

Accepted S. L. O. letter E. April 28-1913

145

2374

<sup>4-679.</sup>  
Subdivisional  
Book D

APR 24 1913

BOOK 2374

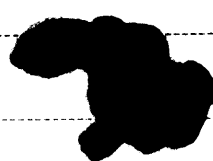
# FIELD NOTES

7000

OF THE SURVEY OF THE

Original & Supplemental

SUBDIVISION OF T 19 N R 19 W



Of the Gila and Salt River Base and Meridian,  
Arizona.

AS SURVEYED BY

William B. Alexander, United States Deputy Surveyor,

Under his Contract No. 156, dated May 26, 1909., 190

Survey commenced June 6, 1910., 190

Survey completed June 12, 1912., 190



BOOK 2374

INDEX DIAGRAM.

Township 19 N, Range 19 W

← Exterior Book "A" →

6	30	5	4	17	3	10	2	5	1	
30		29	22		17		9+10		4+5	
7	28+29	8	21	9	16	10	9	11	4	12
28		27	21		16	12	9		4	
18	26+27	17	20	16	15	8	14	3	13	
26		26	20		12		8		3	
19	25	20	19	21	11	22	7	23	3	24
25		24+25	19		10+11		7		2	
30	24	29	19	28	15	27	6+7	26	2	25
23+24		23	18		14+15		6		17+2	
31	27+23	32	18	33	14	34	5+6	35	1	36

Exterior Book "F"  
Supplemental Notes indexed in Red Figures

Standard Book "B"  
5th Guide Meridian West

← Exterior Book "A" →

Meanders Page \_\_\_\_\_

For PRELIMINARY OATHS OF ASSISTANTS.  
See Subdivisional Books "B" & "G"

WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Chainman.*

\_\_\_\_\_, *Chainman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Moundman.*

\_\_\_\_\_, *Moundman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Axman.*

\_\_\_\_\_, *Axman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



I, \_\_\_\_\_, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Flagman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



Chains.

Survey commenced June 6, 1910, and was executed with a Young and Sons' Light Mountain Transit No. 7520, with a Smith Solar Attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the latitude and decl. arc verniers.

The instrument was examined, tested on the true meridian at Phoenix, Arizona, found correct, and approved by the Surveyor General for Arizona June 25, 1904.

I examine the adjustments of the transit, and correct the level and collimation errors; then, test the a.m. and p.m. solar meridians by comparing them with an observation on Polaris, as follows:

June 6, 1910; at the cor. of secs. 1, 2, 35 and 36, on the south boundary of T. 19 N R 19 W, previously established and described by me, I set off  $34^{\circ}59'N.$  on the lat. arc;  $22^{\circ}37\frac{1}{2}'N.$  on the decl. arc, and at 9h.30m. a.m., 1. m.t., I determine a meridian with the solar, and mark the line thus secured by a tack driven in a stake set 5 chains N. of my station.

June 6, 1910.

June 7, 1910. At 2h. 28m. a.m., 1. m.t., I observe Polaris at eastern elongation in accordance with instructions in the Manual, and mark the line thus determined by a tack driven in a stake set about 5 chains N. of my station.

At 5h. 00m. a.m., 1. m.t., I set off  $1^{\circ}26'W.$ , and find that the true meridian thus determined intersects the tack set yesterday afternoon by solar observation.

At 7h. 00m. a.m., 1. m.t., I set off  $34^{\circ}59'N.$  on the lat. arc;  $22^{\circ}44'N.$  on the decl. arc, and determine a meridian with the solar. This meridian falls 0.1 inch E. of the true meridian. From these results I conclude the solar is in satisfactory adjustment.

Thence I run,

$N. 0^{\circ}04'W.$ , on a true line, bet. secs. 35 and 36.

Descend over dense undergrowth of greasewood, cactus, and catsclaw.

Sharply rolling land.

- 2353 Wash, 20 lks. wide, course NE.  
40.00 Set a malpais stone 8x10x14 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
45.70 Wash, 20 lks. wide, course N. 70° E.  
48.50 Wash, 30 lks. wide, course S. 75° E.  
61.00 Draw, course SE.  
80.00 Set a malpais stone 8x12x15 ins., 10 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, marked with 1 notch on the S. and 1 notch on the E. edges; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
Land, sharply rolling.  
Soil, 4th and 3rd rate, stony.  
Dense undergrowth of greasewood, cactus and catsclaw.  
No timber or grass.  
Rolling land, covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs.

East, on a random line, bet. secs. 25 and 36.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.04 Intersect the Fifth Guide Meridian West, at a point 7 lks. S. of the cor. of secs. 25, 30, 31 and 36, a lava stone 7 ins. above ground, marked and witnessed as described by the Surveyor General.

Thence I run,

$S. 89^{\circ}57'W.$  on a true line, bet. secs. 25 and 36.

Chains.

Over rolling land, covered with dense undergrowth of greasewood, cactus and catsclaw.

38.80 Draw, course SE.

40.02 Set a malpais stone 6x10x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec.cor., marked  $\frac{1}{4}$  on the N.face, and raise a mound of stones 3 ft.base, 1 $\frac{1}{2}$  ft. high,N.of cor. Pits impracticable.

66.50 Wash, 40 lks.wide, course SE.

75.00 Gulch, course S.70° E.

80.04 The cor.of secs. 25, 26, 35 and 36, hereinbefore described. Land, rolling. Soil, 3rd rate. Dense undergrowth of greasewood, cactus and catsclaw. No timber or grass. Rolling land, covered with dense undergrowth, 80.04 chs.

At noon, at the above cor., I set off 35° N. on the lat. arc; 22°44' N. on the decl. arc, and observe the sun on the meridian. The latitude reading remains unchanged.

Thence I run, N. 0° 07' W., bet. secs. 25 and 26. Over rolling land, covered with dense undergrowth of greasewood, cactus and catsclaw. Descending.

14.00 Wash, 40 lks.wide, course SE.

40.00 Set a malpais stone 6x8x16 ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec.cor., marked  $\frac{1}{4}$  on the W.face, and raise a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high,W.of cor. Pits impracticable.

74.00 Wash, 40 lks.wide, course SE.

80.00 Set a malpais stone 6x6x18 ins., 12 ins. in the ground for the cor.of secs. 23, 24, 25 and 26, marked with 1 notch on the E. and 2 notches on the S.edges; and raise a mound of stones 3 ft.base, 1 $\frac{1}{2}$  ft. high,W.of cor. Pits impracticable. Land, rolling, covered with dense undergrowth of greasewood, cactus and catsclaw. Soil, 3rd class, rocky, covered with malpais boulders. No timber or grass. Rolling land, covered with dense undergrowth and malpais boulders, and exceptionally difficult to survey, 80.00 chains.

Thence I run, N.89°57' E., on a random line, bet. secs. 24 and 25.

40.00 Set a temp.  $\frac{1}{4}$  sec.cor.

79.93 Intersect the Fifth Guide Meridian West at a point 16 lks. S.of the cor.of secs. 19, 24, 25 and 30, a lavastone 5 ins. above ground, marked and witnessed as described by the Surveyor General.

Thence I run, S.89°50' W., on a true line, bet. secs. 24 and 25.

Over rolling land, covered with dense undergrowth of greasewood, cactus, and catsclaw.

39.96 $\frac{1}{2}$  Set a malpais stone 8x9x15 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec.cor., marked  $\frac{1}{4}$  on the N.face, and raise a mound of stones 3 ft.base, 1 $\frac{1}{2}$  ft. high,N.of cor. Pits impracticable.

Ascend.

60.00 Descend.

70.50 Wash, 60 lks.wide, course SE.

79.93 The cor.of secs. 23, 24, 25 and 26, hereinbefore described. Land rolling. Soil, 3rd rate, stony. Dense undergrowth of greasewood, cactus and catsclaw. No timber or grass. Rolling land covered with dense undergrowth and difficult to survey, 79.95 chs.

## Subdivision of Township 19 North, Range 19 West.

3.

## Chains.

N. 0° 07' W., bet. secs. 23 and 24.

Over rolling land, covered with yucca plant, greasewood, and cactus; dense undergrowth.

Descend.

- 8.10 Wash, 40 lks. wide, course SE.; ascend.  
 40.00 Set a malpais stone 6x8x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 80.00 Set a malpais stone 6x10x15 ins., 10 ins. in the ground for the cor. of secs. 13, 14, 23 and 24, marked with 1 notch on the E. and 3 notches on the S. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, rolling.

Soil, 3rd rate, stony.

Dense undergrowth of yucca, greasewood, cactus, and some catclaw.

No grass. No trees.

Rolling land, covered with dense undergrowth, and difficult to survey, 80.00 chs.

Thence I run,

N. 89° 50' E., on a random line, bet. secs. 13 and 24.

- 40.00 Set temp.
- $\frac{1}{4}$
- sec. cor.

- 79.96 Intersect the Fifth Guide Meridian West at a point 5 lks. N. of cor. of secs. 13, 18, 19 and 24, a lava stone 5 ins. above ground, marked and witnessed as described by the Surveyor General.

Thence I run,

S. 89° 52' W., on a true line, bet. secs. 13 and 24.

- 37.00 Draw, course SE.; ascend.

- 39.98 Set a malpais stone 7x9x16 ins., 11 ins. in the ground for the
- $\frac{1}{4}$
- sec. cor., marked
- $\frac{1}{4}$
- on the N. face, and raise a mound of stones 3 ft. base,
- $1\frac{1}{2}$
- ft. high, N. of cor. Pits impracticable.

- 63.00 Ridge, brs. NW. and SE.; descend.

- 68.25 Wash, 60 lks. wide, course SE.; ascend.

- 79.96 The cor. of secs. 13, 14, 23 and 24 hereinbefore described.

Land, sharply rolling.

Soil, 3rd class.

Dense undergrowth of yucca, cactus and greasewood.

No timber or grass.

Sharply rolling land, covered with dense undergrowth and difficult to survey, 79.96 chs.

June 7, 1910.

June 8, 1910.

N. 0° 10' W., bet. secs. 14 and 13.

Over rolling land cut by many washes, and covered with dense undergrowth of yucca, greasewood, and cactus.

- 3.20 Wash, 50 lks. wide, course SE.; ascend.  
 10.00 Summit of ridge, brs. SE. and NW.; descend.  
 15.00 Wash, 30 lks. wide, course S. 70° E.  
 21.00 Wash, 30 lks. wide, course S. 70° E.  
 22.50 Ascend.  
 30.00 Summit ridge, brs. SE. and NW.; descend.  
 40.00 Set a malpais stone 6x8x16 ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 80.00 Set a malpais stone 5x8x18 ins., 12 ins. in the ground, for the cor. of secs. 11, 12, 13 and 14, marked with 1 notch on the E. and 4 notches on the S. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, rolling and cut by washes.

Soil, 3rd rate, sandy.

4. Subdivision of Township 19 North Range 19 West.

Chains.

Dense undergrowth of yucca, greasewood and cactus.  
No timber or grass.  
Rolling land out by washes, and covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

Thence I run,  
N. 89° 52' E., on random line, bet. secs. 12 and 13.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.  
80.00 Intersect the Fifth Guide Meridian West, 32 lks. N. of cor. of secs. 7, 12, 13 and 18, recently reestablished & described by me.

Thence I run,  
N. 89° 54' W. on a true line, bet. secs. 12 and 13.

Rolling land, covered with dense undergrowth of greasewood, cactus and yucca.

40.00 Set a malpais stone 7x8x15 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

80.00 The cor. of secs. 11, 12, 13 and 14, hereinbefore described. Land, rolling, covered with dense undergrowth of greasewood, cactus and yucca.

Soil, 3rd rate, stony.  
No timber or grass.

Rolling land, covered with dense undergrowth and difficult to survey, 80.00 chains.

At 9h. 30m., a.m., l.m.t., I set off 35° 02  $\frac{1}{2}$ ' N. on the lat. arc; 22° 49' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence I run,  
N. 0° 14' W., bet. secs. 11 and 12.

Descend over rolling land, covered with dense undergrowth of greasewood, catsclaw, cactus, and some yucca.

2.55 Electric Power Transmission line from Kingman to Gold Loads brs. NE and SW.

29.80 Wagon road from Kingman to Gold Roads, brs. N. 60° E. and S. 60° W.

34.80 Wash, 40 lks. wide, course E.

40.00 Set a malpais stone 8x8x14 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., bet. secs. 11 and 12, marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. base, W. of cor. Pits impracticable.

48.70 Draw, course S. 70° E.

56.30 Draw, course E.

68.00 Wash, 50 lks. wide, course SE.

80.00 Set a malpais stone 6x8x14 ins., 10 ins. in the ground for the cor. of secs. 1, 2, 11 and 12, marked with 1 notch on the E. and 5 notches on the S. edges, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, rolling.

Soil, 3rd rate, stony.

Dense undergrowth of greasewood, cactus, and catsclaw.

No timber or grass.

Rolling land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chs.

Thence I run,  
S. 89° 54' E., on a random line bet. secs. 1 and 12.

40.00 Intersect the Fifth Guide Meridian West at a point 10 lks. S. of cor. of secs. 1, 6, 7 and 12, recently reestablished and described by me. Thence I run,



## Chains.

- N. 89° 58' W., on a true line, bet. secs. 1 and 12.  
Over rolling land, covered with dense undergrowth of greasewood, cactus, and catsclaw.
- 40.00 Set a malpais stone 8x8x16 ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.
- 66.00 Wash, 40 lks. wide, course SE.
- 80.00 The cor. of secs. 1, 2, 11 and 12, hereinbefore described. Land, rolling. Soil, 3rd rate, stony. Dense undergrowth of greasewood, cactus, catsclaw. No timber or grass. Rolling land covered with dense undergrowth and exceptionally difficult to survey, 80.00 chains.
- 
- Thence I run,  
N. 0° 10' W., on a random line, bet. secs. 1 and 2.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 81.17 Intersect the N. bdy. of the Tp. at the cor. of secs. 1, 2, 35 and 36, recently established and described by me.
- Thence I run,  
S. 0° 10' E., on a true line, bet. secs. 1 and 2.  
Over sharply rolling ground, covered with dense undergrowth of greasewood, yucca, cactus and catsclaw.
- 3.80 Wash, 15 lks. wide, course SE.
- 23.10 Draw, course E.
- 31.60 Wash, 15 lks. wide, course E.
- 41.17 Set a tufa stone 8x10x14 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.
- 57.10 Draw, course E.
- 65.10 Wash, 20 lks. wide, course E.
- 81.17 The cor. of secs. 1, 2, 11 and 12, hereinbefore described. Land rolling sharply. Soil, 3rd rate, stony. Dense undergrowth of greasewood, cactus, catsclaw. No timber or grass. Sharply rolling land, covered with dense undergrowth, and exceptionally difficult to survey, 81.17 chains.
- 
- At noon, the sun is obscured with a cloud, and a latitude observation is impracticable.
- I commence at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the township recently established and described by me, and run  
N. 0° 04' W., bet. secs. 34 and 35.  
Over extremely mountainous land, covered with a scattering undergrowth of greasewood and cactus.
- Ascend.
- 11.00 Rocky ridge, brs. NE. and SW. Descend.
- 22.00 Rocky gulch, course N, 7° E.; ascend.
- 24.20 Descend.
- 28.00 Draw, 60 lks. wide, course NE. Ascend bluff.
- 33.00 Top; descend.
- 34.50 Gulch, course SE. Ascend over large boulders.
- 40.00 Set a malpais 8x10x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.
- Ascend steep rocky slope.
- 55.50 Ridge brs. E.; descend abruptly.
- 57.00 Gulch, course E. Ascend.
- 60.00 Ridge brs. E. and W.; descend.
- 65.00 Rocky gulch, course SE. Ascend abruptly.
- 67.00 Ridge, brs. E. and W.; descend.

## 6. Subdivision of Township 19 North, Range 19 West.

Chains.	
73.00	Gulch, course NE. Ascend abruptly.
75.00	Summit of ridge, brs E. and W. Descend abruptly.
80.00	Tufa rock in place 4 ft. x 5 ft. x 6 ft. above ground, marked cross (X) at the exact cor. point for cor. of secs. 26, 27, 34 and 35, marked with 1 notch on S. and 2 notches on the E. side of the cross, and raise a mound of stones 3 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, extremely mountainous, and covered with large boulders. Soil, 4th rate. Scattering undergrowth of greasewood, cactus, and cats-claw. No timber or grass. Mountainous land, covered with boulders and exceptionally difficult to survey, 80.00 chains.
-----	
	Thence I run, East, on a random line, bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect the N. and S. line at the cor. of secs. 25, 26, 35 and 36, hereinbefore described. Thence I run, West, on a true line, between secs. 26 and 35. Over mountainous land, covered with cactus, greasewood, and catsclaw.
31.50	Wash 20 lks. wide, course SE.; ascend.
40.00	Set a malpais stone 8x10x16 ins., 11 ins. in the ground for the ¼ sec. cor., marked ¼ on the N. face, and raise a mound of stones 3 ft. base, 1½ ft. high, N. of cor. Pits impracticable. Descend.
45.00	Gulch, 30 lks. wide, course S., 70° E.; ascend.
53.00	Top of rocky point, brs. N.; descend.
58.50	Gulch, course NE.; ascend.
70.00	Rocky ridge, brs. N. and S.; descend.
71.50	Draw, course NE.; ascend steep rocky slope.
80.00	Cor. of secs. 26, 27, 34 and 35, hereinbefore described. Land, mountainous. Soil, 4th rate, rocky. Scattering undergrowth of greasewood, cactus, and cats-claw. No timber or grass. Mountainous land, covered with boulders, and exceptionally difficult to survey, 80.00 chains.
June 8, 1910.	
-----	
June 9, 1910.	
	Thence I run, N. 0° 07' W., bet. secs. 26 and 27. Over mountainous land, covered with greasewood, cactus, and catsclaw undergrowth (dense). Descend into deep rocky gorge.
14.50	Rocky gorge, course E.; ascend.
18.50	Ridge, brs. E. and W. Descend steep slope.
29.00	Draw, course S. 35° E. Ascend abruptly.
36.00	Ridge brs. NW. and SE. Ascend.
40.00	Set a granite stone 7x9x18 ins., 12 ins. in the ground for the ¼ sec. cor., marked ¼ on the W. face; and raise a mound of stones 3 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
58.00	Draw, course E. Ascend.
60.00	Descend.
61.50	Draw, course N. 75° E.
66.50	Wash, 70 lks. wide, course SE.; ascend.
77.00	Top of slope slanting westerly; descend.
79.00	Set a malpais stone 6x7x24 ins., 18 ins. in the ground for witness corner to cor. of secs. 22, 23, 26 and 27,

Subdivision of Township 19 North, Range 19 West.

7.

Chains.

80.00 marked W.C. on the NE face, 2 notches on the S. and 2 notches on the E. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable. True point for the cor. of secs. 22, 23, 26 and 27 falls in wash 60 lks. wide, course SE.

Land, mountainous.  
Soil, 4th rate, rocky.  
Dense undergrowth of greasewood, cactus and catsclaw, with scattering yucca.  
No timber or grass.  
Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

40.00 From true point for cor. of secs. 22, 23, 26 and 27, I run East on a random line, bet. secs. 23 and 26.  
Set temp. 1/4 sec. cor.

80.00 Intersect the N. and S. line at the cor. of secs. 23, 24, 25, and 26 hereinbefore described.  
Thence I run, West, on a true line, bet. secs. 23 and 26.  
Over mountainous land, covered with dense undergrowth of greasewood, yucca, cactus, and catsclaw.  
Ascend.  
15.00 Descend.  
16.50 Wash, 20 lks. wide, course S. 70° E. Ascend.  
40.00 Set a malpais stone 10x12x15 ins., 10 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the N. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.  
Ascend.  
76.50 Ridge, brs. NW. and SE.; descend.  
80.00 True point for cor. of secs. 22, 23, 26 and 27.  
Land, mountainous.  
Dense undergrowth of greasewood, cactus and catsclaw; and yucca.  
Soil, 4th rate, stony.  
No timber or grass.  
Mountainous land, covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs.

At 9h.30m. a.m., 1.m.t., I set off 35° Cl' N. on the lat. arc; 22° 54 1/2' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.

Thence I run, N. 0° 07' W., bet. secs. 22 and 23.  
Over sharply rolling land, covered with dense undergrowth of greasewood, cactus, catsclaw, and yucca.

26.00 Ridge, brs. NW. and SE. Descend.  
29.60 Draw, course SE.; ascend.  
40.00 Set a malpais stone 7x12x18 ins., 10 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the W. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
50.00 Top ridge, brs. E. and W. Descend.  
62.30 Gulch, course E.; ascend.  
65.00 Ridge, brs. E. and W.; descend.  
80.00 Set a malpais stone 6x12x14 ins., 10 ins. in the ground for the cor. of secs. 14, 15, 22 and 23, marked with 2 notches on the E. and 3 notches on the S. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
Land, mountainous.  
Soil, 3rd rate, rocky.  
Dense undergrowth of greasewood, yucca, cactus, and catsclaw.  
No trees or grass.

## 8. Subdivision of Township 19 North, Range 30 West.

Chains.

Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

- 
- East, on a random line, between secs. 14 and 23.  
 40.00 Set a temp.  $\frac{1}{4}$  sec. cor.  
 80.00 Intersect the N. and S. line at the cor. of secs. 13, 14, 23 and 24, hereinbefore described.  
 Thence I run,  
 West, on a true line, bet. secs. 14 and 23.  
 Over rolling land, covered with dense undergrowth of greasewood, cactus, catsclaw, and yucca.  
 40.00 Set a malpais stone 8x8x15 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.  
 Ascend.  
 57.00 Ridge, brs. NW. and SE. Descend:  
 68.30 Wash, 20 lks. wide, course SE.  
 77.00 Draw, course N. 30° E.  
 80.00 The cor. of secs. 14, 15, 22 and 23, hereinfore described.  
 Land rolling.  
 Soil, 2nd and 3rd rate, stony.  
 Dense undergrowth of greasewood, cactus, catsclaw, and yucca.  
 No timber or grass.  
 Rolling land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

- 
- Thence I run,  
 N. 0° 10' W., bet. secs. 14 and 15.  
 Over mountainous land, covered with dense undergrowth of yucca, catsclaw, greasewood, and cactus.  
 Descend.  
 1.75 Draw, course E. Ascend.  
 9.00 Ridge, brs. E. and W.; descend.  
 20.00 Wash, 30 lks. wide, course E.  
 24.00 Wash, 40 lks. wide, course E.; ascend.  
 29.35 Wagon road from Kingman to Gold Roads, brs. E. and W.  
 30.70 Power transmission line from Kingman to Gold Roads, brs. E. and W.  
 37.00 Ascend abruptly.  
 39.00 Ridge, brs. E. and W.; descend.  
 40.00 Set a tufa stone 6x8x16 ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 53.00 Descend abruptly.  
 55.00 Draw, course NE.; ascend.  
 60.00 Descend.  
 63.50 Draw, course E. Ascend steep slope.  
 69.50 Spur slopes from the W. to the E.; descend.  
 75.50 Draw, course E. Ascend steep slope.  
 80.00 Set a tufa stone 6x8x18 ins., 12 ins. in the ground for the cor. of secs. 10, 11, 14 and 15, marked with 2 notches on the E. and 4 notches on the S. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.  
 Land, mountainous.  
 Soil, 4th rate, rocky.  
 Dense undergrowth of yucca, catsclaw, greasewood, and cactus.  
 No timber or grass.  
 Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

-----

At noon, I set off 35° 05' N. on the lat. arc; 22° 55' N. on the decl. arc, and observe the sun on the meridian;

## Subdivision of Township 19 North, Range 19 West, 9.

Chains.

- the latitude reading is changed under observation to  $35^{\circ}02\frac{1}{2}'N.$  at the cor. of secs. 10, 11, 14 and 15, hereinbefore described.
- Thence I run,  
East, on a random line, bet. secs. 11 and 14.
- 40.00 Set a temp.  $\frac{1}{4}$  sec. cor.
- 80.00 Intersect the N. and S. line at the cor. of secs. 11, 12, 13 and 14 hereinbefore described.
- Thence I run,  
West, on a true line, bet. secs. 11 and 14.  
Over mountainous land, covered with dense undergrowth of yucca, cactus, and greasewood.
- 3.35 Power transmission line from Kingman to Gold Roads, brs. SW. and NE.
- Ascend.
- 35.10 Wagon road from Kingman to Gold Roads, brs. SSW. and NNE.
- 40.00 Set a malpais stone  $8 \times 1 \times 16$  ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor.
- Pits impracticable.
- 53.80 Wash, 30 lks. wide, course N.  $20^{\circ}E.$
- 67.50 Ascend very steep slope.
- 80.00 The cor. of secs. 10, 11, 14 and 15, hereinbefore described.  
Land, mountainous.  
Soil, 3rd rate, stony.  
Dense undergrowth of yucca, cactus, and greasewood.  
No trees or grass.  
Mountainous land covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.
- 
- Thence I run,  
N.  $0^{\circ}14'W.$ , between secs. 10 and 11.
- Over mountainous land, covered with dense undergrowth of greasewood, yucca, and catsclaw.
- Ascend.
- 14.00 Top of rocky ridge, brs. E. and W.  
Descend abruptly.
- 25.00 Descent more gradual.
- 39.80 Wash, 20 lks. wide, course E.
- 40.00 Set a malpais stone  $6 \times 1 \times 18$  ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor.
- Pits impracticable.
- Ascend.
- 47.00 Descend.
- 52.50 Draw, course E.; ascend steep slope.
- 68.00 Top of ridge, brs. E. and W.
- 80.00 Set a malpais stone  $5 \times 8 \times 16$  ins., 11 in. in the ground for the cor. of secs. 2, 3, 10 and 11, marked with 2 notches on the E. and 5 notches on the S. edges; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.
- Land, mountainous.  
Soil, 3rd and 4th rate, rocky.  
Dense undergrowth of yucca, greasewood, and cactus.  
No trees or grass.  
Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.
- 
- Thence I run,  
East, on a random line, bet. secs. 2 and 11.
- 40.00 Set a temp.  $\frac{1}{4}$  sec. cor.
- 80.00 Intersect N. and S. line at the cor. of secs. 1, 2, 11 and 12, hereinbefore described.
- Thence I run,  
West, on a true line, bet. secs. 2 and 11.  
Over mountainous land, covered with dense undergrowth of greasewood, yucca, and cactus.
- 10.00 Wash 60 lks. wide, course SE.; ascend.

10. Subdivision of Township 19 North, Range 19 West.

Chains.

40.00 Set a malpais stone 6x8x15 ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

55.50 Draw, course SE.

69.50 Wash, 15 lks. wide, course S. 80° E.

74.80 Wash, 20 lks. wide, course S. 75° E.; ascend steep slope.

80.00 The cor. of secs. 2, 3, 10 and 11, hereinbefore described. Land, mountainous. Soil, 3rd rate, stony. Dense undergrowth of greasewood, yucca, and cactus. No trees and grass. Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

-----

Thence I run, N. 0° 10' W., on a random line, bet. secs. 2 and 3.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

81.12 Intersect the N. boundary of the township at the cor. of secs. 2, 3, 34 and 35, recently established and described by me. Thence I run, S. 0° 10' E., on a true line, bet. secs. 2 and 3. Over mountainous land, covered with dense undergrowth of greasewood, cactus, yucca, and catsclaw. Descend.

6.00 Draw, course SE.; ascend.

9.00 Descend.

11.00 Gulch, 15 lks. wide, course E.; ascend.

13.80 Draw, course E.

30.00 Descend.

39.00 Gulch, 15 lks. wide, course S. 70° E. Ascend.

41.12 Set a malpais 7x9x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

55.00 Descend.

61.50 Gulch, course SE.; ascend.

73.00 Descend.

77.00 Gulch, 30 lks. wide, course SE.

81.12 The cor. of secs. 2, 3, 10 and 11, hereinbefore described. Land, mountainous. Soil, 3rd rate, stony. Dense undergrowth of greasewood, cactus, yucca, and catsclaw. No timber or grass. Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 81.12 chains.

June 9, 1910.

-----

June 10, 1910.

It being impracticable to subdivide this township in the usual way on account of the extremely mountainous character of the land of westerly portion as previously stated in the notes on the exterior lines thereof, I proceed to the corner of 22, 23, 26 and 27, heretofore described, and run,

West, on a true line, bet. secs. 22 and 27. Over mountainous land, covered with dense undergrowth of greasewood, cactus, and yucca.

Note: This cor. is in a wash, course SE., 60 lks. wide, and is perpetuated by a witness cor. located S. 0° 07' E., 1.00 chain.

7.60 Wash, 40 lks. wide, course SE.; ascend.

17.00 Ridge, brs. SE. and NW.; descend.

22.00 Gulch, course S. 70° E., 60 lks. wide.

30.00 Gulch, 10 lks. wide, course NE.

40.00 Set a malpais stone 12x14x24 ins., set 18 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face,

Chains.

and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

Ascend.

73.00 Ridge, brs. N. and S. Descend abruptly.

75.60 Gulch, course N.; ascend.

80.00 Set a malpais stone  $5 \times 8 \times 18$  ins., 12 ins. in the ground, for the cor. of secs. 21, 22, 27 and 28, marked with 3 notches on the E. and 2 notches on the S. edges; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, 4th rate, rocky.

Dense undergrowth of cactus, catsclaw, yucca, and greasewood.

No timber or grass.

Very mountainous land to west; unsurveyable.

Mountainous land covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

Thence I run,

N.  $0^{\circ} 08'$  W., bet. secs. 21 and 22.

Over mountainous land, covered with dense undergrowth of yucca, catsclaw, greasewood, and cactus.

Descend.

1.00 Gulch, 10 lks. wide, course N.  $30^{\circ}$  E.

10.00 Descend abruptly.

11.50 Rocky gulch, course E.

23.00 Draw, course E.

Ascend steep slope.

26.00 Ridge, brs. E. and W.; descend.

36.00 Wash, 30 lks. wide, course E.; ascend.

40.00 Set a malpais stone  $7 \times 8 \times 15$  ins., 10 ins. in the ground, for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Descend.

40.20 Draw, course E.; ascend.

42.00 Summit, brs. E. and W.; descend.

44.00 Wash, 50 lks. wide, course E.; ascend.

50.00 Ridge, brs. E. and W.; descend.

52.50 Wash, 30 lks. wide, course E.; ascend.

57.00 Ridge, brs. E. and W.; descend.

66.00 Draw, course SE.; ascend.

80.00 Set a malpais stone  $8 \times 10 \times 18$  ins., 12 ins. in the ground, for the cor. of secs. 15, 16, 21 and 22, marked  $\frac{1}{4}$  N on the NE. face;  $\frac{1}{4}$  W on the SE. face, 3 notches on the E. and 3 notches on the S. edges; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, mountainous.

Soil, 4th class, rocky,

Dense undergrowth of greasewood, cactus, catsclaw, and yucca.

No trees or grass.

Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

Land to the west is extremely mountainous, and is impracticable to survey.

At 9h. 30m., a.m., l.m.t., I set off  $22^{\circ} 59\frac{1}{2}'$  N. on the decl. arc;  $35^{\circ} 02'$  N. on the lat. arc, and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22, above described.

Thence I run,

East, on a random line, bet. secs. 15 and 22.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.



12. Subdivision of Township 19 North, Range 19 West.

Chains.  
 80.00 Intersect the N. and S. line at the cor. of secs. 14, 15, 22 and 23, hereinbefore described. Thence I run, West, on a true line, bet. secs. 15 and 22. Over mountainous land, covered with dense undergrowth of yucca, greasewood, and cactus.  
 7.00 Draw, course N. Ascend abruptly.  
 9.00 Rocky spur brs. N. Descend.  
 11.00 Draw, course NE. Ascend steep slope.  
 40.00 Set a malpais stone 8x14x18 ins., 12 ins. in the ground, for the  $\frac{1}{4}$  sec. cor.; marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.  
 Continue steep ascent.  
 80.00 The cor. of secs. 15, 16, 21 and 22, hereinbefore described. Land, very mountainous. Soil, 4th rate, rocky. Dense undergrowth of yucca, greasewood, and cactus. No trees or grass. Mountainous land, covered with dense undergrowth, and exceptionally difficult to survey, 80.00 chains.

-----  
 Thence I run, N.  $0^{\circ}11'W.$ , bet. secs. 15 and 16. Over mountainous land, covered with dense undergrowth of catsclaw, yucca, cactus, and greasewood.  
 Descend.

6.00 Descend abruptly.  
 13.40 Wash, 70 lks. wide, course E.; ascend.  
 30.10 Wagon road from Kingman to Gold Roads, brs. S.  $75^{\circ}E.$  and N.  $75^{\circ}W.$   
 37.50 Power transmission line from Kingman to Gold roads, brs. S.  $80^{\circ}E.$ , and N.  $80^{\circ}W.$  in draw, course SE.  
 40.00 Set a malpais stone 7x8x18 ins., 12 in. in the ground for the  $\frac{1}{4}$  sec. cor.; marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high W. of cor. Pits impracticable.

40.20 Draw, course E.; ascend.  
 58.00 Ascend steep rocky bluff; the line enters land impracticable to survey, and I therefore discontinue the same at  
*See Page 15 this plat. Notes hereto attached for completion of this mile.*  
 Land, extremely mountainous. Soil, 4th rate, rocky. No timber or grass. Mountainous land, covered with dense undergrowth of catsclaw, yucca, greasewood, and cactus, and exceptionally difficult to survey, 58.00 chains.

-----  
 It being impracticable to subdivide this township in the usual way as previously explained, I proceed to the cor. of secs. 10, 11, 14 and 15, hereinbefore described. Thence I run, West, on a true line, bet. secs. 10 and 15. Ascend along S. slope of spur, over mountainous land, covered with some undergrowth of cactus, and greasewood rather scattering.  
 15.00 Spur, brs. SW. Descend abruptly.  
 17.30 Rocky gulch, course SE. Ascend.  
 25.00 Gulch, course NE. Ascend precipitous side of mountain.  
 40.00 Set a granite stone 6x8x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.  
 Land, to the west extremely mountainous, and impracticable to survey. I therefore discontinue my line at this point. *Line completed Jan. 5, 1912, see page 16 Supplemental Notes hereto attached.*  
 Land, extremely mountainous. Soil, 4th rate, rocky.



Subdivision of Township 19 North, Range 19 West.

13.

Chains.

Scattering undergrowth of greasewood, cactus, and some yucca.

No trees or grass.

Mountainous land, covered with loose rock, and scattering undergrowth, and exceptionally difficult to survey, 40.00 chains.

At the  $\frac{1}{2}$  sec. cor., bet. secs. 10 and 15 at noon, I set off  $23^{\circ}0'N.$  on the decl. arc, and observe the sun on the meridian. The resulting latitude reading is  $35^{\circ}02\frac{1}{2}'N.$

June 10, 1910.

GENERAL DESCRIPTION.

For general description and report, see page <sup>19 of field</sup> notes of the North boundary of T. 19 N., R. 19 W., page 17 <sup>Exterior Book "F"</sup> Exterior Book "A", also page 31 <sup>Supplemental Subdivisions hereto attached.</sup>

July 1, 1910.

*William B. Alexander*  
U.S. Deputy Surveyor.

14. Supplemental Subdivision of Township 10 North, Range 10 W Chains.

Final survey commenced January 4, 1912, and was executed with a Young and Sons' light mountain transit No. 7520; the horizontal limb having two double verniers placed opposite to each other, and reading to single minutes of arc, which is also the least reading of the latitude and declination arcs of the Smith Solar Attachment, which is fitted to this instrument.

The instrument was examined, tested on the true meridian at Phoenix, Arizona, found correct, and was approved by the United States Surveyor General for Arizona.

June 25, 1904, I begin at the cor. of secs. 3, 4, 33 and 34 on the S. bdy. of the township, which is a granite stone, as previously established and described by me.

At 12h. 33m. a.m., l.m.t., I observe Polaris at its western elongation in accordance with the instructions in the Manual, and mark the line thus determined by a tack driven in a stake set about 5 chs. northerly of station.

At 8h. 0m., a.m., l.m.t., I turn off the azimuth of Polaris 1° 25' to the east, and mark the true meridian thus obtained by a tack driven in a stake set about 5 chs. N. of my station.

At 9h. 0m., a.m., l.m.t., I set off 34° 59' N. on the lat. arc, 22° 48' S. on the decl. arc, and determine a meridian with the solar. This line falls 1/4 of an inch east of the true meridian determined by Polaris observation this a.m. I examine all the various standard and bubble adjustments of the instrument and find them correct.

Magnetic variation of the needle is 15° 15' E. of the true meridian.

Thence I run, N. 0° 25' W., between secs. 33 and 34.

Over extremely mountainous land, covered with boulders and loose rock; scattering greasewood and cactus brush. Ascending.

9.70 High rocky ridge, bears NEE. and SWW; descend.

25.50 Head of gorge, course E. Small spring 300 lks. E. Ascend.

37.00 High rocky ridge, bears E. and W.; descend.

40.00 Set a malpais stone 8x1x20 ins., 15 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the W. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

44.00 Ascend.

47.00 High spur, bears E.; descend.

61.00 Prominent wash, 40 lks. wide, course SEE. Ascend steep slope.

80.00 Set a malpais stone 6x1x20 ins., 15 ins. in the ground for the cor. of secs. 27, 28, 33 and 34, marked with 1 notch on the S. and 3 notches on the E. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.

Land, extremely mountainous; covered with loose rock and boulders.

Soil, 4th rate, stony.

Scattering greasewood and cactus undergrowth.

No grass.

Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 80.00 chs.

At noon at the above cor., I set off 22° 47' S. on the decl. arc, and observe the sun on the meridian; the resulting latitude reading is 35° 00' N.

Thence I run,

East on a random line, bet. secs. 27 and 34.

40.00 Set a temp. 1/4 sec. cor.

80.04 Cor. of secs. 26, 27, 34 and 35, described in my original notes, 1/2 brs. N. 5 lks.

page 6, hereto attached

## Supplemental Subdivisions in Township 19 North, Range 19 W. 15.

Chains.

- Thence I run,  
S. 69° 58' W. on a true line, between secs. 27 and 34.  
Over extremely mountainous land, covered with malpais  
boulders and scattering greasewood and cactus under-  
growth.  
Ascending.
- 35.00 Spur brs. NE.; descend.
- 40.02 Set a malpais stone 6x12x18 ins., 12 ins. in the ground  
for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and  
raise a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, N. of  
cor. Pits impracticable.
- 50.00 Gully, course NE.; ascend.
- 73.00 Ascend cliffs, bear N. and S.
- 73.50 Continue ascent over boulders.
- 80.04 The cor. of secs. 27, 28, 33 and 34, hereinbefore described.  
Land, extremely mountainous, and covered with boulders and  
loose rock.  
Scattering greasewood and cactus undergrowth.  
Soil, 4th rate, stony.  
No grass.  
Mountainous land, covered with loose rock and boulders,  
and exceptionally difficult to survey, 80.04 chs.

- 
- Thence I run,  
N. 0° 03' W., between secs. 27 and 28.  
Over extremely mountainous land, covered with boulders.  
Descend; scattering greasewood and cactus brush.
- 21.00 Gully, course E.; ascend.
- 32.00 Ridge, brs. SE. and NW.; descend.
- 40.00 Set a malpais stone 7x8x20 ins., 15 ins. in the ground  
for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise  
a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.  
Pits impracticable. Needle shows a magnetic variation  
of N. 20° 30' E. from the true north.  
At 4h. 0m., p.m., l.m.t., I set off 35° 00' N. on the lat.  
arc; 22° 34' S. on the decl. arc, and determine a meri-  
dian with the solar at the  $\frac{1}{4}$  cor. between secs. 27  
and 28. This coincides with the stellar meridian  
from which I have deflected 8' to the W. in running  
this line.  
Continue descent.
- 59.60 Wash 5 lks. wide, course NNE., in gulch; ascend.
- 63.00 Descend; slope to the north covered with boulders.
- 80.00 The cor. of secs. 21, 22, 27 and 28, previously established  
and described by me in my original notes, page 11, hereto attached  
Land, extremely mountainous, and covered with boulders  
and loose rock.  
Soil, 4th rate, stony.  
Scattering greasewood and cactus undergrowth.  
Mountainous land covered with boulders and loose rock,  
and exceptionally difficult to survey, 80.00 chs.  
January 4, 1912.

- 
- January 5, 1912.  
I then proceed to the  $\frac{1}{4}$  sec. cor. between secs. 15 and 16,  
which is a malpais stone, marked and witnessed as pre-  
viously described by me in my original notes, page 12, hereto  
attached
- Thence I run,  
N. 0° 11' W., bet. secs. 15 and 16. Commencing with
- 40.00 The  $\frac{1}{4}$  sec. cor. just indicated.  
Over extremely mountainous land, covered with boulders  
and loose rock and covered with dense greasewood and  
cactus brush.  
Descend.
- 40.20 Draw, course E. Ascend, steep slope covered with large  
boulders.
- 58.00 Ascend bluffs.

*See page 12 Original Notes hereto attached for 5 $\frac{1}{2}$  of this mile.*

Chains.

72.90 Ridge brs. S.E.E. and N.W. Thence over N.E. slope.  
 80.00 Set a porphyry stone 14x18x20 ins., 15 ins. in the ground for the cor. of secs. 9, 10, 15 and 16, marked with 4 notches on the S. and 3 notches on the E. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
 Land, extremely mountainous, and covered with boulders and loose rock.  
 Soil, 4th rate, stony.  
 Dense undergrowth of greasewood and cactus. Some cats-claw.  
 Mountainous land, covered with boulders and loose rock and considerable brush, and exceptionally difficult to survey, 40.00 chs.

-----  
 Thence I run,  
 East, on a random line, between secs. 10 and 15.  
 40.00 The 1/4 sec. cor. between secs. 10 and 15, previously established and described by me in my original notes, page 12, hereto attached.  
 Thence I run,  
 West, on a true line, from the said 1/4 sec. cor., and commence my topography at  
 Ascend over extremely mountainous land, covered with boulders and loose rock. Enter scattering greasewood and cactus brush.  
 49.00 Ridge brs. S.E. and N.W. Descend abrupt slope.  
 61.00 Wash, 10 lks. wide, course S.E. in canyon, ascend.  
 80.00 The cor. of secs. 9, 10, 15 and 16, hereinbefore described.  
 Land, extremely mountainous, covered with loose rock and boulders.  
 Soil, 4th rate, stony.  
 Scattering greasewood and cactus brush.  
 No grass.  
 Mountainous land, covered with boulders and loose rock, and exceptionally difficult to survey, 40.00 chs.

-----  
 Thence I run,  
 N. 0° 15' W., bet. secs. 9 and 10.  
 Over mountainous land, covered with black boulders; scattering greasewood and cactus, with some yucca plant.  
 Descend.  
 6.00 Gully, course S.E.E. Ascend.  
 22.60 Ridge from Thimble Mountain, bears E. and W. Descend.  
 26.20 Gulch, 5 lks. wide, course N.E.E. Ascend.  
 27.00 Thimble Mountain, a high peak surrounded by inaccessible cliffs, brs. W. about 23 chains distant.  
 30.00 Descend.  
 32.00 Gulch, 5 lks. wide, course E.; ascend.  
 35.00 Ridge, bears E. and W. Thimble Mountain brs. S. 70° W.  
 A prominent round top peak brs. N. 50° E. about 20 chs. dist.  
 This ridge connects these two mountains.  
 Descend.  
 40.00 Set a porphyry stone 7x12x14 ins., 10 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the W. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
 Descend.  
 50.50 Gully, course N.N.E. Ascend.  
 59.00 Spur, bears N.E. Descend.  
 63.00 Gully course N.E.E. Ascend.  
 73.00 Ridge, bears E. and W. Descend.  
 79.00 Gully, course E. Ascend.  
 80.00 Set a porphyry stone 5x10x20 ins., 15 ins. in the ground for the cor. of secs. 3, 4, 9 and 10, marked with 5 notches on the S. and 3 notches on the E. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
 Land, extremely mountainous: covered with boulders and

In E 1/2 of this mile see page 12 Original Notes hereto attached.

Chains.

loose rock; scattering greasewood and cactus brush.  
Soil, 4th rate, stony.  
Mountainous land, covered with loose rock and boulders,  
and exceptionally difficult to survey, 80.00 chs.

At noon, at the above cor., I set off  $22^{\circ}41'S$ . on the decl. arc, and observe the sun on the meridian. The resulting latitude reading is  $35^{\circ}25\frac{1}{2}'N$ .

Thence I run,

East on a random line, between secs. 3 and 10.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

80.02 The cor. of secs. 2, 3, 10 and 11, previously established and described by me in my original notes,  $\frac{1}{4}$  brs. S. 2 lks.

Thence I run,

N.  $89^{\circ}59'W$ ., bet. secs. 3 and 10.

Over mountainous land, covered with boulders and loose rocks and scattering greasewood and cactus brush.

Ascend.

40.01 Set a malpais stone  $5x1x15$  ins., 10 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N., and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor.

Pits impracticable.

Continue steep ascent over boulders and loose rock.

59.50 Spur, bears NE. Descend.

75.50 Gulch, 10 lks. wide, course NNE. Ascend.

80.02 The cor. of secs. 3, 4, 9 and 10, hereinbefore described.

Land, extremely mountainous. Soil, 4th rate.

Scattering greasewood and cactus brush.

Surface covered with boulders and loose rocks.

Mountainous land, covered with boulders and loose rock, and exceptionally difficult to survey, 80.02 chs.

January 5, 1912.

January 6, 1912.

Thence I run,

N.  $0^{\circ}10'W$ ., between secs. 3 and 4, on a random line.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

81.35 Intersect the E. bdy. of the Tp., 14 lks. W. of the cor. of secs. 3, 4, 33 and 34, previously established and described by me.

Thence I run,

S.  $0^{\circ}24'E$ ., on a true line, between secs. 3 and 4.

Over extremely mountainous land, covered with loose rock and boulders; scattering greasewood and cactus brush.

Descend.

25.50 Gully, course E.; ascend.

35.00 Saddle in rocky butte. Descend abruptly.

40.50 Small gulch, course E.; ascend.

41.35 Set a porphyry stone  $5x10x22$  ins., 17 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor.

Pits impracticable.

Continue ascent.

60.50 Ridge, brs. E. and W.; descend.

64.60 Prominent wash, 20 lks. wide, course NE.; ascend.

73.80 Top of rocky bluff, bears E. and W. Descend abruptly.

81.35 The cor. of secs. 3, 4, 9 and 10, hereinbefore described.

Land, extremely mountainous, covered with loose rock and boulders.

Soil, 4th rate, stony.

Scattering greasewood and cactus brush.

No grass.

Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 81.35 chs.

18. Supplemental Subdivision of Township 19 North Range 19 West

Chains.

At 9h. On. a.m., 1.m.t., I set off  $35^{\circ} 03\frac{1}{2}' N.$  on the lat. arc;  $22^{\circ} 34' S.$  on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 9 and 10, hereinbefore described.

I then proceed to the true point for cor. of secs. 4, 5, 32 and 33 on the S. bdy. of the township, which is perpetuated by a witness corner situated 500 lks. west, recently established and described by me.  
January 6, 1912.

January 7, 1912.

Thence from the true point for the cor. of secs. 4, 5, 32 and 33 on the S. bdy. of the township, I run,  $N. 0^{\circ} 06' W.$ , between secs. 32 and 33.

Over extremely mountainous land, covered with loose rock, and large malpais boulders, scattering greasewood and cactus brush.

- 1.00 Ascend very high and steep mountain, slopes SW.
  - 31.00 Broad high ridge, bears SE and NW.
  - 40.00 Set a malpais stone  $6 \times 6 \times 18$  ins., 18 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable. Descend.
  - 44.50 Head of gully, course E., ascend.
  - 60.90 Top of mountain; descend over abrupt slope of sliding rock.
  - 80.00 Set a sandstone  $5 \times 15 \times 19$  ins., 15 ins. in the ground for the cor. of secs. 28, 29, 32 and 33, marked with 1 notch on the S. and 4 notches on the E. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.
- Land, extremely mountainous, and covered with boulders and loose sliding rock.  
Soil, 4th rate, stony.  
Scattering greasewood and cactus brush. No grass.  
Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 80.00 chs.

At 9h. On. a.m., 1.m.t. at the above cor., I set off  $35^{\circ} 01' N.$  on the lat. arc;  $22^{\circ} 27' S.$  on the decl. arc, and determine a meridian with the solar. Thence I run, East on a random line, between secs. 28 and 33.

- 40.00 Set a temp.  $\frac{1}{4}$  sec. cor.
  - 80.02 The cor. of secs. 27, 28, 33 and 34, hereinbefore described. Thence I run, West, on a true line, between secs. 28 and 33, over extremely mountainous land, covered with loose rock and boulders.
  - 22.30 Descend abruptly.
  - 27.00 Rock gulch, course S. Ascend.
  - 40.01 Set a malpais stone  $9 \times 13 \times 22$  ins., 17 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.
- Thence descend along face of rocky cliffs fronting the south.
- 59.00 Wash, 20 lks. wide, course SEE, in canyon; ascend.
  - 80.02 The cor. of secs. 28, 29, 32 and 33, hereinbefore described. Land extremely mountainous.  
Soil, 4th rate, stony. Surface covered with loose rock. Scattering greasewood and cactus brush. No grass.  
Mountainous land, covered with loose rock, and exceptionally difficult to survey, 80.02 chains.

Thence I run,

$N. 0^{\circ} 09' W.$ , between secs. 28 and 29.

Supplemental Subdivision of Township 19 North, Range 19 West, 19.

Chains.

Over extremely mountainous land, covered with loose rock and boulders, and scattering greasewood and cactus undergrowth.

0.80 Wash, 20 lks. wide, course E., in canyon; ascend.

8.00 Ridge, brs. E. and W.; descend.

21.00 Gulch, course E.; ascend.

25.00 Saddle brs. E. and W.; descend.

38.40 Wash, 10 lks. wide, course E. in gulch; ascend.

40.00 Set a malpais stone 9x14x18 ins., 12 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stone 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

58.00 Wash, 5 lks. wide, course E., in gulch; ascend.

80.00 Set a malpais 8x10x20 ins., 15 ins. in the ground, for the cor. of secs. 20, 21, 28 and 29, marked with 2 notches on the S. and 4 notches on the E. edges, and raise a mound of stone 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, extremely mountainous, and covered with boulders. Soil, 4th rate, stony; scattering greasewood and cactus. Mountainous land, covered with boulders, and exceptionally difficult to survey, 80.00 chains.

Thence I run,  
East, on a random line, between secs. 21 and 28.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.00 The cor. of secs. 21, 22, 27 and 28, previously described in my original notes, page 11, hereto attached.

Thence I run,  
West, on a true line, between secs. 21 and 28.

Over extremely mountainous land, covered with boulders and loose rock. Ascend.

15.00 Spur, bears N.; descend.

29.00 Wash, 5 lks. wide, course NNE. in gulch; ascend.

40.00 Set a malpais stone 6x8x20 ins., 15 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the E. face; and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable. Descend.

50.00 Wash, 20 lks. wide, course NNE. Ascend over cliffs.

70.00 Descend over general southerly slope.

80.00 The cor. of secs. 20, 21, 28 and 29, hereinbefore described.

Land, extremely mountainous.  
Soil, 4th rate, stony, covered with loose rocks and boulders.  
Scattering greasewood and cactus. No grass.  
Mountainous land, covered with boulders, and exceptionally difficult to survey, 80.00 chains.

Thence I run,  
N.  $09^{\circ}$  W., between secs. 20 and 21, over extremely mountainous land, covered with boulders and loose rock. Ascend through scattering greasewood and cactus undergrowth.

7.00 Ridge, bears E. and W. Descend.

28.30 Wash, 20 lks. wide, course NNE. in canyon; ascend.

28.90 Pipe line E. and W. connects with spring, 20 chs. west.

40.00 Malpais boulder in place, 24x36x48 ins. above ground, for the  $\frac{1}{4}$  sec. cor., marked cross (x) at the exact cor. point and  $\frac{1}{4}$  on the W., and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of corner. Pits impracticable.

Continue ascent of steep canon bank.

46.70 Ridge, bears E. and W.; descend.

80.00 Set a malpais stone, 10x12x20 ins., 15 ins. in the ground for the cor. of secs. 16, 17, 20 and 21, marked with 4 notches on the E. and 3 notches on the S. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.



20. Supplemental Subdivision of Township 18 North Range 19 W.

Chains.

Land extremely mountainous, covered with boulders and loose rock.  
 Soil, 4th rate, stony; scattering greasewood and cactus brush.  
 Mountainous land, covered with boulders and exceptionally difficult to survey, 80.00 chains.

At noon the sky is overcast with clouds. Cannot take lat. observation. Thence I run, East on a random line, between secs. 16 and 21.

40.00  
79.98

Set temp. & sec. cor.  
 The cor. of secs. 15, 16, 21 and 22, previously described in my original notes, <sup>page 7, here to attached</sup> brs. 2 lks. S. Thence I run, N. 89° 59' W. on a true line, bet. secs. 16 and 21. Over extremely mountainous land, covered with malpais boulders, and scattering greasewood and cactus brush. Ascend.

30.00  
39.20  
39.99

Descend.  
 Wash, 10 lks. wide, course SE. Ascend.  
 Set a malpais stone, 10x12x15 ins., 10 ins. in the ground for sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, N. of cor. Pits impracticable. Ascend mountain.

46.65  
60.00  
62.50  
67.50  
72.00  
79.98

Pipe line, course NW. and SE.  
 Spur bears SE.; descend.  
 Rocky gorge course SE. Ascend.  
 Spur bears N.; descend.  
 Ascend.  
 The cor. of secs. 16, 17, 20 and 21, hereinbefore described. Land extremely mountainous. Soil, 4th rate, stony, covered with large boulders, and scattering greasewood and cactus brush. Mountainous land, covered with boulders, and exceptionally difficult to survey, 79.98 chs.

Thence I run, N. 0° 12' W., between secs. 16 and 17. Over mountainous land, covered with loose rock and boulders.

10.00

Descend through scattering greasewood and cactus brush. Descend 30 feet, cliffs bear NW. and SSE. Thence rocky descent.

26.85

Pipe line, course NW. and SSE. Pump house bears SSE. about 20 chains.

30.00

Wash, 400 lks. wide, course E., covered with dense cañadaw. Ascend.

34.10

Power transmission line E. and W. for pump service.

34.70

Wagon road from Kingman to Goldroads, E. and W.

40.00

Set a malpais stone 6x12x24 ins., 18 ins. in the ground for sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Pump house delivering water to Goldroads by automatic electric pump, brs. SE., about 20 chs.

41.40

Telephone line, bears E. and W.

45.40

Power transmission (electric) line from Kingman to Goldroads, E. and W. Descend.

47.00

Wash, 40 lks. wide, course SE. in rocky gulch; ascend. Over thick paving of malpais boulders.

80.00

Set a malpais stone 8x14x24 ins., 18 ins. in the ground for the cor. of secs. 8, 9, 16 and 17, marked with 4 notches on the E. and S. edges, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, mountainous, 76.00 chains. Level, 4.00 chains, Covered with boulders and loose rock. Soil, 4th rate, stony. Scattering greasewood and cactus brush, 76.00 chains.



## Chains.

Covered with dense catclaw undergrowth, 4.00 chains. Mountainous land, or land covered with dense undergrowth, and covered with boulders and loose rock, and exceptionally difficult to survey, 80.00 chs.

-----

Thence I run,  
S. 89° 59' E., on a random line, between secs. 9 and 16.  
40.00 Set a temp.  $\frac{1}{4}$  sec. cor.  
79.96 The cor. of secs. 9, 10, 15 and 16, hereinbefore described, brs. N. 5 lks.  
Thence I run,  
S. 89° 59' W., on a true line, between secs. 9 and 16.  
Over extremely mountainous land, covered with boulders and loose rocks; scattering greasewood and cactus undergrowth; ascending.  
18.00 Ridge, brs. N. and S. Descend.  
19.50 Gully, course S.; ascend.  
37.50 Top of ridge, slopes sharply to the south; descend.  
39.96 Set a porphyry stone 6x8x20 ins., 15 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, N. of cor.  
Pits impracticable.  
Cor. on hill sloping sharply from Thimble Mountain to SSW.  
46.00 Wash, 5 lks. wide, course S. in narrow gully; ascend.  
49.90 Descend.  
73.00 Prominent wash, 40 lks. wide, course SSW. Ascend.  
79.00 Ridge, brs. N. and S. Descend.  
79.96 The cor. of secs. 8, 9, 16 and 17, hereinbefore described.  
Land, extremely mountainous; covered with boulders and loose rock.  
Soil, 4th rate, stony.  
Scattering greasewood and cactus undergrowth.  
No grass.  
Mountainous land covered with boulders and loose rock, and exceptionally difficult to survey, 79.96 chs.  
January 7, 1912.

-----

January 8, 1912.

Thence I run,  
N. 0° 16' W., between secs. 8 and 9.  
Over extremely mountainous land, covered with loose rock and large malpais boulders.  
Scattering greasewood and cactus brush.  
Ascend.  
4.00 Ridge, brs. SSE. and NNW. Thence along rough, rocky gullied easterly slope. Prominent winding wash approximately parallels this line about 6 chains distant to the east.  
40.00 Set a malpais stone 8x14x24 ins., 18 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor.  
Pits impracticable.  
Descend.  
41.10 Cross prominent wash, 30 lks. wide, course SSE. Ascend.  
55.00 Descend.  
63.50 Prominent wash, 40 lks. wide, course SSW. Ascend along west side of canyon. The prominent wash branches off to the NE.  
80.00 Set a granite stone 11x13x12 ins., 12 ins. in the ground, for the cor. of secs. 4, 5, 8 and 9, marked with 4 notches on the E. and 5 notches on the S. edges, and raise a mound of stones 3 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor.  
Pits impracticable.  
Land extremely mountainous; covered with boulders and loose rock.  
Soil, 4th rate, stony.  
Scattering greasewood and cactus brush.  
No grass.

22. Supplemental Subdivision of Township 19 North, Range 19 West.

Chains.

Mountainous land, covered with boulders and loose rock, and exceptionally difficult to survey, 80.00 chs.

At 9h. On a.m., 1.m.t., I set off  $35^{\circ}03\frac{1}{2}'N.$  on the lat. arc;  $22^{\circ}19\frac{1}{2}'S.$  on the decl. arc, and determine a meridian at the cor. of secs. 4, 5, 8 and 9 above described.

Thence,

Thimble Mountain brs.  $S.46^{\circ} E.$

Pump House brs.  $S.9^{\circ} 42' E.$

Very prominent rocky mountain brs.  $N.3^{\circ} 55' W.$

Thence from cor. of secs. 4, 5, 8 and 9, I run,  $N.89^{\circ}59'E.$  on a random line, between secs. 4 and 9.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

80.00 The cor. of secs. 3, 4, 9 and 10, brs. 2 lks. S.

Thence I run,

West, on a true line, bet. secs. 4 and 9.

Over extremely mountainous land, covered with boulders and loose rock.

Scattering greasewood and cactus brush.

Ascend abruptly.

9.80 Ridge, brs. N. and S. Descend.

30.00 Wash, 20 lks. wide, course N.; ascend; white cliffs.

40.00 Set a white sandstone rock  $6x8x18$  ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

Continue ascent.

45.00 Descend.

62.50 Wash, 10 lks. wide, course SW. Ascend.

70.00 Ridge, bears N. and S.; descend.

76.00 Gully, course S. Ascend.

80.00 The cor. of secs. 4, 5, 8 and 9, hereinbefore described.

Land, extremely mountainous. Progress almost impassible, Soil, 4th rate, stony, covered with loose rock and boulders.

Very scattering greasewood and cactus.

No grass.

Mountainous land, covered with loose rock, and exceptionally difficult to survey, 80.00 chs.

At noon, at the above cor., I set off  $22^{\circ}19\frac{1}{2}'S.$  on the decl. arc, and observe the sun on the meridian. The resulting lat. reading is  $35^{\circ}03\frac{1}{2}'N.$

Thence I run,

$N.0^{\circ}04' W.$ , bet. secs. 4 and 5.

Ascending over extremely mountainous land, covered with loose sliding rock.

10.00 Further progress stopped by sliding rock. Line enters unsurveyable land. I therefore discontinue at this point.

January 8, 1912.

January 9, 1912.

At the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the township, recently established and described by me.

Thence I run,

$N.0^{\circ}05' W.$ , between secs. 31 and 32.

Over extremely mountainous land, covered with malpais boulders, scattering greasewood and cactus undergrowth.

Ascend.

15.00 Ridge, course E. and W.; descend.

27.50 Wash, 10 lks. wide, course W. in canyon. Ascend.

40.00 Set a malpais stone,  $6x10x12$  ins., 8 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Supplemental Subdivision of Township 10 North, Range 10 West. 21.

Chains.

Corner is situated on steep N. side of canyon. Continue ascent over boulders and loose rock.  
 68.00 Top of ridge, brs. SE. and NW. Descend.  
 80.00 Set a sandstone rock, 9x12x23 ins., 18 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, marked with 1 notch on the S. and 5 notches on the E. edges, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.  
 Cor. is situated on the W. bank, about 6 chains from the head of the canyon that passes through the SE. cor. of sec. 32.  
 Land, extremely mountainous, covered with boulders and loose rock; scattering greasewood and cactus undergrowth.  
 Soil, 4th rate, stony.  
 No grass.  
 Mountainous land, covered with boulders, and exceptionally difficult to survey, 80.00 chs.

At 9h. 0m. a.m., l.m.t., I set off 35° 0' N. on the lat. arc; 22° 11 1/2' S. on the decl. arc, and determine a meridian with the solar.

Thence I run, East, on a random line, between secs. 29 and 32.  
 40.00 Set a temp. 1/4 sec. cor.  
 80.00 The cor. of secs. 28, 29, 32 and 33, hereinbefore described, brs. 6 lks. S.

Thence I run, N. 89° 58' W., on a true line, between secs. 29 and 32. Over extremely mountainous land, covered with malpais boulders, scattering greasewood and cactus brush.

Descending.  
 4.00 Gully, course NE. Ascend.  
 9.50 Rocky spur, bears NE.; descend.  
 12.00 Ascend along steep NNE. slope.  
 21.00 Cross head of canyon, course NEE. Ascend abruptly a side hill, sloping SSE.

40.00 On top of high mountain. Set a sandstone rock 7x10x18 ins. 12 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the N. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

Descend.  
 78.20 Cross canyon that passes through the SE. corner of sec. 32 about 8 chains from its head, course SE.

Ascend.  
 80.00 The cor. of secs. 29, 30, 31 and 32, hereinbefore described. Land, extremely mts. Scattering greasewood & cactus. No grass. Soil, 4th rate, stony; covered with boulders, and exceptionally difficult to survey, 80.00 chains.

Thence I run, West, on a random line, bet. secs. 30 and 31.  
 40.00 Set a temp. 1/4 sec. cor.

78.95 Intersect the W. bdy. of the township at the cor. of secs. 28, 30, 31 and 36, recently established and described by me.

Thence I run, East on a true line, bet. secs. 30 and 31. Over extremely mountainous land, covered with loose rock and large malpais boulders; scattering cactus and greasewood undergrowth.

Ascend over rough mountainous land.  
 34.00 Top of high rock ridge, bears N. and S.; descend sharply.

38.95 Set a sandstone rock 5x12x16 ins., 11 ins. in the ground for the 1/4 sec. cor., marked 1/4 on the N. face, and raise a mound of stones 3 ft. base, 1 1/2 ft. high N. of cor.

Pits impracticable.  
 Continue descent.

24. Supplemental Subdivision of Township 19 North Range 19 West

Chains.	
46.45	Prominent wash, 30 lks.wide, course SSE. Ascend,
71.50	High mountain ridge, course SSE. and NNW. Descend.
78.95	The cor.of secs.29,30,31 and 32, herenbefore described. Land, extremely mountainous, covered with loose rock and boulders. Soil, 4th rate, stony. Scattering greasewood and cactus brush. No grass. Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 78.95 chs.
-----	
	At been, at the above cor., I set off 22° 11½'S, on the decl.arc, and observe the sun on the meridian. The resulting lat.reading is 35° 00'N. Thence I run, N. 0° 09'W., between secs229 and 30. Over extremely mountainous land, covered with malpais boulders, scattering greasewood and cactus undergrowth, Ascend.
3.00	Wross canyon near head, course SE.; ascend,
27.85	Drop precipitously into prominent canyon, the wash of which will probably come in line between secs.29 and 20.
40.00	Set a porphyry stone, 10x12x15 ins., 10 ins. in the ground for the ¼ sec.cor., marked ¼ on the W.face, and raise a mound of stones 3 ft.base, 1½ ft. high,W.of cor. Pits impracticable. Cor.is situated on steep NE.slope. Continue descent.
50.00	Ascend.
53.80	Ledge on spur facing E. Descend.
79.20	Witness corner. Mark a cross (X) on a ledge outcrop, size indeterminate, and mark 2 grooves to the S. and 5 grooves to the E., and W C to the NE.of the cross, and raise a mound of stones 3 fg. base, 1½ ft. high,W.of cor.
80.00	The true point for cor.of secs.19,20,29 and 30 falls on face of bluff, impractical to perpetuate. Land, extremely mountainous, covered with loose rock and boulders. Soil, 4th rate, stony. Scattering greasewood and cactus brush. No grass. Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey,80.00 chs.
-----	
	Thence I run from true point for cor.of secs. 19,20,29 and 30, S.89° 58'E.on a random line, bet. secs.20 and 29.
40.00	Set a temp. ¼ sec.cor.
80.00	The cor.of secs.20,21, 28 and 29, hereinbefore described, brs.N. 2 lks½ Thence I run, N.89°59'W.on a true line, between secs.20 and 29. Over extremely mountainous land, covered with loose rock and boulders; scattering greasewood and cactus brush. Ascend.
6.25	Cliff, descend perpendicularly 40 ft., course NE.and SW.
14.00	Wash, 15 lks.wide, course N. Ascend.
21.50	Spur, bears N. Descend.
24.40	Gully, rocky bed 20 lks.wide, course N.; ascend.
40.00	Set a malpais stone 7x10x20 ins., 15 ins. in the ground for the ¼ sec.cor., marked ¼ on the N.face, and raise a mound of stones 3 ft.base, 1½ ft. high,N.of cor.Pits impracticable. Continue ascend.
55.00	Spur bears N. Descend.
64.00	Gulch, course N.; ascend.

Chains.

80.02

True point for the cor. of secs. 19, 20, 29 and 30.  
 Land, extremely mountainous.  
 Soil, 4th rate, stony, covered with loose rock and boulders; scattering greasewood and cactus.  
 Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 80.02 chs.  
 January 9, 1912.

-----  
 January 10, 1912.

Thence I run, from true point for cor. of secs. 19, 20, 29 and 30.

West, on a random line, between secs. 19 and 30.

40.00

Set a temp.  $\frac{1}{4}$  sec. cor.

78.80

Intersect the W. bdy. of the Tp. 5 lks. N. of the cor. of secs. 19, 24, 25 and 30, recently established and described by me.

Thence I run,

N. 89° 58' E. on a true line, between secs. 19 and 30.

Over extremely mountainous land, covered with loose rock; Ascend.

2.50

Ridge, bds. N. and S. Descend.

14.50

Draw, course NE.; ascend.

38.00

High rock ridge, bears NE. and SW. Descend bluffs.

38.80

Set a malpais stone at foot of bluff, 6x9x16 ins., 11 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

Continue descent.

49.90

Wash, 15 lks. wide, course NE., in canyon; ascend.

71.80

Descend.

78.80

True point for the cor. of secs. 19, 20, 29 and 30.

Land, extremely mountainous.

Soil, 4th rate, stony, covered with loose rock.

Scattering greasewood and cactus brush.

No grass.

Mountainous land covered with loose rock, and exceptionally difficult to survey, 78.80 chs.

-----  
 At 9h. 0m. a.m., l.m.t., I set off 35° 01' N. on the lat. arc; 22° 03' S. on the decl. arc, and determine a meridian with the solar at the true point for the cor. of secs. 19, 20, 29 and 30.

Thence I run,

N. 86° 02' W., bet. secs. 19 and 20.

Over extremely mountainous land, covered with loose rock; scattering cactus and greasewood brush.

Descend.

22.50

Prominent wash, 30 lks. wide, course E.; ascend.

28.50

Cliff, bears E. and W. 70 ft. high; continue ascent.

40.00

Set a sandstone rock 8x10x18 ins., 12 ins. in the ground for the  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Continue ascent over loose rock and boulders.

58.00

Top of high mountain range, bears NW. and SE. Descend.

69.50

Descend 60 ft. cliffs, bear NEE. and SWW.

80.00

Porphyry rock in place, 12 ins. x 3 ft. x 3 ft. above ground, marked with a cross (x) at the exact cor. point for cor. of secs. 17, 18, 19 and 20, and with 3 notches to the S. and 5 notches to the E., and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

Land, extremely mountainous.

Soil, 4th rate, stony, covered with loose rock and boulders.

Scattering greasewood and cactus undergrowth.

No grass.

Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 80.00 chs.

January 10, 1912.

26. Supplemental subdivision of Township 19 North, Range 19 West.

Chains.	
	January 11, 1912.
	Thence I run, S.89°59'E., on a random line, between secs.17 and 20.
40.00	Set a temp. $\frac{1}{4}$ sec.cor.
79.98	The cor.of secs.16,17,20 and 21, hereinbefore described, brs.N.7 lks.
	Thence I run, S.89°58'W., on a true line, bet. secs.17 and 20.
	Over extremely mountainous land, covered with loose rock, scattering greasewood and cactus brush.
	Ascend.
7.00	Spur bears N. Descend.
11.00	Descend 20 ft. cliff, bears NE. and SW.
13.00	Rocky gulch, course N. Ascend.
28.30	Descend 30 ft. cliff, bears NE. and SW. Then continue de- scend steep canyon bank covered with sliding rock.
38.70	Rocky gorge course N. Ascend.
39.99	Malpais rock in place, 3x3x4 ft. above ground, marked $\frac{1}{4}$ on the N. face, and raise a mound of stones 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
	Continue ascent.
51.40	Spur, bears N. Descend cliffs.
62.00	Wash, 15 lks. wide, course N. in canyon, ascend.
76.00	Rock spur, bear N.; descend.
79.98	Cor. of secs. 17, 18, 19 and 20, hereinbefore described. Land, extremely mountainous, and covered with loose rock. Soil, 4th rate, stony, Scattering undergrowth of greasewood and cactus. No grass. Mountainous land, covered with loose rock and exceptiona- ally difficult to survey, 79.98 chs.
-----	
	At 9h.0m. a.m., 1.m.t., I set off 35°02'N. on the lat. arc; 21° 154' S. on the decl. arc, and determine a meridian with the solar at the above described cor. Thence I run, S.89°58'W. on a random line, bet. secs. 18 and 19.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
78.70	Intersect the W. bdy. of the Twp. 2 lks. N. of the cor. of secs. 13, 18, 19 and 24, recently established and described by me.
	Thence I run, S.89°57'E. on a true line, bet. secs. 18 and 19. Scattering greasewood and cactus undergrowth. Extremely mts.
1.00	Descend cliff 40 ft. high, bears NW. and SE.
	Thence descend along steep NNE. slope.
38.70	Set a porphyry stone 8x8x8 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, and raise a mound of stones 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Rocky gorge course NE. Ascend.
78.70	The cor. of secs. 17, 18, 19 and 20, hereinbefore described. Land, extremely mountainous, covered with loose rock. Soil, 4th rate, stony. Very little undergrowth of greasewood and cactus. No grass. Mountainous land, covered with loose rock, and exceptionally difficult to survey, 78.70 chs.
-----	
	Thence I run, N.0°12'W., between secs 17 and 18.
	Over mountainous land, covered with boulders and loose rock; scattering greasewood and cactus brush.
	Descend very steep N. slope.
10.40	Rocky gulch, course NE. Ascend.
15.00	Spur, bears E. Descend.
20.00	Ascend.
25.00	Spur bears E.; descend.
39.50	Rocky gulch, course E.; ascend.
40.00	Set a malpais stone, 6x8x18 ins., 12 ins. in the ground for the $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on the W. face and raise



Chains.	a mound of stones 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
50.00	Ascend steep rocky ridge.
60.00	Rocky ridge, brs. E. and W. Descend.
61.05	Wash, 15 lks. wide, course NEE. Ascend.
61.15	Pipe line, bears E. and W.
63.04	Road from Kingman to Goldroads, bears E. and W.
63.93	Power transmission line from Kingman to Goldroads, bears E. and W.
63.93	Cors. Nos. 1 and 5, respectively of the Line Road, and Gold Road mill sites, Sur. No. 1699B.; whence, (1) W. S.L.M. No. 1699 B., bears S. $86^{\circ}05'W.$ , 445.8 ft., 6.75 $\frac{1}{2}$ chs. (2) Cors. Nos. 4 and 6, respectively of the Line Road and Gold Road mill sites, brs. S. $3^{\circ}54'E.$ , 333.7 ft., 4.75 chains. (3) Cor. No. 2 of the Line Road mill site brs. N. $74^{\circ}12'E.$ , 714.3 ft., 10.82 chs. (4) Cor. No. 4 of the Gold Road Mill site, brs. N. $67^{\circ}36'W.$ , 339.1 ft., 5.14 chs.
63.95	Pump power transmission line, bears E. and W.
64.43	Telephone line, brs. E. and W.
75.00	Ascend steep rocky slope.
80.00	Spur, bears W.; descend.
80.00	Set a malpais stone 10x12x20 ins., 15 ins. in the ground for the cor. of secs. 7, 8, 17 and 18, marked with 4 notches on the S. and 5 notches on the E. edges, and raise a mound of stones 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Land, mountainous and covered with boulders and loose rock.
	Soil, 4th rate, stony.
	Scattering greasewood and cactus brush.
	No grass.
	This cor. is situated at the base of a perpendicular sandstone cliff about 40 ft. high, course NW. and SE.
	Mountainous land, covered with loose rock and boulders, and exceptionally difficult to survey, 80.00 chs.
	-----
	At noon, at the above cor., I set off $21^{\circ}54'S.$ on the decl. arc, and observe the sun on the meridian. The resulting latitude reading is $35^{\circ}02\frac{1}{2}'N.$
	Thence I run, N. $89^{\circ}58'E.$ on a random line, between secs. 8 and 18.
40.00	Set a temp. $\frac{1}{4}$ sec. cor.
80.00	The cor. of secs. 8, 9, 16 and 17, hereinbefore described, brs. 9 lks. S.
	Thence I run, N. $89^{\circ}58'W.$ , on a true line, between secs. 8 and 17.
	Over mountainous land, covered with boulders and loose rock; scattering catsclaw, greasewood and cactus brush.
	Descend.
14.35	Gulch, course S.; ascend.
16.00	Descend.
30.00	Descend sandstone bluffs, bear SEE. and NNW.
31.50	Witness corner. Set a lava stone 8x10x20 ins., 15 ins. in the ground for the witness corner to the $\frac{1}{4}$ sec. corner, marked $\frac{1}{4}$ on the N. face, W C on top, and raise a mound of stones 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
32.50	Descend into wash, covered with dense catsclaw brush, course SE.
38.50	Broad wash, covered with boulders and detritus $1\frac{1}{2}$ chs. wide, SE.
40.00	Point for $\frac{1}{4}$ sec. cor. falls in wash impracticable to perpetuate.
44.50	Leave broad wash; ascend over loose rock.
49.80	Prominent sharp rocky ledge outcrop, bears N. and S.
	Descend.
52.00	Ascend over loose rock.

Chains.  
60.00 Top of high rock ridge, bears N. and S. Descend.  
70.25 Rocky gulch course S. Ascend, ...  
77.00 Ridge, bears N. and S. Descend.  
79.80 Descend cliff about 40 ft. high, bears NW. and SE.  
80.00 The cor. of secs. 7, 8, 17 and 18, hereinbefore described.  
Land, mountainous, and covered with loose rock, 68.00 chs.  
Level wash, covered with loose boulders and dense cats-  
claw brush, 12.00 chs.  
Balance of land covered with scattering catsclaw, grease-  
wood and cactus undergrowth.  
Soil, 4th rate, stony.  
No grass.  
Mountainous land, covered with loose rock, or level land  
covered with boulders and dense undergrowth, and excep-  
tionally difficult to survey, 80.00 chs.

-----  
Thence I run,  
8.89°57' W. on a random line, between secs. 7 and 18.  
40.00 Set a temp.  $\frac{1}{4}$  sec. cor.  
78.65 Intersect the W. bdy. of the township, 7 lks. S. of the cor.  
of secs. 7, 12, 13 and 18, recently established and des-  
cribed by me.  
Thence I run,  
East, on a true line, between secs. 7 and 18.  
Over extremely mountainous land, covered with loose rock  
and boulders; scattering greasewood and cactus and  
catsclaw brush.  
Descend.  
3.65 Wash, 10 lks. wide, course SE. in rocky gorge; ascend.  
8.60 Ridge, bears N. and S.; descend.  
12.60 Road, bears NW. and SE. Kingman to Goldroads.  
22.15 Road, bears NE. and SW. Same road.  
25.00 Pipe line bears NWW. and SSE.  
29.15 Game road, bears NWW. and SSE.  
30.65 Telephone line, bears NWW. and SSE.  
31.15 Power transmission line from Kingman to Goldroads, bears  
NWW. and SSE. Enter rolling land, covered with dense  
greasewood and cactus, and catsclaw undergrowth; de-  
scending.  
38.65 Set a malpais stone, 6x10x20 ins., 15 ins. in the ground  
for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face; and raise  
a mound of stones 3 ft. base, 1 $\frac{1}{2}$  ft. high, N. of cor.  
Pits impracticable.  
Continue descent over boulders and rolling land.  
63.05 Wash, 30 lks. wide, course SE. Ascend.  
78.65 The cor. of secs. 7, 8, 17 and 18, hereinbefore described.  
Mountainous land, covered with loose rock and boulders,  
31.15 chs.  
Rolling land, covered with boulders and dense greasewood,  
cactus and catsclaw undergrowth, 47.50 chs.  
Soil, 4th rate, stony.  
No grass.  
Mountainous land, covered with loose rock, or rolling  
land, covered with dense undergrowth and boulders, and  
exceptionally difficult to survey, 78.65 chs.  
January 11, 1912.

-----  
January 12, 1912.  
Thence I run,  
N. 0°16' W., between secs. 7 and 8, over extremely moun-  
tainous land, covered with loose rock and intersected  
by high cliffs and deep canyon.  
Scattering greasewood and cactus brush.  
0.10 Ascend perpendicular wall 40 ft. high, NW. and SE.  
0.20 Top of rock spur, bears NW. Descend 40 ft.  
0.40 Ascend cliff 60 ft. high, bears NW. and SE.  
5.25 Rock ridge, bears NW. and SE. Descend.  
15.00 Wash, 10 lks. wide, course E. in gulch. Ascend, sliding



## Supplemental Subdivision of Township 19 North, Range 19 West. 29.

## Chains.

- rock.
- 37.30 Rock ridge, bears E. and W. Descend.
- 40.00 Set a malpais stone 12x14x24 ins., 18 ins. in the ground for the  $\frac{1}{2}$  sec. cor., marked  $\frac{1}{2}$  on the W. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable. Continue descent.
- 40.80 Descend cliff 200 feet high, bears E. and W. Thence descend over sliding rock.
- 47.50 Wash, 20 lks. wide, course E. in canyon; ascend.
- 63.00 Rock ridge, bears E. and W.; descend.
- 67.00 Wash, 20 lks. wide, course SE. in canyon; ascend. Thence ascending along steep W. side of prominent canyon which runs in a general southerly direction, about 8 chs. E. of this line. Slope is covered with sliding rock.
- 80.00 Set a porphyry stone 8x14x22 ins., 17 ins. in the ground for the cor. of secs. 5, 6, 7 and 8, marked with 5 notches on the E. and 5 notches on the S. edges, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable. This corner is situated near the base of perpendicular rock wall about 200 ft. high, which rises to the W. The prominent canyon, course S., passes about 600 lks. E. Land, extremely mountainous, intersected by high cliffs and deep canyons, covered with loose sliding rock. Soil, 4th rate, stony. Very scattering greasewood and cactus brush. No grass. Mountainous land, covered with loose rock and exceptionally difficult to survey, 80.00 chs.
- 
- Thence I run, S. 89° 58' E. on a random line, between secs. 5 and 8.
- 40.00 Set a temp.  $\frac{1}{2}$  sec. cor.
- 80.00 The cor. of secs. 4, 5, 8 and 9, hereinbefore described, brs. N. 5 lks. Thence I run, West on a true line, between secs. 5 and 8. Over extremely mountainous land, covered with loose rock. Ascend.
- 9.65 Rock ridge, bears N. and S. Descend.
- 20.00 Ascend.
- 30.40 Spur, bears S.; descend.
- 40.00 Set a granite stone 4x15x24 ins., 18 ins. in the ground for the  $\frac{1}{2}$  sec. cor., marked  $\frac{1}{2}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.
- 40.90 Gully, course S.; ascend.
- 45.30 Spur, bears S.; descend.
- 52.00 Wash, 30 lks. wide, course SSE, in box canyon; cliffs on each side about 100 ft. high. Ascend.
- 59.75 Rock ridge, bears NW. and SE. Very prominent rocky cliff bordered, high, mountain brs. N. 70° E. Descend.
- 74.50 Wash, 40 lks. wide, course SSE. in canyon. Ascend steep slope, covered with loose sliding rock.
- 80.00 The cor. of secs. 5, 6, 7 and 8, hereinbefore described. Land, extremely mountainous, covered with loose rock and with intersecting deep canyons, very scattering cactus and greasewood brush. Soil, 4th rate, stony. No grass. Mountainous land, covered with loose rock, and exceptionally difficult to survey, 80.00 chs.
-

30. Supplemental Subdivision of Tp.19 North, Range 19 West.

Chains.

At noon, at the above cor., I set off  $21^{\circ}45'$  S. on the decl. arc, and observe the sun on the meridian. The resulting latitude reading is  $35^{\circ}03\frac{1}{2}'$  N.

Thence I run, West, on a random line, between secs. 6 and 7.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

78.45 Intersect the W. bdy. of the township 2 lks. S. of the corner of secs. 1, 6, 7 and 12, recently established and described by me.

Thence I run, S.  $89^{\circ}59\frac{1}{2}'$  E. on a true line, bet. secs. 6 and 7. Over extremely mountainous land, covered with loose rock, scattering greasewood and cactus brush.

Ascend.

8.90 Ridge, bears N. and S. Descend.

13.60 Wash, 15 lks. wide, course SE. in canyon. Ascend.

17.70 Rock ridge, bears N. and S. Descend.

21.10 Wash, 15 lks. wide, course S. in canyon. Ascend.

28.90 Rock ridge, bears N. and S. Descend.

33.70 Rocky gulch, course S. Ascend.

38.45 Set a malpais stone  $10\frac{1}{2} \times 8 \times 24$  ins., 18 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the N. face, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

Continue ascent.

58.50 High ridge, bears N. and S. Descend.

61.00 Gorge, course SW. Ascend bluffs.

70.00 Top of high ridge, bears N. and S. Descend.

77.50 Descend cliffs about 200 ft. high, bears N. and S.

78.45 Thence cor. of secs. 5, 6, 7 and 8 hereinbefore described. Land extremely mountainous. Soil, 4th rate, stony. Surface covered with bare cliffs or loose rock, scattering greasewood and cactus brush. No grass. Mountainous land, covered with loose rock or bare cliffs, and exceptionally difficult to survey, 78.45 chs.

---

At 4h. 0m., p.m., 1.m.t., I set off  $21^{\circ}41\frac{1}{2}'$  S. on the decl. arc;  $35^{\circ}03\frac{1}{2}'$  N. on the lat. arc, and determine a meridian with the solar, at the cor. of secs. 5, 6, 7 and 8.

Thence I run, N.  $0^{\circ}05'$  W. on a random line between secs. 5 and 6.

40.00 Set a temp.  $\frac{1}{4}$  sec. cor.

81.15 Intersect the N. bdy. of the township 23 lks. W. of the cor. of secs. 5, 6, 31 and 32, recently established and described by me.

Thence I run, S.  $0^{\circ}05'$  W. on a true line, between secs. 5 and 6. Over extremely mountainous land. Descend over boulders, scattering greasewood and cactus brush.

5.00 Commence precipitous descent.

15.00 Draw, course SE.; ascend.

21.75 Rocky spur, bears SE. Descend precipitous malpais boulder strewn slope.

29.50 Bench; witness corner. Set a malpais stone  $6 \times 6 \times 18$  ins., 12 ins. in the ground for the witness corner to the  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on the W. face, W. C on top, and raise a mound of stones 3 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

41.15 Point for  $\frac{1}{4}$  sec. cor. falls on long steep rock slide, impracticable to perpetuate. Continue descent.

73.00 Wash, 40 lks. wide, course SSE. in prominent canyon; ascend.

81.15 The cor. of secs. 5, 6, 7 and 8, hereinbefore described. Land, extremely mountainous, covered with loose sliding rock; scattering greasewood and cactus brush.

Chains.

Soil, 4th rate, stony.

No grass.

Mountainous land, covered with loose rock and exceptionally difficult to survey, 81.15 chains.

January 12, 1912.

GENERAL DESCRIPTION.

This township, the greater part of which is through mountainous surface of the Ute Mountains, and covered with loose rock and 4th rate soil, marks a transition from the black malpais capped mountains on the south to the intrusive granites and altered sediments on the north. The line of demarkation taking place at and near the center of the township from which the character of the surface becomes more and more broken towards the north boundary, at and north of which the land becomes unsurveyable by reason of the precipitous cliffs and extremely steep rock slides.

Unsuccessful attempts were made to project these surveys into the western half of Township 20 North but the efforts met with failure, and I declare that area unsurveyable.

There were three springs noted in the progress of this survey. One in the SW.  $\frac{1}{4}$  of sec. 34, - a small one. One in SE.  $\frac{1}{4}$  of sec. 20, which supplies water by gravity to an automatic motor-driven pump situated in the SW.  $\frac{1}{4}$  of sec. 16 through a pipe line, whence the said water is forced through a pipe line to another pumping station situated in the NE.  $\frac{1}{4}$  of sec. 18, where the third spring is situated. From this latter station the water is driven through a pipe line to the mining camp of Holdroads situated approximately two miles northwest from sec. 18, in approximately sec. 11 of T. 19 N R 20 W., unsurveyed.

The whole area of this township drains to the east into Sacramento Wash, principally through the large wash passing easterly across nearly the center of the township.

Wild burros were seen in plenty, but no cattle, and it is presumed that the former have driven the latter out, although it may be that no cattle have ever subsisted on this range, the feed being insufficient, and the surface very rough.

A very good wagon road passes through this township, approximately in the center in an easterly and westerly direction, being the freighting road from Kingman to Goldrocks, and is a very well built highway. There are no settlers within this township.

*William B. Alexander*  
U. S. Deputy Surveyor.

January 12, 1912.

Vol. X-2374 pg 1

346 680.

P. O. BOX 1980

#



UNITED STATES SMELTING REFINING AND MINING COMPANY

NEWHOUSE BUILDING  
SALT LAKE CITY, UTAH 84110

April 4, 1968

RECEIVED  
LAND OFFICE  
BUREAU OF LAND MANAGEMENT

APR - 8 1968

PHOENIX, ARIZONA

U. S. Department of Interior  
Bureau of Land Management  
State Office  
3022 Federal Building  
Phoenix, Arizona 85025

Gentlemen:

Thank you for your letter of April 1, 1968 (your reference 9180 E) regarding the position of U.S.L.M. No. 1699B in the NE $\frac{1}{4}$  Section 18, Township 19 North, Range 19 West, Gila and Salt River Meridian, Arizona, and for the two pages of field notes covering the Subdivision of that Township.

On the second page of the field notes (marked "Book 2374" "173" - this may be the page number) four ties are given from Corners Nos. 1 and 5, respectively, of the Line Road and Gold Road mill sites. The second tie reads as follows:

"(2) Cors. Nos. 4 and 6, respectively of the Line Road and Gold Road mill sites, brs. S. 3° 54' E., 333.7 ft., 4.75 chains."

I believe that this distance should be 313.7 feet, as shown on the patent plat of Survey No. 1699B which you sent me. Also, 333.7 feet would be 5.06 chains, whereas 313.7 feet are 4.75 chains, as given in the tie.

Apparently the field notes contain a minor typographical error.

Yours very truly,

*C. J. Barber*  
C. J. Barber  
Engineer of Mines

CJB:s

*Angry. says Barber says they will not change the field notes however - file this in field notes*  
*CB*

9180 E

Your reference:  
Letter 3/27/68

State Office  
3022 Federal Building  
Phoenix, Arizona 85025

April 1, 1968

Mr. C. J. Barber  
Engineer of Mines  
United States Smelting Refining &  
Mining Company  
Newhouse Building  
Salt Lake City, Utah 84110

Dear Mr. Barber:

U.S.L.M. 1699B is located in the NE $\frac{1}{4}$  Section 18, Township 19 North, Range 19 West, Gila and Salt River Meridian, Arizona.

Enclosed is a sketch showing the location and two pages of the field notes covering the survey of the Subdivision of this Township, which ties in U.S.L.M. 1699B.

If we can be of further help to you, please feel free to contact us.

Sincerely,

KENNETH F. HANSEN

Chief, Division of Engineering

Enclosures

:BDWhite

For FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

See Subdivisional Books "B" & "G"

LIST OF NAMES.

A list of the names of the individuals employed by .....

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of .....

showing the respective capacities in which they acted:

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

....., United States Deputy Surveyor, in surveying all those parts or portions of the .....

..... of the .....

..... meridian, ..... of ....., which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for .....

....., Chainman.

....., Chainman.

....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

....., Flagman.

Subscribed and sworn to before me this ..... }  
day of ....., 190 }



22  
178  
BOOK 2374

For FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.  
See Subdivisional Books "B" and "G"

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
United States Deputy Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

*Phoenix, Arizona, Feb. 26, 1913, 1909*

The foregoing field notes of the survey of *the Subdivision Lines*

*in Tp. 19 North, Range 19 West, Gila and Salt River  
Base and Meridian State of Arizona*

executed by *William B. Alexander, U.S. Deputy Surveyor*  
under his contract No. *156*, dated *May 26*, 1909, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Frank A. Ingalls*  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
United States Surveyor General.