

MINERAL SURVEY No. 4209

Arizona Land District

**FIELD NOTES**

OF THE SURVEY OF THE MINING CLAIM OF

Chapin Exploration Company

KNOWN AS THE  
Chapin No. 4, Chapin No. 5, Chapin No. 6, Chapin No. 7, Chapin  
No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16, Chapin No. 17,  
Chapin No. 18, Chapin No. 19 and Chapin No. 20 lodes

Owens Mining District,

Mohave County, Arizona.

Section 4 & 5 33, Township 11N 12 N, Range 13 W.  
G & S R M & M

Surveyed under instructions dated February 3, 19 38

By Ralph L. Motz  
U. S. Mineral Surveyor.

Claim located See location notices herewith, 19 38

Survey commenced February 6,, 19 38

Survey completed February 13, 19 38

Address of claimant's attorney, Cleon T. Knapp,  
Valley National Bank Bldg.,  
Tucson, Arizona.

DATES OF AMENDED LOCATIONS

## MINERAL SURVEY NO. 4209

1

Feet	
	<p>Mineral Survey No. 4209 was made with a Gurley &amp; 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. An a.m. altitude observation of the sun for azimuth, and at noon on the meridian for latitude, were made at Cor. No. 1 of the Chapin No. 5 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. My watch was compared with Standard Western Union time before and after the observations and found to be correct.</p> <p>The lines were measured with a Keuffel &amp; Esser steel tape, 100 feet in length, graduated to feet, tenths and hundredths of feet for the entire length; a Keuffel &amp; 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 tape at the time of beginning the survey and found correct.</p> <p>All lines and connections of this survey were run by direct methods.</p> <p>The magnetic variation observed at each corner of the survey gave a uniform value of 15° 20' E</p>
	<p>CHAPIN NO. 4</p>
	<p>Beginning at Cor. No. 1 of the Chapin No. 4 lode</p>
	<p>Identical with Cor. No. 2 of the Chapin No. 5 lode of this survey,</p>
	<p>An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 30 inches in the ground, for Cor. No. 1, mkd. C4-1-4209; C5-2-4209; from which</p>
	<p>The Corner of Secs. 4 and 5, T. 11 N., R. 13 W., G &amp; S R &amp; M bears S 89° 58' W 560.0 ft., an iron pipe 2 inches in diameter, 18 inches above ground, firmly set in ground and mound of stone, marked and witnessed as described in the official record.</p>
	<p>thence N 89° 58' E</p>
10.0	Cross road, 10 feet wide, course southeasterly
300.0	North end center, a mound of rocks 3 ft. high, 3 ft. base, agreeing with the north end center of the location
600.0	Cor. No. 2
	<p>Identical with the northwest corner of the Chapin No. 3 lode, unsurveyed, and on line between Secs. 4 and 33, Ts. 11 and 12 N., R. 13 W.</p> <p>An iron pipe, 2 1/2 inches in diameter, 4 feet long, 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top, mkd. C4-2-4209; no bearings available</p>
	<p>thence S 0° 02' E</p>
525.0	Cross road, 10 feet wide, course southeasterly
545.0	Cross gulch, 20 feet wide, course southeasterly

3

## MINERAL SURVEY NO. 4209 - Arizona

2

feet

1500.0 Cor. No. 3

Identical with the S. W. Cor. of the Chapin No. 3 lode, the N. W. Cor. of the Lake No. 2 lode and the N. E. Cor. of the Lake No. 3 lode, all unsurveyed

An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top, mkd. C4-3-4209; no bearings available

thence S 89° 58' W

300.0 South end Center, a mound of rocks, 3 ft. high, 3 ft. base, agreeing with the south end center of the location

600.0 Cor. No. 4

Identical with Cor. No. 3 of the Chapin No. 5 lode of this survey, the N. W. Cor. of the Lake No. 3 lode and the N. E. Cor. of the Lake No. 4 lode both unsurveyed,

An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 4, an iron cap on top mkd. C4-4-4209; C5-3-4209; no bearings available

thence N 0° 02' W

1500.0 Cor. No. 1 and place of beginning.

## CHAPIN NO. 5

Beginning at Cor. No. 1 of the Chapin No. 5 lode

Identical with Cor. No. 1 of the Chapin No. 6 lode and Cor. No. 1 of the Chapin No. 15 lode, both of this survey, and the Cor. of Secs. 32 and 33, T 12 N, R 13 W, G & S R ~~XXX~~ M, being an iron post, 3 inches in diameter, 18 inches above ground, firmly set in ground and mound of stone, marked and witnessed as described in the official record; from which

Witness Corner,

an iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, an iron cap on top, mkd. WC C5-1-4209; C6-1-4209; C15-1-4209; bears N 89° 56' W 10.0 ft.

thence N 89° 58' E

40.0 Cor. of Secs. 4 and 5, T 11 N, R 13 W, G & S R ~~XXX~~ M

300.0 North end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the north end center of the location

450.0 Cross gulch, 20 feet wide, course southeasterly

600.0

Cor. No. 2

Identical with Cor. No. 1 of the Chapin No. 4 lode of this survey

thence S 0° 02' E

170.0

Cross gulch, 20 feet wide, course southeasterly

1500.0

Cor. No. 3

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4  
3

feet	Identical with Cor. No. 4 of the Chapin No. 4 lode of this survey
	thence S 89° 58' W
300.0	South end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the south end center of the location
600.0	Cor. No. 4
	Identical with Cor. No. 2 of the Chapin No. 6 lode of this survey, the N. W. Cor. of the Lake No. 4 lode and the N. E. Cor. of the Lake No. 5 lode, both unsurveyed,
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 4, an iron cap on top mkd. C5-4-4209; C6-2-4209; no bearings available
	thence N 0° 02' W
1500.0	Cor. No. 1 and place of beginning.
	CHAPIN NO. 6
	Beginning at Cor. No. 1 of the Chapin No. 6 lode
	Identical with Cor. No. 1 of the Chapin No. 5 lode of this survey
	thence S 0° 02' E
1500.0	Cor. No. 2
	Identical with Cor. No. 4 of the Chapin No. 5 lode of this survey
	thence N 89° 56' W
300.0	South end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the south end center of the location
600.0	Cor. No. 3
	Identical with Cor. No. 2 of the Chapin No. 7 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3; an iron cap on top, mkd. C6-3-4209; C7-2-4209; no bearings available
	thence N 0° 02' W
1500.0	Cor. No. 4
	Identical with Cor. No. 1 of the Chapin No. 7 lode of this survey,
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks for Cor. No. 4; an iron cap on top mkd. C6-4-4209; C7-1-4209; no bearings available
	thence S 89° 56' E
300.0	North end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the north end center of the location

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## MINERAL SURVEY NO. 4209 - Arizona

4

feet  
590.00 Witness Corner to Cors. 1, Chapin No. 5 and Chapin No. 6 lodes, both  
600.00 Cor. No. 1 and place of beginning. of this survey.

## CHAPIN NO. 7

Beginning at Cor. No. 1 of the Chapin No. 7 lode.

Identical with Cor. No. 4 of the Chapin No. 6 lode of this survey; from which

The Cor. of Secs. 32 and 33, T 12 N, R 13 W, G & S R ~~is~~  
M, previously described; bears S 89° 56' E 600.0  
ft. dist.

thence S 0° 02' E

1500.00 Cor. No. 2

Identical with Cor. No. 3 of the Chapin No. 6 lode of this survey

thence N 89° 56' W

130.00 Cross road, 10 feet wide, course southerly

300.00 South end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the south end center of the location

600.00 Cor. No. 3

Identical with Cor. No. 3 of the Chapin No. 8 lode of this survey

An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top mkd. C7-3-4209; C8-3-4209; no bearings available

thence N 0° 02' W

495.00 Cross road, 10 feet wide, course southeasterly

1500.00 Point for  
Cor. No. 4

Identical with point for  
Cor. No. 2 of the Chapin No. 8 lode of this survey,

This corner is situated on the side of an almost vertical cliff, 25 feet high, and it was impractical

to set a corner here

Witness corner bears S 89° 56' E 5.3 ft.

Witness corner bears N 89° 56' W 2.4 ft.

thence S 89° 56' E from true corner point

5.3 Witness corner for Cor. No. 4, an iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground to bed rock, in a mound of rocks, iron cap on top, mkd. WC C7-4-4209; C8-2-4209;

300.00 North end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the north end center of the location.

600.00 Cor. No. 1 and place of beginning.

## CHAPIN NO. 8

Beginning at Cor. No. 1 of the Chapin No. 8 lode.

Identical with Cor. No. 2 of the Chapin No. 9 lode of

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5

feet	
	<p>this survey</p> <p>An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 1, an iron cap on top mkd., C8-1-4209; C9-2-4209; from which</p> <p>The north 1/4 Cor. of Sec. 5, T 11 N, R 13 W, G &amp; S R <del>Box</del> M, bears N 89° 56' W 794.0 ft. dist.; an iron post, 1 inch in diameter, 18 inches above the ground, firmly set in ground and mound of rocks, marked and witnessed as described in the official record.</p> <p>thence S 89° 56' E</p>
15.0	Cross road, 10 feet wide, course southerly
300.0	North end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the north end center of the location
587.6	Witness Corner for Cor. No. 2:
	A basalt ledge, 67x74 inches, 25 inches above ground, mkd. WC x C8-2-4209; C7-4-4209; from which
	A mound of rocks, 3 ft. base, 4 ft. high, bears south-westerly 3 ft.
600.0	Point for Cor. No. 2;
	Identical with point for Cor. No. 4 of the Chapin No. 7 lode of this survey
	thence S 0° 02' E
1005.0	Cross road, 10 ft. wide, course southeasterly
1500.0	Cor. No. 3
	Identical with Cor. No. 3 of the Chapin No. 7 lode of this survey
	thence N 89° 56' W
300.0	South end center, identical with the N. W. Cor. of the Lake No. 5 lode and the N. E. Cor. of the Lake No. 11 lode, both unsurveyed, and agreeing with the south end center of the location
	An iron pipe, 2 1/2 inches in diameter, 4 ft. long, set 18 inches in the ground in a mound of rocks, iron cap on top mkd. SEC-C8-4209
600.0	Cor. No. 4
	Identical with Cor. No. 3 of the Chapin No. 9 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 4, an iron cap on top mkd. C8-4-4209; C9-3-4209; no bearings available.
	thence N 0° 02' W
1500.0	Cor. No. 1 and place of beginning.

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6

feet	
	<b>CHAPIN NO. 9</b>
	Beginning at Cor. No. 1 of the Chapin No. 9 lode
	Identical with the N. E. Cor. of the Chapin No. 10 lode unsurveyed
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 1, an iron cap on top mkd. C9-1-4209; from which
	The vertical face of a basalt ledge 31x59 inches; 61 inches high, bears N 89° 56' W 2.65 ft., mkd. BR x C9-1-4209
	The North 1/4 Sec. Cor. of Sec. 5, T 11 N, R 13 W, G & S R <del>x M</del> , previously described bears N 89° 56' W 194.0 ft. dist.
	thence S 89° 56' E
300.0	North end center, a mound of rocks, 3ft. base, 3 ft. high, agreeing with the north end center of the location
600.0	Cor. No. 2
	Identical with Cor. No. 1 of the Chapin No. 8 lode of this survey
	thence S 0° 02' E
1500.0	Cor. No. 3
	Identical with Cor. No. 4 of the Chapin No. 8 lode of this survey
	thence N 89° 56' W
300.0	South end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the south end center of location
600.0	Cor. No. 4
	Identical with the S. E. Cor. of the Chapin No. 10 lode unsurveyed
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 4, an iron cap on top mkd. C9-4-4209; no bearings available
	thence N 0° 02' W
1500.0	Cor. No. 1 and place of beginning.
	<b>CHAPIN NO. 15</b>
	Beginning at Cor. No. 1 of the Chapin No. 15 lode
	Identical with the Cor. of Secs. 32 and 33, T. 12 N., R. 13 W., G & S R M., and with Cor. No. 1 of the Chapin No. 5 lode of this survey
	thence N 0° 02' W
300.0	West end center, a mound of rocks, 3 ft. base, 3 ft. high agreeing with the west end center of the location
600.0	Cor. No. 2

## MINERAL SURVEY NO. 4209 - Arizona

feet	
	Identical with Cor. No. 1 of the Chapin No. 16 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top mkd. C15-2-4209; C16-1-4209; no bearings available
	thence N 89° 58' E
370.0	Cross gulch, 20 feet wide, course southerly
410.0	Cross road, 10 feet wide, course southerly
1500.0	Cor. No. 3
	Identical with Cor. No. 4 of the Chapin No. 16 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top mkd. C15-3-4209; C16-4-4209; no bearings available
	thence S 0° 02' E
300.0	East end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the east end center of the location
600.0	Cor. No. 4, on line between Secs. 4 and 33, Ts. 11 and 12 N., R. 13 W., G. & S.R.M.
	Identical with the S. W. Cor. of the Chapin No. 21 lode, unsurveyed
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 4, an iron cap on top mkd. C15-4-4209; no bearings available
	thence S 89° 58' W
300.0	Cor. No. 2 of the Chapin No. 4 lode of this survey
600.0	North end center of the Chapin No. 4 lode of this survey
890.0	Cross road, 10 feet wide, course southeasterly
900.0	Cor. No. 1 of the Chapin No. 4 lode and Cor. No. 2 of the Chapin No. 5 lode, both of this survey
1050.0	Cross gulch, 20 feet wide, course southeasterly
1200.0	North end center of the Chapin No. 5 lode of this survey
1460.0	Cor. of Secs. 4 and 5, T 11 N, R 13 W, G & S R <del>EXX</del> M
1500.0	Cor. No. 1 and place of beginning.
	CHAPIN NO. 16
	Beginning at Cor. No. 1 of the Chapin No. 16 lode
	Identical with Cor. No. 2 of the Chapin No. 15 lode of this survey; from which
	The Cor. of Secs. 32 and 33, T 12 N, R 13 W, G & S R <del>EXX</del> M, previously described, bears S 0° 02' E 600.0 ft. dist.



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8

feet	
	thence N 0° 02' W
300.0	West end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the west end center of the location
600.0	Cor. No. 2
	Identical with Cor. No. 4 of the Chapin No. 17 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 ft. long, set 18 inches in the ground in a mound of rocks for Cor. No. 2, an iron cap on top mkd. C16-2-4209; C17-4-4209, no bearings available
	thence N 89° 58' E
580.0	Cross gulch, 20 ft. wide, course southerly
605.0	Cross road, 10 feet wide, course southerly
1500.0	Cor. No. 3
	Identical with Cor. No. 3 of the Chapin No. 17 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top mkd. C16-3-4209; C17-3-4209; no bearings available
	thence S 0° 02' E
300.0	East end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the east end center of the location
600.0	Cor. No. 4
	Identical with Cor. No. 3 of the Chapin No. 15 lode of this survey
	thence S 89° 58' W
1090.0	Cross road, 10 feet wide, course southerly
1130.0	Cross gulch 20 feet wide, course southerly
1500.0	Cor. No. 1 and place of beginning.
	CHAPIN NO. 17
	Beginning at Cor. No. 1 of the Chapin No. 17 lode
	Identical with Cor. No. 4 of the Chapin No. 18 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 1, an iron cap on top mkd. C17-1-4209; C18-4-4209; from which
	Sec.
	The 1/4 Cor. between Secs. 32 and 33, T 12 N, R 13 W, G & S R <del>32</del> M bears N 02' W 840.0 ft., an iron post, 1 inch in diameter, 18 inches above ground firmly set in ground and mound of stone, marked and witnessed as described in the official record.
	thence N 89° 58' E
655.0	Cross gulch, 15 feet wide, course southerly

## MINERAL SURVEY NO. 4209 - Arizona

9

feet	
750.0	Cross road, 10 feet wide, course southerly
1500.0	Cor. No. 2 Identical with Cor. No. 3 of the Chapin No. 18 lode of this survey An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top mkd. C17-2-4209; C18-3-4209; no bearings available thence S 0° 02' E
300.0	East end center, an iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, an iron cap on top mkd. C17-EEC-4209; identical with the S. W. Cor. of the Chapin No. 23 lode and the N. W. Cor. of the Chapin No. 21 lode, both unsurveyed, and agreeing with the east end center of the location
600.0	Cor. No. 3 Identical with Cor. No. 3 of the Chapin No. 16 lode of this survey thence S 89° 58' W
895.0	Cross road, 10 feet wide, course southerly
920.0	Cross gulch, 20 feet wide, course southerly
1500.0	Cor. No. 4 Identical with Cor. No. 2 of the Chapin No. 16 lode of this survey thence N 0° 02' W
300.0	West end center, a mound of rocks 3 ft. base, 3 ft. high, agreeing with the west end center of the location
600.0	Cor. No. 1 and place of beginning. CHAPIN NO. 18 Beginning at Cor. No. 1 of the Chapin No. 18 lode Identical with Cor. No. 1 of the Chapin No. 19 lode of this survey An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 1, an iron cap on top mkd. C18-1-4209; C19-1-4209; from which Secs The 1/4 Cor. between Secs. 32 and 33, T 12 N, R 13 W, G & S R <del>Ext</del> M, previously described, bears N 0° 02' W 240.0 ft. dist. thence N 89° 58' E
530.0	Cross gulch, 15 feet wide, course southerly
555.0	Cross road, 10 feet wide, course southerly
1500.0	Cor. No. 2 Identical with Cor. No. 4 of the Chapin No. 19 lode of

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## MINERAL SURVEY NO. 4209 - Arizona

10

feet	this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top mkd. C18-2-4209; C19-4-4209; no bearings available
	thence S 0° 02' E
300.0	East end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the east end center of the location
600.0	Cor. No. 3, Identical with Cor. No. 2 of the Chapin No. 17 lode of this survey
	thence S 89° 58' W
750.0	Cross road, 10 feet wide, course southerly
845.0	Cross gulch, 15 feet wide, course southerly
1500.0	Cor. No. 4 Identical with Cor. No. 1 of the Chapin No. 17 lode of this survey
	thence N 0° 02' W
300.0	West end center, a mound of rocks 3 ft. base, 3 ft. high, agreeing with the west end center of the location
600.0	Cor. No. 1 and place of beginning.
	CHAPIN NO. 19
	Beginning at Cor. No. 1 of the Chapin No. 19 lode
	Identical with Cor. No. 1 of the Chapin No. 18 lode of this survey
	thence N 0° 02' W
240.0	Sec. The 1/4 Cor. between Secs. 32 and 33, T 12 N, R 13 W, G & S R <del>R</del> M
300.0	West end center, a mound of rocks, 3 ft. base, 3 ft. high agreeing with the west end center of the location
600.0	Cor. No. 2 Identical with Cor. No. 1 of the Chapin No. 20 lode of this survey
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top mkd. C19-2-4209; C20-1-4209; no bearings available
	thence N 89° 58' E
260.0	Cross gulch, 15 feet wide, course southeasterly
290.0	Cross road, 8 feet wide, course southeasterly
1500.0	Cor. No. 3 Identical with Cor. No. 4 of the Chapin No. 20 lode of this survey, and the N. W. Cor. of the Chapin No. 23

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feet	<p>lode, unsurveyed</p> <p>An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top mkd. C19-3-4209; C20-4-4209; no bearings available</p> <p>thence S 0° 02' E</p>
300.0	East end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the east end center of the location
600.0	Cor. No. 4
	Identical with Cor. No. 2 of the Chapin No. 18 lode of this survey
	thence S 89° 58' W
945.0	Cross road, 10 feet wide, course southerly
970.0	Cross gulch, 15 feet wide, course southerly
1500.0	Cor. No. 1 and place of beginning.
	CHAPIN NO. 20
	Beginning at Cor. No. 1 of the Chapin No. 20 lode
	Identical with Cor. No. 2 of the Chapin No. 19 lode of this survey; from which
	Sec.
	The 1/4 Cor. between Secs. 32 and 33, T 12 N, R 13 W, G & S R <del>Ext</del> M, previously described, bears S 0° 02' E 360.0 ft. dist.
	thence N 0° 02' W
150.0	Cross gulch, 15 feet wide, course southeasterly
240.0	Cross road, 8 feet wide, course southeasterly
300.0	West end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the west end center of the location
600.0	Cor. No. 2, on line between Secs. 32 and 33, T. 12 N., R. 13 W., G. & S. R. M.
	An iron pipe, 2 1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 2, an iron cap on top mkd. C20-2-4209; no bearings available
	thence N 89° 58' E
1500.0	Cor. No. 3
	An iron pipe, 2-1/2 inches in diameter, 4 feet long, set 18 inches in the ground in a mound of rocks, for Cor. No. 3, an iron cap on top mkd. C20-3-4209; no bearings available
	thence S 0° 02' E
300.0	East end center, a mound of rocks, 3 ft. base, 3 ft. high, agreeing with the east end center of the location
600.0	Cor. No. 4
	Identical with Cor. No. 3 of the Chapin No. 19 lode of this survey

13

feet

thence S 89° 58' W

1210.0 Cross road, 8 feet wide, course southeasterly

1240.0 Cross gulch, 15 feet wide, course southeasterly

1500.0 Cor. No. 1 and place of beginning.

LODE LINES

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:-

Chapin No. 4 lode, S 0° 02' E 40 ft., and N 0° 02' W  
1460 ft.

Chapin No. 5 lode, S 0° 02' E 50 ft., and N 0° 02' W  
1450 ft.

Chapin No. 6 lode, S 0° 02' E 15 ft., and N 0° 02' W  
1485 ft.

Chapin No. 7 lode, S 0° 02' E 35 ft., and N 0° 02' W  
1465 ft.

Chapin No. 8 lode, S 0° 02' E 45 ft., and N 0° 02' W  
1455 ft.

Chapin No. 9 lode, S 0° 02' E 75 ft., and N 0° 02' W  
1425 ft.

Chapin No. 15 lode, S 89° 58' W 90 ft., and N 89° 58' E  
1400 ft.

Chapin No. 16 lode, S 89° 58' W 490 ft., and N 89° 58' E  
1010 ft.

Chapin No. 17 lode, N 89° 58' E 468 ft., and S 89° 58' W  
1032 ft.

Chapin No. 18 lode, N 89° 58' E 86 ft., and S 89° 58' W  
1414 ft.

Chapin No. 19 lode, N 89° 58' E 550 ft., and S 89° 58' W  
950 ft.

Chapin No. 20 lode, S 89° 58' W 500 ft., and N 89° 58' E  
1200 ft.

AREAS

acres

Total area, Chapin No. 4 lode - - - - - 20.661

Total area, Chapin No. 5 lode - - - - - 20.661

Total area, Chapin No. 6 lode - - - - - 20.661

Total area, Chapin No. 7 lode - - - - - 20.661

Total area, Chapin No. 8 lode - - - - - 20.661

Total area, Chapin No. 9 lode - - - - - 20.661

Total area, Chapin No. 15 lode - - - - - 20.661

Total area, Chapin No. 16 lode - - - - - 20.661

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	acres
Total area, Chapin No. 17 lode - - - - -	20.661
Total area, Chapin No. 18 lode, - - - - -	20.661
Total area, Chapin No. 19 lode - - - - -	20.661
Total area, Chapin No. 20 lode - - - - -	20.661

## LOCATION

This survey is located in the ~~W 1/2 of Sec. 4~~ W 1/2 of Sec. 33, T 12 N, R 13 W; the NW 1/4 of Sec. 4 and the NE 1/4 of Sec. 5, T 11 N, R 13 W, G & S R ~~32~~ M, Arizona.

The survey of each of the lode locations of this survey is identical with the original 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 not less than \$500, and that said improvements consist of:-

- |       |   |
|-------|---|
| No. 1 | The discovery shaft of the Chapin No. 4 lode, the center of which being the discovery point is on the center line 40 ft. from the south end center, 4x6 ft., 8 ft. deep<br>Value \$50   |
| No. 2 | An open cut, the mouth of which bears N 23° 30' E 15 ft. from the south end center of the Chapin No. 4 lode; 4 ft. wide, 9 ft. face running North 10 ft. to face<br>Value \$50  |
| No. 1 | The discovery shaft of the Chapin No. 5 lode, the center of which being the discovery point is on the center line 50 ft. from the south end center; 4x6 ft., 10 ft. deep<br>Value \$60  |
| No. 1 | The discovery cut of the Chapin No. 6 lode, the face of which being the discovery point is on the center line 15 ft. from the south end center; 4 feet wide, 11 ft. face, running N 75° W 14 ft. to face<br>Value \$ 80                                   |
| No. 1 | The discovery cut of the Chapin No. 7 lode, the face of which being the discovery point is on the center line 35 ft. from the south end center; 4 ft. wide, 6 ft. face, running N 45° E 14 ft. to face; at face is shaft 4x6 ft. 2 ft. deep<br>Value \$55 |
| No. 1 | The discovery shaft of the Chapin No. 8 lode, the center of which being the discovery point is on the center line 45 ft. from the south end center; 4x6 ft., 8 ft. deep<br>Value \$50   |
| No. 1 | The discovery shaft of the Chapin No. 9 lode, the center of which being the discovery point is on the center line 75 ft. from the south end center; 4x6 ft., 8 ft. deep<br>Value \$50   |
| No. 1 | The discovery cut of the Chapin No. 15 lode, the face of  |

- which being the discovery point is on the center line 90 ft. from the west end center; 4 ft. wide, 8 ft. face, running West 14 ft. to face  
Value \$50
- No. 1 The discovery cut of the Chapin No. 16 lode, the face of which being the discovery point is on the center line 490 ft. from the west end center; 5 ft. wide, 10 ft. face, running South 15 ft. to face  
Value \$60
- No. 2 A diamond drill hole, the center of which bears from Cor. No. 1 of the Chapin No. 16 lode, N 67° 18' E 540 ft. 504 ft. deep. This drill hole is listed further on under common improvements  
Value \$3780
- No. 1 The discovery shaft of the Chapin No. 17 lode, the center of which being the discovery point is on the center line 468 ft. from the east end center; 5x6 ft., 60 ft. deep. This shaft is listed further on under common improvements  
Value \$830.
- No. 2 An open cut, the mouth of which bears S 73° 30' W 285 ft. from the east end center of the Chapin No. 17 lode; 7 ft. wide, 7 ft. face, running South 6 ft. to face; at face is tunnel 5x6 ft. running South 7 ft. to breast  
Value \$75
- No. 3 An open cut, the mouth of which bears North 10 ft. from point on the center line 530 ft. from the west end center of the Chapin No. 17 lode; 4 ft. wide, 7 ft. face, running N 70° W 8 ft. to face  
Value \$30
- No. 4 An open cut, the mouth of which bears South 15 ft. from same point, 4 ft. wide, 5 ft. face, running N 70° W 8 ft. to face  
Value \$20
- No. 5 A tunnel, the mouth of which bears South 30 ft. from same point, 4x6 ft. running N 70° W 15 ft. to face  
Value \$100
- No. 1 The discovery cut of the Chapin No. 18 lode, the face of which being the discovery point is on the center line 86 ft. from the east end center; 4 ft. wide, 10 ft. face, running East 14 ft. to face  
Value \$70
- No. 1 The discovery cut of the Chapin No. 19 lode, the face of which being the discovery point is on the center line 550 ft. from the east end center; 4 ft. wide, 10 ft. face, running East 14 ft. to face  
Value \$70
- No. 2 A cut, the mouth of which bears S 41° W 135 ft. from Cor. No. 3 of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face running S 70° W 14 ft. to face  
Value \$70
- No. 3 A shaft, the center of which bears N 81° 15' E 410 ft. from Cor. No. 1 of the Chapin No. 19 lode; 7x10 ft., 134 ft. deep, timbered throughout. The value of this shaft is listed under common improvements further on  
Value \$4690
- No. 4 An open cut, the mouth of which bears N 79° 50' E 510 ft. from Cor. No. 1 of the Chapin No. 19 lode; 5 ft. wide,

14 ft. face, running S 66° W 25 ft. to face; at face is tunnel 4x6 ft. running S 66° W 76 ft. to breast; at breast of tunnel is crosscut 4x8 ft., running N 24° W 9 ft. to shaft. The value of this improvement is listed under common improvements, further on.

Value \$1010

- No. 1 The discovery cut of the Chapin No. 20 lode, the face of which being the discovery point is on the center line 300 ft. from the west end center; 4 ft. wide, 10 ft. face, running East 14 ft. to face

Value \$70.

#### COMMON IMPROVEMENTS.

The ore-deposit covered by this group of claims is a large blanket deposit of low-grade manganese ore. The deposit consists of several nearly horizontal beds, one below the other. One of the beds is exposed along the west side of the main gulch that runs north and south through part of the group. The drill holes and the shafts and tunnel have proved that these beds are continuous and underlie the whole of the property. For this reason the improvements on this group have been concentrated in the drill hole, tunnel and shafts, <sup>listed below</sup> as being the most feasible, both practically and economically, method to develop the ore bodies. Much time and money has been spent in developing a metallurgical process to successfully recover the low grade values. See topographic map herewith.

For this reason the value of No. 2, drill hole, on the Chapin No. 16 lode, No. 1, shaft, on the Chapin No. 17 lode, and Nos. 3 & 4, tunnel and shaft, on the Chapin No. 19 lode, have been considered as a common improvement and the total value allotted to this group, of which a 1/12 is allotted to each claim of this survey.

Value of improvement No. 2, Chapin No. 16 lode,	\$3780.
Value of improvement No. 1, Chapin No. 17 lode	830
Value of improvement No. 3, Chapin No. 19 lode	4690.
Value of improvement No. 4, Chapin No. 19 lode	<u>1010.</u>

Total Value \$10,310.

Value of a 1/12 interest \$ 859.20

#### OTHER IMPROVEMENTS

An open cut, the mouth of which bears S 48° 30' W 60 ft. from the east end center of the Chapin No. 15 lode; 6 ft. wide, 11 ft. face, running N 70° E, 33 ft.; at face is tunnel 5x6 ft., running N 70° E 7 ft. to breast

An open cut, the mouth of which bears S 82° W 100 ft. from same point, 3 ft. wide, 8 ft. face, running S 63° W 12 ft. to face.

An open cut, the mouth of which bears N 57° W 90 ft. from same point, 5 ft. wide, 9 ft. face, running North 19 ft. to face

An open cut, the mouth of which bears S 66° 10' E 380 ft. from Cor. No. 1 of the Chapin No. 17 lode; 4 ft. wide, 10 ft. face, running N 10° E 21 ft. to face.

An open cut, the mouth of which bears S 74° E 330 ft. from same point, 4 ft. wide, 10 ft. face, running N 74° E 18 ft. to face

An open cut, the mouth of which bears S 15° 13' E 120 ft. from Cor. No. 1 of the Chapin No. 18 lode, 4 ft. wide, 8 ft. face, running N 45° W 26 ft. to face



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An open cut, the mouth of which bears N 58° E 240 ft. from Cor. No. 1 of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.

Improvement No. 1, Chapin No. 19 lode  
 Improvement No. 2, Chapin No. 19 lode  
 Improvement No. 3, Chapin No. 19 lode  
 Improvement No. 4, Chapin No. 19 lode

Total Value  
 Value of a full interest

OTHER IMPROVEMENTS  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.  
 An open cut, the mouth of which bears N 58° E 240 ft. from the east end of the Chapin No. 19 lode; 5 ft. wide, 8 ft. face, running West 17 ft. to face.

# FINAL OATHS FOR SURVEYS

## LIST OF NAMES

A list of the names of the individuals employed by Ralph L. Metz

~~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 Chapin Exploration Company, known as the Chapin No. 4, Chapin No. 5, Chapin No. 6, Chapin No. 7, Chapin No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16, Chapin No. 17, Chapin No. 18, Chapin No. 19, Chapin No. 20 lodes known as the

and showing the respective capacities in which they acted.

- George Erickson, Chainman.
- ....., Chainman.
- ....., Axman.
- ....., Flagman.

## FINAL OATHS OF ASSISTANTS

~~we~~ I, George Erickson

and ..... do solemnly swear that we assisted Ralph L. Metz

....., ~~United States~~ Mineral Surveyor, in marking the corners and surveying the boundaries of the mining claim of Chapin Exploration Company, known as the Chapin No. 4, Chapin No. 5, Chapin No. 6, Chapin No. 7, Chapin No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16, Chapin No. 17, Chapin No. 18, Chapin No. 19, Chapin No. 20 lodes known as the

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 instructions furnished by the Office Cadastral Engineer, at Phoenix, Arizona.

- George Erickson, Chainman.
- ....., Chainman.
- ....., Axman.
- ....., Flagman

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

day of March, 19 38

W. H. Murchison  
 Notary Public, in and for the  
 County of Cochise, State of Arizona.

My Commission Expires Feb. 3, 1941.

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

I, Ralph L. Motz....., ~~XXXX~~ Mineral Surveyor,  
do solemnly swear that, in pursuance of instructions received from the Office Cadastral  
Engineer, at Phoenix, Arizona......, dated February 3, 1938.....  
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 Chapin  
~~Exploration Comp~~<sup>any,</sup> known as the Chapin No. 4, Chapin No. 5, Chapin No. 6,  
Chapin No. 7, Chapin No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16,  
Chapin No. 17, Chapin No. 18, Chapin No. 19, and Chapin No. 20 lodes  
situate in Owens..... Mining District,  
Mohave..... County, Arizona....., in Section  
4 & 5..... Township No. 11 N.  
33....., Range No. 13 W. G&SR.....  
and designated as Survey No. 4209....., 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 im-  
provements 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 in-  
cluded in the estimate of expenditures upon any other claim. ....

*Ralph L. Motz*  
~~(XXXX)~~ Mineral Surveyor)  
My Commission Expires Feb. 3, 1941.

Subscribed and sworn to by the said Ralph L. Motz,  
~~XXXX~~ Mineral Surveyor, before me W. H. Miescher, Notary Public  
..... this 8th  
day of March....., 19 38

*W. H. Miescher*  
My Commission Expires Feb. 3, 1941.  
Notary Public, in and for the  
County of Cochise, State of Arizona.

## OFFICE CADASTRAL ENGINEER'S FINAL CERTIFICATE ON FIELD NOTES

## Department of the Interior

PUBLIC SURVEY OFFICE

Phoenix, Arizona

April 18, 1938

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 Chapin Exploration Company, known as the Chapin No. 4, Chapin No. 5, Chapin No. 6, Chapin No. 7, Chapin No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16, Chapin No. 17, Chapin No. 18, Chapin No. 19, and Chapin No. 20 lodes situate in Owens

Mining District Mohave County Arizona  
in Section 4 & 5, Township No. 11 N., 12 N., Range No. 13 W., G. & S. R. M., and designated as Survey No. 4209, 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 7 shafts, 12 cuts, 3 tunnels, 1 cross-cut and 1 drill hole, total value \$11,240. Improvements No. 2 on the Chapin No. 16 lode, No. 1 on the Chapin No. 17, and Nos. 3 and 4 on the Chapin No. 19 lode, form a system of common improvements for the benefit and development of this entire group and a 1-12 interest therein, value \$859.20, is properly credited to each claim in this survey.

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.

Sherman C. Fiske

Office Cadastral Engineer.

CERTIFICATE OF APPROVAL OF FIELD NOTES AND SURVEY OF MINING CLAIM

DEPARTMENT OF THE INTERIOR PUBLIC SURVEY OFFICE

At Phoenix, Arizona

April 18, 1938

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

Chapin Exploration Company

known as the Chapin No. 4, Chapin No. 5, Chapin No. 6, Chapin No. 7, Chapin No. 8, Chapin No. 9, Chapin No. 15, Chapin No. 16, Chapin No. 17, Chapin No. 18, Chapin No. 19, and Chapin No. 20 lodes situate in Owens mining district,

Mohave County, Arizona

in Sections 4 & 5, Township No. 11 N., 12 N., Range No. 13 W., G. & S.R.M.

designated as Survey No. 4209

executed by Ralph L. Motz, US Mineral

Surveyor, February 6 - 13, 1938, under my instructions dated

February 3, 1938, 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.

Shuman C. Fiebig Office Cadastral Engineer.