

JUL 3-1907

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Book "A."

2053

BOOK 2053

FIELD NOTES

OF THE SURVEY OF THE

Re-survey of the Gila and Salt River Base Line through Rg. 2 W.

2053

2053

2053

Of the Gila and Salt River Meridian,
Territory of Arizona.

AS SURVEYED BY

John F. Hesse, United States Deputy Surveyor,

Under his Contract No. 142, dated November 10th, 1906., 189

Survey commenced May 16, 1907, 189

Survey completed May 23, 1907, 189

2053

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17A

BOOK 2053

NAMES AND DUTIES OF ASSISTANTS.

A. N. Oliver Chairman

H. S. Young Chairman

C. C. Collins Chairman

Ben Jones Chairman

W. W. Shawk Flagman.

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BOOK 2053

INDEX DIAGRAM.

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BOOK 2053

PRELIMINARY OATHS OF ASSISTANTS.

WE, A. N. Oliver, H. S. Young, C. and Collins and Ben Jones
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over 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 re-survey of the Gila and Salt River Base Line through R. 2 W.

A. N. Oliver, Chainman.
H. S. Young, Chainman.
C. Collins, "
Ben Jones, "

Subscribed and sworn to before me this 16th
day of May 1907, 189



John P. Hesse
U. S. Dep. Surveyor

WE, I, C. C. Collins and _____
do solemnly swear that we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of
the resurvey of the Gila and Salt River Base Line through Rg. 2 W.

C. C. Collins, Moundman.
_____, Moundman.

Subscribed and sworn to before me this 16th
day of May 1907, 189



John P. Hesse
U. S. Dep. 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 _____, 189



I, W. W. Shawk, 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
resurvey of the Gila and Salt River Base Line through Rg. 2 W.

W. W. Shawk, Flagman.

Subscribed and sworn to before me this 16th
day of May 1907, 189



John P. Hesse
U. S. Dep. Surveyor

No notary available without, loss of time and great expense.

Resurvey of the Gila and Salt River Base Line through Range 2 West

Survey commenced May 16, 1907, 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 my camp, which is situated 20.00 chains south of the cor. of secs. 27, 28, 33 and 34, Tp. 1 N. Rg. 2W.; latitude $33^{\circ} 23' 19''$ N., longitude $112^{\circ} 25' 42''$ W.; At 3h. 57.6m., a. 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.

I mark my station point by a cross on an iron spike driven firmly in the ground.

At 6h. 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 a groove on an iron spike driven firmly in the ground 5 chs. N. of my station.

At 7h. 00m. a. m. l.m.t., I set off $33^{\circ} 23' 1/2''$ N. on the lat. arc; $18^{\circ} 56'$ N. on the dec'l. arc; and mark a point in the meridian determined with the solar, by a cross on the spike 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 8h.00m. a. m. is N. $14^{\circ} 05'$ W.; the angle thus determined gives the mag. dec'l. $14^{\circ} 05'$ E.

At 3h. 00m. p. m. l.m.t., I set off $33^{\circ} 23' 1/2''$ N. on the lat. arc; $19^{\circ} 00'$ N. on the dec'l. arc; and mark a point in the meridian determined with the solar, by a cross on the spike 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. observations defines positions for meridians which coincides with the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

May 16, 1907.

May 17; At 7h. 00m. a. m. l.m.t., I set off $33^{\circ} 23'$ N. on the lat. arc; $19^{\circ} 20'$ N. on the dec'l. arc; and determine a meridian with the solar at the standard cor. of Tp. 1 N. Rgs. 1 and 2 W., which is a granite stone 12 x 8 x 5 ins. above ground, firmly set, and marked and witnessed as described by the surveyor general.

Preliminary to commencing the resurvey of the Base Line and in order to test the alinement and measurement and discover whether all of the cors. are still to be found, I commence at the standard cor. above described,

Thence I run

West on south bdy. of sec. 36

39.80

A point 46 lks. N. of the old standard $\frac{1}{4}$ sec. cor. a stone marked and witnessed as described by the surveyor general

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

39.97

A point 8 lks. S. of the old standard cor. of secs. 35 and 36. a post marked as described by the surveyor general and lying on the remains of a mound of earth.

Resurvey of the Gila and Salt River Base Line through Range 2 West.

West on south bdy. of sec. 35.
 39.40 A point 9 lks. S. of the old standard $\frac{1}{4}$ sec. cor. the remains of a post badly rotted and of a mound of earth.
 Thence west from standard $\frac{1}{4}$ sec. cor.
 40.00 I am unable to find any trace of the old standard cor. of secs. 34 and 35, I therefore continue my line west.
 80.00 This point is in the bed of the Gila River and the cor. washed away. I continue my line west.
 119.40 A point 25 lks. S. of the remains of the old standard cor. of secs. 33 and 34, a marked stone 12 ins. in the ground.
 May 17: At this cor. I set off $19^{\circ} 12'$ N. on the dec'l. arc; and observe the sun on the meridian at noon; the resulting lat. is $33^{\circ} 23'$ N.

West on S. bdy. of sec. 33.
 39.99 A point 34 lks. S. of the old standard $\frac{1}{4}$ sec. cor. a marked stone 12 ins. in the ground.
 Thence from $\frac{1}{4}$ sec. cor. west.
 39.94 A point 37 lks. S. of the old standard cor. of secs. 32 and 35, a marked stone 12 ins. in the ground.

West on S. bdy. of sec. 32.
 39.98 The old standard $\frac{1}{4}$ sec. cor. a marked stone 12 ins. in the ground.
 Thence west from $\frac{1}{4}$ sec. cor.
 40.06 A point 5 lks. N. of the old standard cor. of secs. 31 and 32 a marked stone 12 ins. in the ground.

West on south bdy. of sec. 31.
 39.75 A point 13 lks. S. of the old standard cor. of Tps. 1 N. Rgs. 1 and 2 W.
 May 17, 1907.

May 18, 19, 20 and 21 I make a preliminary retracement of the east, west and north boundaries of Tp. 1 N. Rg. 2 W. in order to determine the condition of these lines.

May 22; At 7h. 00m. a.m. l.m.t., I set off $33^{\circ} 23'$ N. on the lat. arc; $20^{\circ} 15'$ N. on the dec'l. arc; and determine a meridian with the solar at the standard cor. of Tps. 1 N. Rgs. 1 and 2 W., previously described,

Thence I run
 S. $89^{\circ} 21'$ W. on S. bdy. of sec. 36.
 Along S. slope of mountain.
 3.80 Enter wash 30 lks. wide, bears S. E.
 7.40 Leave wash, course N. W. and along N. slope.
 11.20 Cross wash 30 lks. wide, course N.
 13.20 Cross wash 10 lks. wide course N.
 15.60 Cross wash 10 lks. wide course N. E. and ascend.
 23.05 Top ridge bears N. E. and S. W. and descend.
 25.80 Cross drain 5 lks. wide course N. W. and ascend.
 28.40 Top ridge bears N. W. and S. E. and descend.
 30.30 Cross drain 2 lks. wide course S. and ascend.
 33.80 Top ridge running S. from peak about 2 chs. N. and descend.
 Difference between measurements of 39.80 chs., by two sets of chainmen, is 8 lks.; position of middle point
 By 1st. set, 39.76 chs.
 By 2nd. set, 39.84 chs.; the mean of which is
 39.80 The old standard $\frac{1}{4}$ sec. cor. I destroy the old cor. and re-establish it in the same place as follows:

Resurvey of the Gila and Salt River Base Line through Range 2 West

- Set a granite stone 18 x 10 x 6 ins. 12 ins. in the ground for old standard $\frac{1}{4}$ sec. cor. marked OLD SC on N. face; and raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
Thence from old standard $\frac{1}{4}$ sec. cor. I run.
N. 89° 53' W.
Difference between measurements of 40.99 chs., by two sets of chainmen, is 8 lks.; position of middle point
By 1st. set, 40.95 chs.
By 2nd. set, 41.03 chs.; the mean of which is
- 40.99 Set a granite stone 18x 8x 6 ins. 12 ins. in the ground for standard $\frac{1}{4}$ sec. cor., marked SC $\frac{1}{4}$ on N. face; and raised a mound of stone 2 ft. base 1 1/2 ft. high N. of cor. Pits impracticable.
- 46.27 Cross wash 15 lks. wide course N. W. and over slightly rolling land, through scattering brush.
- 58.37 Cross wash 20 lks. wide course N. W.
- 62.97 Cross wash 10 lks. wide course N. W. and over level land.
- 66.37 Cross old road bears N. E. and S. W.
Difference between measurements of 79.77 chs., by two sets of chainmen, is 6 lks.; position of middle point
By 1st. set, 79.74 chs.
By 2nd. set, 79.80 chs.; the mean of which is
- 79.77 The old standard cor. of secs. 35 and 36. I destroy the old cor. and re-establish it in the same place as follows
Set a granite stone 16 x 12 x 4 ins. 11 ins. in the ground for old standard cor. of secs. 35 and 36, marked OLD SC on N. face; from which
A mesquite 30 ins. diam., bears N. 5° 30' W. 30 lks. dist. marked SCT1NR2WS36BT
No other tree available. 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. Thence N. 89° 52' W.
Difference between measurements of 80.99 chs., by two sets of chainmen, is 6 lks.; position of middle point
By 1st. set, 80.96 chs.
By 2nd. set, 81.02 chs.; the mean of which is
- 80.99 Set a granite stone 20 x 6 x 6 ins. 15 ins. in the ground for standard cor. of secs. 35 and 36, marked SC on N.; with 1 groove on E. and 5 grooves on W. faces; from which
A mesquite 30 ins. diam., bears N. 76° 22' E. 122 lks. dist. marked SCT1NR2WS36BT. *No other tree available*
dig pits 24x18x12 ins. crosswise on each line, E. & W. 3 ft. and N. of stone 7 ft. dist. and raise mound of earth 4 ft. base 2 ft. high N. of cor.
Land, mountainous, level and rolling.
Soil, rocky and adobe; 1st. and 4th. rate.
No timber.
Undergrowth, greasewood.
Mountainous land, 46.27 chains.
-
- N. 89° 52' W. on S. bdy. sec. 35.
Over level land through dense sage and scattering mesquite brush.
- 1.08 Cross old road bears N. E. and S. W.
Difference between measurements of 38.18 chs., by two sets of chainmen, is 4 lks.; position of middle point
By 1st. set, 38.20 chs.
By 2nd. set, 38.16 chs.; the mean of which is
- 38.18 The old standard $\frac{1}{4}$ sec. cor. I destroy the remains of the old cor. and re-establish it in the same place as follows
Set a granite stone 18 x 6 x 6 ins. 12 ins. in the ground for old standard $\frac{1}{4}$ sec. cor. marked OLD SC on N. face; dig pits 18 x 18 x 12 ins., E. and W. of stone, 3 ft. dist.; and raised a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
As the old standard cor. of secs 35 and 34, and the standard $\frac{1}{4}$ sec. cor. on the S. bdy. of sec. 34 are lost I re-establish these cors. as follows: as the total distance from the old standard cor. on the S. bdy. of sec. 35 to the old standard cor. of secs. 33 and 34 is 119.40 chs. and the falling running west is 25 lks. S. therefore the

Resurvey of the Gila and Salt River Base Line through Range 2 West.

- course of the line will be N. 89° 53' W. and by proportionate measurement the length of each half mile will be 39.80 chains.
- Therefore from the old standard $\frac{1}{4}$ sec. cor. on the S. bdy. of sec. 35 I run
N. 89° 53' W. ✓
- 38.20 Leave sage and mesquite and through dense arrow brush. As point for standard $\frac{1}{4}$ sec. cor. will fall in river bed I therefore set a witness cor. for this cor.
Difference between measurements of 38.58 chs., by two sets of chainmen, is 4 lks.; position of middle point
By 1st. set, 38.60 chs.
By 2nd. set, 38.56 chs.; the mean of which is
- 38.58 Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for witness cor. to standard $\frac{1}{4}$ sec. cor. marked WC SC $\frac{1}{4}$ 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.
- 39.28 Leave dense arrow brush, left bank of Gila River and over dry sandy river bed.
Difference between measurements of 77.98 chs., by two sets of chainmen, is 4 lks.; position of middle point
By 1st. set, 78.00 chs.
By 2nd. set, 77.96 chs.; the mean of which is
- 77.98 Point for old standard cor. of secs. 34 and 35 falls in river bed where if established it would be washed away at high water.
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 Point for Standard cor. of secs. 34 and 35 falls at edge of river bank on left bank of river, where if established it would be washed away at high water.
Land, level.
Soil, adobe and sandy; 1st. and 4th. rate.
No timber.
Undergrowth, sage, arrow and mesquite brush.
Land covered with dense brush 39.28 chs.
May 22; At this cor. I set off 20° 16 1/2' N. on the dec'l. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 23' N. ✓
-
- N. 89° 53' W. on S. bdy. sec. 34, from true point for new cor.
Over level land through dense greasewood brush.
Difference between measurements of 20 lks. by two sets of chainmen is nothing.
- 0.20 Set a granite stone 18 x 6 x 5 ins. 12 ins. in the ground for witness cor. to old standard cor. and new standard cor. of secs. 34 and 35, marked WCSC on N. face; with 2 grooves on E. and 4 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.
- 7.50 Leave greasewood, and through salt brush.
- 16.80 Left bank Gila River 6ft. high and over dry, sandy bed of river.
Difference between measurements of 37.58 chs. by two sets of chainmen is 1 lk.; position of middle point
By 1st. set, 37.785 chs.
By 2nd. set, 37.575 chs.; the mean of which is
- 37.58 Point for old standard $\frac{1}{4}$ sec. cor. falls in bed of Gila River, where if established it will be washed out at high water.
Difference between measurements of 40.00 chs. by two sets of chainmen is 1 lk.; position of middle point
By 1st. set 40.005 chs.
By 2nd. set 39.995 chs.; the mean of which is
- 40.00 Point for new standard $\frac{1}{4}$ sec. cor. falls in bed of Gila Riv

Resurvey of the Gila and Salt River Base Line through Range 2 West

	where if established it would be destroyed at high water.
71.20	Right bank of Gila River 8 ft. high and over level land.
77.10	Wire fence, bears N. and S.
77.15	Cross irrigating ditch on bridge, 10 lks. wide course S.
	Difference between measurements of 77.58 chs. by two sets of chainmen is 2 lks.; position of middle point
	By 1st. set, 77.49 chs.
	By 2nd. set, 77.47 chs.; the mean of which is
77.58	The old standard cor. of secs. 33 and 34. I destroy the old cor. and re-establish it in the same place as follows
	Set a granite stone 24 x 6 x 6 ins. 18 ¹ / ₂ ins. in the ground for old standard cor. of secs. 33 and 34, marked OLD SC on N. face; from which
	An iron telephone post 2 ins. diam. bears N. 59° 26' E. 77 lks. dist. marked BOSCS4
	A mesquite 8 ins. diam., bears N. 21° 30' W. 101 lks. dist. marked OLDSC1NR2WS34BT. Thence N. 89° 31' 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.
	By 2nd. set, 79.99 chs.; the mean of which is
80.00	Set a granite stone 20 x 8 x 8 ins. 15 ¹ / ₂ ins. in the ground for standard cor. of secs. 33 and 34, marked SC on N.; with 3 grooves on E. and W. faces; from which
	An iron telephone post 2 ins. diam. bears N. 64° 22' E. 89 lks. dist. marked SCB034.
	An iron telephone post 2 ins. diam. bears N. 74°, 17' W. 157 lks. dist., marked SCB033
	Land level.
	Soil, sandy and adobe, 1st. and 4th. rate.
	No timber.
	Undergrowth, greasewood and salt brush.
	Land covered with dense undergrowth, 7.50 chs.
	<hr/>
	N. 89° 31' W. on S. bdy. sec. 33
	Over level land in lane alongside of road.
21.00	Along in road.
29.60	A point whence B. Corgait house bears S. 5.80 chs. dist.
30.40	A point whence B. Corgait house bears S. 6.80 chs. dist.
	Difference between measurements of 39.57 chs. by two sets of chainmen is 2 lks.; position of middle point
	By 1st. set 39.56 chs.
	By 2nd. set 39.58 chs.; the mean of which is
37.57	The old standard ¹ / ₄ sec. cor. I reestablish in the same place as follows: The point for old standard ¹ / ₄ sec. cor. falls in road. Deposit a marked stone 18 ins. in the ground for old standard ¹ / ₄ sec. cor.; from which
	A granite stone 18 x 6 x 6 ins., set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of stone; bears N., 40 lks. dist.
	A granite stone 18 x 6 x 5 ins., set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of stone; bears S. 40 lks. dist.
	The bearing tree for the new standard ¹ / ₄ sec. cor.
	A mesquite 10 ins. diam. bears N. 34 1/2° W. 89 lks. dist. marked SC ¹ / ₄ S33BT.
	No other bearings available.
	Thence from old standard ¹ / ₄ sec. cor. I run
	N. 89° 28' W.
	Difference between measurements of 40.00 chains, by two sets of chainmen is 2 lks.; position of middle point
	By 1st. set, 39.99 chs.
	By 2nd. set, 40.01 chs.; the mean of which is
40.00	Point for standard ¹ / ₄ sec. cor. falls in road. Deposit a

Resurvey of the Gila and Salt River Base Line through Range 2 West.

marked stone 18 ins. in the ground for standard 1/4 sec. cor.: from which

A mesquite 10 ins. diam. bears N. 69 3/4° E. 205 lks. dist. marked SC 1/4 S33BT.

a granite stone 18 x 6 x 5 ins. set 12 ins. in the ground, marked SC 1/4 on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of stone; bears N. 40 lks. dist.

A granite stone 18 x 6 x 5 ins. set 12 ins. in the ground, marked SC 1/4 on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone, 3 ft. dist.; and a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of stone; bears S. 40 lks. dist.

No other bearings available.

Difference between measurements of 77.51 chs. by two sets of chainmen is 4 lks.; position of middle point

By 1st. set, 77.49 chs.

By 2nd. set, 77.53 chs.; the mean of which is

77.51 The old standard cor. of secs. 32 and 33. I destroy the old marked stone and reestablish the cor. in the same place as follows: point for old standard cor. falls in road. I deposit a marked stone 12 ins. in the ground for old standard cor. of secs. 32 and 33; from which

A cottonwood 10 ins. diam., bears N. 31 3/4° W. 88 lks. dist. marked OLD SCTLNR2WS33BT.

A granite stone 18 x 6 x 6 ins. set 12 ins. in the ground; marked WCOLDSC on N. face; with pits 24 x 18 x 12 ins. E. and W. 3 ft. dist. and N. of stone 7 ft. dist.; and a mound of earth 4 ft. base, 2 ft. high, N. of stone, bears N. 17° 30' W. 60 lks. dist. and from this witness cor. a cottonwood 10 ins. diam. bears N. 22 1/4° W. 53 lks. dist. marked WCOLD SCTLNR2WS33BT. Thence from old standard cor. I run west.

I could not put this witness cor. on line N. of the old standard cor. on account of road which runs N. from the old standard cor.

79.50 Along at side of road.

Difference between measurements of 80.00 chs. by two sets of chainmen is 4 lks.; position of middle point

By 1st. set, 79.98 chs.

By 2nd. set, 80.02 chs.; the mean of which is

80.00 Set a granite stone 20 x 6 x 6 ins. 15 ins. in the ground for standard cor. of secs. 32 and 33, marked SC on N. with 4 grooves on E. and 2 grooves on W. faces; from which

A cottonwood 6 ins. diam. bears N. 42 1/4° E. 70 lks. dist. marked SCTLNR2WS33BT.

A cottonwood 10 ins. diam., bears N. 44° W. 71 lks. dist., marked SCTLNR2WS32BT.

From this cor. the S. E. cor. of M. Mazaro's house bears N. 22° 47' E. 263 chs. dist.

Land, level.

Soil, adobe; 1st. rate:

No timber.

May 22, 1907.

May 23: At 7h. 00m. a.m. l.m.t., I set off 33° 23' N. on the lat. arc; 20° 27' N. on the dec'l. arc; and determine a meridian with the solar at the standard cor. of secs. 32 and 33.

Thence I run

West on S. bdy. sec. 32.

Alongside road in lane, over level land.

8.50 Along in road.

16.04 A point whence L. Schrom's house bears N. 3.12 chs.

32.20 A point whence A. M. Lefferty's house bears N. 3.85 chs.

37.44 Cross irrigating ditch 4 lks. wide course S.

37.49 The old standard 1/4 sec. cor. I destroy the old marked stone and re-establish the cor. in the same place as

Resurvey of the Gila and Salt River Base Line through Range 2 west

follows:

- 37.49 Difference between measurements of 37.49 chs. by two sets of chainmen is 2 lks.; position of middle point by 1st. set, 37.50 chs.
By 2nd. set, 37.48 chs.; the mean of which is Deposit a marked stone 12 ins. in the ground for old standard $\frac{1}{4}$ sec. cor.; from which
A granite stone 18 x 6 x 5 ins. set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of stone; bears N. 17° 44' W. 70 lks. dist.
A granite stone 18 x 6 x 6 ins. set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and a mound of earth 3 1/2 ft. base 1 1/2 ft. high, N. of stone bears S. 30 lks. dist.
No natural bearings available. Thence S. 89° 56' W. 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.
By 2nd. set, 39.99 chs.; the mean of which is Point for standard $\frac{1}{4}$ sec. cor. falls in road. Deposit a marked stone 12 ins. in the ground for standard $\frac{1}{4}$ sec. cor.; from which
A cottonwood 10 ins. diam. bears N. 58° 07' W 405 lks. dist. marked SC $\frac{1}{4}$ S32BT
A granite stone 18 x 7 x 5 ins. set 12 ins. in the ground, marked SC $\frac{1}{4}$ on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and a mound of earth 3 1/2 ft. base 1 1/2 ft. high, N. of stone; bears N. 30 lks. dist.
A granite stone 18 x 6 x 6 ins. set 12 ins. in the ground, marked WCSC $\frac{1}{4}$ on N. face; with pits 18 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of stone; bears S. 30 lks. dist.
43.70 A point whence N. Sanders house bears N. 3.25 chs.
53.70 A point whence vacant house bears S. 3.60 chs.
57.75 A point whence J. Schweikart store bears N. 75 lks.
Difference between measurements of 77.54 chs. by two sets of chainmen is 3 lks.; position of middle point
By 1st. set, 77.555 chs.
By 2nd. set, 77.525 chs.; the mean of which is
77.54 The old standard cor. of secs. 31 and 32. I destroy the old marked stone and reestablish the cor. in the same place as follows: Point for cor. falls in road. I deposit a marked stone 12 ins. in the ground for old standard cor. of secs. 31 and 32; from which
A granite stone 18 x 6 x 5 ins. set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 24 x 18 x 12 ins. E. and W. of stone 3 ft. dist.; and N. of stone 7 ft. dist.; and a mound of earth 4 ft. base, 2 ft. high, N. of stone; bears N. 25 lks. dist.
A granite stone 18 x 6 x 5 ins. set 12 ins. in the ground, marked WCOLDSC on N. face; with pits 24 x 18 x 12 ins. E. and W. of stone 3 ft. dist., and N. of stone 7 ft. dist.; and a mound of earth 4 ft. base 2 ft. high, N. of stone; bears S. 35 lks. dist.
No natural bearings available.
Thence N. 89° 49' W.
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 Point for cor. falls in road. Deposit a marked stone 12 ins. in the ground for standard cor. of secs. 31 and 32; from which
A cottonwood 6 ins. diam., bears N. 56° 45' W. 22 lks. dist., marked SC $\frac{1}{4}$ TNR2WS31BT
A granite stone 18 x 6 x 6 ins. set 12 ins. in the ground, marked WCSC on N. with 5 grooves on N.

Resurvey of the Gila and Salt River Base Line through Range 2 West

1 groove on W. faces; with pits 24 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and N. of stone 7 ft. dist. and a mound of earth 4 ft. base 2 ft. high, N. of cor. bears N. 40 lks. dist.

A granite stone 18 x 6 x 6 ins. set 12 ins. in the ground, marked WCSC on N., with 5 grooves on E. and 1 groove on W. faces; with pits 24 x 18 x 12 ins. E. and W. of stone 3 ft. dist. and N. of stone 7 ft. dist.; and a mound of earth 4 ft. base, 2 ft. high, N. of stone; bears S. 35 lks. dist.

No other natural bearings available.

Land, level.

Soil, adobe; 1st. rate.

No timber.

35.35 N. 89° 49' W. on S. bdy. sec. 31.
Along center of road in lane, over level land.
Cross irrigating ditch 4 lks. wide course S.
Difference between measurements of 37.29 chs. by two sets of chainmen is 2 lks.; position of middle point

By 1st. set, 37.30 chs.

37.29 By 2nd. set, 37.28 chs.; the mean of which is

The old standard cor of Tps. 1 N. Rgs. 2 and 3 W. I destroy the old marked stone, and reestablish the old cor. in the same place as follows; Point for cor. falls in road. Deposit a marked stone 12 ins. in the ground for standard cor. of Tps. 1 N. Rgs. 2 and 3 W.; from which

An iron telephone pole 3 ins. diam. bears N. 41° 01' E. 56 lks. dist. marked SCRO31.

A mesquite 12 ins. diam. bears N. 23° 03' W. 119 lks. dist. marked SCTINR3WSS6BT.

Land, level.

Soil, adobe; 1st. rate.

No timber.

May 23: At this cor. I set off 20° 28 1/2' N. on the dec'l. arc; and observe the sun on the meridian at noon; the resulting lat. is 33° 23' N.

May 23, 1907

Note: This line was run by solar observations, no sights being taken over 15 chains.

GENERAL DESCRIPTION.

This line runs over level land, excepting the mile on the S. bdy. of sec. 36 part of which is mountainous. The land N. and S. of the line on its western half is all under cultivation. There is no timber.

John P. Hease
U. S. Dep. Surveyor

Note:

I have not reported any closing cors. on the Base Line because they were not to be found. I attempted to find the corners half a mile south of the Base line in order to establish the C.C.s, but found that there were no cors. to be found and that in order to properly re-establish these C.C.s, I would have to make a resurvey of T.1S:R.2W. As my contract is only for the resurvey of T.1N:R.2W., and these corners are not necessary to the location of the claims in this township, I did not establish them.

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 ^{re}survey of the Gila and Salt River Base Line through Rg. 2 W.

showing the respective capacities in which they acted:

A. N. Oliver, C. C. Collins....., Chainman.

H. S. Young, Ben Jones....., Chainman.

C. C. Collins....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

W. W. Shawk....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John F. Hesse

....., United States Deputy Surveyor, in ^{re}surveying all those parts or portions of the the Gila and Salt River Base Line through Rg. 2 W.

..... 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.

Ben Jones, C. C. Collins....., Chainman.

C. C. Collins....., Moundman.

....., Moundman.

....., Axman.

....., Axman.

W. W. Shawk....., Flagman.

Subscribed and sworn to before me this 23rd day of May 1907, 189



John F. Hesse
U. S. Dep. Surveyor

No notary available without loss of time and great expense.

77 10
BOOK 2053

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

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 10th. day of November, 1906, 189 , 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 Gila and Salt River Base Line through Rg. 2 W.

_____ of the Gila and salt R. 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; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John F. Hesse
United States Deputy Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 27 day of July, 1907

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



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. Nov. 15th 1907
The foregoing field notes of the survey of the Gila and Salt River Base Line thru Range 2 West of the Gila and Salt River Base and Meridian Territory of Arizona

executed by John F. Hesse U.S. deputy surveyor under his contract No. 142, dated November 10, 1906, 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.