

2865

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4-679

Book "B."

BOOK 2865

Subdivisions

FIELD NOTES

Re-
OF THE SURVEY OF THE

Gila and Salt River Meridian, through Township 16 N.,

and

Survey of part of the Subdivision Lines, of

Township 16 North, Range 1 East,

Of the Gila and Salt River Base and *Meridian,*

In the State of Arizona.

EXECUTED BY

John F. Hesse,

U. S. Surveyor,

In the capacity of U. S. Surveyor , *under instructions dated* Sept. 26. , *1914,*
issued by the United States Surveyor General to govern surveys included in
Group No. 37 *, which were approved by the Commissioner of the General Land*
Office, October 3. , *1914.*

Resurvey & *Survey commenced* October 24. , *1914*

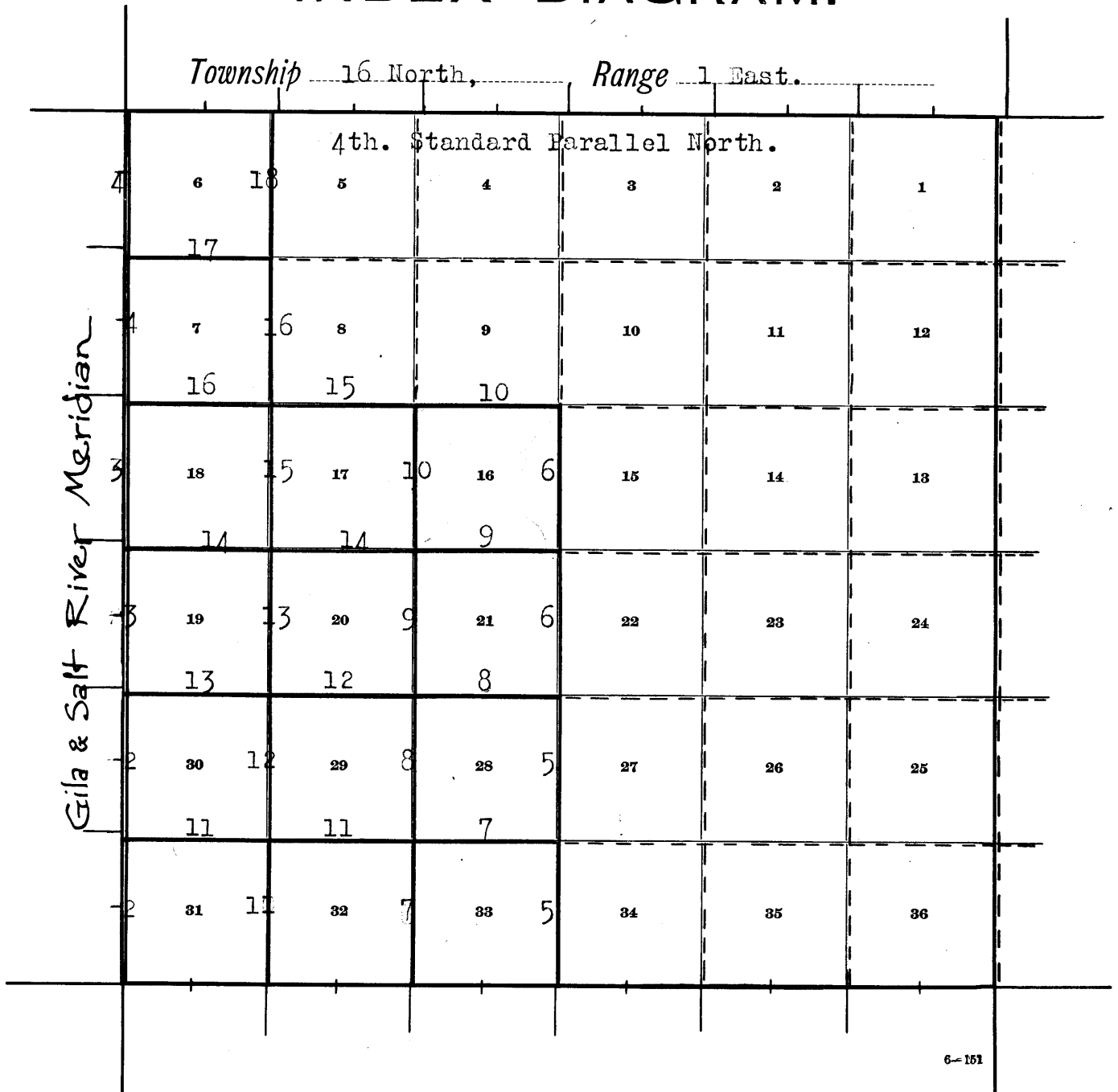
Resurvey & *Survey completed* November 4, , *1914*

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(1A)

BOOK 2865

Book "B."

INDEX DIAGRAM.



- Notes in this Book (indexed)
- Accepted surveys.
- Unsurveyed lines.

Note → The United Verde & Pacific Railway is designated in these field notes as "U.V. & P. Ry."

Resurvey of the G. & S. R. Meridian through Tn. 16 N. 13

Chains.
Re-

Survey commenced October 24, 1914, and executed with an A. Lietz light mountain transit, No. 6166, with 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 verniers of the latitude and declination arcs. The instrument was approved by the Assistant Supervisor of Surveys for Arizona and California, conditional upon satisfactory field tests, September 28, 1914. I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m., and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp which is located at the cor. of secs. 13, 18, 19 and 24 on the E. bdy. of Tp. 16 N. Rg. 1 W.; latitude $34^{\circ} 45' 34''$ N.; longitude $112^{\circ} 18' 28''$ W.; I set off $34^{\circ} 45\frac{1}{2}'$ N. on the lat. arc; $11^{\circ} 41'$ S. on the decl. arc; and at 4h. 00m. p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

October 24, 1914.

October 25, 1915: At 5h. 16m. a.m., by my watch which has correct l.m.t., I observe Polaris at western elongation in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

At 7h. 30m. a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ} 24'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone set October 24, on which the meridian falls 0.1 ins. east of the mark determined by the solar.

At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 45\frac{1}{2}'$ N. on the lat. arc; $11^{\circ} 55'$ S. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0' 05''$ west and $0' 16''$ east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 15m. a. m. is N. $14^{\circ} 45'$ W.; the angle thus determined gives the mag. decl. $14^{\circ} 45'$ E.

October 25, 1915.

October 26, 1914; At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 43'$ N. on the lat. arc; $12^{\circ} 16'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 15 and 16 N. Rgs. 1 E. and 1 W. which is an iron post 3 ins. diam., 12 ins. above ground, with brass cap marked and witnessed as described by the surveyor general.

North on a random line, making careful search at 40.00 and 80.00 chs. for the $\frac{1}{4}$ sec. and sec. cors. but with out success until at

483.54

Intersect 4th. Standard Parallel North, 12 lks. W. of the Standard cor. of Tps. 16 and 17 N. Rgs. 1 E. and 1 W. which is a stone firmly set in the ground, marked and witnessed as described by the surveyor general.

2 Resurvey of the G. & S. R. Meridian through Tp. 16 N.

Chains.

The course of this line as thus determined is N. 0° 01' E.

October 26, 1914.

October 27, 1914: At 8h. 00m. a.m., l.m.t., I set off 34° 43' N. on the lat. arc; 12° 36½' S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 15 and 16 N. Rgs. 1E. and 1 Whereinbefore described

Thence I run N. 0° 01' E. on E. bdy. of sec. 36 setting ¼ sec. and sec. cors. at distances proportional to those given in the notes of the original survey, to refer to secs. in T16N R1 W. (only).
Over rolling land.

40.29½ Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
1914 on S. rim;
¼ S36 in W. half;

base 1½ ft. high, W. of cor. Pits impracticable.

55.50 Wash 6 lks. wide course W.

80.59 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 25, 26, 27 and 36, marked on brass cap

1914 on S. rim;
T16N in N. half; and
S30 S31 R1E in E. half;
S25 in N. W. and
S36 R1W in S. W.

NW. & SW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

Land, rolling.
Soil, sandy loam, mixed with gravel, dry, medium texture; 2nd. rate.
No timber.
Good grass.

N. 0° 01' E. on E. bdy. of sec. 25.
Over rolling land.

10.20 Wash 7 lks. wide course S. W.

40.29½ Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
1914 on S. rim;

¼ S25 in W. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high, W. of cor.

52.65 Gully 10 lks. wide course W. 10 ft. deep.

80.59 Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 24 and 25, marked on brass cap

1914 on S. rim;
T16N in N. and
S19 S30 R1E in E. half;
S24 in N. W. and
S25 R1W in S. W. quadrant; dig pits 24 x 24 x 12 ins.

NW. & SW. of post, 6 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

Land, rolling.
Soil, loam mixed with clay, dry, medium texture; 1st. rate.
No timber.
Good grass.

Resurvey of the G. & S. R. Meridian, through Tp. 16 N. 3

Chains.	
	N. 0° 01' E. on E. bdy. of sec. 24. Over rolling land.
13.75	Gully 5 lks. wide course N. W.
28.46	Road bears E. and W.
29.78	U. V. & P. Ry. bears E. and W.
30.39	Road bears E. and W.
30.54	Telegraph line bears E. and W.
40.29 $\frac{1}{2}$	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S24 in W. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, W. of cor.
80.59	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 13 and 24, marked on brass cap 1914 on S. rim; T16N in N. and S18 S19 R1E in E. half; S13 in N. W. and S24 R1W in S. W. quadrant; dig pits 24 x 24 x 12 ins. NW. & SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. From this cor. Wm. Gray house bears N. 64° 41' E. Wm. Gray windmill bears N. 64° 28' E. House bears N. 14° 47' E. October 27: At this cor. I set off 12° 41' S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 34° 45 $\frac{1}{2}$ ' N. Land, rolling. Soil, sandy loam, dry, medium texture; 1st. rate. No timber. Good grass.
	N. 0° 01' E. on E. bdy. of sec. 13. Over gently rolling land.
10.90	Wash 30 lks. wide course S. W.
40.29 $\frac{1}{2}$	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S13 in W. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. From this cor. House noted above bears N. 20° 47' E. Ford's house bears N. 34° 35' E. Wm. Gray house bears N. 85° 06' E. Wm. Gray windmill bears N. 87° 15' E.
49.00	Wash 5 lks. wide course W.
71.95	Old road bears N. E. and S. W.
80.59	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 12 and 13, marked on brass cap 1914 on S. rim; T16N in N. and S7 S18 R1E in E. half; S12 in N. W. and S13 R1W in S. W. quadrant; dig pits 24 x 24 x 12 ins. NW. & SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. From this cor. Ford's house bears N. 68° 44' E. Land, rolling. Soil, sandy loam, dry, medium texture; 1st. rate. No timber. Good grass.

Chains.	N. 0° 01' E. on E. bdy. of secs 12. Over rolling land.
35.42	Road bears E. and W.
37.60	Road bears N. E. and S. W.
40.29 $\frac{1}{2}$	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S12 in W. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. From this cor. W. Dine house bears S. 88° 36' E. 14.50 chs.
46.16	Old road bears N. E. and S. W.
53.56	Wash 12 lks. wide course W.
70.15	Road bears N. W. and S. E.
73.85	Road bears E. and W.
80.59	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 1 and 12, marked on brass cap 1914 on S. rim; T16N in N. and S6 S7 R1E in E. half; S1 in N. W. and S12 R1W in S. W. quadrant; dig pits 24 x 24 x 12 ins. NW. & SW. of post 6 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. From this cor. Gallows frame bears N. 4° 46' W. Stack on shaft house bears N. 4° 29' W. Land, rolling. Soil, sandy loam, dry, medium texture; 1st. rate. No timber. Good grass.
2.50	N. 0° 01' E. on E. bdy. of sec. 1 Over rolling hilly land, along W. slope of ridge.
23.00	Road bears N. W. and S. E.
31.00	Gully 6 lks. wide course S. W.
40.29 $\frac{1}{2}$	Through scattering oak brush and timber. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S1 in W. half; from which A pinon 6 ins. diam., bears S. 70 $\frac{1}{2}$ ° W. 20 lks. dist., marked $\frac{1}{4}$ S1BT. No other bearings available. Raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. From this cor. Gallows frame bears S. 64° 14' W. Stack on shaft house bears S. 50° 01' W.
41.00	Wash 12 lks. wide course S. W.
53.60	Wash 10 lks. wide course W.
57.25	Wash 10 lks. wide course W.
71.75	Ascend S. W. slope through heavy timber.
77.00	Along rough W. slope.
80.59	The standard cor. of Tps. 16 and 17 N. Rgs. 1 E. and 1 W. hereinbefore described Land, hilly and mountainous. Soil, sandy loam, mixed with rocks and gravel, 4 ins. deep on rock. 3rd. rate. Timber, cedar and pinon. Undergrowth, oak and cedar. Fair grass.

October 27, 1914.

Chains. October 28, 1914: At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 43'$ N. on the lat. arc; $12^{\circ} 56\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34 on the S. bdy. of the Tp. which is and iron post 3 ins. diam., 14 ins. above ground, with brass cap, marked and witnessed as described by the surveyor general.

Thence I run
N. $0^{\circ} 02'$ W. bet. secs. 33 and 34.
Over rolling land.

5.90 Wash 10 lks. wide course N. W.
22.35 Road bears N. W. and S. E.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S33 in W. and
S34 in E. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap
1914 on S. rim;
T16NR1E in N. half;
S28 in N. W.
S27 in N. E.
S34 in S. E. and
S33 in S. W. quadrant; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base $1\frac{1}{2}$ ft. high, W. of cor.
Land, rolling.
Soil, clayey loam, dry, fine texture; 1st. rate.
No timber.

October 28, 1914.

October 29, 1914; At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 44'$ N. on the lat. arc; $13^{\circ} 17'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27, 28, 33 and 34.

Thence I run
N. $0^{\circ} 02'$ W. bet. secs. 27 and 28.
Ascend, through very scattering brush.

1.00 Abandoned house bears N. 15° E.
Shaft bears N. $26^{\circ} 50'$ E.
Shaft bears N. $48^{\circ} 34'$ E.

8.22 Abandoned house bears N. 26° E.
Shaft bears N. $51\frac{1}{4}^{\circ}$ E.
Shaft bears N. $76^{\circ} 14'$ E.

16.40 Ridge bears N. E. and S. W. Descend.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S28 in W. and
S27 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.

45.00 Ascend.
55.00 Low ridge bears N. E. and S. W. Descend.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, marked on brass cap
1914 on S. rim;
T16NR1E in N. half;
S21 in N. W.
S22 in N. E.
S27 in S. E. and
S28 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

Land, mountainous.

6 Partial Subdivision of Twp. 16 N. Rg. 1 E.

Chains.

Soil, rocky; 4th. rate.
No timber.
Undergrowth, oak.
Fair grass.

N. $0^{\circ} 02'$ W. bet. secs. 21 and 22.

Over rolling hilly land, gradually descending.

- 12.82 M. J. Ritter house bears N. $35^{\circ} 23'$ W.
barn bears N. $38^{\circ} 23'$ W.
- 23.84 Wash 25 lks. wide course W. 12 ft. deep.
- 24.00 M. J. Ritter house bears N. $45^{\circ} 45'$ W.
barn bears N. $49^{\circ} 45'$ W.
- 27.18 Wash 40 lks. wide course W. 12 ft. deep.
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the
ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S21 in W. and
S22 in E. half; dig pits 18 x 18 x 12 ins. N. and
S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$
ft. base $1\frac{1}{2}$ ft. high, W. of cor.
- 45.16 Gully 15 lks. wide course S. W. 8 ft. deep.
- 45.45 Gully 20 lks. wide course S. W. 8 ft. deep.
- 45.86 U. V. & P. Ry. bears N. E. and S. W.
- 46.71 Telegraph line bears N. E. and S. W.
- 48.25 Wash 15 lks. wide course S. W.
- 69.32 Wash 20 lks. wide course S. W.
- 72.00 Ascend steep S. slope.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
ground for cor. of secs. 15, 16, 21 and 22, marked on b
brass cap
1914 on S. rim;
T16NR1E in N. half;
S16 in N. W.
S15 in N. E.
S22 in S. E. and
S21 in S. W. quadrant; and raise a mound of stone
2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, rocky; 4th. rate.
No timber.
Undergrowth, oak.
October 29: At this cor. I set off $13^{\circ} 21\frac{1}{2}'$ N. on the
decl. arc; and observe the sun on the meridian at noon;
the resulting lat. is $34^{\circ} 45\frac{1}{2}'$ N.

N. $0^{\circ} 02'$ W. bet. secs. 15 and 16.

Ascend through scattering brush.

- .75 Ridge bears N. W. and S. E. descend.
- 9.25 Wash 8 lks. wide course S. E. ascend.
- 38.00 Slope becomes very steep.
- 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the
ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S16 in W. and
S15 in E. half; and raise a mound of stone 2 ft.
base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 44.14 Top of St. Matthews Mtn. descend steep N. slope.
- 59.15 Gulch 10 lks. wide course E. Ascend.
- 68.50 Ridge bears E. and W. descend.
- 73.00 Gulch 15 lks. wide course E. Ascend along S. E. slope of
ridge.
- 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
ground for cor. of secs. 9, 10, 15 and 16, marked on
brass cap

Chains.

1914 on S. rim;
 T16NR1E in N. half;
 S9 in N. W.
 S10 in N. E.
 S15 in S. E. and
 S16 in S. W. quadrant; and raise a mound of stone
 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, oak.
 Poor grass.

October 29, 1914.

October 28, 1914.

From the cor. of secs. 4, 5, 32 and 33, on S. bdy. of T. an iron
 post 3 ins. diam., 14 ins. above ground, with brass cap
 marked and witnessed as described by the surveyor
 general, I run N. 0° 2' W. bet. secs. 32 and 33.
 Ascend along S. W. slope, through scattering brush.
 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the
 ground for ¼ sec. cor., marked on brass cap
 1914 on S. rim;
 ¼ S32 in W. and
 S33 in E. half; and raise a mound of stone 2 ft.
 base 1½ ft. high, W. of cor. Pits impracticable.
 47.50 Ridge bears N. W. and S. E. Descend.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the
 ground for cor. of secs. 28, 29, 32 and 33, marked on
 brass cap
 1914 on S. rim;
 T16NR1E in N. half;
 S29 in N. W.
 S28 in N. E.
 S33 in S. E. and
 S32 in S. W. quadrant; and raise a mound of stone
 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, oak.

S. 89° 51' E on a random line bet. secs. 28 and 33.
 40.00 Set temp. ¼ sec. cor.
 80.29 Intersect N. and S. line 15 lks. N. of the cor. of secs.
 27, 28, 33 and 34.
 Thence I run
 N. 89° 45' W. on a true line bet. secs. 28 and 33.
 Over rolling land, gradually ascending.
 35.60 Road bears N. W. and S. E.
 37.30 Ridge bears N. and S. Descend.
 40.14½ Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the
 ground for ¼ sec. cor., marked on brass cap
 1914 on S. rim;
 ¼ S28 in N. and
 S33 in S. half; and raise a mound of stone 2 ft.
 base 1½ ft. high, N. of cor. Pits impracticable.
 57.60 Wash 8 lks. wide course S. W. ascend.
 65.00 Low ridge bears N. and S. descend.
 80.00 Wash 3 lks. wide course N. W.
 80.29 The cor. of secs. 28, 29, 32 and 33.
 Land, mountainous and rolling.
 Soil, rocky; 4th. rate.
 No timber.

8 Partial Subdivision of Tract. Tp. 16 N. Rg. 1 E.

Chains.

Undergrowth, oak.
Fair grass.

October 28, 1914.

- October 31, 1914; At 8h. 00m. a.m., l.m.t., I set off $34^{\circ} 44'$ N. on the lat. arc; $13^{\circ} 56\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 28, 29, 32 and 33.
- Thence I run
N. $0^{\circ} 02'$ W. bet. secs. 28 and 29.
- .05 Wash 3 lks. wide course N. W. ascend.
15.00 Ridge bears E. and W. descend.
27.00 Over rolling land.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S29 in W. and
S28 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
- 44.30 Wash 25 lks. wide course W.
54.25 Road bears N. W. and S. E.
68.55 Wash 10 lks. wide course S. W.
70.75 Wash 5 lks. wide course S. W.
75.50 Wash 10 lks. wide course S. W.
78.50 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for witness cor. of secs. 20, 21, 28 and 29, marked on brass cap, to cor.
WC N. of center;
1914 on S. rim;
T16NR1E in N. half;
S20 in N. W.
S21 in N. E.
S28 in S. E. and
S29 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- 80.00 True point for cor. falls in wash 70 lks. wide course SW. Soil, S. 27.00 chs. rocky; 4th. rate. N. 53.00 chs. sandy loam, mixed with adobe, 2nd. rate.
Timber, scattered oak on N. slope of ridge.
Fair grass.
Land, rolling and mountainous.
- S. 89° 45' E. on a random line bet. secs. 21 and 28.
From true point for cor.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.16 Fall 10 lks. S. of cor. of secs. 21, 22, 27 and 28.
Thence I run
N. $89^{\circ} 49'$ W. on a true line bet. secs. 21 and 28.
Through scattering brush, descending.
- 2.50 Wash 8 lks. wide course N. W. ascend.
22.60 Ridge bears N. and S. descend.
40.08 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S21 in N. and
S28 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 43.00 Over rolling land.
45.00 Wash 10 lks. wide course N. W.
69.75 Wash 10 lks. wide course S. W.
80.16 The true point for cor. of secs. 20, 21, 28 and 29.
October 31; At this pt., I set off $14^{\circ} 01'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 44\frac{1}{2}'$ N.
Land, rolling and mountainous.

Chains.

Soil, E. half mile rocky; 4th. rate. W. half mile, loam and adobe 2nd. rate. No timber. Undergrowth, oak. Fair grass.

N. 0° 02' W. bet. secs. 20 and 21. From true point for cor.

- 1.08 U. V. & P. Ry. bears N. E. and S. W.
 - 1.36 Wash 40 lks. wide course S. W.
 - 1.90 Telegraph line bears N. E. and S. W.
 - 2.65 Road bears N. E. and S. W. ascend. Scattering brush.
 - 25.50 Ridge bears E. and W. descend.
 - 30.00 Wash 10 lks. wide course S. E. ascend.
 - 36.00 Spur S. E. descend.
 - 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S20 in W. and
S21 in E. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 - 43.50 Wash 10 lks. wide course S. E. ascend.
 - 53.00 Ridge bears E. and W. descend.
 - 76.00 Wash 70 lks. wide course N. W. and over rolling hilly land.
 - 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked on brass cap
1914 on S. rim;
T16NR1E in N. half;
S17 in N. W.
S16 in N. E.
S21 in S. E. and
S20 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
- Land, mountainous.
Soil, rocky; 4th. rate.
Timber, a few cedars on top of ridges.
Undergrowth, oak.

S. 89° 49' E. on a random line bet. secs. 16 and 21.

- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.22 Intersect N. and S. line 5 lks. N. of the cor. of secs. 15, 16, 21 and 22.
Thence I run
N. 89° 47' W. on a true line bet. secs. 16 and 21.
Through scattering brush. Ascend.
- 7.50 Ridge bears N. E. and S. W. descend.
- 18.00 Wash 20 lks. wide course S. W. Ascend.
- 21.47 Ridge bears N. and S. deccsend.
- 25.72 Wash 15 lks. wide course S. ascend.
- 40.11 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
1914 on S. rim;
 $\frac{1}{4}$ S16 in N. and
S21 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
- 43.20 Ridge on S. slope of Peak. Peak bears N. about 5.00 chs. dist. 1750 ft. high. Descend.
- 69.20 Ascend.
- 72.70 Top of round hill. Descend.
- 80.22 The cor. of secs. 16, 17, 20 and 21.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, a few cedars.
Undergrowth, oak.

October 31, 1914.

10 Partial Subdivision of Sect. 16 N. Rg. 1 E.

Chains.

	<p>November 1, 1914; At 8h. 30m. a.m., l.m.t., I set off $34^{\circ} 45\frac{1}{2}'$ N. on the lat. arc; $14^{\circ} 16\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.</p> <p>Thence I run N. $0^{\circ} 02'$ W. bet. secs. 16 and 17. Through scattering brush. Along at foot of high mountain.</p>
10.00	Wash 50 lks. wide course W.
25.25	Ridge bears E. and W.
31.25	Ridge bears E. and W. Descend.
38.00	Wash 10 lks. wide, course W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S17 in W. and S16 in E. half; from which A juniper 24 ins. diam., bears N. 32° W. 267 lks. dist., marked $\frac{1}{4}$ S17BT. A tree, species unknown, bears N. $6\frac{3}{4}^{\circ}$ E. 246 lks. dist., 5 ins. diam., marked $\frac{1}{4}$ S16BT.
69.62	Wash 25 lks. wide course W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap 1914 on S. rim; T16NR1E in N. half; S8 in N. W. S9 in N. E. S16 in S. E. and S17 in S. W. quadrant; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Land, mountainous. Soil, rocky; 4th. rate. Timber, a few cedars and junipers. Undergrowth, oak. Fair grass.
	<p>November 1, 1914; At this cor. I set off $14^{\circ} 20'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 46\frac{1}{2}'$ N.</p>
40.00	S. $89^{\circ} 47'$ E. on a random line bet. secs. 9 and 16. Set temp. $\frac{1}{4}$ sec. cor.
80.30	Intersect N. and S. line 5 lks. N. of the cor. of secs. 9, 10, 15 and 16. Thence I run N. $89^{\circ} 45'$ W. bet. secs. 9 and 16. Ascend, through scattering brush.
5.00	Ridge bears N. and S. Descend rough W. slope.
36.70	Wash 15 lks. wide, course NW.; ascend.
40.15	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S9 in N. and S16 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
42.90	Ridge bears N. and S. descend.
64.40	Wash 15 lks. wide course S. W.
67.25	Wash 20 lks. wide, course SW.; ascend.
72.00	Spur bet. S. descend.
80.30	The cor. of secs. 8, 9, 16 and 17. Land, mountainous. Soil, rocky; 4th. rate. Timber, a few scattering cedars and junipers. Undergrowth, oak.

November 1, 1914.

Chains. October 28, 1914:
 At the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp. which is an iron post 3 ins. diam., 14 ins. above ground, with brass cap, marked and witnessed as described by the surveyor general,
 I set off $13^{\circ} 01\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 43'$ N.
 Thence I run
 N. $0^{\circ} 03'$ W. bet. secs. 31 and 32.
 Over rolling land.
 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
 1914 on S. rim;
 $\frac{1}{4}$ S31 in W. and
 S32 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
 47.07 Wash 30 lks. wide course W.
 80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked on brass cap
 1914 on S. rim;
 T16NR1E in N. half;
 S30 in N. W.
 S29 in N. E.
 S32 in S. E. and
 S31 in S. W. quadrant; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
 Land, rolling.
 Soil, clayey loam, mixed with rocks and gravel; 2nd. rate.
 No timber.
 Good grass.

S. $89^{\circ} 51'$ E. on a random line bet. secs. 29 and 32.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.18 Intersect N. and S. line 15 lks. N. of the cor. of secs. 28, 29, 32 and 33.
 Thence I run
 N. $89^{\circ} 45'$ W. on a true line bet. secs. 29 and 32.
 Descend gradually in narrow valley.
 9.30 Wash 10 lks. wide course S. W.
 15.00 Leave valley and over rolling land.
 37.10 Road bears N. and S.
 40.09 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
 1914 on S. rim;
 $\frac{1}{4}$ S29 in N. and
 S32 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
 80.18 The cor. of secs. 29, 30, 31 and 32.
 Land, rolling.
 Soil, Loam mixed with adobe; 2nd. rate.
 No timber.
 Good grass.

Knowing from resurvey of G. & S. R. Mer. that closing c'rs. will be required for west tier of secs. in this Tp. I run
 W. on a true line, bet. secs. 30 and 31.
 Over gently rolling land.
 23.50 Wash 5 lks. wide course S. W.
 40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap
 1914 on S. rim;
 $\frac{1}{4}$ S30 in N. and
 S31 in S. half; dig pits 18 x 18 x 12 ins. E. and

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Partial Subdivision of Twp. 16 N. Rg. 1 E.

Chains.	W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
78.66	Intersect G. & S. R. Meridian 95 lks. ^{50° 21'} of the cor. of secs. 25 and 36 reestablished by me as hereinbefore described, At point of intersection Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground, for closing cor. of secs. 30 and 31, marked on brass cap 1914 on S. rim; CC W. of center; T16N in N. and S25 S36 R1W in W. half; S30 in N. E. and S31 R1E in S. E. quadrant; Dig pits, 24 x 18 x 12 ins. crosswise on each line, N. and S., 3 ft., and E. of post 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor. Land, rolling. Soil, clayey loam, many loose rocks; 3rd. rate. No timber. Good grass. October 28, 1914.
	November 2, 1914: At 8h. 30m. a.m., l.m.t., I set off $34^{\circ} 44'$ N. on the lat. arc; $14^{\circ} 35\frac{1}{2}'$ S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32. Thence I run N. $0^{\circ} 03'$ W. bet. secs. 29 and 30. Over gently rolling land.
12.50	Wash 20 lks. wide course W.
35.40	Wash 14 lks. Wide course W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S30 in W. and S29 in E. half; dig pits, 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
57.00	Wash 100 lks. wide course W.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked on brass cap 1914 on S. rim; T16NR1E in N. half; S19 in N. W. S20 in N. E. S29 in S. E. and S30 in S. W. quadrant; dig pits, 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Land, rolling. Soil, clayey loam, 2nd. rate. No timber. Good grass.
40.00	S. $89^{\circ} 45'$ E. on a random line bet. secs. 20 and 29. Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect N. and S. line 7 lks. N. of point for cor. of secs. 20, 21, 28 and 29. Thence I run N. $89^{\circ} 42'$ W. on a true line bet. secs. 20 and 29. From true point for cor. in wash.
.10	Leave wash and over rolling land.
1.70	U. V. & P. Ry. bears N. E. and S. W.
2.36	Wash 20 lks. wide course S. W.

Chains.	
3.14	Telegraph line bears N. E. and S. W.
3.76	Road bears N. E. and S. W.
33.95	Road bears N. W. and S. E.
40.10	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S20 in N. and S29 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
40.35	Road, brs. N. and S.
41.25	Road brs. NW. and SE.
44.25	Telegraph line parallel to R.R.
45.79	U. V. & P. Ry. bears N. W. and S. E.
46.80	Cross siding of R. R. bears N. W. and S. E. Davis Siding.
49.46	Road bears N. W. and S. E.
80.20	The cor. of secs. 19, 20, 29 and 30. Land, rolling. Soil, clayey loam; 2nd. rate. No timber. Good grass.
West, on a true line, between secs. 19 and 30. Over gently rolling land.	
20.50	Wash 10 lks. wide course N. W.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S19 in N. and S30 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor.
78.59	Intersect G. & S. R. Meridian 161 lks. S. $0^{\circ} 01'$ W. of the cor. of secs. 24 and 25, reestab. by me as hereinbefore described. At point of intersection, Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 19 and 30, marked on brass cap 1914 on S. rim; CC W. of center; T16N in N. and S24 S25 R1W in W. half; S19 in N. E. and S30 R1E in S. E. quadrant; dig pits 24, x 18 x 12 ins. crosswise on each line, N. and S. 3 ft., and E. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, E. of cor. Land, rolling. Soil, loam mixed with clay; 1st. rate. No timber. Good grass.
N. $0^{\circ} 03'$ W. bet. secs. 19 and 20. Over gently rolling land.	
2.40	Wash 10 lks. wide course N. W.
8.63	Road bears N. W. and S. E.
9.67	U. V. & P. Ry. bears N. W. and S. E.
10.47	Telegraph line bears N. W. and S. E.
10.93	Road bears N. W. and S. E.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S19 in W. and S20 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, W. of cor.
61.60	Road bears N. W. and S. E.
80.00	Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the

14 Partial Subdivision of Pract. Tp. 16 N. Rg. 1 E.

Chains.	<p>ground for cor. of secs. 17, 18, 19 and 20, marked on brass cap 1914 on S. rim; T16N R line in N. half; S18 in N. W. S17 in N. E. S20 in S. E. and S19 in S. W. quadrant; dig pits 18 x 18 x 12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. November 2: At this cor. I set off $14^{\circ} 39\frac{1}{2}'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 45\frac{1}{2}'$ N. Land, rolling. Soil, sandy loam, dry, medium texture; 1st. rate. No timber. Good Grass.</p>
<p>40.00 80.28 6.22 32.28 40.14 51.50 62.14 80.28</p>	<p>S. $89^{\circ} 42' E.$, on a random line, bet. secs. 17 and 20. Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line at the cor. of secs. 16, 17, 20 and 21, Thence I run, N. $89^{\circ} 42' W.$, on a true line bet. secs. 17 and 20. Gradual descent. Wash 20 lks. wide course N. W. Ascend. Enter oak brush. Top of round hill, descend. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S17 in N. and S20 in S. half; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Leave brush and over rolling land. Road bears N. and S. The cor. of secs. 17, 18, 19 and 20. Land, rolling and mountainous. Soil, 0 to 51.50 chs. rocky; 4th. rate. 51.50 to 80.28 chs. sandy loam, dry, medium texture; 1st. rate. No timber. Undergrowth, oak. Good grass.</p>
<p>10.75 40.00 78.47</p>	<p>West, on a true line, bet. secs. 18 and 19. Over gently rolling land. Road bears N. and S. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$ S18 in N. and S19 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor. Intersect G. & S. R. Meridian 216 lks. S. $0^{\circ} 01' W.$ of the cor. of secs. 13 and 24, reestab. by me as hereinbefore described. At point of intersection, Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 18 and 19, marked on brass cap 1914 on S. rim; CC W. of center; T16N in N. and S13 S24 R1W in W. half; S18 in N. E. and R1E S19 in S. E. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, N. and S. 3 ft., and E. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft.</p>

Chains.

high, E. of cor.
Land, rolling.
Soil, sandy loam, dry, medium texture; 1st. rate.
No timber.
Good grass.

November 2, 1914.

November 3, 1914: At 8h. 30m. a.m., l.m.t., I set off 34° 45½' N. on the lat. arc; 14° 54½' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

Thence I run
N. 0° 03' W. bet. secs. 17 and 18.
Over rolling land.

20.50 Wash 60 lks. wide course W.
36.42 Road bears N. W. and S. E.
40.00 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
1914 on S. rim;
¼ S18 in W. and
S17 in E. half; dig pits 18 x 18 x 12 ins. N. and S. of post 3 ft. dist., and raise a mound of earth 3½ ft. base 1½ ft. high, W. of cor.

42.23 Wash 15 lks. wide course S. W.
59.50 Wash 20 lks. wide course W.

61.00 Ascend.
75.50 Spur brs. W. & through scattering brush.
80.00 Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked on brass cap
1914 on S. rim;
T16NR1E in N. half;
S7 in N. W.
S8 in N. E.
S17 in S. E. and
S18 in S. W. quadrant; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.

Land, rolling and hilly.
Soil, rocky; 4th. rate.
No timber.
Undergrowth, oak.
Poor grass.

40.00 S. 89° 42' E. on a random line bet. secs. 8 and 17.
Set temp. ¼ sec. cor.
80.24 Intersect N. and S. line 5 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence I run
N. 89° 40' W. on a true line bet. secs. 8 and 17.
Over rolling land.

10.00 Ascend through scattering brush.
40.12 Ridge bears N. E. and S. W.
Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for ¼ sec. cor., marked on brass cap
1914 on S. rim;
¼ S8 in N. and
S17 in S. half; and raise a mound of stone 2 ft. base 1½ ft. high, N. of cor. Pits impracticable.

Descend.
Wash 8 lks. wide course N. E. ascend.
Ridge bears N. and S. descend, gradual W. slope.

72.00 Descent becomes steep.
80.24 The cor. of secs. 7, 8, 17 and 18.
Land, mountainous.
Soil, rocky; 4th. rate.
No timber.

16 Partial Subdivision of ~~Sec. 12~~ Tp. 16 N. Rg. 1 E.

Chains.	Undergrowth, oak. Fair grass.
6.00 6.72 16.00 32.44 32.78 40.00 41.13 59.72 59.91 64.23 78.36	<p>November 3: At the cor. of secs. 7, 8, 17 and 18, I set off $14^{\circ}58'$ S. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ}46\frac{1}{2}'$ N. Thence I run West, on a true line, bet. secs. 7 and 18. Descend through scattering brush. Leave brush and over rolling land. Wash bears N. E. course W. and along in same to Leave wash 20 lks. wide course N. W. Wire fence bears N. E. and S. W. Road bears N. and S. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$S7 in N. and S18 in S. half; dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high, N. of cor. Wire fence bears N. W. and S. E. Wire fence bears N. W. and S. E. Road bears N. W. and S. E. Road bears N. E. and S. W. Intersect G. & S. R. Meridian 276 lks. S. $0^{\circ}01'$ W. of the cor. of secs. 12 and 13, reestab. by me as hereinbefore described. At point of intersection, Set an iron post 3 ft. long, 2 ins. diam., 24 ins. in the ground for closing cor. of secs. 7 and 18, marked on brass cap, 1914 on S. rim; CC W. of center; T16N in N. and S12 S13 R1W in W. half; S7 in N. E. and S18 R1E in S. E. quadrant; dig pits 24 x 18 x 12 ins. crosswise on each line, N. and S. 3 ft. and E. of post 7 ft. dist., and raise a mound of earth 4 ft. base 2 ft. high, E. of cor. Land, mountainous, and rolling. Soil, E. 6.00 chs. rocky; 4th. rate. W. 72.36 chs. adobe and loam, mixed with gravel; 2nd. rate. No timber. Undergrowth, oak. Good grass.</p>
5.00 9.50 15.00 22.00 24.40 27.63 28.50 40.00 46.00 57.00	<p>N. $0^{\circ}03'$ W. bet. secs. 7 and 8. Descend N. W. slope through scattering oak brush. Wash 15 lks. wide course S. W. ascend. Ridge bears E. and W. descend. Wash 10 lks. wide course S. W. ascend. Ridge bears N. E. and S. W. and through heavy timber. Wire fence bears N. E. and S. W. Wire fence bears N. W. and S. E. Descend. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap 1914 on S. rim; $\frac{1}{4}$S7 in W. and S8 in E. half; from which A pinon 12 ins. diam., bears N. 36° W. 67 lks. dist., marked $\frac{1}{4}$S7BT. A pinon 10 ins. diam., bears N. $20\frac{1}{4}^{\circ}$ E. 70 lks. dist., marked $\frac{1}{4}$S8BT. Wash 10 lks. wide course N. E. ascend. Ridge bears E. and W. descend.</p>

Partial Subdivision of Township 16 North, Range 1 East. 17.

Chains	
72.00	Leave timber; foot of descent.
74.23	Road, brs.E.and W.
76.00	Ascend.
80.00	Set an iron post 3 ft.long, 2ins. in diam., 24 ins.in the ground for cor.of secs.5,6,7 and 8,marked on brass cap, 1914 on S.rim; T 16 N R 1 E in N.half; S 6 in NW., S 5 in NE., S 8 in SE., and S 7 in SW.quadrant; from which, A pinon, 10 ins.diam., brs.N.70 $\frac{3}{4}$ °W., 163 lks.dist., marked T 16 N R 1 E S 6 B T. A pinon, 8 ins.in diam., brs.N.24 $\frac{1}{4}$ °E., 266 lks.dist., marked T 16 N R 1 E S 5 B T. A pinon, 14 ins.in diam., brs.S.34 $\frac{1}{2}$ °E., 355 lks.dist., marked T 16 N R 1 E S 8 B T. A juniper 36 ins.in diam., brs.S.78 $\frac{3}{4}$ °W., 330 lks.dist. marked T 16 N R 1 E S 7 B T. Land, mountainous. Soil, rocky, 4th rate. Timber, cedar, pinon and juniper. Undergrowth, oak and cedar. Poor grass. November 3, 1914.

	November 4, 1914: At 8h.30m. a.m., 1.m.t., I set off 34°47 $\frac{1}{2}$ ' N.on the lat.arc; 15°13 $\frac{1}{2}$ ' S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.5,6,7 & 8. Thence I run, West, on a true line, bet. secs. 6 and 7. Ascend.
7.50	Ridge, brs. N.and S.; descend.
12.50	Draw, 200 lks.wide, course SE.; ascend.
22.00	Ridge, brs.N and S.; descend.
40.00	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, 1914 in S.rim; $\frac{1}{4}$ S 6 in N., and S 7 in S.half; and raise a mound of stone 2 base, 1 $\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
41.00	Over rolling land.
52.20	Road brs.NE. and SW.
57.72	Wash, 20 lks.wide, course SW.; ascend.
58.35	Shaft 100 lks.south.
63.00	Ridge, brs.N.and S.; descend.
74.77	Road brs.NW. and SE.
75.16	Road brs.N.and S.
78.29	Intersect G.and S.R.Meridian 3.27 chs.S.0°01'W.of the cor. of secs.1 and 12, reestablished by me as hereïnbefore described. At point of intersection, Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in the ground for closing cor. of sec. 6 and 7, marked on brass cap, 1914 in S.rim; C C W of center, T 16 N in N., and R 1 W S 1 S 12 in W.half; S 6 in NE., and S 7 R 1 E in SE.quadrant; dig pits 24x18x12 ins. crosswise on each line, N.and S.3 ft. and E.of post 7 ft.dist., and raise a mound of earth 4 ft.base, 2 ft. high, E.of cor. Land, mountainous and rolling. Soil, rocky, 4th rate. Timber, a few scattering cedars. Fair grass.

	Knowing from length of line bet. secs.6 and 7 that a closing cor. will be required I run, N.0°03'W. on a true line, bet. secs.5 and 6. Ascend scattering timber and brush.
5.00	Ridge, brs.E.and W.; descend.
10.00	Enter draw, course E.
16.00	Leave draw,; ascend.
38.00	Ridge, brs.E.and W.; descend.
40.00	Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in

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18. Partial Subdivision of Township 16 North, Range 1 East.

Chains.

the ground for $\frac{1}{4}$ sec.cor., marked on brass cap, 1914 on S.rim;
 $\frac{1}{4}$ S 6 in W., and
 $\frac{1}{4}$ S 5 in E.half; and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor. Pits impracticable.
 67.20 Enter flat.
 67.35 Road brs.E.and W.
 71.50 Ascend.
 75.00 Ridge, brs.E. and W.; descend.
 80.00 Draw, 200 lks.wide, course SE.
 83.77 Intersect 4th.Standard Parallel North, 205 lks.N. $89^{\circ}30'$ W. of the Standard cor.of secs.31 and 32, which is a stone firmly set in the ground,marked and witnessed as described by the Surveyor General. At point of intersection,
 Set an iron post 3 ft.long, 1 in. in diam.,24 ins. in the ground for closing cor.of secs.5 and 6, marked on brass cap,1914 in S.rim;
 C C S of center;
 T 17 N R 1 E S 31 S 32 in N.half;
 S 5 in SE., and
 S 6 in SW.quadrant; from which,
 A pinon,5 ins.in diam.,brs.S. $57\frac{1}{2}^{\circ}$ E.,118 lks.dist., marked C C T 16 N R 1 E S 5 B T.
 A pinon,6 ins.in diam.,brs.S. $79\frac{1}{2}^{\circ}$ W.,159 lks.dist., marked C C T 16 N R 1 E S 6 B T.
 The supply of 2 in.posts being exhausted a lin.post was used for this closing cor.
 Land, mountainous. Soil, rocky, 4th rate.
 Timber, cedar and pinon. Undergrowth,oak and cedar.
 Poor grass.

November 4, 1914.

Boundaries of Subdivided portion of T.16 N.,R.1 East.
 Latitudes, departures, and Closing Errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
S.bdy.of Tp.	N. $89^{\circ}51'$ W.	238.71	.62			238.71
W.bdy.of Tp. (G&SR.Mer.)	N. $0^{\circ}1'$ E.	483.54	483.54		.14	
N. bdy.of Tp., (4th.Std.Par.N)	S. $89^{\circ}30'$ E.	77.95		.68	77.95	
Subdivision- al Bdy.	S. $0^{\circ}03'$ E.	163.77		163.77	.14	
	S. $89^{\circ}40'$ E.	80.24		.47	80.24	
	S. $89^{\circ}45'$ E.	80.30		.35	80.30	
	S. $0^{\circ}2'$ E.	320.00		320.00	.18	
Convergency,					.19	
Totals.			484.16	485.27	239.14	238.71
				484.16	238.71	
Error in latitude,				1.11		
Error in departure,					0.43	

GENERAL DESCRIPTION.

The eastern and extreme northern part of this Tp. is mountainous, and the rest of the township is rolling prairie land. The soil in the mountains is rocky and worthless. The prairie soil is loam mixed with adobe and generally 2nd rate. There is no water in the township. There is a fair growth of timber in the northern part of the township, mainly cedars with some pinon. There are 2 settlers in sec.7, one in sec.17,and one in sec.21.The township is mainly valuable for grazing, there being a good growth of grass on the prairie land.

John P. Hesse
 U.S. Surveyor.

CERTIFICATE OF ASSISTANTS.

(Same applies to notes in Books C, D, E, F, G, H and I of this Group.)

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability,

John F. Hesse, U. S. Surveyor, during the periods and in the capacities

stated opposite our several signatures, in surveying all those parts or portions of the

subdivision lines of Group No. 37, Arizona, in the following townships:
T.16 N., R.1 E., T.15 N., R.5 W., T.14 N., R.6 W., T.13 N., R.7 W., T.14 N. R.7 W;
frac. T.14 1/2 N., R.6 W., and frac. T.14 1/2 N., R.7 W., and the bdrs. of Private
Tract No.37 in T.14 N., R. 4 W., and in Resurveying all those parts
or portions of the Subdivision lines, and the S., W. and N. bdrs.
of T. 14 N., R. 4 W., the Gila and Salt River Meridian, thru
T.16 N., and the 3rd. Standard Parallel North, thru Range 7
West,

of the Gila and Salt River Meridian, in the State of Arizona

which are represented in the foregoing field notes ^{and those in books C, D, E, F, G, H and I} as having been executed by him, and under his direction; and that said ~~surveys~~ ^{and resurveys} have been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	
<i>A. E. Johnson</i>	<i>Oct. 7, 1914</i>	<i>Nov. 18, 1914</i>	<i>comverman</i>
<i>F. G. Rogers</i>	<i>Oct. 3, 1914</i>	<i>Dec. 30, 1914</i>	<i>chairman</i>
<i>J. H. Simpson</i>	<i>Oct. 5, 1914</i>	<i>Jan. 25, 1915</i>	<i>chairman flagman axman</i>
<i>J. W. Major</i>	<i>Feb. 5, 1915</i>	<i>Feb. 11, 1915</i>	<i>axman</i>
<i>J. H. White</i>	<i>Nov. 12, 1914</i>	<i>Feb. 20, 1915</i>	<i>comverman</i>
<i>B. J. Kinsey</i>	<i>Nov. 11, 1914</i>	<i>Mar. 4, 1915</i>	<i>chairman</i>
<i>Everett D. White</i>	<i>Oct. 3, 1914</i>	<i>Mar. 10, 1915</i>	<i>flagman</i>
<i>L. A. Brown</i>	<i>Feb. 13, 1915</i>	<i>Apr. 27, 1915</i>	<i>axman chairman</i>
<i>P. R. Henderson</i>	<i>Apr. 28, 1915</i>	<i>May 19, 1915</i>	<i>chairman</i>
<i>H. N. McNeil</i>	<i>March 11, 1915</i>	<i>June 8, 1915</i>	<i>flagman</i>
<i>H. C. Bennett</i>	<i>March 1, 1915</i>	<i>June 26, 1915</i>	<i>comverman</i>
<i>E. N. Gurdz</i>	<i>May 27, 1915</i>	<i>July 17, 1915</i>	<i>chairman</i>
<i>Ralph Brown</i>	<i>March 11, 1915</i>	<i>July 17, 1915</i>	<i>axman flagman</i>
<i>Chas. Kiefer</i>	<i>June 15, 1915</i>	<i>July 17, 1915</i>	<i>axman comverman</i>
<i>W. Bryan</i>	<i>June 26, 1915</i>	<i>July 13, 1915</i>	<i>chairman axman</i>
<i>F. G. Rogers</i>	<i>Jan. 24, 1915</i>	<i>July 17, 1915</i>	<i>Chairman</i>

Subscribed and certified to before me on the dates of the final service as shown above.

John F. Hesse
 U. S. Surveyor.

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BOOK 2865

FINAL OATH OF UNITED STATES SURVEYOR.

(Same applies to notes in Books C, D, E, F, G, H and I of this Group)

I, John F. Hesse, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona, for Group 37, bearing date of the 26th day of September, 1914, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivision lines of Group No. 37, Arizona, in the following townships: T. 16 N., R. 1 E., T. 15 N., R. 5 W., T. 14 N., R. 6 W.; T. 13 N., R. 7 W., T. 14 N., R. 7 W.; frac. T. 14 1/2 N., R. 6 W., and frac. T. 14 1/2 N., R. 7 W., and the boundaries of Private Tract No 37 in T. 14 N., R. 4 W.; and resurveyed all those parts or portions of the Subdivisions, and S., W. and N. bdrs. of T. 14 N., R. 4 W. of the Gila and Salt River Meridian thru. T. 16 N., and the 3rd. Standard Parallel N. thru. R. 7 W. of the Gila and Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes and those in books C, D, E, F, G, H and I as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey and resurvey have been reestablished and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Arizona, for Group 37 and in the specific manner described in the field notes, and that the foregoing and notes in books C, D, E, F, G, H and I are the original field notes of such survey and resurvey.

John F. Hesse
U. S. Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 16th day of October, 1915



Frank D. Smith
SURVEYOR GENERAL OF ARIZONA

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, FEB 18, 1916

part of the
The foregoing field notes of the survey of Subdivision lines of
Township 16 North, Range 1 East,
of the Gila and Salt River Meridian, and Resurvey of said
Meridian, through Township 16 North, of the Gila and Salt River
Base Line in the State of Arizona,

executed by John F. Hesse, U. S. Surveyor,
under his special instructions dated September 26, 1914 for Group 37, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys and resurveys they describe, are hereby approved.

Frank D. Smith
Surveyor General.
of Arizona.

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.