

Book C

4-679.

Book C

1891

J. L. Jones 14

BOOK 1891

FIELD NOTES

OF THE SURVEY OF THE

Subdivisional lines of Township 16 South, Range 19 East

and Resurvey of

South, East and West Boundaries of T16S R19E

and Resurvey of

The Third Standard Parallel South

through Range 19 East.

1891

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 125, dated January 24th, 1905

Survey commenced April 7, 1905, 190

Survey completed May 2, 1905, 90

6A

BOOK 1891

NAMES AND DUTIES OF ASSISTANTS.

W. W. Oliver

Chairman.

B. M. Hyde

Chairman.

Juan Nunez

Moundman.

L. G. Smith

Flagman.

PRELIMINARY OATHS OF ASSISTANTS.

BOOK 1891

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WE, W. W. Oliver and B. M. Hyde

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 the subdivisional lines of Tp. 16 S. Rg. 19 E.

W. W. Oliver, Chainman.

B. M. Hyde, Chainman.

Subscribed and sworn to before me this 7th. day of April, 190 5



John F. Hesse

U. S. Deputy Surveyor

WE, Juan Nunez 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 the subdivisional lines of Tp. 16 S. Rg. 19 E.

Juan F. Nunez, Moundman

Moundman.

Subscribed and sworn to before me this 7th. day of April, 190 5



John F. Hesse

U. S. Deputy Surveyor.

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, L. G. Smith, 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 the subdivisional lines of Tp. 16 S. Rg. 19 E.

L. G. Smith, Flagman.

Subscribed and sworn to before me this 7th. day of April, 190 5



John F. Hesse

U.S. Deputy Surveyor.

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BOOK 1891

Book No 1891

INDEX DIAGRAM.

Township 16 South, Range 19 East

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Resurvey of the South Boundary of Tp. 16 S. Rg. 19 E.

Survey commenced April 7, 1905, and executed with a Young and Sons light mountain transit, No. 7532, 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 examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona.

I examine the adjustments of the transit, and find them correct, 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 the cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E., latitude $31^{\circ} 59' 04''$ N., longitude $110^{\circ} 20' 53''$ W., at 6h. 18. 72 m. p. 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. April 7, 1905

April 8: At 7 h. 30 m. a. m. l. m. t., I lay off the azimuth of Polaris, $1^{\circ} 25'$ to the East, and mark the meridian thus determined, by cutting a small groove in a stone firmly set in the ground 5 chs. N. of my station.

At 8 h. 00 m. a. m. l. m. t., I set off $31^{\circ} 59'$ N. on the lat. arc; $7^{\circ} 07 \frac{1}{2}'$ N. on the dec'l. 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 coincides with the meridian determined by the Polaris observation.

The magnetic bearing of the true meridian, at 8 h. 30 m. a. m., is $N. 12^{\circ} 45' W.$; the angle thus determined gives the mag. dec'l. $12^{\circ} 45' E.$

At 3h. 00. p. m. l. m. t., I set off $31^{\circ} 59'$ N. on the lat. arc; $7^{\circ} 14'$ N. on the dec'l. 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 coincides with the meridian determined by the Polaris observation.

The solar apparatus, by p. m. and a. m. observations defines positions for meridians which coincide with the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

April 8, 1905.

April 9, 1905; The cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E. is a stake nearly obliterated, and witnessed by one bearing tree, the others having been destroyed, therefore I re-establish this cor. as follows: set a limestone $18 \times 14 \times 6$ ins., 12 ins. in the ground for cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E., marked with 6 notches on each edge; from which

A mesquite 4 ins. diam. bears N. $67 \frac{1}{2}^{\circ} E.$ 199 lks. dist. marked T16SR20ES31BT.

A mesquite 4 ins. diam. bears S. $17 \frac{1}{2}^{\circ} E.$ 86 lks. dist. marked T16SR20ES6BT.

A mesquite 6 ins. diam. bears S. $41 \frac{1}{2}^{\circ} W.$ 135 lks. dist. marked T17SR19ES1BT.

A mesquite 4 ins. diam. bears N. $26^{\circ} W.$ 184 lks. dist. marked T16SR19ES36BT.

As these bearing trees are not very large I also dig pits $24 \times 24 \times 12$ ins., on each line, N., E., and W., 4 ft. and S. of stone 8 ft. dist.; and raise a mound of earth 5 ft. base, $2 \frac{1}{2}$ ft. high, S. of cor.

At this cor. I set off $31^{\circ} 59'$ N. on the lat. arc; $7^{\circ} 50'$ N. on the decl. arc; and at 7h. 00m. a. m. l. m. t. determine a meridian with the solar; preliminary to

Resurvey of the south boundary of Tp. 16 S. Rg. 19 E.

Chains

commencing the subdivision of Tp. 16 S. Rg. 19 E., I run west on a blank line, on the south boundary of sec. 36; at 40.02 I find a trace of the $\frac{1}{4}$ sec. cor. and at 80.01 a trace of the cor. of secs. 1, 2, 35, and 36; therefore I continue my line west, and find all of the cors. nearly obliterated. At 5 miles 78.60 chs., intersect west boundary of township 34 lks. S. of the cor. of Tps. 16 and 17 S. Rgs. 18 and 19 E.

April 9, 1905.

April 10; At 7h. 00m. a.m. l.m.t., I set off $31^{\circ} 59' N.$ on the lat. arc; $7^{\circ} 52' N.$ on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E.

Thence I run

West bet. secs. 1 and 36.

Over rolling land through dense mesquite brush.

- 2.00 Cross wire fence bears N. $79^{\circ} 15' W.$ and S. $79^{\circ} 15' E.$
- 6.75 Cross telegraph line bears N. $79^{\circ} 15' W.$ and S. $79^{\circ} 15' E.$
- 10.40 Cross S. P. R. R. bears N. $79^{\circ} 15' W.$ and S. $79^{\circ} 15' E.$
- 14.00 Cross telegraph line bears N. $79^{\circ} 15' W.$ and S. $79^{\circ} 15' E.$
- 16.00 Cross wire fence bears N. $79^{\circ} 15' W.$ and S. $79^{\circ} 15' E.$
- 37.75 Cross wash 25 lks. wide, course N. E.
- 40.02 I find a trace of the $\frac{1}{4}$ sec. cor. and set, in the same place, a quartz stone $18 \times 6 \times 5$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; from which

A mesquite 4 ins. diam. bears N. $37 \frac{3}{4}^{\circ} E.$ 98 lks.

dist. marked $\frac{1}{4} S 3 6 B T$

A mesquite 6 ins. diam. bears S. $1 \frac{1}{2}^{\circ} E.$ 121 lks.

dist. marked $\frac{1}{4} S 1 B T.$

- 80.02 A point 12 lks. S. of a trace of the cor. of secs. 1, 2, 35 and 36. I destroy all traces of the old cor. and in the same place set a granite stone $18 \times 10 \times 10$ ins. 12 ins. in the ground for cor. of secs. 1, 2, 35, and 36 marked with 5 notches on W. and 1 notch on east edges; from which

A mesquite 8 ins. diam. bears N. $82 \frac{3}{4}^{\circ} E.$ 213 lks.

dist. marked T16SR19ES36BT.

A mesquite 4 ins. diam. bears S. $35^{\circ} E.$ 114 lks. dist.

marked T17SR19ES1BT.

A mesquite 4 ins. diam. bears S. $84 \frac{1}{4}^{\circ} W.$ 326 lks.

dist. marked T17SR19ES2BT.

A mesquite 4 ins. diam. bears N. $5^{\circ} W.$ 146 lks. dist.

marked T16SR19ES35BT.

The course of this half mile is N. $89^{\circ} 50' W.$ and the distance 39.99 chs.

Land, rolling.

Soil, gravelly; 2nd. rate.

No timber.

Undergrowth, mesquite.

Land covered with dense undergrowth 80. 01 chains.

West bet. secs. 2 and 35.

Over rolling land through dense mesquite brush.

- 17.60 Cross wash 25 lks. wide course N.
- 40.02 A point 12 lks. S. of a trace of the $\frac{1}{4}$ sec. cor. I destroy all traces of the cor. and set, in the same place, a granite $18 \times 8 \times 6$ ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits $18 \times 18 \times 12$ ins. E. and W. of stone, 3 ft. dist. and raise a mound of earth $3 \frac{1}{2}$ ft. base $1 \frac{1}{2}$ ft. high, N. of cor.

The course of this half mile is N. $89^{\circ} 50' W.$ and the distance 40.02 chains.

Thence West from $\frac{1}{4}$ sec. cor.

- 7.00 Cross wash 30 lks. wide course N.
- 12.70 Cross wash 30 lks. wide course N.
- 23. 25 Cross wash 30 lks. wide course N: E.
- 40.00 A point 10 lks. S. of a trace of the cor. of secs. 2, 3, 34, and 35. I destroy all traces of the old cor. and in the same place, set a granite stone $18 \times 8 \times 6$ ins. 12

Resurvey of the South Boundary of Tp. 16 S. Rg. 19 E.

31

chains.

ins. in the ground for cor. of secs. 2, 3, 34, and 35 marked with 4 notches on W. and 2 notches on E. edges; from which.

A mesquite 6 ins. diam. bears S. 54 1/2° E. 401 lks. dist marked ~~115SR19ES2BT~~.

No other trees available. Dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

The course of this half mile is N. 89° 51' W. and the distance is 40.00 chains.

Land, ~~nearly level~~, rolling.

Soil, loamy; 1st. rate,

No timber.

Undergrowth, mesquite.

Land covered with dense undergrowth 80.02 chains.

West bet. secs. 3 and 34, ascending over rolling foothills.

22.00
40.00

Cross wash, 100 lks. wide, course N.

Find a trace of 1/4 sec. cor. and, in the same place, set a granite stone 16 x 8 x 5 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

51.50
80.03

Cross wash 50 lks. wide course N.

Find a trace of the cor. of secs. 3, 4, 33, and 34, and destroy all traces of the old cor. and, in the same place, set a granite 18 x 6 x 6 ins. 12 ins. in the ground, for cor. of secs. 3, 4, 33, and 34, marked with 3 notches on E. and W. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

Land, mountainous.

Soil, rocky and sandy; 2nd. and 4th. rate.

No timber.

Mountainous land 80.03 chains.

West bet. secs. 4 and 33.

21.00
24.85
31.50
40.00

Ascending over rolling foothills.

Cross wash 75 lks. wide course N.

Cross wire fence bears N. E. and S. W.

Cross S.P.R.R. course N. 89° E. and S. 89° W.

I find a trace of the 1/4 sec. cor. I destroy all traces of the old cor. and, in the same place, set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, N. of cor.

73.50
80.00

Cross telegraph line, N. 89° E. and S. 89° W.

I find a trace of the cor. of secs. 4, 5, 32 and 33.

I destroy all traces of the old cor. and, in the same place, set granite 16 x 8 x 5 ins. 11 ins. in the ground for cor. of secs. 4, 5, 32, and 33 marked with 4 notches on E. and 2 notches on W. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist; and raise a mound of earth 4 ft. base 2 ft. high W. of cor.

Land mountainous.

Soil, sandy, 2nd. rate.

No timber.

Mountainous land 80.00 chains.

*replaced by
7/8" iron pin
4/19/51
S.P.R.R.
Cmpt.*

West bet. secs. 5 and 32.

0.75
0.75
1.15
1.65
2.25
17.40

Ascending over rolling foothills.

Cross telegraph line bears S. 89° E. and N. 89° W.

Cross wire fence, bears N.E. and S.W.

Cross gully N. E. and S. W. 30 lks. wide.

Cross wire fence N. W. and S. E.

Cross S. P. R. R. bears N. W. and S. E.

Resurvey of the South Boundary of Tp. 16 S. Rg. 19 E.

Chains

29.50 Cross S. P. R. R. bears N. E. and S. W.
 31.00 Cross telegraph line bears N. E. and S. W.
 38.75 Cross wire fence bears N. E. and S. W.
 40.04 I find a trace of the $\frac{1}{4}$ sec. cor. I destroy all traces of the cor. and, in the same place, set a granite 18x7 x 5 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and dig pits 18 x 18 x 12 ins. E. and W. of stone, 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.

41.90 Cross fence bears N. and S.
 43.25 Cross fence bears N. E. and S. W.
 80.07 I find a trace of the cor. of secs. 5, 6, 31, and 32. I destroy all traces of the old cor. and, in the same place, set a granite stone 18 x 12 x 6 ins. 12 ins in the ground, for cor. of secs. 5, 6, 31, and 32, marked with 5 notches on E. and 1 notch on W. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
 Land, mountainous.
 Soil, sandy, 2nd. rate.
 No timber.
 Mountainous land 80.07 chains.

West bet. secs. 6 and 31.
~~Ascending~~ over rolling foothills.

58.50 Cross road bears N. and S.
 40.00 I find a trace of the $\frac{1}{4}$ sec. cor. I destroy all traces of the old cor. and, in the same place set a granite 18 x 8 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone; 3 ft. dist; and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

78.60 A point 5 lks. south of a trace of the cor. of Tps. 16 and 17 S. Rgs. 18 and 19 E. I destroy all traces of the old cor. and, in the same place, set a flint stone 16 x 6 x 6 ins., 11 ins. in the ground for cor. of Tps. 16 and 17 S. Rgs. 18 and 19 E. marked with 6 notches on each edge; dig pits 24 x 24 x 12 ins. on each line N. E., and W., 4 ft. and S. of stone 3 ft. dist.; and raise a mound of earth 5 ft. base, 2 1/2 ft. high, S. of cor.
 The course of the half mile is N. 89° 56' W. and the distance is 58.60 chains.
 Land, rolling foothills.
 Soil sandy, 2nd. rate.
 No timber.
 Mountainous land, 40.00 chains.

April 10, 1905.

Resurvey of the West Boundary of Tp. 16 S. Rg. 19 E.

Chains.

April 11: At 7h. 00m. a. m. l.m.t. I set off 31° 59' N. on the lat. arc; 8° 14' N. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 16 and 17 S. Rgs. 18 and 19 E.

Thence I run North bet. secs. 31 and 36 Over rolling land.

40.06

A point 3 lks. W. of a trace of the 1/4 sec. cor. I destroy all traces of the cor. and, in the same place, set a granite stone 16 x 8 x 4 ins. 11 ins. in the ground, for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, W. of cor. The course of this half mile is N. 0° 3' E. and the distance 40.06 chains.

Thence I continue my line North.

80.08

A point 7 lks. W. of a trace of the cor. of secs. 25, 30, 31, and 36. I destroy all traces of the old cor. and, in the same place, set a granite 18 x 6 x 4 ins. 12 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked with 1 notch on S. and 5 notches on N. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

The course of this half mile is N. 0° 3' E. and the distance is 40.08 chains.

Land rolling. Soil, loamy 1st. rate. No timber.

North bet. secs. 25 and 30. Over rolling land.

40.03.

A point 2 lks. west of the 1/4 sec. cor. I find a trace of the 1/4 sec. cor. and destroy it and, in the same place set a granite 18 x 7 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, W. of cor.

The course of this half mile is N. 0° 02' E. and the distance 40.03 chains.

Thence I continue my line N.

80.03

A point 7 lks. W. of a trace of the cor. of secs. 19, 24, 25 and 30. I destroy all traces of the old cor. and, in the same place, set a Quartz stone 18 x 6 x 5 ins. 12 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked with 2 notches on S. and 4 notches on N. edges; and dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

The course of this half mile is N. 0° 04' E. and the distance 40.00 chains.

Land, rolling. Soil, sandy; 2nd. rate. No timber.

North bet. secs. 19 and 24. Over rolling land.

39.96

A point 1 lk. W. of a trace of the 1/4 sec. cor. I destroy all traces of the old cor. and, in the same place set a quartz 20 x 6 x 6 ins. 15 ins in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone, 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

The course of this half mile is N. 0° 01' E. and the distance 39.96 chains.

Thence I continue my line N.

Land rolling foot hills.

Resurvey of the West Boundary of Tp. 16 S. Rg. 19 E.

chains.
59.90
80.01

~~Cross~~ road, bears E. and W.
A point 3 lks. W. of a trace of the cor. of secs. 15, 18, 19, and 24. I destroy all traces of the old cor. and, in the same place, set a granite 18 x 7 x 4 ins. 12 ins. in the ground, for cor. of secs. 15, 18, 19, and 24; marked with 3 notches on S. and N. edges; dig pits 18 x 18 x 12 ins. in each sec., 5 1/2 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.
The course of this half mile is N. 0° 03' ^E, and the distance 40.05 chains.
Land, rolling.
Soil, sandy; 2nd. rate
No timber.

13.50
34.50
35.12

North bet. secs. 13 and 18.
Over rolling mountainous land.
Cross wash 35 lks. wide course N. E.
Cross wash 30 lks. wide course S. E.
A point 7 lks. W. of $\frac{1}{4}$ sec. cor. a granite stone, with marks nearly obliterated, lying on top of ground. I re-mark a granite stone 20 x 8 x 6 ins. with $\frac{1}{4}$ on W. face; and set the stone 15 ins. in the ground for $\frac{1}{4}$ sec. cor.; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, W. of cor. ⁰⁶
The course of this half mile is N. 0° 05' ^E, and the distance is 35.12, chains.
Thence I continue my line North.

54.00
58.75
66.50
74.60

Cross wash 20 lks. wide course S. E.
Cross wash 10 lks. wide course S. E.
Cross wash 15 lks. wide course S. E.
A point 15 lks. west of the cor. of secs. 7, 12, 13, and 18, a granite stone set loosely in the ground, with marks still discernible, and the remains of a mound of stone N. of the stone. I destroy the old cor. and in the same place, set a granite 20 x 6 x 6 ins. 18 ins. in the ground, for cor. of secs. 7, 12, 13, and 18; marked with 4 notches on S. and 2 notches on N. edges; and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.
The course of this half mile is N. 0° 06' ^E, and the distance 39.48 chains. ⁰⁷
Land mountainous.
Soil rocky; 4th. rate.
No timber.

Mountainous land, 74.60 chains.
At this cor. I set off 8° 17 1/2' N. on the dec'l. arc; and observe the sun on the meridian at noon; the resulting latitude is 32° 2 1/3' N.

1.90
12.65
32.90
39.56

North bet. secs. 7 and 12.
Ascending over rough mountainous land.
Cross wash 8 lks. wide course S. E.
Cross wash 20 lks. wide course S. E.
Cross wash 15 lks. wide course S. W.
A point 2 lks. E. of $\frac{1}{4}$ sec. cor. a granite stone with marks nearly obliterated and the remains of a mound of stone N. of the cor. I destroy the old cor. and, in the same place, set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Pits impracticable.
The course of this half mile is N. 0° 02' ^W, and the distance 39.56 chains.
Thence I continue my line North.

58.40
79.11

Cross wash 15 lks. wide course S. E.
A point 8 lks. W. of the cor. of secs. 1, 6, 7, and 12, a granite stone with marks still legible sitting on top of ground and the remains of a mound of stone N.

Resurvey of the West Boundary of Tp. 16 S. Rg. 19 E.

chains.

of the cor. I destroy all traces of the old cor. and, in the same place set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 1, 8, 7, and 12; marked with 5 notches on S. and 1 notch on N. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.

The course of this half mile is N. 0° 09' E. and the distance 39.55 chains.

Land, mountainous.

Soil, rocky; 4th. rate,

No timber.

Mountainous land, 78.11 chains.

North bet. secs 1 and 6.

3.29

Top of mountain bears N. E. and S. W. and descend rough N. E. slope of mountain.

33.54

Cross wash 20 lks. wide course N. E.

50.66

A point 8 lks. W. of 1/4 sec. cor. a post with marks almost obliterated, lying on a mound of stone. I destroy the old cor. and set, in the same place, a granite stone 24 x 8 x 6 ins. 18 ins in the ground, for 1/4 sec. cor. marked 1/4 on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable. From which

An oak 8 ins. diam. bears S. 37 1/2° W. 108 lks. dist. marked 1/4 S 1 B T *no other trees within limits*

The course of this line is N. 0° 07' E. and the distance 38.66 chains.

Thence I run North from the 1/4 sec. cor.

0.63 lks

Cross wash 15 lks. wide course N. E.

12.78

Cross wash 10 lks. wide course N. E.

32.63

Cross Picheco Creek, running stream, 50 lks. wide, course S. E.

47.83

Intersect 3rd. Standard Parallel South, 7.66 chains W. of the Standard Cor. of Tps. 15 S. Rgs. 18 and 19 E. and set a granite stone 26 x 8 x 6 ins. 21 ins. in the ground for closing cor. of Tps. 16 S. Rgs. 18 and 19 E., marked with 6 grooves on S. E. and W. faces; and C.C. on the S. face; and raise a mound of stone 2 ft. base, 1 1/2 ft. high, S. of cor. Pits impracticable. The course of this mile is North and the distance is 47.83 chains. *DILIGENT SEARCH DID NOT REVEAL BLD. CLOSING COR.*

~~Land~~ mountainous.

Soil, rocky; 4th. rate.

No timber.

Mountainous land 86.49 chains.

April 11, 1905.

Resurvey of the East Boundary of Tp. 16 S. Rg. 19 E.

8

Chains.

April 12; At 7h. 00' a.m. l.m.t. I set off $31^{\circ} 59' N.$ on the lat. arc; $8^{\circ} 36' N.$ on the dec'l. arc; and determine a meridian with the solar at the cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E. This line coincides with the meridian established April 8, by the Polaris observation from this cor.

From this cor. I now run North bet. secs. 31 and 36.

36.00
39.90

Over rolling land through dense mesquite brush. Cross wash 20 lks. wide course N. E. A point 32 lks. east of the $\frac{1}{4}$ sec. cor. nearly obliterated. I destroy all traces of the old cor. and, in the same place, set a granite stone 18 x 7 x 4 ins. 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which

A mesquite 8 ins. diam. bears $S.70 1/2^{\circ} W.$ 151 lks. dist. marked $\frac{1}{4} S 3 6 B T.$

No other tree available. Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth $3 1/2$ ft. base, 1 $1/2$ ft. high, W. of cor. The course of this half mile is $N. 0^{\circ} 28' W.$ and the distance 39.90 chains:

Thence I continue my line North.

45.75
79.90

Cross wash 25 lks. wide course N. E. A point 8 lks. east of a trace of the cor. of secs. 25, 30, 31, and 36. I destroy all traces of the old cor. and, in the same place, set a granite 18 x 7 x 4 ins. 12 ins. in the ground for cor. of secs. 25, 30, 31 and 36, marked with 1 notch on S. and 5 notches on N. edges; dig pits 18 x 18 x 12 ins. in each sec. $5 1/2$ ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

The course of this half mile is $N. 0^{\circ} 21' E.$ and the distance 40.00 chains.

Land, rolling.

Soil, sandy; 2nd. rate.

No timber.

Undergrowth, mesquite and greasewood.

Land covered with dense undergrowth, 79.90 chains.

North bet. secs. 25 and 30.

Over rolling land through dense brush.

Over broken land.

21.00

Cross wash 20 lks. wide course N. E.

22.00

Cross wash, 30 lks. wide, course N.

24.00

Cross dry creek 100 lks. wide course N. E.

27.50

A point 64 lks. east of a trace of the $\frac{1}{4}$ sec. cor. I destroy all traces of the old cor. and, in the same place, set a lime stone 20 x 8 x 4 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth $3 1/2$ ft. base 1 $1/2$ ft. high, W. of cor.

40.02

The course of this half mile is $N. 0^{\circ} 55' W.$ and the distance is 40.02.

Thence I continue my line North.

55.50

Cross dry creek 60 lks. wide, course E.

79.98

A point 22 lks. east of a trace of the cor. of secs. 19, 24, 25 and 30. I destroy all traces of the old cor. and, in the same place, set a lime stone 20 x 6 x 4 ins. 15 ins. in the ground for cor. of secs. 19, 24, 25, and 30, marked with 2 notches on S. and 4 notches on N. edges; dig pits 18 x 18 x 12 ins. in each sec. $5 1/2$ ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.

The course of this half mile is $N. 0^{\circ} 36' E.$ and the distance is 39.94 chains.

Land, rolling and broken.

Soil, sandy; 2nd. rate.

No timber.

Resurvey of the East Boundary of Tp. 16 S. Rg. 19 E.

Chains.

Undergrowth, mesquite and greasewood. Mountainous land and land covered with dense undergrowth 79.96 chains. April 12; at this cor. I set off 8° 39 1/2' N. on the decl. arc; and observe the sun on the meridian at noon the resulting latitude is 32° 01' N.

39.92 North bet. secs. 19 and 24. Over broken land through heavy brush. A point 90 lks. E. of a trace of the 1/4 sec. cor. I destroy all traces of the old cor. and, in the same place, set a lime stone 18 x 9 x 3 ins. 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on W. face; from which

A mesquite 9 ins. diam. bears west 126 lks. dist. marked 1/4 S 2 4 B T.

No other tree available. Dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor. The course of this half mile is N. 1° 10' W. and the distance is 80.92 chains.

Thence I continue my line North

44.50 Cross dry creek 40 lks. wide course E.

48.50 Cross dry creek 25 lks. wide course S. E.

80.01 A point 68 lks. east of a trace of the cor. of secs. 13, 18, 19, and 24. I destroy all traces of the old cor. and, in the same place, set a lime 18 x 7 x 4 ins. 12 ins. in the ground for cor. of secs. 13, 18, 19, and 24, marked with 3 notches on N. and S. edges; dig pits 18 x 18 x 12 ins. in each sec.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. The course of this half mile is N. 0° 19' E. and the distance is 40.09 chains.

Land, mountainous.

Soil, sandy; 2nd. rate.

No timber.

Undergrowth, greasewood and mesquite.

Mountainous land and land covered with dense undergrowth; 80.01 chains.

At the cor. of Tps. 16 and 17 S. Rgs. 19 and 20 E. I set off 31° 59' N. on the lat. arc; 8° 45' N. on the decl. arc; and at 5h. 00' p.m. l. m. t., determine a meridian with the solar, which coincides with the meridian established April 8 th. by the Polaris observation.

April 12, 1905.

April 13: At 7h. 00m. a.m. l.m.t. I set off 32° 02' N. on the lat. arc; 8° 58' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

Thence I run

North bet. secs. 13 and 18.

Over rolling land through dense mesquite and greasewood brush.

40.01 A point 65 lks. E. of a trace of the 1/4 sec. cor. I destroy all traces of the old cor. and, in the same place, set a lime stone 18 x 14 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which

A mesquite 8 ins. diam. bears N. 58° 15' W. 99 lks. dist. marked 1/4 S 1 3 B T.

No other tree available. Raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable. The course of this half mile is N. 0° 56' W. and the distance is 40.01.

Thence I continue my line North over broken land.

44.40 Cross wash 15 lks. wide course N. E.

48.00 Cross wash 10 lks. wide course N. E.

51.35 Cross wash 15 lks. wide course N. E.

57.00 Cross dry creek 45 lks. wide course N. E.

60.00 Cross dry creek 60 lks. wide course N. E.

Resurvey of the East Boundary of Tp. 16 S. Rg. 19 E.

Chains.

67.30
71.00
78.00
80.02

Cross wash 15 lks. wide course N. E.
Cross wash 10 lks. wide course N. E.
Over level land through dense brush.
A point 3 lks. E. of a trace of the cor. of secs. 7, 12, 13, and 18. I destroy all traces of the old cor. and, in the same place, set a lime stone 20 x 6 x 4 ins. 15 ins. in the ground for cor. of secs. 7, 12, 13, and 18; marked with 4 notches on S. and 2 notches on N. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.
The course of this half mile is N. 0° 53' E. and the distance is 40.01 chains.
Land, level rolling and broken.
Soil, sandy; 2nd. and 4th. rate.
No timber.
Undergrowth, greasewood and mesquite.
Mountainous land or land covered with dense undergrowth 80.02 chains.

North bet. secs. 7 and 12

18.35
19.80
39.80

Over level land through dense mesquite brush.
Cross road bears E. and W.
Cross fence bears E. and W.
A point 26 lks. E. of a trace of the 1/4 sec. cor. I destroy all traces of the old cor. and, in the same place, set a granite 18 x 10 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

The course of this half mile is N. 0° 22' W. and the distance is 39.80 chains.

Thence I continue my line North.

59.60
60.35
62.00
79.34

Cross fence bears E. and W.

Cross road bears S. E. and N. W.

Along W. slope of hills, *ascending*

A point 66 lks. E. of a trace of the cor. of secs. 1, 6, 7, and 12. I destroy all traces of the old cor. and, in the same place, set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for cor. of secs. 6 and 7, marked with 5 notches on S. and 1 notch on N. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.

The course of this half mile is N. 0° ³⁴ 25' W. and the distance is 39.54 chains.

Land, level and hilly.

Soil, sandy; 1st. rate.

No timber.

Undergrowth, mesquite.

Mountainous land and land covered with dense undergrowth 79.34 chains.

April 13: At this cor I set off 9° 01 1/2' N. on the decl. arc; and observe the sun on the meridian at noon the resulting latitude is 32° 03 1/2' N. ✓

North bet. secs. 1 and 6.

17.90
19.00
27.00

Along W. slope of hills, through dense brush. *descending*

Cross road bears N. E. and S. W. and over level land.

Cross road bears N. E. and S. W.

Cross Picheco Creek, dry, at forks, course E., one branch bears N. W. and the other S. W.

35.75
40.00

Cross fence bears E. and W.

A trace of the 1/4 sec. cor. I destroy all traces of the old cor. and set a granite 18 x 8 x 6 ins. 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.

Resurvey of the East boundary of Tp. 16 S. Rg. 19 E.

Chains
70.00
80.22
80.24

Ruins of adobe house bear E. 2.50 chains dist.
 Cross fence bears E. and W. ^{South}
 Intersect 3rd. Standard Parallel, 14.52 chains W. of
 the Standard Cor. of Tps. 15 N. Rgs. 19 and 20 E.
 and set a granite stone 18 x 8 x 6 ins. 12 ins. in
 the ground for. closing cor. of Tps. 16 S. Rgs. 19 and
 20 E., marked CCon S.; with 6 grooves on S., E., and W.
 faces; dig pits 30 x 24 x 12 ins. crosswise on each
 line, E., and W., 4 ft. and S. of stone, 8 ft. dist.;;
 and raise a mound of earth 5 ft. base, 2 1/2 ft. high,
 S. of cor. *DILIGENT SEARCH DID NOT REVEAL OLD CLOSING COR.*
 Land, level and mountainous.
 Soil, sandy; 1st. rate.
 No timber.
 Undergrowth, mesquite.
 Mountainous land or land covered with dense undergrowth
 80.24 chains.

April 13, 1905.

Resurvey of the Third Standard Parallel S. Through R. 19 E.

Chains.

12

The Standard Cor. of Tps. 15 S. Rgs. 19 and 20 E. is a post 10 ins. above ground, 4 ins. sq. with the marks almost illegible. I re-establish this cor. as follows Set a granite stone, in the same place, 18 x 12 x 6 ins. 12 ins. in the ground, for standard cor. of Tps. 15 S. Rgs. 19 and 20 E., marked S.C on N.; with 6 grooves on N., E., and W. faces; from which
 A mesquite 6 ins. diam. bears N. 43 1/4° E. 95 lks. dist., marked SCT15SR20ES31BT.
 A mesquite 6 ins. diam. bears N. 78° 10' W. 174 lks. dist., marked SCT15SR19ES36BT.

I destroy the old cor.
 April 14: At this cor. I set off 32° 04' N. on the lat. arc; 9° 19 1/2' N. on the decl. arc; and determine a meridian with the solar,
 Thence I run West on a blank line and find that no part of the Standard is in alinement, and many of the cors. are gone.
 At 6 miles ~~6.5~~ chains I find the remains of the Standard cor. of Tps. 15 S. Rgs. 18 and 19 E. 13 lks. North.
 As the Township north of this line has not been subdivided I re-establish this line upon a right line connecting the two standard township cors.
 The falling answers to a correction of 0° 01' S. per mile counting from the N. W. cor. of the township therefore I run S. 89° 59' E.

April 14, 1905.

April 15: At 7h. 00m. a.m. l.m.t. I set off 32° 04' N. on the lat. arc; 9° 41' N. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 15 S. Rgs. 18 and 19 E., which I re-establish in the same place as follows: Set a granite stone 20x 12 x 6 ins. 12 ins. in the ground for standard cor. of Tps. 15 S. Rgs. 18 and 19 E. marked S C on N.; with 6 grooves on N., E., and W. faces; and raise a mound of stone 3 ft. base 2 ft. high N. of cor. pits impracticable. I destroy all traces of the old cor.

Thence I run
 S. 89° 59' E. on S. bdy. sec. 31.
 Ascend rough W. slope of mountain.
 Top of ridge, bears N. and S. and descend.
 Cross creek, 5 lks. wide course S. and ascend *S. south slopes*
 Difference between measurements of ~~46.95~~ chains, by two sets of chainmen is 20 lks; position of middle point

10.45
16.80

By 1st. set ~~47.95~~ chs.
 By 2nd. set ~~46.85~~ chs.; the mean of which is
 Set a granite stone 24 x 10 x 6 ins. 18 ins. in the ground for standard ^{1/4} sec. cor., marked S C ^{1/4} on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.
 Cross wash 10 lks. wide, course S. *along south slopes*
 Difference between measurements of ~~66.95~~ chains, by two sets of chainmen is 18 lks; position of middle point

43.45
46.95

65.70

By 1st. set ~~83.54~~ chs.
 By 2nd. set ~~82.86~~ chs.; the mean of which is
 Set a granite stone 26 x 12 x 5 ins. 21 ins. in the ground for standard cor. of secs. 31 and 32 marked S C on N.; with 5 grooves E. and 1 groove on W. faces; and raise a mound of stone 2 ft base 1 1/2 ft high, N. of cor. Pits impracticable.

83.45
86.95

In running this line I destroy all traces of the old ^{1/4} sec. cor. and sec. cor.
 Land, mountainous,
 Soil, rocky; 4th. rate.
 No timber.
 Mountainous land ~~86.95~~ chains.

chains.

- S. 89° 59' E. on S. bdy. sec. 32.
Along S. slope of rough mountains, ascending.
Difference between measurements of 40.00 chs., by two sets of chainmen is 12 lks; position of middle point
By 1st. set 40.06 chs.
By 2nd. set 39.94 chs.; the mean of which is
- 40.00 The point for cor. falls on a granite rock in place 6 x 5 x 3 ft. above ground. I mark a cross x for exact point for standard $\frac{1}{4}$ sec. cor. and S C $\frac{1}{4}$ N. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
I destroy the old $\frac{1}{4}$ sec. cor.
- 45.00 Top of ridge bears N. and S. and along S slope, descending.
- 68.00 Top of saddle, bears N. W. and S. E. and descend along N. slope.
Difference between measurements of 80.00 chs., by two sets of chainmen is 16 lks; position of middle point
By 1st. set 80.08 chs.
By 2nd. set 79.92 chs.; the mean of which is
- 80.00 The point for cor. falls on a granite rock in place 8 x 4 x 3 ft. above ground. I mark a cross x for exact point for standard cor. of secs. 32 and 33, and S C N. of cross; with 4 grooves E. and 2 grooves W. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.
I destroy the old cor.
Land, mountainous.
Soil, rocky; 4th. rate.
No timber.
Mountainous land, 80.00 chains.
April 15; At this cor. I ste of 9° 45 1/2' N. on the decl. arc; and observe the sun on the meridian at noon the resulting latitude is 32° 04' N. ✓
-
- S. 89° 59' E. on S. bdy. sec. 33.
Descending over rough N.E. slope of mountain.
Difference between measurements of 40.00 chains by two sets of chainmen is 16 lks.; position of middle point
By 1st. set 40.08 chs.
By 2nd. set 39.92 chs.; the mean of which is
- 40.00 The point for cor. falls on a granite rock in place 3 x 2 x 1 1/2 ft. above ground. I mark a cross x for exact point for standard $\frac{1}{4}$ sec. cor. and S C $\frac{1}{4}$ N. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.
I destroy the old cor.
- 64.75 Cross wash 30 lks. wide course S. E. and over broken land.
- 72.00 Cross same wash 30 lks wide course N. E.
Difference between measurements of 80.00 chains by two sets of chainmen is 12 lks.; position of middle point
By 1st. set 80.06 chs.
By 2nd. set 79.94 chs.; the mean of which is
- 80.00 Set a granite stone 20 x 10 x 4 ins. 15 ins. in the ground for standard cor. of secs. 33 and 34 marked S C on N. face; with 3 grooves on E. and W. faces; and raise a mound of stone 2 ft. base 1 1/2 ft. high, N. of cor. Pits impracticable.
I destroy the old cor.
Land, mountainous.
Soil, rocky; 4th. rate.
No timber.
Mountainous land 80.00 chains.

April 15, 1905.

April 16: At 7h. 00m. a.m. l.m.t. I set off 32° 04' N. on the lat. arc; 10° 02 1/2' N. on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 33 and 34

Resurvey of the Third Standard Parellel S. through Rg.19 E.

	Thence I run S. 89° 59' E. on S. bdy. sec. 34. Over broken land.
9.00	Cross wash 30 lks. wide course S. E.
11.00	Cross wash 40 lks. wide course S. E.
16.75	Cross wash 50 lks. wide course S. E.
35.50	Cross wash 20 lks. wide course S. E. Difference between measurements of 40.00 chs. by two sets of chainmen is 1.10 lks.; position of middle point By 1st. set 40.05 chs. By 2nd. set 39.95 chs.; the mean of which is
40.00	Set a granite stone 20 x 10 x 4 ins. 15 ins. in the ground for standard $\frac{1}{4}$ sec. cor. marked S C $\frac{1}{4}$ on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. I destroy the old cor.
55.00	Cross wash 75 lks. wide course S. E.
72.75	Cross wash 30 lks. wide course S. E. Difference between measurements of 80.00 chs. by two sets of chainmen is .8 lks.; position of middle point By 1st. set 40.04 chs. By 2nd. set 39.96 chs.; the mean of which is
80.00	Set a granite stone 18 x 12 x 4 ins. 12 ins. in the ground for standard cor. of secs. 34 and 35, marked S C on N. face; with 2 grooves on E. and 4 grooves on W. faces; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. I destroy the old cor. Land, mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 80.00 chains.
	S. 89° 59' E. on S. bdy. sec. 35. Over broken land.
7.00	Cross wash 75 lks. wide course S. E.
19.80	Cross road bears N. W. and S. E.
23.50	Cross wash 20 lks. wide course S. E. Difference between measurements of 40.00 chs. by two sets of chainmen is 10 lks. ; position of middle point By 1st. set 40.05 chs. By 2nd. set 39.95 chs.; the mean of which is
40.00	Set a granite stone 24 x 12 x 6 ins. 18 ins. in the ground for standard $\frac{1}{4}$ sec. cor. marked S C $\frac{1}{4}$ on N. face and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. I destroy the old cor.
45.00	Over level land through dense mesquite brush.
67.00	Cross wash 8 lks. wide course S. E.
79.00	Cross wash 15 lks. wide course S. E. Difference between measurements of 80.00 chs. by two sets of chainmen is 4 lks.; position of middle point By 1st. set 80.02 chs. By 2nd. set 79.98 chs.; the mean of which is
80.00	Set a granite stone 18 x 12 x 4 ins. 12 ins. in the ground for standard cor. of secs. 35 and 36 marked S C on N. face; with 1 groove on E. and 5 grooves on W. faces; dig pits, 24 x 18 x 12 ins. crosswise on each line E. and W. 3 ft. and N. of stone 7 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, N. of cor. I destroy the old cor. Land, mountainous and level. Soil, rocky and sandy; 2nd. and 4th. rate. No timber. Undergrowth, mesquite. Mountainous land or land covered with dense undergrowth 80.00 chains. April 16: At this cor. I set off 10° 06' N. on the decl.

15

Resurvey of the Third Standard Parallel S. through Rg 19 E.

chains

arc; and observe the sun on the meridian at noon, the resulting latitude is 32° 04' N.

S.89° 59'E. on S. bdy. sec. 36.

25.00

Over level land through dense mesquite brush.

Cross wash 15 lks. wide course S. E.

Difference between measurements of 40.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st. set 40.01 chs.

40.00

By 2nd. set 39.99 chs.; the mean of which is

Set a granite stone 18x 12 x 4 ins. 12 ins. in the ground for standard 1/4 sec. cor. marked S C 1/4 on N. face from which

A mesquite 12 ins. diam. bears N. 10 1/2° E. 68 lks. dist. marked S C 1/4 S 3 6 B T .

63.90

I destroy the old cor.

Cross road bears N.E and S. W.

Difference between measurements of 80.00 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st. set 80.01 chs.

80.00

By 2nd. set 79.99 chs.; the mean of which is

The standard cor. of Tps. 15 S. Rgs. 19 and 20 E.

Land level.

Soil, sandy; 1st. rate.

No timber.

Undergrowth, mesquite.

Land covered with dense undergrowth, 80.00 chains.

April 16, 1905.

Subdivision of T.16 S. R. 19 E.

chains

Survey commenced April 17, 1905, and executed with a Young and Sons light mountain transit, No. 7532, 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 examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona.

I examine the adjustments of the transit and find them correct, 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 the cor. of secs. 35 and 36 on the S. bdy. of the Tp. latitude $31^{\circ} 59' 04''$ N., longitude $110^{\circ} 20' 53''$ W. at 5h. 41.54m. a.m. by my watch which has correct l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructuons, 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, $1^{\circ} 25''$ to the west, and mark the meridian thus determined, by cutting a small groove in a stone set firmly in the ground 5 chs. N. of my station.

At 8h. 00m. a.m. l.m.t., I set off $31^{\circ} 59'$ N. on the lat. arc; $10^{\circ} 24 \frac{1}{2}'$ N. 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 coincides with the meridian established by the Polaris observation.

The magnetic bearing of the true meridian, at 8 h. 50m. a.m., is N. $12^{\circ} 45'$ W.; the angle thus determined gives the mag. decl. $12^{\circ} 45'$ E.

At 4h. 00m. p.m. l.m.g., I set off $31^{\circ} 59'$ N. on the lat. arc; $10^{\circ} 31'$ N. 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 coincides with the meridian established by the Polaris observation.

The solar apparatus, by a.m. and p. m. observation defines positions for meridians which coincide with the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

April 17, 1905.

I commence at the cor. of secs. 1, 2, 35, and 36 on the S. bdy. of the township

Thence I run

N. $0^{\circ} 01'$ W., bet secs 35 and 36.

Ascending over rolling foothills through dense mesquite brush.

14.50	Cross fence bears E. and W.
15.00	Cross S.P.R.R. bears E. and W.
15.90	Cross telegraph line bears E. and W.
16.60	Cross fence bears E. and W.
31.00	Cross wash 60 lks. wide course N. E.
40.00	Set a limestone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high W. of cor.
42.50	Cross wash 20 lks. wide course N. E.
67.00	Cross wash 20 lks. wide course N. E.
80.00	Set a granite stone 18 x 12 x 12 ins. 12 ins. in the ground for cor. of secs. 25, 26, 35, and 36 marked with 1 notch on S. and E. edges; 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. pit

Chains.	
	Land, mountainous. Soil, stony; 3rd. rate. No timber. Undergrowth, mesquite. Mountainous land or land covered with dense undergrowth 80100 chains.
40.00	S.89° 55' E. on a random line bet. secs. 25 and 36
79.90	Set temp. 1/4 sec. cor. Intersect E. bdy. of Tp. 2 lks. S. of the cor. of secs. 25, 30, 31 and 36. Thence I run N. 99° 56' W. on a true line bet. secs. 25 and 36. Ascending over rolling foothills through dense mesquite and greasewood brush.
5.40	Cross wash 10 lks. wide course N. E.
21.75	Cross wash 20 lks. wide course N. E.
28.60	Cross wash 25 lks. wide course N. E.
30.95 39.90	Set a granite stone 18x 8 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
52.00	Cross wash 20 lks. wide course N. E.
79.00	Cross gully 8 lks. wide course N. E.
79.90	The cor. of secs. 25, 26, 35, and 36. Land, mountainous. Soil, rocky; 2nd. rate. No timber. Undergrowth, mesquite and greasewood. Mountainous land or land covered with dense undergrowth 79.90 chains. At this cor. I set off 10° 48' N. on the decl. arc; and observe the sun on the meridian at noon April, 18 the resulting latitude is 32° 00' N.
	April 18; At 1h.00m. p.m. 1.m.t., I set off 32° 00' N. on the lat. arc; 10° 49' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs 25, 26, 35, and 36. Thence I run N. 0° 01' W. bet. secs. 25 and 26. Over rolling foothills.
8.50	Cross wash 15 lks. wide course N. W.
12.00	Cross same wash 15 lks. wide course N. E.
16.00	Cross dry creek 300 lks. wide course E.
31.00	Cross wash 10 lks. wide course E.
40.00	Set a sandstone 18 x 8 x 6 ins. 12 ins in the ground for 1/4 sec. cor. marked 1/4 on W. face; and dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, W. of cor.
52.50	Cross wash 20 lks. wide course N. E.
64.85	Cross wash 15 lks. wide course N. E.
80.00	Set a sand stone 24 x 6 x 4 ins. 18 ins. in the ground for cor. of secs. 23, 24, 25, and 26, marked with 2 notches on S. and 1 notch on E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor. Land, mountainous. Soil, sandy 2nd. rate. No timber. Undergrowth cat claw. Mountainous land 80.00 chains.
40.00	S.89° 56' E. on a random line bet. secs. 24 and 25. set temp. 1/4 sec. cor.
79.74	Intersect E. bdy. of the cor. of secs.

Subdivisions of Tp. 16 S. Rg. 19 E.

79.74	Intersect E. bdy. of Tp. 2 lks. S. of the cor. of secs. 19, 24, 25 and 30. Thence I run. N. $89^{\circ} 57'$ W. on a true line bet. secs. 24 and 25. Over rolling land through dense greasewood brush. Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face and dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, N. of cor. The cor. of secs. 23, 24, 25 and 26. Land, rolling. Soil, sandy, 2nd. rate. No timber. Land covered with dense undergrowth 79.74 chains. April 18, 190
39.74 39.87	
79.74	
	April 19: At 7h. 00m. a.m. l.m.t., I set off $32^{\circ} 01'$ N. on the lat. arc; $11^{\circ} 05 \frac{1}{2}'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26. Thence I run N. $0^{\circ} 01'$ W. bet. secs. 23 and 24. Over rolling foothills through dense greasewood brush. Cross wash 20 lks. wide course N. W. Cross wash 25 lks. wide course W. Cross wash 20 lks. wide course S. W. Set a limestone 20 x 6 x 5 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high. W. of cor. Over broken land. Enter wash bears S. E. and cross and re-cross same to Leave wash 25 lks. wide course N. W. Cross wash 10 lks. wide course N. W. Cross wash 10 lks. wide course N. W. Set a limestone 20 x 6 x 5 ins. 15 ins. in the ground for. cor. of secs. 13, 14, 23, and 24 marked with 3 notches on S. and 1 notch on E. edges; from which A cedar 5 ins. diam. bears S. 48° E. 140 lks. dist. marked T16SR19ES24BT. No other trees available. 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. Land, hilly and broken. Soil, sandy; 2nd. rate. No timber. Undergrowth, greasewood. Mountainous land or land covered with dense undergrowth 80.00 chains.
22.10	
28.40	
30.60	
40.00	
64.00	
65.00	
75.00	
77.50	
78.80	
80.00	
	S. $89^{\circ} 57'$ E. on a random line bet. secs. 13 and 24. Set temp. $\frac{1}{4}$ sec. cor. Intersect E. bdy. of Tp. 4 lks. S. of the cor. of secs. 19, 24, 23 and 18. Thence I run N. $89^{\circ} 59'$ W. on a true line bet. secs. 13 and 24. Cross wash 15 lks. wide course N. W. Cross wash 15 lks. wide course N. W. Set a limestone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high N. of cor. Cross wash 25 lks. wide course N. W. Cross wash 35 lks. wide course N. E. Over broken land. Cross wash 10 lks. wide course N. W. Cross wash 10 lks. wide course N. W. Cross wash 10 lks. wide course N. W.
40.00	
79.16	
	<i>over rolling foot hills</i>
33.75	
37.15	
39.16	
39.56	
41.36	
63.41	
71.15	
74.15	
75.45.	

Subdivision of Tp. 16 S. Rg 19 E

78.15 ~~78.15~~ Cross wash 10 lks. wide course N. W.
79.16 The cor. of secs. 13, 14, 23, and 24.
Land, rough and broken.
Soil, sandy, 2nd. and 4th. rate.
No timber.
Undergrowth greasewood.
Mountainous land and land covered with dense undergrowth
79.16 chains.
April 19: At this cor. I set off 11° 09' N. on the
decl. arc; and observe the sun on the meridian at
noon, the resulting latitude is 32° 01 1/2' N.

N. 0° 01' W. bet. secs 13 and 14.
Over rough broken land.

1.00 Cross wash 8 lks. wide course N. W.
3.00 Cross same wash 8 lks. wide course N. E.
10.00 Cross dry creek 70 lka. wide course N. E.
32.50 Cross wash 10 lks. wide course S. E.
37.00 Cross wash 10 lks. wide course S. E.
39.00 Cross wash 10 lks. wide course S. E.
40.00 Set a limestone 20 x 6 x 5 ins. 15 ins. in the ground
for 1/4 sec. cor. marked 1/4 on W. face; from which
A mesquite 6 ins. diam. bears S. 6 1/2° W. 27 lks.
dist. marked 1/4 S 1 4 B T
No other tree available. Dig pits 18 x 18 x 12 ins.
N. and S. of stone 3 ft. dist. and raise a mound of
earth 3 1/2 ft. ^{base} high 1 1/2 ft. ^{high} base W. of cor.

58.00 Cross wash 10 lks. wide course N. E.
70.00 Cross wash 10 lks. wide course N. E.
77.00 Cross wash 10 lks. wide course N. E.
79.00 Cross wash 10 lks. wide course N. E.
80.00 Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground
for cor. of secs. 11, 12, 13 and 14, marked with 4
notches on S. and 1 notch on E. edges; dig pits 18 x 18
x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound
of earth 4 ft. base 2 ft. high W. of cor. p
Land, mountainous.
Soil, sandy; 3rd. rate.
No timber.
Undergrowth, greasewood.
Mountainous land. 80.00 chains.

Sec 89° 59' E. on a random line bet. secs. 12 and 13.
40.00 Set temp 1/4 sec. cor.
79.30 Intersect E. bdy. of Tp. 2 lks. S. of the cor. of
secs. 7, 12, 13, and 18.
Thence I run
West on a true line bet. secs. 12 and 13.
Over level land, through dense mesquite brush.

10.00 Cross wash 20 lks. wide course N. E.
14.00 Land becomes rough and broken.
38.00 Cross wash 10 lks. wide course N. W.
39.30 Set a limestone 18 x 8 x 4 ins. 12 ins. in the ground
for 1/4 sec. cor. marked 1/4 on N. face; from which
A mesquite 4 ins. diam. bears S. 61 1/2° E. 44 lks
dist. marked 1/4 S 1 3 B T
No other tree available. Dig pits 18 x 18 x 12 ins.
E. and W. of stone 3 ft. dist. and raise a mound of
earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

60.00 Cross dry creek 100 lks. wide course N.
66.00 The N. W. cor. of an adobe house bears N. 170 lks. dist
79.30 The cor. of secs. 11, 12, 13, and 14.
Land, level and broken.
Soil, sandy; 2nd. and 4th. rate.
No timber.
Undergrowth, mesquite.
Mountainous land and land covered with dense under-
growth 79.30 chains.

April 19, 1906

Subdivision of Tp. 16 S. Rg. 19 E.

chains.

April 20: At 7h. 00m. a.m. l.m.t., I set off 32° 03 1/2' N. on the lat. arc; 11° 26 1/2' 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° 01' W. bet. secs. 11 and 12.
Over broken land through dense mesquite brush.
24.00 Cross wash 20 lks. wide course N. W.
27.78 A point from which the N. E. cor. of M. Picheco's house bears S. 86° 51' W. 15.20 chs. dist.
N. E. cor. of B. Tautimo's house bears N. 16° 15' W.
31.00 Cross road, bears N. E. and S. W. and over level land.
33.00 Cross wash 20 lks. wide course N. E.
38.00 Cross road bears N. E. and S. W.
40.00 Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; from which
A mesquite 4 ins. diam. bears S. 40 1/2° E. 7 lks. dist. marked 1/4 S 1 1 B T
A mesquite 12 ins. diam. bears N. 78° W. 50 lks. dist. marked 1/4 S 1 2 B T
42.00 Cross road bears N. E. and S. W.
61.00 Cross road bears N. E. and S. W.
70.00 Cross Picheco creek, dry, 50 lks. wide course E.
71.50 Cross old fence bears E. and W.
75.50 Cross old road bears E. and W.
80.00 Set a granite stone 18 x 10 x 6 ins. 12 ins. in the ground for cor. of secs. 1, 2, 11, and 12. marked with 5 notches on S. and 1 notch on E. edged; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist.; and raise a mound of earth 4 ft. base 2 ft. high, W. of cor. Land, broken and level.
Soil, sandy; 2nd. rate.
No timber.
Undergrowth, mesquite.
Mountainous land or land covered with dense undergrowth
80.00 chains..

East on a true line bet. secs. 1 and 12.
Over level land through brush.
5.75 Cross old fence bears N. W. and S. E.
17.00 Cross wash bears N. E. 15 lks. wide.
22.00 Cross Picheco Creek, dry, 45 lks. wide course N. E.
39.00 Cross wash 15 lks. wide, course N. E.
40.00 Set a limestone 18 x 10 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, N. of cor.
57.50 M. Vernals house bears S. 4.00 chs. dist.
70.30 Cross road bears N. and S. ascend
78.50 Intersect E. bdy. of Tp. 70. lks. N. of the cor. of secs. 6 and 7, and set a sand stone 20 x 10 x 4 ins. 15 ins. in the ground for closing cor. of secs. 1 and 12, marked C C on W. with 5 grooves on S. and 1 groove on N. faces; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
Land level.
Soil, sandy; 1st. rate.
No timber.
Undergrowth, mesquite.
Land covered with dense undergrowth, 78.50 chains.
April 20: At this cor. I set off 11° 29 1/2' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting latitude is 32° 03 1/2' N.

N. 0° 01' W. bet. secs. 1 and 2.
Over level land through dense brush.
7.75 Cross fence bears E. and W.
8.50 Cross road bears E. and W. and ascend.
15.50 Top of round peak and descend.

Subdivision of Tp. 16 S. Rg. 19 E.

chains.	Over level land through dense mesquite brush.
20.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which
40.00	A mesquite 5 ins. diam. bears S. $51\frac{1}{4}^{\circ}$ E. 38 lks. dist. marked $\frac{1}{4}$ S 1 B T A mesquite 4 ins. diam. bears S. $34\frac{1}{2}^{\circ}$ W. 127 lks. dist. marked $\frac{1}{4}$ S 2 B T
54.60	Cross wash 10 lks. wide course S. E.
79.65	Intersect Third Standard Parallel South 13.03 chs. W. of the standard cor. of secs 35, and 36. As the point for closing cor. falls in wash, 8 lks. wide course S. E at
79.45	Set a granite stone 20 x 12 x 8 ins. 15 ins. in the ground for witness cor. to closing cor. of secs. 1 and 2, marked C C W C on S. face; with 1 groove on E. and 5 grooves on W. faces; from which A mesquite 6 ins. diam. bears S. $32\frac{1}{2}^{\circ}$ E. 152 lks. dist. marked WCCCT16SR19ES1BT. A mesquite 6 ins. diam. bears S. 65° W. 516 lks. dist. marked WCCCT16SR19ES2BT.
	Land, Mountainous and level. Soil, sandy; 2nd. rate. No timber. Undergrowth, mesquite. Mountainous land or land covered with dense undergrowth 79.65 chains.
	April 20, 1906.
	April 21: At 7h.00m. a.m l.m.t., I set off $31^{\circ} 59'$ N. on the lat. arc; $11^{\circ} 47'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34, and 35 on the S. bdy. of the Tp. Thence I run N. $0^{\circ} 01'$ W. bet. secs. 34 and 35. Ascending over rolling foothills, through mesquite brush.
18.00	Cross wash 15 lks. wide course N. E.
26.40	Cross fence bears E. and W.
27.10	Cross S. P. R. R. bears E. and W.
27.75	Cross telegraph line bears E. and W.
28.20	Cross fence bears E. and W.
40.00	Set a granite stone 18 x 6 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.
49.00	Cross wash 50 lks. wide course E.
55.00	Cross wash 10 lks. wide course W. E.
79.00	Cross gully 5 lks. wide course N. E.
80.00	Set a line $20 \times 6 \times 5$ ins. 15 ins. in the ground for cor. of secs. 26, 27, 34, and 35, marked with 1 notch on S. and 2 notches on E. faces; 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. p Land, rolling. Soil, gravelly; 2nd. rate. No timber. Undergrowth, mesquite. Land covered with dense undergrowth, 80.00 chains.
40.00	S. $89^{\circ} 51'$ E. on a random line bet. secs. 26 and 35.
80.02	Set temp. $\frac{1}{4}$ sec. cor. Intersect N. and S. line 14 lks. S. of the cor. of secs. 25, 26, 35 and 36. Thence I run N. $89^{\circ} 57'$ W. on a true line bet. secs. 26 and 35. Over rolling land, through dense mesquite brush.

Subdivision of Tp. 16 S. Rg. 19 E.

chains

13.00 Cross dry creek, 100 lks. wide course N. E.
 25.65 Cross wash 35 lks. wide course N. E.
 40.01 Set a limestone 18 x 7 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
 63.60 Cross wash 25 lks. wide course S. E.
 71.00 Cross wash 20 lks. wide course S. E.
 80.02 The cor. of secs. 26, 27, 34, and 35.
 Land, rolling.
 Soil, stony 3rd. rate.
 No timber.
 Undergrowth, mesquite.
 Land covered with dense undergrowth, 80.02 chains.
 April 21: At this cor. I set off $11^{\circ} 50'$ N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is $32^{\circ} 00'$ N.

N. $0^{\circ} 01'$ W. bet. secs. 26 and 27.
 Over rolling foothills.
 40.00 Set a limestone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. high, W. of cor.
 66.50 Cross wash 15 lks. wide course N. E.
 72.00 Cross wash 20 lks. wide course N. E.
 79.50 Cross gully 3 lks. wide course N. E.
 80.00 Set a limestone 18 x 8 x 6 ins. 12 ins. in the ground for cor. of secs 22, 23, 26 and 27, marked with 2 notches on S. and E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
 Land, rolling foothills.
 Soil sandy; 2nd. rate.
 No timber.
 Mountainous land 80.00 chains.

S. $89^{\circ} 57'$ E. on a random line bet. secs. 23 and 26.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.00 Intersect N. and S. line 2 lks. S. of the cor. of secs. 23, 24, 25, and 26.
 Thence I run
 N. $89^{\circ} 58'$ W. on a true line bet. secs. 23 and 26.
 Over rolling foothills.
 5.10 Cross old road bears N. E. and S.W.
 9.80 Cross golly 7 lks. wide course N. E.
 18.00 Cross gully 10 lks. wide course N.
 35.00 Cross wash 40 lks. wide course N.
 40.00 Set a limestone 18 x 6 x 5 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
 47.45 Cross wash 20 lks. wide course N. E.
 56.70 Cross wash 15 lks. wide course N. E.
 78.90 Cross wash 20 lks. wide course N. E.
 80.00 The cor. of secs. 22, 23, 26 and 27.
 Land, hilly.
 Soil, sandy; 2nd. rate.
 No timber.
 Mountainous land 80.00 chains.

April 21, 1905.

April 22,; At 7h00am. a.m. l.m.t., I set off $32^{\circ} 01'$ N. on the lat arc; $12^{\circ} 07'$ 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. $0^{\circ} 01'$ W. bet. secs 22 and 23.
 Over chopped broken land.

Chains	
22.75	Cross dry creek 30 lks. wide course N. E.
27.75	Cross wash 20 lks. wide course N. E.
40.00	Set a limestone 12 x 8 x 8 ins. 8 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high, W. of cor.
44 .00	Cross dry creek 75 lks. wide course N. E.
48.25	Cross same course N. W.
54.25	Cross same course N. E.
80.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked with 3 notches on S. and 2 notches on E. edges; from which A cedar 4 ins. diam. bears N. 63 1/2° E. 56 lks. dist. marked T16SR19ES14BT. A cedar 4 ins. diam. bears S. 40° E. 56 lks. dist. marked T16SR19ES23BT. A cedar 5 ins. diam. bears S. 84 3/4° W. 114 lks. dist. marked T16SR19ES22BT. A cedar 4 ins. diam. bears N. 24 3/4° W. 31 lks. dist. marked T16SR19ES15BT. Land chopped and broken. Soil, sandy; 2nd. rate. No timber. Undergrowth, mesquite. Mountainous land 80 .00 chains.
40.00	S. 89° 58' E. on a random line bet. secs. 14 and 23. Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect N. and S. line 2 lks. S. of the cor. of secs. 13, 14, 23, and 24. Thence I run N. 89° 59' W. on a true line bet. secs. 14 and 23. Over broken land.
1.50	Cross wash 8 lks. wide course N. W.
7.40	Cross wash 10 lks. wide course N.
10.00	Cross dry creek 20 lks. wide course N.
27.20	Cross wash 10 lks. wide course N. E.
38.30	Cross wash 10 lks. wide course N. E.
40.02	Set a limestone 22 x 6 x 4 ins. 16 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. N. of cor.
42.00	Cross wash 7 lks. wide course S. E.
57.60	Cross wash 20 lks. wide course N. E.
69.00	Cross wash 10 lks. wide course N. W.
74.00	Cross wash 10 lks. wide course N. W.
77.80	Cross wash 10 lks. wide course N.
80.04	The cor. of secs. 14, 15, 22, and 23. Land broken. Soil, sandy; 2nd. rate. No timber. Mountainous land 80.04 chains. April 22; at this cor. I set off 12° 19 1/2' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 32° 01 1/2' N.
6.50	N. 0° 01' W. bet. secs. 14 and 15. Over broken country.
10.00	Cross dry creek 75 lks. wide course N. E.
17.60	Cross wash 8 lks. wide course E.
40.00	Cross wash 15 lks. wide course E. Set a granite stone 18 x 6 x 6 ins. 18 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor. And over level land through dense mesquite brush.

Subdivision of Tp. 16 S. Rg. 19 E.

Chains.	
53.50	Cross wash 10 lks. wide course N. E.
63.00	Cross wash 20 lks. wide course N. E.
71.15	Cross wash 15 lks. wide course N. E.
77.00	Cross wash 15 lks. wide course N. E.
80.00	Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked with 4 notches on S. and 2 notches on E. edges; from which
	A mesquite 5 ins. diam. bears N. 86 1/2° E. 99 lks. dist. marked T16SR19ES11BT.
	A hackberry 12 ins. diam. bears S. 87 1/4° E. 185 lks. dist. marked T16SR19ES14BT.
	A Willow 4 ins. diam. bears S. 86 1/2° W. 58 lks. dist. marked T16SR19ES15BT.
	A willow 4 ins. diam. bears N. 82 1/2° W. 55 lks. dist. marked T16SR19ES10BT.
	Land level and broken.
	Soil, sandy; 2nd. rate.
	No timber.
	Undergrowth, mesquite.
	Mountainous land and land covered with dense undergrowth 80.00 chains.

40.00	S. 89° 59' E. on a random line bet. secs. 11 and 14. Set temp. 1/4 sec. cor.
80.12	Intersect N. and S. line 2 lks. N. of the cor. of secs. 11, 12, 13 and 14. Thence I run
	N. 89° 58' W. on a true line bet. secs. 11 and 14. Over broken country.
28.72	Cross wash 35 lks. wide course N.
36.75	Cross wash 40 lks. wide course N1
40.06	Set a quartz stone 24 x 8 x 5 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.
50.00	Cross wash 8 lks. wide course N.
75.50	Cross road bears N. and S.
78.50	Cross dry creek, 75 lks. wide course N.
80.12	The cor. of secs. 10, 11, 14 and 15. Land broken. Soil, sandy; 3rd. rate. No timber. Mountainous land, 80.12 chains.
	April 22, 1905.
	April 23: At 7h. 00 ^a a.m. l.m.t., I set off 32° 02 1/2' N. on the lat. arc; 12° 27' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs 10, 11, 14, and 15.
	Thence I run
	N. 0° 01' W. bet. secs. 10 and 11. Over broken land.
8.50	Cross wash 50 lks. wide course E.
15.00	Cross road bears N. E. and S. W.
15.20	Cross wash 30 lks. wide course N. E. and over level land through dense mesquite brush.
40.00	Point for 1/4 sec. cor. falls in Picheco Creek, running stream, 40 lks. wide course E. so at
44.50	Set a quartz stone 18 x 8 x 4 ins. 12 ins. in the ground for witness cor. to 1/4 sec. cor. marked W 1/4 on W. face; from which
	A mesquite 5 ins. diam. bears S. 83 1/4° E. 29 lks. dist. marked W C 1/4 S 1 1 B T
	A mesquite 4 ins. diam. bears N. 70 1/4° W. 21 lks. dist. marked W S 1/4 S 1 0 B T.
74.50	Cross wash 30 lks. wide course S. E.
80.00	Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked with 5 notches on S. and 2 notches on E. edges; from which.

Subdivision of Twp. 16 S. Rg. 19 E.

Chains.

A mesquite 12 ins. diam. bears N. 64° E. 248 lks. dist. marked T.16SR19ES2BT.
 A mesquite 5 ins. diam. bears S. 44 1/2° E. 289 lks. dist. marked T16SR19ES11BT.
 A mesquite 5 ins. diam. bears S. 44 1/4° W. 78 lks. dist. marked T16SR19ES10BT.
 A mesquite 5 ins. diam. bears N. 67 1/4° W. 110 lks. dist. marked T16SR19ES3BT.

Land level and broken.
 Soil, sandy; 2nd. rate.
 Timber; a few hackberrys along creek.
 Undergrowth, mesquite.
 Mountainous land and land covered with dense undergrowth 80.00 chains.

40.00 S. 89° 58' E. on a random line bet. secs. 2 and 11.
 80.02 Set temp. 1/4 sec. cor.
 Intersect N. and S. line 5 lks. S. of the cor. of secs. 1, 2, 11, and 12.
 From this cor. the N1 E. cor. of B. Tautimo's house bears S. 77 1/2° W.
 From this cor. I new run
 West bet. secs. 2 and 11.
 Over level land through dense cockle brush.
 11.60 Cross old fence bears N. and S., and over broken land through dense mesquite brush.
 12.85 Cross road bears N. and S.
 40.01 Set a granite stone 20 x 6 x 5 ins. 15 ins. in the ground for 1/4 sec. cor marked 1/4 on N. face; from which

Amesquite 4 ins. diam. bears N. 18 ° W. 70 lks. dist. marked 1/4 S 2 B T
 A mesquite 4 ins. diam. bears S. 29 1/2 ° E. 130 lks. dist. marked 1/4 S 1 1 B T
 49.75 Cross dry creek, 30 lks. wide course S.
 69.60 Cross old road bears N. W. and S. E.
 80.02 The cor. of sets. 2, 3, 10, and 11.
 Land, broken and level.
 Soil, sandy; 2nd. rate.
 No timber.
 Undergrowth, mesquite.
 Mountainous land and land covered with dense undergrowth 80.02 chains.
 April 23; at this cor. I set off 12° 30 1/2' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting lat. is 32° 03 1/2' N.

N. 0° 01' W. bet. secs. 2 and 3.
 Over broken land.
 6.00 Cross road bears N. W. and S. E.
 40.00 Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
 79. 73 Intersect Third Standard Parallel south 15.06 chs. W. of the standard cor. of secs. 34 and 35 and set a sand stone 24 x 12 x 4 ins. 18 ins. in the ground for closing cor. of secs. 2 and 3 marked with 2 grooves on E. and 4 grooves on W. faces; and C C on S. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high S. of cor. Pits impracticable.
 Land broken.
 Soil, stony; 3rd. rate.
 No timber.
 Mountainous land 79.73 chains.

APRIL 25, 1880

April 24: At 7h. 00m a.m. I set off 31° 59' W. on the lat. arc; 12° 47 1/2' on the decl. arc; and

Subdivision of Tp. 16'S. Rg. 19 E.

Chains.

determine a meridian with the solar at the cor. of secs. 3, 4, 33, and 34.
 Thence I run
 N. 0° 02' W. bet. secs 33 and 34.
 Ascending over rolling foothills.
 10.00 Cross wash 40 lks. wide course N. E.
 10.85 Cross fence bears E. and W.
 12.00 Cross S. P. R. R. bears E. and W.
 12.55 Cross telegraph line bears E. and W.
 13.25 Cross fence bears E. and W.
 18.75 Cross dry creek, 100lks. wide course S. E.
 30.00 Cross wash 10 lks. wide course S. W.
 40.00 Set a limestone 20 x 6 x 3 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
 41.00 Cross wash 10 lks. wide course S. W.
 61.50 Cross wash 20 lks. wide course E.
 76.00 Cross wash 20 lks. wide course S. E.
 80.00 Set a limestone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 27, 28, 33, and 34 marked with 1 notch on S. and 3 notches on E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high, W. of cor.
 Land, rolling foothills.
 Soil, sandy; 2nd. rate.
 No timber.
 Mountainous land 80.00 chains.

East on a random line bet. secs. 27 and 34.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.96 Intersect N. and S. line 7 lks. S. of the cor. of secs. 26, 27, 34, and 35.
 Thence I run
 S. 9° 57' W. on a true line bet. secs. 27 and 34.
 Ascending over rolling foothills, through dense mesquite brush.
 20.00 Leave brush.
 39.98 Set a limestone 20 x 6 x 5 ins. 15 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 4 ft. base 1 1/2 ft. high, N. of cor.
 67.36 Cross gully 15 lks. wide course S. E.
 79.96 The cor. of secs. 27, 28, 33, and 34.
 Land, rolling foothills.
 Soil, sandy; 3rd. rate.
 No timber.
 Undergrowth, mesquite.
 Mountainous land or land covered with dense undergrowth 79.96 chains.
 April 24: at this cor. I set off 12° 50 1/2' N. on the decl. arc; and observe the sun on the meridian at noon the resulting latitude is 32° 00' N.

N. 0° 02' W. Bet. secs. 27 and 28.
 Over rolling foothills.
 2.00 Cross wash 10 lks. wide course N. E.
 5.60 Cross wash 8 lks. wide course N. E.
 30.00 Cross wash 30 lks. wide course N. E.
 39.40 Cross wash 8 lks. wide course N. W.
 40.00 Set a limestone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
 44.00 Cross wash 5 lks. wide course N. W.
 48.70 Cross wash 10 lks. wide course N. E.
 57.20 Cross wash 8 lks. wide course N. W.
 63.00 Cross wash 10 lks. wide course N. E.

Subdivision of Tp. 16 S. Rg. 19 E.

Chains.

68.80
73.00
80.00

Cross wash 10 lks. wide course N. E.
Cross wash 10 lks. wide course N. E.
Set a limestone 18 x 6 x 6 ins. 12 ins. in the ground for cor. of secs. 21, 22, 27 and 28 marked with 2 notches on S. and 3 notches on E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
Land, Mountainous.
Soil, rocky; 4th. rate.
No timber.
Mountainous land 80.00 chains.

40.00
80.08

N. 89° 57' E. on a random line bet. secs. 22 and 27.
Set temp. 1/4 sec. cor.
Intersect N. and S. line 5 lks. N. of the cor. of secs. 22, 23, 26 and 27.

11.00
23.30

Thence I run
S. 89° 59' W. on a true line bet. secs. 22 and 27.
Over rolling foothills.

30.00
40.04

Cross wash 15 lks. wide course N. E.
Cross wash 15 lks. wide course N. E. and cross and re-cross same wash to
Leave wash bears N. W.
Set a lime stone 18 x 6 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

47.70
58.00
80.08

Cross wash 25 lks. wide course N. E.
Cross wash 30 lks. wide course N. E.
The cor. of secs. 21, 22, 27, and 28.
Land, Mountainous.
Soil, stony, 3rd. rate.
No timber.
Mountainous land 80.08 chains.

April, 24, 1905.

1.85
15.75 C
38.80
40.00

April 25; At 7h. 00m. a.m. l.m.t., I set off 32° 01' W. on the lat. arc; 13° 06 1/2' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 21, 22, 27 and 28.

Thence I run
N. 0° 02' W. bet. secs. 21 and 22.
Over rolling foothills.

57.60
80.00

Cross wash 15 lks. wide course N. E.
Cross wash 20 lks. wide course E.
Cross wash 25 lks. wide course S. E.
Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
Cross wash 20 lks. wide course S. E.
Set a granite stone 30 x 16 x 16 ins. 28 ins. in the ground for cor. of secs 15, 16, 21 and 22, marked 16 S. on N. E. and 19 E. on S. E. faces; with 3 notches on S. and E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
Land, Mountainous.
Soil, sandy; 2nd. rate.
No timber.
Mountainous land 80.00 chains.

40.00
80.05

N. 89° 59' E. on a random line bet. secs. 15 and 22.
Set temp. 1/4 sec. cor.
Intersect N. and S. line 5 lks. N. of the cor. of secs. 14, 15, 22 and 23.

subdivision of Tp. 16 S. Rg. 19 E.

Chains.	
	Thence I run
	N. $89^{\circ} 59'$ W. on a true line bet. secs. 15 and 22.
	Over Chopped broken land.
2.30	Cross wash 15 lks. wide course N. W.
4.50	Cross dry creek 40 lks. wide course N. W.
11.50	Cross wash 80 lks. wide course N. E.
22.50	Cross wash 30 lks. wide course S. E.
28.00	Cross same wash course N. E.
39.75	Cross wash 15 lks. wide course S. E.
40.02	Set a granite stone 16 x 14 x 4 ins. 11 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
44.00	Cross wash 15 lks. wide course S. E.
50.00	Cross wash 10 lks. wide course S. E.
56.00	Cross wash 10 lks. wide course S. E. and ascend over rolling foothills.
80.05	The cor. of secs. 15, 16, 21 and 22. Land, hilly and broken. Soil, sandy; 2nd. rate. No timber. Mountainous land; 80.05 chains. April 25; at this cor. I set off $13^{\circ} 10'$ N. on the decl. arc; and observe the sun on the meridian at noon the resulting latitude is $32^{\circ} 01 \frac{1}{2}'$ N.
	<hr/>
	N. $0^{\circ} 02'$ W. bet. secs. 15 and 16. ascending over rolling foothills.
2.50	Cross dry creek 40 lks. wide course N. E.
19.00	Cross wash 20 lks. wide course N. E.
27.50	Cross old road bears N. E. and S. W.
32.00	Cross wash 10 lks. wide course N. E.
40.00	Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
42.50	Cross dry creek 45 lks. wide course N. E.
45.50	Cross road bears E. and W.
46.00	Cross wash 10 lks. wide course E. and ascend rough S. slope of mountain.
51.00	Cross wash 8 lks. wide course S. E.
63.50	Cross wash 8 lks. wide course S. E.
70.60	Cross wash 15 lks. wide course S. E.
80.00	Point for cor. falls on a granite rock in place 18 x 8 x 4 ins. above ground. Mark a cross x at exact point for cor. of secs. 9, 10, 15 and 16 and 4 grooves S. and 3 grooves E. of cross; and raise a mound of stone 2 ft. base 1 1/2 ft. high; W. of cor. Pits impracticable. From this cor. J. K. Corbett's house bears N. $68^{\circ} 42'$ E. Land, Mountainous. Soil, sandy and rocky; 2nd. and 4th. rate. No timber. Mountainous land 80.00 chains.
	<hr/>
40.00	S. $89^{\circ} 59'$ E. on a random line bet. secs. 10 and 15. Set temp. $\frac{1}{4}$ sec. cor.
80.08	Intersect N. and S. line 4 lks. S. of the cor. of secs. 10, 11, 14 and 15. Thence I run
	S. $89^{\circ} 59'$ W. on a true line bet. secs. 10 and 15. Over broken land.
2.15	Cross wash 10 lks. wide course N. E.
11.30	Cross road bears N. E. and S. W.
35.00	Cross wash 35 lks. wide course N. E.
40.04	Point for cor. falls in wash course S. E. 10 lks. wide so at

29

Subdivision of Tp. 16 S. Rg. 19 E.

Chains.	
40.20	Set a granite stone 18 x 12 x 6 ins. 12 ins. in the ground for witness $\frac{1}{4}$ sec. cor. marked W C $\frac{1}{4}$ on N. face; from which A cedar 4 ins. diam. bears N. $31\ 1/2^\circ$ W. 45 lks. dist. marked W C $\frac{1}{4}$ S 1 0 B T A cedar 4 ins. diam. bears S. $35\ 3/4^\circ$ E. 124 lks. dist. marked W C $\frac{1}{4}$ S 1 5 B T
51.30	Cross wash 15 lks. wide course N. E.
54.00	Cross old road bears N. and S.
56.70	A point from which J. K. Corbett's house bears N. 19° 50' W.
57.60	Cross wash 20 lks. wide course N. E.
62.50	Cross wash 30 lks. wide course N. E. and ascend rough E. slope of mountain.
80.08	The cor. of secs. 9, 10, 15 and 16. Land, Mountainous. Soil, sandy; and rocky; 2nd. and 4th. rate. No timber. Mountainous land 80.08 chains.
April 25, 1905.	
<hr/> April 26: At 7h. 00m. a.m. l.m.t. I set off $32^\circ\ 02\ 1/2'$ N. on the lat. arc; $13^\circ\ 26'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15, and 16. Thence I run N. $0^\circ\ 02'$ W. bet. secs. 9 and 10. Along rough E. slope of mountain.	
21.90	Cross wash 8 lks. wide course N. E.
25.20	Cross wash 20 lks. wide course S. E.
36.00	Change to N. slope and descend.
40.00	Set a quartz stone 28 x 6 x 6 ins. in a mound of stone for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base 1 $1/2$ ft. high W. of cor. Pits impracticable.
55.00	Cross Picheco Creek, running stream, 50 lks. wide, course E., and ascend rough S. slope of mountain.
80.00	Set a granite stone 24 x 6 x 5 ins. 18 ins. in the ground for. cor. of secs. 3, 4, 9, and 10, marked with 5 notches on S. and 3 notches on E. edges; and raise a mound of stone 2 ft. base 1 $1/2$ ft. high W. of cor. Pits impracticable. Land mountainous. Soil rocky; 4th. rate. No timber. Mountainous land 80.00 chains.
<hr/> N. $89^\circ\ 59'$ E. on a random line bet. secs. 3 and 10.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect N. and S. line 5 lks. S. of the cor. of secs. 2, 3, 10, and 11. Thence I run S. $89^\circ\ 57'$ W. on a true line bet. secs. 3 and 10. Over broken land.
2.70	Crosswash 30 lks. wide course S.
19.00	Cross and re-cross wash 6 lks. wide course S. E. to
24.00	Leave wash bears S. W.
30.50	Cross wash 30 lks. wide course S.
39.50	Cross wash 30 lks. wide course S.
40.02	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone 2 ft. base 1 $1/2$ ft. high N. of cor. Pits impracticable.
52.00	Cross wash 30 lks wide course S. E. and ascend rough E. slope of mountain.
80.04	The cor. of secs. 3, 4, 9 and 10. Land mountainous. Soil, rocky; 3rd. rate. No timber. Mountainous land 80 04 chains

Subdivision of Tp.16 S. Rg 19 E.

chains

April 26; at this cor. I set off $13^{\circ} 29 \frac{1}{2}'$ N. on the decl. arc; and observe the sun on the meridian at noon, the resulting latitude is $32^{\circ} 03 \frac{1}{2}'$ N.

N. $0^{\circ} 02'$ W. bet. secs. 3 and 4.
 Ascending rough S. slope of mountain.
 7.00 Along rough E. slope.
 36.00 Descend N. E. slope.
 40.00 Set a granite stone 18 x 8 x 4 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base $1 \frac{1}{2}$ ft. high W. of cor. Pits impracticable.
 56.30 Cross wash 10 lks. wide course N. E.
 64.00 Cross wash 15 lks. wide course N. E.
 75.20 Cross wash 10 lks. wide course N. E.
 80.18 Intersect Third Standard Parallel South 13.08 chs. W. of the standard cor. of secs. 33 and 34, and set granite stone 24 x 8 x 6 ins. in a mound of stone for closing cor. of secs. 3 and 4, marked C C on S. with grooves on E. and W. faces; and raise a mound of stone 2 ft. base $1 \frac{1}{2}$ ft. high S. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Mountainous land 80.18 chs.

April 26, 1905.

April 27: At 7h. 00m. a.m. l.m.t., I set off $31^{\circ} 59'$ N. on the lat. arc; $13^{\circ} 45 \frac{1}{2}'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4. 5. 32 and 33 on the S. bdy. of the Tp. Thence I run N. $0^{\circ} 02'$ W. bet. secs 32 and 33. Ascending over rolling foothills.

0.80 Cross fence bears E. and W.
 1.40 Cross wash 40 lks. wide course E.
 40.00 Set a limestone 18 x 6 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth $3 \frac{1}{2}$ ft. base $1 \frac{1}{2}$ ft. high W. of cor.
 62.35 Cross wash 10 lks. wide course N. E.
 73.00 Cross wash 20 lks. wide course E.
 80.00 Set a limestone 16 x 12 x 10 ins. 11 ins. in the ground for cor. of secs. 28, 29, 32 and 33 marked with 1 notch on S. and 4 notches on E. edges; and 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.
 Land, Mountainous.
 Soil, gravelly; 3rd. rate.
 No timber.
 Mountainous land 80.00 chains.

East on a random line bet. secs. 28 and 33.
 40.00 S Set temp. $\frac{1}{4}$ sec. cor.
 80.02 Intersect N. and S. line 2 lks. N. of the cor. of secs. 27, 28, 33 and 34.
 Thence I run.
 N. $89^{\circ} 59'$ W. on a true line bet. secs. 28 and 33.
 Over rolling foothills.
 40.01 Set a limestone 24 x 7 x 4 ins. 18 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth $3 \frac{1}{2}$ ft. base $1 \frac{1}{2}$ ft. high, N. of cor.
 41.00 Cross wash 100 lks. wide course S. E.
 68.70 Cross wash 25 lks. wide course S. E.
 80.02 The cor. of secs. 28, 29, 32 and 33.
 Land, mountainous.
 Soil, sandy; 2nd. rate.

Subdivision of Tp 16 S1 Rg. 19 E.

Chains.

No timber.
Mountainous land 80.02 chains.
April 27: at this cor. I set off 13° 48 1/2' N. on the decl. arc; and observe the sun on the meridian at noon, the resulting latitude is 32° 00' N.

N. 0° 02' W. bet. secs. 28 and 29.
Ascending over rolling foothills.

18.00 Cross gully 10 lks. wide course N. E.
40.00 Set a granite stone 16 x 8 x 6 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
52.30 Cross wash 10 lks. wide course N. E.
65.35 Cross wash 20 lks. wide course E.
80.00 Set a white quartz stone 16 x 8 x 8 ins. 11 ins. in the ground for cor. of secs. 20, 21 28 and 29, marked with 2 notches on S. and 4 notches on E. edges; dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base 2 fth high W. of cor.
Land rolling hills.
Soil, gravelly; 3rd. rate.
No timber.
Mountainous land 80.00 chains.

S. 89° 59' E. on a random line bet. secs. 21 and 28.

40.00 Set temp. 1/4 sec. cor.
79.94 Intersect N. and S. line 2 lks. S. of the cor. of secs. 21, 22, 27 and 28.
Thence I run
West on a true line bet. secs. 21 and 28.
Over rolling foothills.
1.40 Cross wash 20 lks. wide course N. E.
39.97 Set a granite stone 16 x 10 x 5 ins. 11 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
52.00 Cross wash 25 lks. wide course N. E.
72.60 Cross wash 15 lks. wide course N. W.
79.70 Cross wash 7 lks. wide course N. W.
79.94 The cor. of secs. 20, 21, 28, and 29.
Land hilly.
Soil, gravelly; 3rd. rate.
No timber.
Mountainous land 79.94 chains.

April 27, 1905.

April 28: At 7h. 00m. a.m.l.m.t., I set off 32° 01' N. on the lat. arc; 14° 04 1/2' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 20, 21, 28, and 29.

Thence I run
N. 0° 02' W. bet. secs. 20 and 21
Over rolling foothills.

0.65 Cross wash 10 lks. wide course N. E.
6.50 Cross wash 15 lks. wide course N. E.
25.25 Cross wash 20 lks. wide course N. E.
35.50 Cross wash 8 lks. wide course N. W.
40.00 Set a granite stone 18 x 6 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
49.50 Cross wash 10 lks. wide course N. W.
68.00 Cross wash 15 lks. wide course N. W.

Subdivision of Tp. 16 S. Rg. 19 E.

79.00	Cross wash 15 lks. wide course W.
79.25	Cross road bears E. and W.
80.00	Set a granite stone 18 x 12 x 4 ins. 12 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked with 3 notches on S. and 4 notches on E. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable. Land hilly. Soil, sandy and stony; 2nd. and 4th. rate. No timber. Mountainous land 80.00 chains.
40.00	East on a random line bet. secs. 16 and 21. Set temp. 1/4 sec. cor.
80.04	Intersect N. and S. line 2 lks. S. of cor. of secs. 15, 16, 21 and 22. Thence I. run S. 89° 59' W. on a true line bet. secs. 16 and 21. Over rolling foothills.
1.60	Cross dry creek 35 lks. wide course N. E.
21.50	Cross same 20 lks. wide course S. E.
26.40	Cross same 10 lks. wide course N. E.
40.02	Set a granite ^{stone} 18 x 12 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of cor. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
53.00	Cross wash 7 lks. wide course N.
58.00	Cross wash 10 lks. wide course N. E.
70.50	Cross road bears N. E. and S. W.
80.04	th The cor. of secs. 16, 17, 20 and 21. Land, hilly. Soil sandy; 2nd. rate. No timber. Mountainous land, 80.04 chains. April 28: at this cor. I set off 14° 07 1/2' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting latitude is 32° 01 1/2' N.
10.15	N. 0° 02' W. bet. secs. 16 and 17. Over rolling foothills through mesquite brush. Cross wash 8 lks. wide course N. W.
40.00	Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits 18 x 18 x 12 ins. N. and S. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
41.00	Cross wash 15 lks. wide course N. W.
55.00	Cross dry creek 100 lks. wide course N. E.
77.50	Cross Picheco Creek, running stream, 75 lks. wide course E.
80.00	Set a granite stone 20 x 6 x 5 ins. 15 ins. in the ground for cor. of secs 8, 9, 16 and 17 marked with 4 notches on S. and E. edges; from which A cumaro 10 ins. diam bears N. 84 1/2° E. 318 lks. dist. marked T16SR19ES9BT. A cumaro 10 ins. diam. bears S. 82 3/4° E. 277 lks. dist marked T16SR19ES16BT. Amesquite 4 ins. diam. bears S. 21 3/4° W. 80 lks. dist. marked T16SR19ES17BT A mesquite 4 ins. diam. bears N. 60 3/4° W. 104 lks. dist. marked T16SR19ES8BT. Land, rolling. Soil, sandy; 2nd. rate. No timber. Undergrowth, mesquite. Land covered with dense undergrowth, 80.00 chains.
	N. 89° 59' E. on a random line bet. secs. 9 and 16.

Chains.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect N. and S. line $\frac{1}{4}$ lks. N. of the cor. of secs. 9, 10, 15 and 16. Thence I run N. $89^{\circ} 57'$ W. on a true line bet. secs. 9 and 16. Ascending steep E. slope of mountain.
12.50	Cross wash 12 lks. wide course S. E.
21.50	Top of high ridge bears N. and S. and descend rough W. slope.
39.98	Set a Quartz stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high N. of cor. Pits impracticable.
51.85	Cross wash 15 lks. wide course S. W.
59.75	Cross Picheco Creek, running stream, 75 lks. wide. course N. E. and over rolling land through dense mesquite brush.
64.50	Cross Picheco Creek in bend course S. E. bears S. W. running stream 75 lks. wide.
79.96	The cor. of secs. 8, 9, 16, and 17. Land rolling and mountainous. Soil, sandy and rocky; 2nd. and 4th. rate. Timber, a few oaks along creek. Undergrowth, mesquite. Mountainous land or land covered with dense undergrowth 79.96 chains.
April, 28, 1905.	
<p>April 29: At 7h. 00m. a.m. l.m.t., I set off $32^{\circ} 02' 1/2$ N. on the lat. arc; $14^{\circ} 25' 1/2$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16, and 17. Thence I run N. $0^{\circ} 02'$ W. bet. secs. 8 and 9. Ascending S. slope of mountains.</p>	
40.00	Set a granite stone 30 x 15 x 7 ins. 22 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
49.00	Cross wash 10 lks. wide course S. E. and slope becomes rough.
80.00	Set a granite stone 26 x 10 x 6 ins. 19 ins. in the ground for cor. of secs. 4, 5, 8, and 9. marked with 5 notches on S. and 4 notches on E. edges; 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. Mountainous land 80.00 chains.
3 2	
40.00	S. $89^{\circ} 57'$ E. on a random line bet. secs. 4 and 9. Set temp. $\frac{1}{4}$ sec. cor.
80.18	Intersect N. and S. line at the cor. of secs 3, 4, 9 and 10 Thence I run N. $89^{\circ} 57'$ W. on a true line bet. secs. 4 and 9. Along S. slope of rough mountains.
11.60	Cross wash 12 lks. wide course S. E.
19.25	Cross wash 20 lks. wide course S. E.
40.09	The point for $\frac{1}{4}$ sec. cor. falls on a granite rock in place 6 x 4 x 4 ft. above ground. I mark a cross x for exact point for $\frac{1}{4}$ sec. cor. and $\frac{1}{4}$ N. of cross; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high N. of cor. pits impracticable.
42.75	Cross wash 20 lks. wide course S. E.
80.18	The cor. of secs. 4, 5, 8 and 9. Land, mountainous. Soil, rocky; 4th. rate. No timber.

Subdivision of Tp. 16 S. Rg. 19 E.

Chains.

Mountainous land 80.18 chains.

April 29, 1905.

April 30: At 7h. 00' a.m. l.m.t., I set off $14^{\circ} 42' W.$ on the decl. arc; $32^{\circ} 03 \frac{1}{2}' N.$ on the lat. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence I run

N. $0^{\circ} 02' W.$ bet. secs. 4 and 5.

Ascending over rough mountains.

40.00

Set a granite stone $24 \times 8 \times 6$ ins. 18 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; and raise a mound of stone 2 ft. base, $1 \frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

42.50

Top of peak and descend.

51.40

Cross wash 10 lks. wide course S. W. and ascend.

80.24

Intersect Third Standard Parallel South 13.15 chs. W. of the standard cor. of secs. 32 and 33, and set a granite stone $20 \times 10 \times 6$ ins. 15 ins. in the ground for closing cor. of secs. 4 and 5, marked C C on S. with 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone 2 ft. base $1 \frac{1}{2}$ ft. high, S. of cor. Pits impracticable.

Land mountainous.

Soil rocky; 4th. rate.

No timber.

Mountainous land 80.24 chains.

From the cor. of secs. 5, 6, 31 and 32 on the S. bdy. of the Tp.

I now run.

N. $0^{\circ} 03' W.$ bet. secs. 31 and 32.

Ascending over rolling foothills.

40.00

Set a granite stone $28 \times 5 \times 4$ ins. 21 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins. N. and S. of stone 3 ft. dist.; and raise a mound of earth $3 \frac{1}{2}$ ft. base $1 \frac{1}{2}$ ft. high W. of cor.

80.00

Set a granite stone $14 \times 10 \times 4$ ins. 9 ins. in the ground for cor. of secs. 29, 30, 31 and 32, marked with 1 notch on S. and 5 notches on E. edges; dig pits $18 \times 18 \times 12$ 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.

Land, hilly.

Soil, sandy and loamy; 1st. rate.

No timber.

Mountainous land 80.00 chains.

April 30; at this cor. I set off $14^{\circ} 45'$ on the decl. arc; and observe the sun on the meridian at noon; the resulting latitude is $32^{\circ} 00' N.$

East on a random line bet. secs. 29 and 32.

40.00

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

80.02

Intersect N. and S. line 7 lks. S. of the cor. of secs. 28, 29, 32 and 33.

Thence I run

N. $89^{\circ} 57' W.$ on a true line bet. secs. 29 and 32.

Over rolling foothills.

40.01

Set a granite stone $16 \times 8 \times 5$ ins. 11 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits $18 \times 18 \times 12$ ins. E. and W. of cor. 3 ft. dist.; and raise a mound of earth $3 \frac{1}{2}$ ft. base $1 \frac{1}{2}$ ft. high N. of cor.

80.02

The cor. of secs. 29, 30, 31 and 32.

Land, Mountainous.

Soil, gravelly; 3rd. rate.

No timber.

52
35

subdivision of Tp. 16 S. Rg. 19 E.

Chains.

Mountainous land 80.02 chains.

40.00
78.54

West on a random line bet. secs. 30 and 31
Set temp. $\frac{1}{4}$ sec. cor.
Intersect W. bdy. of Tp. 9 lks. S. of the cor. of
secs. 25, 30, 31 and 36.
Thence I run

38.54

S. $89^{\circ} 56'$ E. on a true line bet. secs. 30 and 31.
Over rolling foothills.
Set a granite stone 14 x 10 x 4 ins. 9 ins. in the
ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits
18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.
and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft.
high N. of cor.

78.54

The cor. of secs. 29; 30, 31 and 32.
Land mountainous.
Soil, sandy 2nd. rate.
No timber.
Mountainous land 78.54 chains.

30.00
40.00

N. $0^{\circ} 05'$ W. bet. secs. 29 and 30.
~~Spanning~~ over rolling foothills.
Cross wash 30 lks. wide course N. E.
Set a granite stone 20 x 6 x 5 ins. 15 ins. in the
ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; dig pits
18 x 18 x 12 ins. N. and S. of cor. 3 ft. dist. and
raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high
W. of cor.

50.40
61.75
80.00

Cross wash 10 lks. wide course N. E.
Cross wash 30 lks. wide course E.
Set a granite stone 15 x 12 x 3 ins. 9 ins. in the
ground for cor. of secs. 19, 20, 29 and 30 marked with
2 notches on S. and 5 notches on E. edges; 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.
Land, mountainous.
Soil, sandy; 2nd. rate.
No timber.
Mountainous land 80.00 chains.

April 30, 1905.

40.00
79.90

May 1: At 7h. 00m. a.m. l.m.t. I set off $32^{\circ} 01'$ N.
on the lat. arc; $15^{\circ} 00 \frac{1}{2}'$ N. on the decl. arc;
and determine a meridian with the solar at the cor.
of secs. 19, 20, 29 and 30.
Thence I run
N. $89^{\circ} 57'$ E. on a random line bet. secs. 20 and 29.
Set temp. $\frac{1}{4}$ sec. cor.
Intersect N. and S. line 12 lks. S. of the cor. of
secs. 20, 21, 28 and 29.

0.14
15.50
27.50
39.95

Thence I run
S. $89^{\circ} 52'$ W. on a true line bet. secs. 20 and 29.
Over rolling foothills.
Cross wash 6 lks. wide course N.
Cross wash 15 lks. wide course N. E.
Cross wash 10 lks. wide course N. E.
Set a granite stone 18 x 6 x 4 ins. 12 ins. in the
ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits
18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.;
and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft.
high N. of cor. 1 $\frac{1}{2}$ ft.

41.85
46.40
49.75
51.25
58.60
72.50
79.90

Cross wash 10 lks. wide course N. W.
Cross wash 15 lks. wide course N. E.
Cross dry creek 25 lks. wide course N. W.
Cross wash 15 lks. wide course N. E.
Cross dry creek 30 lks. wide course N. E.
Cross wash 10 lks. wide course N. E.
The cor. of secs. 19, 20, 29 and 30.

Subdivision of Tp. 16 S. Rg. 19 E.

chains.

Land, Mountainous.
Soil, sandy; 2nd. rate.
No timber.
Mountainous land, 79.90 chains.

40.00 N. 89° 56' W. on a random line bet. secs. 19 and 30.
78.43 Set temp. 1/4 sec. cor.
Intersect W. bdy. of Tp. 5 lks. N. of the cor. of
secs. 19, 24, 25 and 30.

Thence I run
S. 89° 58' E. on a true line bet. secs. 19 and 30.
Over rolling foothills.

58.45 Set a granite stone 18 x 12 x 6 ins. 12 ins. in the
ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits
18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and
raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high
N. of cor.

59.45 Cross wash 10 lks. wide course S. E.

60.95 Cross dry creek 30 lks. wide course N. E.

73.85 Cross wash 20 lks. wide course N. E.

78.43 The cor. of secs. 19, 20, 29 and 30.

Land hilly.
Soil, sandy; 2nd. rate.
No timber.
Mountainous land 78.43 chains.

N. 0° 03' W. bet. secs. 19 and 20.
~~Ascending~~ over rolling foothills.

7.00 Cross wash 40 lks. wide course N. E.

40.00 Set a granite stone 18 x 8 x 6 ins. 12 ins. in the
ground for 1/4 sec. cor. marked 1/4 on W. face; dig pits
18 x 18 x 12 ins. N. and S. of stone 3 ft. dist.
and raise a mound of earth 3 1/2 ft. base 1 1/2 ft.
high W. of cor.

41.25 Cross wash 20 lks. wide course N. E.

45.50 Cross same wash course N. W.

45.60 Cross same wash course N. E.

51.50 Cross wash 20 lks. wide course N. E.

59.00 Cross wash 25 lks. wide course N. E.

61.00 Cross wash 30 lks. wide course N. E.

69.45 Cross road bears N. E. and S. W.

73.00 Cross wash 10 lks. wide course E.

78.75 Cross wash 5 lks. wide course S. E.

80.00 Set a granite stone 18 x 12 x 5 ins. 12 ins. in the
ground for cor. of secs. 17, 18, 19 and 20 marked
with 3 notches on S. and 5 notches on E. edges; and raise
a mound of stone 2 ft. base 1 1/2 ft. high W.
of cor. Pits impracticable.

Land Mountainous.
Soil, stony; 4th. rate.
No timber.
Mountainous land 80.00 chains.

May 1: at this cor. I set off 15° 03' N. on the decl.
arc; and observe the sun on the meridian at noon;
the resulting lat. is 32° 01 1/2' N.

40.00 N. 89° 52' E. on a random line bet. secs. 17 and 20.
79.82 Set temp. 1/4 sec. cor.

Intersect N. and S. line 9 lks. N. of the cor. of secs.
16, 17, 20 and 21.

Thence I run
S. 89° 56' W. on a true line bet. secs. 17 and 20.
Over rolling foothills.

8.00 Cross dry creek 30 lks. wide course N.

22.00 Cross wash 20 lks. wide course N. E.

31.50 Cross wash in bend 15 lks. wide, course N. E. bears
N. W.

39.91 Set a granite stone 20 x 10 x 4 ins. 15 ins. in the
ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits

Subdivision of Tp. 16 S. Rg. 19 E.

Chains.

18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
 51.00 Cross wash 25 lks. wide course N. E.
 56.50 Cross wash 20 lks. wide course S. E.
 75.00 Cross wash 10 lks. wide course S. E.
 79.82 The cor. of secs. 17, 18, 19 and 20.
 Land hilly.
 Soil, sandy; 2nd. rate.
 No timber.
 Mountainous land 79.82 chains.

N. 89° 58' W. on a random line bet. secs. 18 and 19.
 40.00 Set temp. 1/4 sec. cor.
 78.30 Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs. 18, 18, 19 and 24.
 Thence I run
 East on a true line bet. secs. 18 and 19.
 Over rolling foothills.
 10.50 Cross wash 10 lks. wide course N. E.
 27.00 Cross wash 25 lks. wide course N. E.
 31.90 Cross wash 10 lks. wide course N. E.
 34.70 Cross wash 20 lks. wide course N.
 36.80 Cross wash 10 lks. wide course N. W.
 38.30 Set a granite stone 18 x 6 x 4 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.
 45.20 Cross wash 8 lks. wide course N. E.
 49.25 Cross wash 10 lks. wide course N. E.
 76.80 Cross wash 5 lks. wide course S. E.
 78.30 The cor. of secs. 17, 18, 19 and 20.
 Land, mountainous.
 Soil, stony; 4th. rate.
 No timber.
 Mountainous land 78.30 chains.

N. 0° 03' W. bet. secs. 17 and 18.
 Over rolling mountainous land:
 5.25 Cross wash 10 lks. wide course N. E.
 12.00 Cross wash 15 lks. wide course N. E.
 32.00 Cross dry creek 25 lks. wide course N. E. and ascend
 40.00 Set a granite stone 26 x 8 x 6 ins. 19 ins. in the ground for 1/4 sec. cor. marked 1/4 on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
 49.50 Top of ridge bears N. W. and S. E. and descend.
 57.40 Cross wash 8 lks. wide course N. E. and ascend.
 65.00 Top of ridge E. and W. and descend.
 71.00 Cross wash 8 lks. wide course N. E. and ascend
 80.00 Set a granite stone 20 x 8 x 4 ins. 15 ins. in the ground for cor. of secs. 7, 8, 17, and 18 marked with 4 notches on S. and 5 notches on E. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
 Land mountainous.
 Soil rocky; 4th. rate.
 No timber.
 Mountainous land 80.00 chains.

May 1, 1905

May 2: At 7h. 00m. a.m. l.m.t., I set off 32° 02 1/2' N. on the lat. arc; 15° 18 1/2' N. on the decl arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18
 Thence I run
 N. 89° 56' E. on a random line bet. secs. 8 and 17.

Subdivision of Tp. 16 S. Rg. 19 E.

Chains	
40.00	Set temp. $\frac{1}{4}$ sec cor.
79.80	Intersect N. and S. line 7 lks. N. of the cor. of secs. 8, 9, 16 and 17.
	Thence I run
	S. $89^{\circ} 59'$ W. on a true line bet. secs. 8 and 17.
	Over valley through dense brush.
1.40	Cross creek 4 lks. wide lin; deep course S.
27.00	Cross Picheco Creek, running stream 50 lks. wide course S. E.
39.90	Set a granite stone 26 x 12 x 5 ins. 19 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; dig pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, N. of cor.
	Thence ascend over mountainous land and leave brush.
42.00	Cross wash 10 lks. wide course N. E.
51.50	Cross wash 8 lks. wide course N. E.
58.00	Cross wash 15 lks. wide course N. E.
79.80	The cor. of secs. 7, 8, 17 and 18.
	Land, level and mountainous.
	Soil, sandy and rocky; 2nd. and 4th. rate.
	No few oaks along creek.
	Undergrowth mesquite.
	Mountainous land or land covered with dense undergrowth
	79.80 chains.
	<hr/>
	West on a true line bet. secs 7 and 18.
	Ascending rough E. slope of mountain.
11.00	A small spring bears S. 1.00 chn. dist. stream runs N. E.
31.00	Top of mountain ridge bears N. W. and S. E. and descend
40.00	Set a granite stone 20 x 10 x 6 ins. in a mound of stone for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on N. face; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high N. of cor. Pits impracticable.
60.00	Cross wash 25 lks. wide course S. E.
75.00	Cross wash 20 lks. wide course S. E.
78.25	Intersect W. bdy. of Tp. 5.40 chains N. of the cor. of secs. 12 and 13 and Set a granite 18 x 12 x 6 ins. 12 ins. in the ground for closing cor. of secs 7 and 18 marked C C on E. face; and 4 grooves on S. and 2 groove on N. faces; and raise a mound of stone 2 ft. base 1 $\frac{1}{2}$ ft. high E. of cor. Pits impracticable.
	Land mountainous.
	Soil, rocky; 4th. rate.
	No timber.
	Mountainous land 78.25 chains.
	<hr/>
	N. $0^{\circ} 03'$ W. bet. secs. 7 and 8
	Descending N. slope of mountain.
7.00	Cross wash 10 lks. wide course N. E.
15.20	Cross wash 10 lks. wide course N. E.
26.45	Cross wash 15 lks. wide course N. E.
39.00	Cross Picheco Creek, running stream. 75 lks. wide course S. E. and ascend rough S. slope of mountain.
40.00	Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face; from which
	A sycamore 12 ins. diam bears S. $35^{\circ} 1/2^{\circ}$ E. 19 lks. dist. marked $\frac{1}{4}$ S 8 B T
	A sycamore 12 ins. diam. bears N. $67^{\circ} 1/4^{\circ}$ W. 18 lks. dist. marked $\frac{1}{4}$ S 7 B T
45.00	Cross road bears N. W. and S. E.
50.00	Cross wash 8 lks. wide course S. E.
57.40	Cross same wash 8 lks. wide course S. W.
65.25	Cross wash 10 lks. wide course S. W.
80.00	Set a granite stone 18 x 12 x 4 ins. 12 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked with
	5 Datches on
	nd use a mound of

chains.

	<p>5 notches on S. and E. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.</p> <p>From this cor. the N. E. cor. of M. Picheco's house bears S. 31° 52' W. 14.80 chains dist.</p> <p>Land mountainous.</p> <p>Soil, rocky; 4th. rate.</p> <p>A few sycamores along creek.</p> <p>Mountainous land 80.00 chains.</p> <p>May 2: at this cor. I set off 15° 21' N. on the detl. arc; and observe the sun on the meridian at noon; the resulting latitude is 32° 03 1/2' N.</p>
40.00	N. 89° 59' E. on a random line bet. secs. 5 and 8.
79.90	Set temp. 1/4 sec. cor. Intersect N. and S. line 3 lks. S. of the cor. of secs. 4, 5, 8, and 9. Thence I run S. 89° 58' W. on a true line bet. secs. 5 and 8.
8.20	Over rough S. slope of mountains.
34.40	Cross wash 20 lks. wide course S.
39.95	Cross wash 20 lks. wide course S. Set a granite stone 26 x 8 x 6 ins. 19 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
58.40	Cross wash 20 lks. wide course S. E.
69.70	Cross wash 8 lks. wide course S. E.
79.90	The cor. of secs. 5, 6, 7 and 8. Land mountainous. Soil, rocky; 4th. rate. No timber. Mountainous land 79.90 chains.
3.00	West on a true line bet secs. 6 and 7. Descending rough S. W. slope of mountain.
17.50	Cross gulch 10 lks. wide course S.
23.50	Cross road bears N. W. and S. E.
40.00	Cross Picheco Creek, running stream 50 lks. wide course S. E. and ascend rough E. slope of mountains.
78.11	Set a granite stone 20 x 8 x 6 ins. 15 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable. Intersect W. bdy. of Tp. 6.51 chains N. of the cor. of secs. 1 and 12. and set a granite stone 18 x 12 x 5 ins. 12 ins. in the ground for cor. of secs. 6 and 7: marked C C on E. and 5 grooves on S. and 1 groove on N. faces; and raise a mound of stone 2 ft. base 1 1/2 ft. high E. of cor. Pits impracticable. Land mountainous. Soil, rocky; 4 th. rate. A few sycamores along creek. Mountainous land 78.11 chains.
40.00	N. 0° 03' W. bet. secs. 5 and 6. Ascending rough S. W. slope of mountains. Set a granite stone 28 x 14 x 7 ins. in a mound of stone for 1/4 sec. cor. marked 1/4 on W. face; and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. Pits impracticable.
80.05	Intersect Third Standard Parallel South 13.07 chs. W. of the cor. of secs. 31 and 32 and set a granite stone 24 x 10 x 4 ins. 18 ins. in the ground for closing cor. of secs. 5 and 6 marked C C on S. and 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone 2 ft. base 1 1/2 ft. high S. of cor. Pits impracticable

Subdivision of Tp. 16 S. Rg. 19 E.

chains.

Land mountainous.
Soil rocky; 4th. rate.
No timber.
Mountainous land 80.05 chains

May 2, 1905.

General Description

This Township is broken and mountainous in the northern part and rolling foothills in the southern part, and the soil ranges from a sandy loam to worthless.

There are a few scattered oaks and sycamores along Picheco Creek but no other timber.

The Tp. is watered by Picheco Creek, which runs through the northern portion, during the wet season, at other times it is dry. There is no other water in the Tp.

There is one settler each in secs. 7, 10, and 12 and two in sec. 11.

John F. Hesse
U. S. Deputy Surveyor.

BOOK 1891

LIST OF NAMES.

A list of the names of the individuals employed by John F. Hesse

....., 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 **the subdivis-
ional lines of Tp. 16 S. Rg. 19 E.**

showing the respective capacities in which they acted:

W. W. Oliver....., *Chainman.*

B. M. Hyde....., *Chainman.*

J. I. Nunez....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

L. G. Smith....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John F. Hesse

....., United States Deputy Surveyor, in surveying all those parts or portions of the **subdivisional lines of Tp. 16 S. Rg. 19 E.**

..... of the **Gila**

and Salt River..... meridian, **Territory**..... of **Arizona**....., 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 **Arizona**

W. W. Oliver....., *Chainman.* ✓

B. M. Hyde....., *Chainman.* ✓

J. I. Nunez....., *Moundman.* ✓

....., *Moundman.*

....., *Axman.*

L. G. Smith....., *Axman.*

....., *Flagman.* ✓

Subscribed and sworn to before me this 2nd. }
day of May....., 190 5. }

John F. Hesse

U.S. Deputy Surveyor.



No notary available without loss of time and expense

I, John F. Hesse, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 24th day of January, 1905, 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 Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisional lines of Tp. 16 S. Rg. 19 E.

of the Gila and Salt River meridian, in the Territory of Arizona, 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 Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

John F. Hesse
United States Deputy Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 22nd day of June, 1905

Frank S. Ingalls
U. S. Surveyor General
for Arizona



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix AZ, April 5, 1906

The foregoing field notes of the survey of the subdivisional lines of T. 16 S., R. 19 E., of the Gila and Salt River Base and Meridian, in the territory of Arizona.

executed by John F. Hesse, U. S. deputy surveyor under his contract No. 125, dated January 24th, 1905, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. 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.~~