

Book M

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BOOK 2323

FIELD NOTES

OF THE SURVEY OF THE

South and West Boundaries of Tp. 3 N. Rg. 13 E.

East Boundary of Tp. 1 N. Rg. 13 E.

2323

2323

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 158, dated June 4th., 19 09

Survey commenced June 2., 19 11

Survey completed June 9., 19 11

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NAMES AND DUTIES OF ASSISTANTS.

A. N. Oliver

Chairman

R. A. Counts

R. L. Bates

Steward

1B
76

BOOK 2323

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8

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PRELIMINARY OATHS OF ASSISTANTS.

WE, A. N. Oliver and R. A. Coombs
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 S. and W. boundaries of Tp. 2N. Rg. 12 E. and the E. boundary of Tp. 1 N. Rg. 12 E.

A. N. Oliver, Chainman.
R. A. Coombs, Chainman.

Subscribed and sworn to before me this 2nd.
day of June, 19 11



John P. Hesse
U.S. Deputy Surveyor

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

_____, Moundman.
_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 19 _____



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 _____, 19 _____



I, R. L. Bates, 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 S. and W. boundaries of Tp. 2 N. Rg. 12 E. and the E. boundary of Tp. 1 N. Rg. 12 E.

R. L. Bates, Flagman.

Subscribed and sworn to before me this 2nd.
day of June, 19 11



John P. Hesse
U. S. Deputy Surveyor

East Boundary of Tps. 1 N. Rgs. 12 E.

Chains.

Survey commenced June 2, 1911, and executed with an A. Lietz Co. light mountain transit, No. 7351, 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. 1 N. Rgs. 12 and 13 E.; latitude $33^{\circ} 22' 33''$ N.; longitude $111^{\circ} 03' 42''$ W.; I set off $33^{\circ} 22\frac{1}{2}'$ N. on the lat. arc; $22^{\circ} 10'$ N. on the decl. arc and at 5h. 00m. p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set 5 chs. N. of the cor.

June 2, 1911.

June 3: At 2H. 48m. p.m. by my watch, which has correct l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 6 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 24'$ to the west, and mark the meridian thus determined, by cutting a small groove in the stone set June 2, on which the meridian coincides with the mark determined by the solar

At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 22\frac{1}{2}'$ N. on the lat. arc; $22^{\circ} 14\frac{1}{2}'$ 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 solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively which coincide with the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7h. 15m. a.m., is N. $14^{\circ} 30'$ W.; the angle thus determined gives the mag. decl. $14^{\circ} 30'$ E.

From the cor. of Tps. 1 N. Rgs. 12 and 13 E. which is a stone marked and witnessed as described by the surveyor general I run

North bet. secs. 31 and 36

Ascending steep S. E. slope through dense brush.

5.75 Ridge bears E. and W. descend.

16.45 Cross wash 20 lks. wide course S. E. ascend.

22.00 Ridge bears N. W. and S. E. descend.

24.10 Cross wash 15 lks. wide course S. W. ascend.

40.00 Set a granite stone 18 x 10 x 8 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.

52.00 Ridge bears E. and W. descend.

59.50 Cross wash 20 lks. wide courses S. E.

72.87 Ridge bears E. and W.

75.00 Wash 15 lks. wide course N. E.

80.00 Mark a cross on a granite rock in place 36, x 24 x 18 ins. above ground, for exact point for cor. of secs. 25, 30, 31 and 36, with 1 groove on S. and 5 grooves on N. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

East Boundary of Tp. 1 N. Rg. 12 E.

Chains.

Land, Mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, very dense manzanita and oak brush.
 June 3: At this cor. I set off 22° 15½' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 23½' N.

North bet. secs. 25 and 30
 Ascending steep rocky S. slope through dense brush.
 1.20 Ridge bears N. E. and S. W. and descend along N. E. slope.
 15.00 Cross wash 10 lks, wide course N. E.
 20.25 Ridge bears N. E. and S. W.
 32.00 Cross wash 20 lks. wide course E. ascend.
 40.00 Point for ¼ sec. cor., falls in drain 7 lks. wide course S. W. so at
 40.25 Set a granite stone 20 x 10 x 8 ins. 15 ins. in the ground for witness ¼ sec. cor., marked ¼ on W. face; from which
 A cedar 10 ins. diam., bears S. 6° W. 51 lks. dist., marked ¼S25BT.
 No other tree available. Raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 76.00 Ridge bears E. and W.
 80.00 Set a granite stone 18 x 12 x 6 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 raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, very dense oak, manzanita and catclaw brush

June 3, 1911.

June 4: At 7h. 00m. a.m., l.m.t., I set off 33° 24½' N. on the lat. arc; 22° 22' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 24, 25, and 30
 Thence I run
 North bet. secs. 19 and 24
 Descending through dense brush.
 6.00 Cross drain 5 lks. wide course N. W.
 19.50 Cross same drain course N. E.
 30.00 Cross wash 20 lks. wide course N. W. ascend.
 40.00 Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 47.90 Ridge bears S. E. and N. W. and descend N. E. slope.
 71.20 Cross drain 5 lks. wide course E.
 80.00 Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked with 3 notches on N. and S. edges; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, very dense oak, catclaw and manzanita brush
 June 4: At this cor. I set off 22° 22½' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 25' N.

East boundary of Tp. 1 N. Rg. 12 E.

Chains

North bet. secs. 13 and 18
Descending along N. E. slope through dense brush.

29.00 Cross wash 15 lks. wide course N. E., water in pools; ascend.

40.00 Set a granite stone 18 x 10 x 8 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.

57.50 Ridge bears N. W. and S. E. descend.

78.00 Enter oak timber.

80.00 Set a granite stone 20 x 10 x 6 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; from which

An oak 12 ins. diam., bears N. $18\frac{1}{4}^{\circ}$ E. 113 lks. dist., marked T1NR13ES7BT.

An oak 6 ins. diam., bears S. 61° E. 81 lks. dist., marked T1NR13ES18BT.

An oak 9 ins. diam., bears S. 71° W. 64 lks. dist., marked T1NR12ES13BT.

An oak 10 ins. diam., bears N. $23\frac{1}{4}^{\circ}$ W 44 lks. dist., marked T1NR12ES12BT.

Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak.
Undergrowth, catclaw, manzanita and oak brush.

June 4, 1911.

June 5: At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 26'$ N. on the lat. arc; $22^{\circ} 29'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18.

Thence I run

North bet. secs. 7 and 12.
Descending through heavy timber and dense brush.

12.70 West fork Pinto Creek, running water 10 lks. wide 3 ins. deep, course E. Leave timber.

31.20 Cross drain 5 lks. wide course S. E.

39.00 Ridge bears S. E. and N. W.

40.00 Mark a cross on a lime stone in place 12 x 10 x 8 ins. above ground for exact point for $\frac{1}{4}$ sec. cor.; marked $\frac{1}{4}$ on W. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

46.30 Cross wash 20 lks. wide course S. W. and ascend steep S. W. slope.

80.00 Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked with 1 notch on N. and 5 notches on S. edges; from which

A mesquite 6 ins. diam., bears S. 49° E. 76 lks. dist., marked T1NR13ES7 BT.

No other trees availabel. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
Land, mountainous.
Soil, rocky; 4th. rate.
Timber, oak.
Undergrowth, catclaw, manzanita and oak brush.

June 5: At this cor. I set off $22^{\circ} 29\frac{1}{2}'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ} 27'$ N.

North bet. secs. 1 and 6
Ascending S. W. slope through dense brush.

11.00 Ridge bears E. and W. descend.

27.80 Cross drain 6 lks. wide course N. W.

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; and raise

East boundary of Tp. 1 N. Rg. 12 E.

Chains.

42.00
62.50
65.00
80.00

a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor.
 Pits impracticable.
 Cross wash 30 lks. wide course E.
 Ridge bears E. and W.
 Cross wash 15 lks. wide course N. E.
 Set a limestone 20 x 10 x 10 ins. 15 ins. in the ground
 for cor. of Tps. 1 and 2 N. Rgs. 12 and 13 E.; marked
 2N on N. E.
 13E on S. E.
 1N on S. W. and
 12E on N. W. face; with 6 notches on each edge, 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.
 Undergrowth, catclaw, manzanita and oak brush.

June 5 , 1911.



South boundary of Tp. 2 N. Rg. 12 E.

Chains.

June 6: At 7h. 00m. a.m., l.m.t., I set off 33° 28' N. on the lat. arc; 22° 36' N. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 1 and 2 N. Rgs. 12 and 13 E.

Thence I run

West bet. secs. 1 and 36
Ascending steep S. E. slope through dense brush.

6.50 Drain 6 lks. wide course S. E.

36.80 Ridge bears N. E. and S. W.

40.00 Set a granite stone 18 x 6 x 6 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, N. of cor. Pits impracticable.

58.50 Cross wash 15 lks. wide course N. E. and ascend.

80.00 Set a granite stone 20 x 10 x 6 ins. 15 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked with 1 notch on E. and 5 notches on W. edges; and raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.

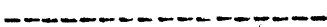
Land, mountainous.

Soil, rocky; 4th. rate.

No timber.

Undergrowth, catclaw, manzanita and oak brush.

June 6; At this cor. I set off 22° 36 1/2' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 28' N.



West bet. secs. 2 and 35
Ascending through dense brush.

14.75 Ridge bears N. E. and S. W. descend.

21.00 Cross wash 15 lks. wide course N. E. ascend.

40.00 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.

41.00 Ridge bears N. W. and S. E.

54.00 Cross drain 7 lks. wide course S. E.

80.00 Set a sandstone 20 x 8 x 4 ins. 15 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on E. and 4 notches on W. edges; from which

A juniper 8 ins. diam., bears S. 85 1/4° W. 77 lks. dist., marked T1NR12ES3BT.

A pinon 4 ins. diam., bears N. 36° W. 147 lks. dist., marked T2NR12ES34BT

No other trees available. Raise a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor. Pits impracticable.

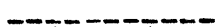
Land, mountainous.

Soil, rocky; 4th. rate.

No timber.

Undergrowth, catclaw, manzanita and oak brush.

June 6, 1911.



June 7: At 7h. 00m. a.m., l.m.t., I set off 33° 28' N. on the lat. arc; 22° 42' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35

Thence I run

West bet. secs. 3, and 34.
Ascending steep rocky S. E. slope through dense brush.

11.00 Ridge bears N. E. and S. W.

33.50 Cross drain 7 lks. wide course N. W. ascend.

40.00 Set a sandstone 24 x 10 x 6 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.

South boundary of Tp. 2 N. Rg. 12 E.

Chains.

54.30 Ridge bears N. W. and S. E. descend.
 71.00 Cross drain 7 lks. wide course N. W.
 80.00 Set a granite stone 18 x 12 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; from which
 A juniper 12 ins. diam., bears N. $42\frac{1}{2}^{\circ}$ E. 88 lks. dist., marked T2NR12ES34BT
 A juniper 12 ins. diam., bears N. $35\frac{3}{4}^{\circ}$ W. 127 lks. dist., marked T2NR12ES33BT.
 No other trees available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, scattering juniper and pinon.
 Undergrowth, manzanita and oak brush.
 June 7: At this cor. I set off $22^{\circ} 42\frac{1}{2}'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ} 28'$ N.

 West bet. secs. 4 and 33
 Descending through dense brush.
 19.50 Cross Campaign Creek 40 lks. wide course N. E. and asc
 40.00 Set a sandstone 18 x 10 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.
 65.35 Ridge bears N. and S. descend.
 73.20 Cross drain 5 lks. wide course N. W.
 80.00 Mark a cross on a sandstone in place 40 x 24 x 10 ins. above ground for exact point for cor. of secs. 4, 5, 32 and 33, with 4 grooves on E. and 2 grooves on W. of cross; and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable.
 Land, mountainous.
 Soil, rocky; 4th. rate.
 No timber.
 Undergrowth, manzanita and oak brush.

June 7, 1911.

 June 8: At 7h. 00m. a.m., l.m.t., I set off $33^{\circ} 28'$ N. on the lat. arc; $22^{\circ} 48'$ N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33
 Thence I run
 West bet. secs. 5 and 32
 Descending through dense undergrowth.
 12.75 Cross drain 6 lks. wide course N. W.
 18.00 Ridge bears N. and S. descend.
 31.50 Cross drain 6 lks. wide course N. W.
 40.00 Set a malpais stone 18 x 10 x 6 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face; from which
 A pine 18 ins. diam., bears N. 35° E. 56 lks. dist., marked $\frac{1}{4}$ S32BT
 An oak 6 ins. diam., bears S. $32\frac{3}{4}^{\circ}$ W. 5 lks. dist., marked $\frac{1}{4}$ S5BT
 42.50 Ridge bears N. W. and S. E.
 48.20 Cross drain 5 lks. wide course S. W.
 69.00 Cross wash 30 lks. wide course N. E.
 80.00 Set a granite stone 18 x 10 x 8 ins. 12 ins. in the ground for cor. of secs. 5, 6, 31 and 32, marked with 1 notch on W. and 5 notches on E. edges; from which
 An oak 6 ins. diam., bears S. 50° W. 39 lks. dist., marked T1NR12ES6BT.
 No other trees available. Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

South boundary of Tp. 2 N. Rg. 12 E.

Chains.

Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, scattering pine, oak and juniper.
 Undergroth, manzanita and oak brush.
 June 8; At this cor. I set off $22^{\circ} 48\frac{1}{2}'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ} 28'$ N.



West bet. secs. 6 and 31
 Ascending through dense brush.
 0.50 Ridge bears N. and S. descend.
 7.20 Drain 5 lks. wide course N. W.
 20.18 Ridge bears N. and S.
 40.00 Set a granite stone 20 x 12 x 8 ins. 15 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.
 68.55 Reeves Creek 40 lks. wide course N. ascend.
 79.52 Set a granite stone 20 x 8 x 8 ins. 15 ins. in the ground for cor. of Tps. 1 and 2 N. Rgs. 11 and 12 E., marked with 6 notches on each edge ; from which
 An oak 5 ins. diam., bears N. $41\frac{3}{4}^{\circ}$ E. 12 lks. dist., marked T2NR12ES31BT.
 An oak 4 ins. diam., bears S. 27° E. 9 lks. dist., marked T1NR12ES6BT.
 An oak 6 ins. diam., bears S. $71\frac{3}{4}^{\circ}$ W. 54 lks. dist., marked T1NR11ES1BT.
 An oak 4 ins. diam., bears N. $32\frac{1}{4}^{\circ}$ W. 22 lks. dist., marked T2NR11ES36BT.

Land, mountainous.
 Soil, rocky; 4th. rate.
 Timber, scattering pine, juniper and oak.
 Undergrowth, manzanita and oak brush.

June 8, 1911.



West boundary of Twp. 2 N. Rg. 12 E.

Chains.	June 9: At 7h. 00m. a.m., l.m.t., I set off 33° 28' N. on the lat. arc; 22° 53½' N. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 1 and 2 N. Rgs. 11 and 12 E. Thence I run.
40.00	North bet. secs. 31 and 36 Ascending through dense brush. Set a granite stone 18 x 8 x 6 ins. 12 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; from which A juniper 6 ins. diam., bears S 51¼° E. 48 lks. dist., marked ¼S31BT A juniper 8 ins. diam., bears N. 44¼° W. 25 lks. dist., marked ¼S36BT.
52.00	Ridge bears N. W. and S. E.
61.20	Cross drain 7 lks. wide course N. W.
75.00	Ridge bears E. and W.
78.50	Cross drain 5 lks. wide course N. W.
80.00	Set a granite stone 18 x 10 x 8 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; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, manzanita and oak brush.
	June 9: At this cor. I set off 22° 54' N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 28½' N.

	North bet. secs. 25 and 30 Descending through dense brush.
5.70	Cross drain 5 lks. wide course W.
11.00	Ridge bears E. and W. descend.
40.00	Set a granite stone 20 x 8 x 6 ins. 15 ins. in the ground for ¼ sec. cor., marked ¼ on W. face; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable.
44.90	Cross wash 15 lks. wide course N. W. ascend.
67.00	Cross drain 5 lks. wide course W.
71.00	Ridge bears E. and W.
80.00	Set a granite stone 20 x 10 x 10 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; and raise a mound of stone 2 ft. base 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, rocky; 4th. rate. No timber. Undergrowth, manzanita and oak brush.

June 9, 1911.

General Description.

This township is extremely rough and mountainous and is covered with a dense growth of manzanita and oak brush. There is no agricultural land in the township excepting a very small patch in the S. W. cor. of the township, therefore I discontinue the survey of the west boundary at the cor. of secs. 19, 24, 25 and 30 and do not survey either the east or north boundaries.

John P. Hesse
U. S. Deputy Surveyor

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

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LIST OF NAMES.

BOOK 2323

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 S. and W. boundaries of Tp. 2 N. Rg. 12 E. and the E. bdy. of Tp. 1 N. Rg. 12 E. showing the respective capacities in which they acted:

A. N. Oliver....., *Chainman.*

R. A. Coombs....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

R. L. Bates....., *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 S. and W. boundaries of Tp. 2 N. Rg. 12 E. and the E. boundary of Tp. 1 N. Rg. 12 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.

A. N. Oliver....., *Chainman.*

R. A. Coombs....., *Chainman.*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

R. L. Bates....., *Flagman.*

Subscribed and sworn to before me this 14th. }
day of June, 19 11

John F. Hesse
U. S. Deputy Surveyor.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

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BOOK 2323

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 4th. day of June, 1909, 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 S. and W. boundaries of Tp. 2 N. Rg. 12 E. and the E. boundary of Tp. 1 N., Rg. 12 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 3rd day of July, 1911

Frank S. Ingalls
SURVEYOR GENERAL OF ARIZONA



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. March 18, 1912

The foregoing field notes of the survey of the East and North Boundaries of Tp. 1 N. Rg. 12 E. and the West Boundary of Tp. 2 N. Rg. 12 E., Gila and Salt River, Arizona

executed by John F. Hesse under his contract No. 158, dated June 4, 1909, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank 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.