft. deep. Value, \$400.
No.3	A cut and adit, the east end of which bears S.83°30'W., 860 ft. dist. from Cor. No.1 of the Elm lode; 5 ft. wide, 5 ft. deep and running S.45°W., 10 ft. into a adit 5x6 ft. in size running 6 ft. Value, \$200.
No.4	An open cut and incline shaft, the east end of the cut bears S.72°W., 1330 ft. from Cor. No.1 of the Elm lode; 25 ft. wide, 12 ft. deep and running S.20°W., 50 ft. The incline shaft collar is 10 ft. from N.E. end of the cut and is 6x10 ft. in size, 31 ft. deep. Value, \$2500.
No.1	The discovery cut of the Elm No.1 lode is on the lode line 49 ft. from a point on line 4-1, 191.42 ft. from Cor. No.4; 5 ft. wide, 10 ft. long and 8 ft. deep at the face. Value, \$100.
No.1	The discovery cut of the Elm No.2 lode is on the lode line, 67 ft. from a point on line 2-3, 66.03 ft. from Cor. No.2; 5 ft. wide, 18 ft. long and 9 ft. deep at the face. Value, \$175.
<b>OTHER IMPROVEMENTS</b>	
An unimproved access road bearing generally southeast from U.S. Highway 60-70 on the Elm No.1 lode across the Red Cloud lode to the south side line of the Elm lode. Claimant herein.	
<b>OTHER CORNER DESCRIPTIONS &amp; SUPPLEMENTAL DATA</b>	
Sur. No.2860, Golden Eagle Extension lode, Cor. No.1 is solid limestone in place with proper markings. Cor. No.2 is a limestone 6x10 ins., 12 ins. above ground, firmly set, properly marked and witnessed as described in the official record. Cor. No.3 is a limestone 9x7 ins., 15 ins. above ground, firmly set, properly marked and witnessed as described in the official record. Line 1-2 was found to be S.61°43'13"W., 546.27 ft. instead of S.61°46'W., 545.6 ft. as approved. Line 4-1 was found to be S.19°26'15"E., 1284.70 ft. instead of S.15°22'E., 1284.70 ft. as approved. Line 2-3 shown as approved. Excelsior lode: line 1-2 was found to be S.44°58'45"W., 1498.30 ft. instead of S.45°03'W., 1498.30 ft. as approved.	

SURVEY NO. 4500

(11)

Chains

Chains

Feet

FIELD ASSISTANTS

Name

Capacity

Russell Hart

Chainman

Richard Cleveland

Axeman

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FIELD ASSISTANTS

	Chains	Name	Year	
		Richard Cleveland		
		Russell Hart		
		Chairman		
		Secretary		



## SURVEY NO. 4500

(1)

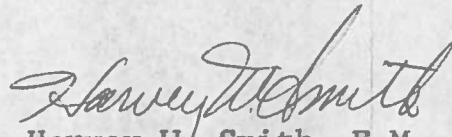
Chains  
Feet

## Supplemental Expenditures

The improvements and the value of the labor and improvements made since the survey upon or for the benefit of each of the lode locations embraced in said mining claim by the claimant or his grantors are as follows:

- No.2 A cross-cut which begins at a point which bears  $S.84^{\circ}E.$ , 315 ft. dist. from Cor. No.3 of the Elm No.1 lode and is just inside the portal of improvement No.7 of the Red Cloud lode of this survey; 5x6 ft. in size, and running north, 16 ft.  
Value, \$514. (Actual cost of work)
- No.2 An open cut, the SE. cor. of which bears  $N.70^{\circ}W.$ , 80.0 ft. dist. from Cor. No.3 of the Elm No.2 lode; 8 ft. wide, 12 ft. long and 7 ft. deep at face.  
Value, \$435. (Actual cost of work)

These supplemental improvements were examined and located by me on Feb. 9, 1960.

  
Harvey W. Smith, E.M.  
Mineral Land Surveyor

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SURVEY NO. 1200

Chains	Supplemental Expenditures	Cents Feet
	<p>The improvements and the value of the labor and improvements made since the survey upon or for the benefit of each of the lode locations embraced in said mining claim by the claimant or his grantors are as follows:</p>	
<p>0.00</p>	<p>A cross-cut which begins at a point which bears S. 34° E. 315 ft. dist. from Cor. No. 3 of the Elm No. 3 lode and is just inside the portal of improvement No. 7 of the No. 3 lode of this survey; 2nd ft. in size, and running north, 10 ft. Value, \$214. (Actual cost of work)</p>	<p>No. 2</p>
<p>0.00</p>	<p>An open cut, the SE. cor. of which bears S. 70° W. 80.0 ft. dist. from Cor. No. 3 of the Elm No. 3 lode; 6 ft. wide, 12 ft. long and 7 ft. deep at face. Value, \$435. (Actual cost of work)</p>	<p>No. 3</p>
	<p>These supplemental improvements were examined and located by me on Feb. 2, 1900.</p> <p>Harvey W. Smith, U. S. Mineral Land Surveyor</p>	



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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CERTIFICATE OF SURVEYOR

Nov. 15, 19 59

I, Harvey W. Smith,  
 Mineral Surveyor, hereby certify upon honor that in pursuance of an order received from the Cadastral  
Engineer, BLM., at Phoenix, Arizona  
 dated June 9, 1959, I have faithfully and correctly executed the survey of  
 the mining claim of Magma Copper Company,  
 known as the Red Cloud, Elm, Elm No.1, and Elm No.2 lodes  
(Lode, placer, or mill site)  
 situate in Pioneer Mining District, Pinal County, Secs. 2, 36,  
 T. 1 & 2S., R. 12 E., G.&S.R.B.&M Meridian, Arizona, and  
(State)  
 designated as Survey No. 4500, which is represented in the foregoing field notes as having been  
 executed by me and under my direction, and that said survey has been made in strict conformity with said order,  
 the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner  
 described in the foregoing field notes, and I do further certify that the labor expended and improvements made  
 upon or for the benefit of the Lodes location(s) embraced in the said mining claim by  
(Lode or placer)  
 claimant(s) or its grantors are fully stated in my report therein, and that the character,  
 extent, location, and itemized value thereof are specified therein with particularity and full detail, and that no  
 portion of, or interest in, said labor and improvements so credited to this claim has been included in the estimate  
 of expenditures upon any other claim.

Scottsdale, Arizona  
(Place)

Harvey W. Smith  
(Mineral Surveyor)  
 Harvey W. Smith

CERTIFICATE OF APPROVAL

Bureau of Land Management--Survey Office  
(Office)  
Phoenix, Arizona February 29, 1960  
(Place) (Date)

The foregoing field notes of mineral survey No. 4500, in Pioneer Mining Dist.  
Section 2 2 South 12 East  
Section 36, T. 1 South, R. 12 East, Gila & Salt River Meridian,  
Arizona, executed by Harvey W. Smith, Mineral Surveyor,  
(State)  
 under order dated June 9, 1959, having been critically examined and the necessary  
 corrections made prior to their certification by the surveyor, the field notes and the survey therein described  
 are hereby approved.

Lester S. Mann  
 Lester S. Mann  
 Office Cadastral Engineer  
(Title)

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of field notes of the above described mineral survey No. \_\_\_\_\_  
 is a true copy of the original field notes.

\_\_\_\_\_  
 \_\_\_\_\_  
(Title)





SURVEY NO. 4500

(1)

Chains  
Feet

Amended to FIELD NOTES

The following amendments to the field notes on Mineral Survey No. 4500 is prepared to define the conflicts of Survey No. 3669-A, Maine #2 lode and Survey No. 2860, Excelsior lode.

Red Cloud Lode

Cor. No. 1 of the Red Cloud lode is a galvanized iron post, set, marked and witnessed as described in the official record.

Thence S. 44° 58' 45" W.

494.0 Right bank local drainage, 10 ft. wide, course N. 65° W.

510.20 Intersect line between secs. 36, T. 1S., R. 12E. and sec. 2, T. 2S., R. 12E., G. & S. R. B. & M. at a pt. from which the South 1/2, sec. 36 bears S. 89° 55' 29" E., 613.55 ft. dist., previously described.

809.0 Unimproved road bears N. 70° E. and S. 60° W.

965.0 Right bank local drainage, 26 ft. wide, course, North.

1120.99 Intersect line 2-3, Elm No. 2 lode, common with line 2-3, Elm lode, both of this survey.

1210.0 Manganese vein, bears N. 80 W. and S. 80 E.

1360.54 Intersect line 3-4, Elm No. 2 lode of this survey.

1415.30 Intersect line 2-3, Sur. No. 3669A, Maine #2 lode at a pt. from which Cor. No. 2 bears N. 26° 20' W., 109.5 ft. dist. Cor. not found.

1498.30 Cor. No. 2, a limestone set, marked and witnessed as described in the official record, from which

Point for Cor. No. 2, Sur. No. 3669A, Maine #2 lode bears N. 33° 39' E., 157.19 ft. dist. Cor. not found.

Thence N. 15° 26' 15" W.

60.71 Intersect line 3-4, Elm No. 2 lode of this survey.

135.06 Cor. No. 1, Sur. No. 2860, Golden Eagle Extension lode.

141.56 Intersect line 1-2, Sur. No. 3669A, Maine #2 lode at a pt. from which Cor. No. 2 bears N. 66° 49' E., 51.88 ft. dist. Cor. not found.

166.79 Intersect line 1-2, Elm No. 2 lode of this survey.

300.0 Lode line; discovery pt. bears N. 44° 58' 45" E., 821.30 ft. dist.

SURVEY NO. 4500

(2)

Chains  
Feet

- 600.0 Cor. No. 3, a galvanized iron post, set, marked and witnessed as described in the official record.
- ELM NO. 2 LODE
- Cor. No. 1 of the Elm No. 2 lode, a galvanized iron post, set, marked and witnessed as described in the official record, from which
- Point for  
Cor. No. 2, Sur. No. 3669A, Maine #2 lode bears N. 73° 10' E., 584.10 ft. dist.  
Cor. not found.
- 533.00 Intersect line 2-3, Red Cloud lode of this survey, common with line 4-1, Sur. No. 2860, Golden Eagle Extension lode at a pt. from which Cor. No. 1, Golden Eagle Extension lode bears S. 15° 26' 15" E., 31.73 ft. dist.
- 862.24 Cor. No. 2, on line 2-3, Elm lode of this survey, a galvanized iron post, set, marked and witnessed as described in the official record.  
Thence S. 15° 15' E.
- 0.51 Intersect line 1-2, Red Cloud lode of this survey.
- 66.03 Lode line; discovery pt. bears S. 71° 04' 30" W., 67.0 ft. dist.
- 80.0 Manganese vein bears N. 85° W. and S. 85° E.
- 106.10 Cor. No. 3, identical with Cor. No. 2, Elm lode of this survey, a galvanized iron post, set, marked and witnessed as described in the official record.  
Thence S. 71° 04' 30" W.
- 208.37 Intersect line 1-2, Red Cloud lode of this survey.
- 260.74 Intersect line 2-3, Sur. No. 3669A, Maine #2 lode, at a pt. from which <sup>a point for</sup> Cor. No. 2 bears N. 26° 20' W., 85.26 ft. dist.  
Cor. not found.
- 328.39 Intersect line 2-3, Red Cloud lode of this survey.
- 774.35 Intersect line 1-2, Sur. No. 2860, Golden Eagle Extension lode at a pt. from which Cor. No. 1 bears N. 61° 43' 13" E., 456.56 ft. dist.



## SURVEY NO. 4500

(3)

Chains Feet	description
862.24	Cor. No.4, on line 2-3, Sur. No.2860, Golden Eagle Extension lode, a galvanized iron post, set, marked and witnessed as described in the official record.  Thence N.15°15'W.
40.07	Lode line; discovery pt. bears N.71 04'30"E., 795.24 ft. dist.
40.64	Intersect line 1-2, Sur. No.3669A, Maine #2 lode at a pt. from which <sup>a point for</sup> Cor. No.2 bears N.66 49'E., 588.84 ft. dist. Cor. not found.
106.10	Cor. No.1 and place of beginning.

## SURVEY NO. 4500 AMENDED

AREAS	ACRES
Total area Red Cloud lode	17.947
Area in conflict with Sur. No.3669A, Maine #2 lode	0.182
Total area Elm No.1 lode	13.156
Area in conflict with Red Cloud lode of this survey	6.825
Sur. No.2860, Excelsior lode	1.723
Total area Elm No.2 lode	2.096
Area in conflict with Sur. No.2860, Golden Eagle Extension lode	0.917
Sur. No.3669A, Maine #2 lode	0.856
Sur. No.3669A, Maine #2 lode exclusive of its conflict with Sur. No.2860, Golden Eagle Extension lode	0.493
Red Cloud lode of this survey	0.547
Red Cloud lode of this survey exclusive of its conflict with Sur. No.3669A, Maine #2 lode	0.433

## OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

Sur. No.3669A., Maine #2 lode; Cors. 1,2,3 and 4 were not found. Lines 1-2, 2-3 and 4-1 were, therefore, taken as approved from the official record, using ties to determine the corner positions.

## CERTIFICATE

I certify that these amended field notes of Mineral Survey No. 4500 have been examined and are hereby approved.

*Lester S. Mann*  
Lester S. Mann  
Office Cadastral Engineer

Phoenix, Arizona  
Aug. 31, 1960

SURVEY NO. 4500

Chains

Feet  
Links

Cor. No. 4, on line 2-3, S.W. No. 3600, Golden Eagle Extension lode, a galvanised iron post, set, marked and witnessed as described in the official record.

62.2

Thence N. 15° 12' W.

Lode line; discovery pt. bears N. 71° 30' E., 75.24 ft. dist.

40.07

Intersect line 1-2, S.W. No. 3600A, Maine #2 lode at a pt. from which Cor. No. 2 bears N. 66° 0' E., 583.8 ft. dist. Cor. not found.

40.64

Cor. No. 1 and place of beginning.

106.10

SURVEY NO. 4500 AMENDED

AREAS

4.123  
17.947

Total area Red Cloud lode  
Area in conflict with

0.182  
13.156

S.W. No. 3600A, Maine #2 lode  
Total area Elm No. 1 lode

6.815  
1.713

Area in conflict with  
Red Cloud lode of this survey  
S.W. No. 2880, Excelsior lode

2.096

Total area Elm No. 2 lode  
Area in conflict with

0.917  
0.858

S.W. No. 2880, Golden Eagle Extension lode  
S.W. No. 3600A, Maine #2 lode

0.493  
0.547

S.W. No. 3600A, Maine #2 lode exclusive of  
its conflict with S.W. No. 2880, Golden  
Eagle Extension lode

0.547

Red Cloud lode of this survey  
Red Cloud lode of this survey exclusive of  
its conflict with S.W. No. 3600A, Maine

0.433

#2 lode

OTHER CORNER DESCRIPTIONS AND SUPPLEMENTAL DATA

S.W. No. 3600A, Maine #2 lode; Cor. 1, 2, 3 and 4 were not found. Lines 1-2, 2-3 and 4-1 were, therefore, taken as approved from the official record, with ties to determine the corner positions.

CERTIFICATE

I certify that these amended field notes of Mineral Survey No. 4500 have been examined and are hereby approved.

Deputy S. Mann  
Office Geologist Engineer

Phoenix, Arizona  
Aug. 31, 1900



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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CERTIFICATE OF SURVEYOR

Aug. 22, 1960

I, Harvey W. Smith,  
Mineral Surveyor, hereby certify upon honor that in pursuance of an <sup>Amended</sup> order received from the \_\_\_\_\_  
Cadastral Engineers, at Phoenix, Arizona  
dated July 1, 1960, I have faithfully and correctly executed the survey of  
the mining claim of Magma Copper Company,  
known as the Red Cloud and Elm No. 2  
(Lode, placer, or mill site)  
situate in Pinal County Secs. 36 & 2,  
T. 1 & 2S, R. 12, G. & S. R. B. & Meridian, Arizona, and  
(State)  
designated as Survey No. 4500, which is represented in the foregoing field notes as having been  
executed by me and under my direction, and that said survey has been made in strict conformity with said order,  
the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner  
described in the foregoing field notes, and I do further certify that the labor expended and improvements made  
upon or for the benefit of the Lode location(s) embraced in the said mining claim by  
(Lode or placer)  
claimant(s) or his grantors are fully stated in my report therein, and that the character,  
extent, location, and itemized value thereof are specified therein with particularity and full detail, and that no  
portion of, or interest in, said labor and improvements so credited to this claim has been included in the estimate  
of expenditures upon any other claim.

Scottsdale, Arizona  
(Place)

Harvey W. Smith  
Harvey W. Smith  
(Mineral Surveyor)

CERTIFICATE OF APPROVAL

Bureau of Land Management--Survey Office  
(Office)

Phoenix, Arizona Aug. 31, 1960  
(Place) (Date)

amended  
The foregoing field notes of mineral survey No. 4500, in Pioneer Mining District  
Sec. 2 2 S. 12 E.  
Sec. 36, T. 1 S., R. 12 E., G. & S. R. Meridian,  
Arizona, executed by Harvey W. Smith, Mineral Surveyor,  
(State)

under order dated July 1, 1960, having been critically examined and the necessary  
corrections made prior to their certification by the surveyor, the field notes and the survey therein described  
are hereby approved.

Lester S. Mann  
Lester S. Mann  
Office Cadastral Engineer  
(Title)

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of field notes of the above described <sup>amended</sup> mineral survey No. 4500  
is a true copy of the original field notes.

Lester S. Mann  
Office Cadastral Engineer  
(Title)



