

Book J.

BOOK 2229

MAR 11 1909

MAY 17 1910

Accepted Letter E.  
Dec 19, 1911

2229

# FIELD NOTES

re-  
OF THE SURVEY OF THE

(re-survey)  
N. P. E. & M. W.  
Boundaries of

T. 17. S.  
R. 18. E.

2229

2229

Of the Gilaud Salt River Base and Meridian,

Territory of Arizona

AS SURVEYED BY

2229

2229

Jacobs & Curry

, United States Deputy Surveyor,

Under <sup>his</sup> Contract No. 148, dated March 20, 1908

Survey commenced August 28, 1908

Survey completed March 13, 1911

2229

178  
1A

BOOK 2229

NAMES AND DUTIES OF ASSISTANTS.

Jim A. Kellas	Chairman
Narvey N. Case	"
Narry S. Young	Member
J. C. Roberts	Member

BOOK 2229

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

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

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

780  
15  
BOOK 2229

PRELIMINARY OATHS OF ASSISTANTS.

WE, James A. Kellis and Nicolas A. Sanchez

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 boundaries of S 17 S. R. 18 E.

James A. Kellis, Chainman.

Nicolas A. Sanchez, Chainman.

Subscribed and sworn to before me this 10 day of March, 1960

Francis Jacobs



WE, Nicolas A. Sanchez 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 boundaries of S 17 S. R. 18 E.

Nicolas A. Sanchez, Moundman.

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

Subscribed and sworn to before me this 10 day of March, 1960

Francis Jacobs



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, James A. Kellis, 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 boundaries of S 17 S. R. 18 E.

James A. Kellis, Flagman.

Subscribed and sworn to before me this 10 day of March, 1960

Francis Jacobs



181  
10

BOOK 2229

Book No 2229

INDEX DIAGRAM.

Township 17 S., Range 18 E.

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

Meanders Page.....

182  
10  
BOOK 2229

PRELIMINARY OATHS OF ASSISTANTS.

WE, Jim A Kellis and Harvey H Cash  
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 boundaries of T. 17. S. - R. 18 E  
Jim A. Kellis, Chairman.  
Harvey H. Cash, Chairman.

Subscribed and sworn to before me this 27  
day of August, 1908



Francis Jacobs  
My commission expires September 20, 1911  
Notary Public

WE, Narry S. Young 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 me to the best of my skill and ability, in the survey of

the boundaries of T. 17. S. - R. 18 E  
Narry S. Young, Moundman.  
\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this 28  
day of August, 1908



Francis Jacobs  
My commission expires September 20, 1911  
Notary Public

WE, J. C. Roberts 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 me to the best of my skill and ability, in the survey of

the boundaries of T. 17. S. - R. 18 E.  
J. C. Roberts, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 28  
day of August, 1908



Francis Jacobs  
My commission expires September 20, 1911  
Notary Public

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

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



## Resurvey of Boundaries of Township 17 South, Range 18 East.

## Chains.

Survey commenced August 28, 1908. and executed with a Gurley Light Mountain Transit, with Burt's Solar attachment, no number. 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.

I examine the adjustments of the transit, and correct the level and collimation errors, then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observation on Polaris, I proceed as follows:-

At the cor. of Tps. 16 and 17 S. Rs. 17 and 18 E. latitude  $31^{\circ}59'$  N., long.  $110^{\circ}34'17''$  W., I set off  $31^{\circ}59'$  N., on the lat. arc; and  $9^{\circ}37'$  N., on the decl. arc; and at 4h 30m p.m.; l.m.t., determine a meridian with the solar and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

At 9h 4m p.m., by my watch, which is correct, I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point on the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

August 28, 1908.

August 29, 1908. At 7h 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 on the stone set last night, which meridian coincides with the meridian determined by the solar.

At 9h a.m., l.m.t., I set off  $31^{\circ}59'$  N. on the lat. arc;  $9^{\circ}22'$  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, which coincides with the meridian established by Polaris observation.

The magnetic bearing of the true meridian, at 8h 30m a.m., is N.  $13^{\circ}45'$  W. the angle thus determined gives the magnetic decl.  $13^{\circ}45'$  E.

The cor. of Tps. 16 and 17 S., Rs. 17 and 18 E. is entirely obliterated, which we re-establish in its original position by course and distance from the bearing trees, by a granite stone 18x12x5 ins. set 12 ins. in the ground, marked with 6 notches on each edge, from which

A mesquite 6 ins. diam. brs. S.  $31^{\circ}$  E. 212 lks. dist., marked T 17 S R 18 E S 6 B T.

A mesquite 10 ins. in diam. brs. S.  $10^{\circ}$  W. 177 lks. dist., marked T 17 S R 17 E S 1 B T.

The other trees are badly decayed and unfit for bearing trees. We dig pits 24x24x12 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 1/2 ft. high S. of cor.

Thence we run South bet. secs. 1 and 6.

Over broken land.

5.00 Ascend.

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

13.00 Gulch, 40 lks. wide, course S.  $60^{\circ}$  W.



Re-survey of West Boundary of Township 17 South, Range 18 East.

Chains.

30.50  
40.03

Gulch, 20 lks. wide, course NW.  
A point from which the cor. of secs. 7, 12, 13, and 18, brs. W. 34 lks. dist., The stake being badly decayed and some of the bearing trees have been destroyed I re-establish the cor. in its original position, by a limestone 18x10x6 ins. set 12 ins. in the ground, marked with 2 notches on N. and 4 notches on S. edge, and

Raise a mound of stone 3 1/2 ft. base, 2 1/2 ft. high, W. of cor. Pits impracticable.

Land, level and mountainous.

Soil, 1st and 3rd rate.

Timber, mesquite.

Undergrowth, dense mesquite, teseta.

Mountainous land, or land covered with dense undergrowth exceptionally difficult to survey, 80.67 chs.

The true course of this 1/2 mile is S. 0°29' W.

August 29, 1908.

37.00  
40.26

August 30, 1908. At 7h a.m., l.m.t., I set off 9°3' N. on the decl. arc; and 31°57' N. on the lat. arc; and determine a true meridian with the solar at the cor. of secs. 17, 18, 19, and 24,

South bet. secs. 13 and 18.

Ascending over mountainous land.

Gulch, 10 lks. wide, course NW.

A point from which the 1/4 sec. cor. brs. E. 7 lks. dist. Set a limestone, 20x12x6 ins., 15 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.

True course of this 1/2 mile is S. 0°6' E.

Thence I run South

11.00  
30.00  
40.07

Gulch, 25 lks. wide, course NW.

Ridge, brs. SE. and NW.

A point from which the sec. cor. brs. E. 13 lks. dist.,

This is a stake, 2 ins. diam. with no markings.

Set a limestone, 20x12x8 ins., 15 ins. in the ground, for cor. of secs. 13, 18, 19, and 24, marked with 3

notches on the N. and S. edges, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Pits impracticable.

The true course of this 1/2 mile S. 0°11' E.

Land, mountainous.

Soil, sandy, gravelly and rocky, 3rd rate.

Timber, none. Undergrowth, mesquite, palo verde.

Mountainous land, 80.33 chs.

4.00  
11.00  
22.20  
31.50  
37.00  
39.95

South bet. secs. 19 and 24.

Ascending over mountainous land.

Ridge, brs. N. 20° E. and S. 20° W.

Gulch, 20 lks. wide, course E.

Gulch, 10 lks. wide, course E.

Gulch, 20 lks. wide, course E.

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

A point from which the 1/4 sec. cor. brs. E. 11 lks. dist., Set a limestone, 18x10x6 ins., 12 ins. in the ground,

for cor.

Re-survey of West Boundary of Township 17 South, Range 18 East.

Chains.

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.

The true course of this 1/2 mile is S. 0° 9' E.

August 30; At noon, I set off 8° 57' N. on the decl. arc; and observe the sun on the meridian; the resulting lat! is 31° 56' N. Thence I run S.

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

6.00 Ridge, brs. E. and W.

10.20 Gulch, 10 lks. wide, course E.

21.50 Gulch, 10 lks. wide, course N. 20° E.; Ascend.

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

33.00 Gulch; 20 lks. wide, course S. 60° E.

37.50 Gulch, 25 lks. wide, course E.; ascend.

40.02 A point from which the old cor. of secs. 19, 24, 25, and 30 brs. E. 7 lks. dist.,

Set a limestone, 18x12x6 ins. 12 ins. in the ground, for cor. of secs. 19, 24, 25, and 30, marked with 2 notches on the S. and 4 notches on the N. edge, and raise a mound of stone 3 ft. base, 2 ft. high, W. of cor.

Pits impracticable.

The true course of this 1/2 mile is S. 0° 6' E.

Land, mountainous.

Soil, sandy and rocky, 4th rate.

No timber.

Undergrowth, cacti and mesquite.

Mountainous land, exceptionally

difficult to survey,

79.97 chs.

South bet. secs. 25 and 30.

Ascending over mountainous land.

1.25 Gulch, 10 lks. wide, course N. 10° W.

6.00 Same gulch, 10 lks. wide, course N. 10° E.

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

23.00 Gulch, 20 lks. wide, course E.; ascend.

27.00 Ridge, slopes E.; descend.

36.00 Gulch, 25 lks. wide, course N. 60° E.; ascend.

40.00 A point from which the 1/4 sec. cor., badly decayed, brs. E. 12 lks. dist.,

Set a limestone, 20x12x10 ins., 15 ins. in the ground, for 1/4 sec. cor., marked 1/4 on W. face, and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Pits impracticable.

Course of this 1/2 mile is S. 0° 10' E.

chains	Thence South.
2.00	Ridge, extends NE. and SW.
6.00	Gulch, 20 lks. wide, course NE., ascend.
29.50	High ridge, extends E. and W., descend.
39.93	The cor. of secs. 25, 30, 31 and 36., is a stake, badly decayed. Set a granite stone, 24 X 12 X 10 ins., 18 ins. in the ground, for cor. of secs. 25, 30, 31 and 36, marked with 1 notch on the S., and 5 notches on the N. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land, mountainous. Soil, sandy and rocky; 4th rate. No timber; undergrowth, mesquite and palo verde. Mountainous land, exceptionally difficult to survey, 79.93 chs. Course of this ¼ mile is South.
	<del>August 30; at noon, I set off 8° 58' N. on the decl. arc, and observe the sun on the meridian; the resulting lat is 31° 55' E.</del>
	South, bet. secs. 31 and 36. Over mountainous land, descending.
.35	Gulch, 10 lks. wide, course SE. Ascend wall 20 ft. high.
.65	Descend.
1.20	Gulch, 30 lks. wide, course SE., ascend.
21.00	High ridge, extends N. 15° E., and E. and W., descend.
39.80	¼ sec. cor. brs. West, 12 lks. dist. Set a sandstone, 16 X 8 X 6 ins., 11 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. Course of this ¼ mile is S. 0° 10' W. Thence South
2.50	Gulch, 35 lks. wide, course S. 75° E. Ascend steep hill.
9.00	Ridge, extends SE and NW. Descend.
13.00	Gulch, 10 lks. wide, course East.
29.00	Gulch, 50 lks. wide, course S. 75° E. ascend.
34.00	Ridge, extends E. and W. descend.
39.47	The cor. of Tps. 17 and 18 S., R.s 17 and 18 East., which is a post, badly decayed. I destroy this post and set a granite stone, 18 X 12 X 12 ins., 12 ins. in the ground, for cor. of Tps. 17 and 18 S., Rs. 17 and 18 E., marked with 6 notches on each edge, from which A cedar, 24 ins. diam., brs. S. 55° E., 275 lks. dist., marked Tp. 18 S R 18 E S 6 B T. No other trees available. Raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor. Pits impracticable. Land, mountainous. Soil, gravelly and rocky; 4th rate. Timber, scattering cedar; undergrowth, mesquite and cacti. Mountainous land, exceptionally difficult to survey, 79.27 chs.
	August 30, 1908.

Resurvey of the South Boundary of Tp. 17 S., R. 18 East.

chains	August 31, 1908. At the cor. of Tps. 17 and 18 S., Rs. 17 and 18 E., previously described, I run N. 89° 42' E., bet. secs. 6 and 31. Over mountainous land, ascending.
4.00	Descend.
15.00	Gulch, 50 lks. wide, course NE. Ascend steep ridge.
28.75	Ridge, extends, NE. and SW. descend.
34.15	Gulch, 10 lks. wide, course SE., ascend.
36.00	Ridge, extends SE and NW., descend.
40.74	The old $\frac{1}{4}$ sec. cor. brs. South, 18 lks. dist. Set a sandstone, 18 X 10 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 stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. This stone is set at original $\frac{1}{4}$ sec. cor. point. Course of this half mile is N. 89° 57' E. Thence N. 89° 42' E.
4.50	Gulch, 15 lks. wide, course SE., ascend.
9.00	Ridge, extends SE. and NW. Descend.
17.00	Bottom, brs. N. and S.
19.50	Enter Cienego Creek, course N.
23.50	Leave creek. course NW., ascend abruptly.
26.00	Top of bank, brs. SE. and NW.
30.60	Descend abruptly.
32.00	Gulch, 40 lks. wide, course NW.,
34.00	Ascend.
41.40	The cor. of secs. 5, 6, 31 and 32 brs. N. 40 lks. dist. This is a very small stone, with mound of stone north. I destroy this cor. and set a sandstone, 16 X 12 X 6 ins. 11 ins. in the ground, for cor. of secs., 5, 6, 31 and 32, marked with 1 notch on W. and 5 notches on E. edge, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Course of this $\frac{1}{2}$ mile is N. 89° 08' E. Land, mountainous. Soil, stony and gravelly; 4th rate. No timber; undergrowth, mesquite and palo verde. Mountainous land, exceptionally difficult to survey, 82.14 chs.
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	August 31. At noon, I set off 8° 36' N. on the decl arc, and observe the sun on the meridian; the resulting lat is 31° 54' N. East, bet. secs. 5 and 32. Over mountainous land, ascending.
1.50	Descend.
4.10	Gulch, 10 lks. wide, course S. 60° E., ascend.
16.50	Ridge, extends SE. and NW., descend.
22.00	Gulch, 15 lks. wide, course N.
27.50	Gulch, 10 lks. wide, course N.
32.75	Descend bluff 40 ft. high.
33.20	Gulch, 25 lks. wide, course N., ascend.
40.58	The $\frac{1}{4}$ sec. cor. brs. N. 45 lks. dist., partly destroyed. Set a limestone, 18 X 12 X 6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked with $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. The course of this $\frac{1}{2}$ mile is N. 89° 21' E.
-----	
	August 31, 1908. At 3h p.m., l.m.t., I set off 8° 33' N. on the decl. arc; and 31° 54' N. on the lat. arc; and determine a true meridian with the solar at the above $\frac{1}{4}$ sec. cor.

Resurvey of the South Boundary of Tp. 17 S., R. 18 East.

chains	Thence East.
15.50	Ridge, extends N. and S., descend.
23.00	Gulch, 20 lks. wide, course N. 15° W., ascend.
30.50	Ridge, extends N. and S.; descend.
37.00	Gulch, 15 lks. wide, course N. 10° E.
39.00	Ridge, extends NE. and SW., descend.
40.04	The cor. of secs. 4, 5, 32 and 33 brs. S. 10 lks. dist. Set a limestone, 18 X 10 X 8 ins., 12 ins. in the ground, for the cor. of secs. 4, 5, 32 and 33, marked with 2 notches on the W. and 3 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. This cor. is reestablished at the original cor. for the reason that the original cor. monument was ver much delapidated. The course of this ¼ mile is S. 89° 51' E.
	August 31, 1909.
	Land, mountainous. Soil, gravelly and stony; 4th rate. No timber; undergrowth, greasewood and palo verde. Mountainous land, exceptionally difficult to survey, 80.62 chs.
	-----
	September 1, 1908, At 7h a.m., l.m., t . . I set off 8°20' N. on the decl. arc, and 31° 54' N. on the lat. arc, and determine a true meridian with the solar at the cor. of secs. 4, 5, 32 and 33.
	Thence I run, East bet. secs. 4 and 33. Over mountainous land, descending. Descend abruptly.
.80	Gulch, 30 lks. wide, course N. 15° W., ascend abruptly
1.20	Top of bank, ascend high ridge.
5.00	Ridge, extends N. and S., descend.
25.00	Gulch, 20 lks. wide, course N. 20° W.
35.50	The ¼ sec. cor. brs. N. 40 lks. dist.
40.09	I set a limestone, 16 x 8 x 6 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. Pits impracticable. Course of ¼ mile is N. 89° 26' E.
	Thence East.
2.00	Gulch, 30 lks. wide, 25 ft. deep, course NE., ascend.
10.00	Ridge, extends NE. and SW., descend.
22.50	Gulch, 20 lk. wide, course NE., ascend.
36.30	Gulch, 20 lks. wide, course NW., ascend steep ridge.
40.07	The cor. of secs. 3, 4, 33 and 34, brs. N. 135 lks. dist. Set a limestone, 16 X 10 X 8 ins., 11 ins. in the ground, for the cor. of secs. 3, 4, 33 and 34, marked with 3 notches on E. and W. edges, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Course of this ¼ mile is N. 88° 4' E. Length 40.09 chs.
	Land, mountainous. Soil, sandy and rocky; 4th rate. No timber; undergrowth, palo verde. Mountainous land, exceptionally difficult to survey, 80.15 chs.
	-----
	East, bet. secs. 3 and 34. Ascending.
1.00	Ridge, extends SE. and NW., descend.
5.20	Gulch, 20 lks. wide, course NW., ascend.
12.00	High ridge, brs. N. 30° W., and S. 30° E., descend steep slope.
17.50	Gulch, 15 lks. wide, course NE., ascend.
20.00	Top of ascent on N. slope; descend.
24.00	Main gulch, 40 lks. wide, course N., ascend steep slope.

Resurvey of the South Boundary of Tp. 17 South, R. 18 East.

chains	
32.00	Ridge, extends SE and NW., descend.
34.50	Gulch, 15 lks. wide, course NW., ascend steep ridge
	Ridge, extends SE. and NW., descend.
40.25	The old $\frac{1}{4}$ sec. cor. brs. S. 12 lks. dist.
	Set a limestone, 16 X 12 X 5 ins., 11 ins. in the ground, for the $\frac{1}{4}$ 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.
	Course of this $\frac{1}{4}$ mile is S. 89° 50' E.
	Thence East. - - - - -
4.00	Gulch, 10 lks. wide, course NE., ascend.
15.50	Gulch, 30 lks. wide, course N. 20° W., ascend.
22.00	Ridge, extends SE. and NW., descend.
32.50	Gulch, 15 lks. wide, course N. 30° E., ascend.
40.22	The old cor. of secs. 2, 3, 34 and 35 brs. N. 52 lks. dist
	Set a granite stone, 18 X 8 X 6 ins., 12 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, marked with 2 notches on the E. and 4 notches on the W. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Course of this $\frac{1}{4}$ mile is N. 89° 15' E.
	Land, mountainous.
	Soil, stony and gravelly, 3rd and 4th rate.
	Timber, none; undergrowth, greasewood and palo verde.
	Mountainous land, exceptionally difficult to survey, 80.47 chs.
	September 1; At noon, I set off 8°14' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 31° 54' N.
	- - - - -
	East, bet. secs. 2 and 35.
	Over mountainous land, ascending.
5.00	Ridge, extends SE. and NW., descend.
27.50	Gulch, 30 lks. wide, course NW., ascend.
35.00	Ridge, extends SE. and NW., descend.
40.04	Find trace of old $\frac{1}{4}$ sec. cor. brs. N./4 lks. dist.
	Set a limestone, 16 X 12 X 10 ins., 11 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.
	Course of this $\frac{1}{4}$ mile is N. 89° 48' E.
	Thence East. - - - - -
4.40	Creek, 1.00 ch. wide, course N. 25° W.
5.50	Ascend bluff, 100 ft. high.
6.00	Top of bluff.
15.00	Ascend.
40.18	The cor. of secs. 1, 2, 35 and 36 brs. N. 23 lks. dist.
	Set a limestone, 10 X 8 X 6 ins., 8 ins. in the ground, for cor. of secs. 1, 2, 35 and 36, marked with 1 notch on the E. and 5 notches on the W. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
	Course of this $\frac{1}{4}$ mile is N, 89° 40' E.
	Land, mountainous.
	Soil, sandy and stony; 4th rate.
	Timber, none; undergrowth, palo verde and cactus.
	Mountainous land, exceptionally difficult to survey, 80.22 chs.
	September 1, 1908.
	- - - - -
	September 2, 1908, At 7h. a.m., l.m.t., I set off 7°58' N. on the decl. arc, and 31° 54' N. on the lat. arc, and determine a true meridian with the solar at the cor. of secs. 1, 2, 35 and 36.
	Thence I run
	East, bet. secs. 1 and 36.
	Over mountainous land, ascending.
3.00	Ridge, extends SE. and NW., descend abruptly.
7.30	Enter gulch, 40 lks. wide, course NW.
17.00	Leave gulch, 30 lks. wide, from South., ascend steep hill.

Chains

30.00

Top of ridge, hrs. N. & S.

39.85

Gully 40 lks. wide, course NE. for 4 chs., thence NW.

40.32

Evident remains of old 1/4 sec. cor. on line, which I destroy and at orig. cor. point I set a limestone 24x8x4 ins. 18 ins. in the ground for 1/4 sec. cor. marked 1/4 on N. face, from which, A cedar tree 8 ins. diam. hrs. N. 30° E. 61 lks. dist., marked 1/4 S. 36 B.T.  
An oak tree 20 ins. diam. hrs. S. 59° E. 7 lks. dist., marked 1/4 S. 1 B.T.

Thence I run, East, ascending steeply,

10.00

Asc. abrupt SW. slope of rough mtn.

36.00

Top of abrupt asc. 3 chs. S. of summit of ridge.

Thence along abrupt S. slope.

41.10

The cor. of Tps. 17 & 18 S. Rs. 18 & 19 E. hrs. S. 16 lks. dist. This cor. being in a dilapidated condition I re-establish it in its original position by setting a quartzite stone 24x8x6 ins. 18 ins. in the ground marked with 6 notches on N., S., E., & W., edges and raise a mound of stone 3 ft. base 2 ft. high S. of cor.

No bearings available. pits impracticable.

True course of last 1/2 mile is S. 89° 46' E.

Land mts.

Soil, 3rd & 4th rate, stony, gravelly.

Timber, scattering cedar & oak.

Undergrowth, scrub oak; paleverde, cacti.

Mountainous land exceptionally difficult to survey,

80.42 chs.

BOOK 2229

Chains

From the cor. of Tps. 17 & 18 S. Rs. 18 & 19 E. as just reestablished by me, I run, North, bet. secs. 31 & 36. Over mts. land asc.

.75 Top of ridge, brs. NW & SE. desc. steep.

27.00 Gulch, 10 lks. wide, course NW. asc.

35.00 Gulch, 10 lks. wide, course NE. asc. steep.

39.55 Top of ridge, brs. E. & W. 1/4 sec.cor. brs. W. 30 lks. which I re-establish in its orig. position by setting a quartzite stone 18x8x8 ins. 12 ins. in the gr. 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. No bearings available. Course of this 1/2 mile, N.0° 26' W.

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Thence N.

35.40 Desc.

40.45 Cer. of secs. 25,30,31 & 36, brs. W. 10 lks. which I destroy and at orig. point, set a granite stone 18x10x8 ins. 12 ins. in the ground for cor. of secs. 25,30,31 & 36, marked with 1 notch on S. & 5 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. from which, a mesquite tree 12 ins. diam. brs. S.6° E. 7 lks. dist., marked T. 17 S. R. 19 E. S. 31 B.T. An oak tree 15 ins. diam, brs. S.41° W. 198 lks. dist. marked T. 17 S.R. 18 E. S. 36 B.T. An oak tree 16 ins. diam. brs. N.87° W. 27 lks. dist., marked T. 17 S. R. 18 E. S. 25 B.T. No other bearings available. Land mts. The true course of this 1/2 mile is N 0° 9' W. Soil Stony gravelly, 3rd & 4th rate. Timber scattering oak, mesquite. Undergrowth, mesquite, tesseta, cacti. Mts. land exceptionally difficult to survey, 80.00 chs.

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At this last described cor. at noon, I set off 7° 52' N. on the decl. arc and obs. the sun on the mer. The resulting lat. is 31° 55' N. North bet. secs. 25 & 30. Over mts. land desc.

2.00 Desc. abrupt.

4.00 Gulch 40 lks. wide, course NW.

4.50 Asc. abrupt.

7.50 Top of bank.

18.00 Ridge, brs. SE & NW. desc.

28.75 Gulch 10 lks. wide, course NW. asc.

32.00 Ridge, brs. SE & NW. desc.

38.00 Gulch 50 lks. wide, course N.60° W.

39.00 Asc.

40.35, Old 1/4 sec.cor. brs. W. 18 lks. dist. partially destroyed which I re-establish in orig. position by, Setting a trachite stone 18x10x6 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. No bearings available. Course of this 1/2 mile is N.0° 15' W.

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Thence N.

18.00 Ridge, brs. SE & NW. desc.

30.50 Enter Gulch 10 lks. wide, thence down gulch,

39.51 Old cor. of secs. 19,24,25 & 30, brs. W. 16 lks. dist., At orig. cor. point I Set a granite stone 24x10x6 ins. 18 ins. in the ground for cor. of secs. 24,19,25 & 30, marked with 2 notches on S. & 4 notches on N. edges and raise a mound of stone 2 ft. base 1 1/2 ft. high W. of cor. No bearings available. Course of this 1/2 mile is N.0° 14' W. Land mts. Soil, stony, gravelly, 3rd rate. No timber. Undergrowth, dense mesquite, tesseta, cacti. Mts. land or land covered with dense undergrowth and Exceptionally difficult to survey 79.86 chs. Sept. 2, 1908.

Re-survey, East boundary of T.17 S., R.18 E.,

11.

Chains.

Marce 10, 1910; I test my transit, which is a Gurley instrument, with solar attachment, on the Meridian established at Pantano, November 21, 1909' by the U.S. Examiner of Surveys, and find the adjustments correct.

- March 11; AT 8h 0m, a.m., l.m.t., I set off 3 1°56'N on the lat. arc; 3°52'S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19, 24, 25 and 30, and run  
Thence North bet. secs. 19 and 24.  
Over broken land. Descend.
- 3.70 Gulch, 10 lks. wide, course N.15°W.  
Ascend.
- 11.00 Ridge, bears SE. and NW.  
Descend.
- 40.14 A point from which the 1/4 sec. cor. bears W. 6 lks. dist. The cor. stake being badly decayed, I re-establish the 1/4 cor. in its original position by setting a granite stone, 18x8x6 ins. 12 ins. in the ground, marked 1/4 on W. face, and dig pits 18x18x12 ins. N. and S. of stone, 3ft. dist., and raise a mound of earth 3 1/2 base 1 1/2 ft. high W. of cor.  
Course of this half mile is N. 0°5' W.  
Thence north
- 2.75 Gulch 30 lks. wide, course NW.  
Ascend
- 13.00 Ridge, brs. SE. and NW.  
Descend
- 40.37 A point from which the old cor. of secs. 13, 18, 19 and 24 brs. W. 18 lks. dist., which I re-establish in original position by setting a granite stone 18x12x10 ins. 12 ins. in the ground, marked with 3 notches on N. and S. edges dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4ft. base 2ft. high W. of cor.  
Course of this half mile is N. 0°15' W.  
Land, broken and rolling.  
Soil, 3rd. rate.  
No timber.
- 
- North bet. secs. 13 and 18  
Over rolling land. Descend.
- 24.00 Wash, 40 lks. wide, course NW.
- 40.08 A point from which the 1/4 sec. cor. brs. W. 11 lks. dist., which I re-establish in original position by setting a granite stone 18x8x5 ins. 12 ins. in the ground, marked 1/4 on W. face, dig pits 18x18x12 ins. N. and S. of cor. 3ft. dist., and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.  
Course of this half mile is N. 0°9' W.  
Thence North
- 39.87 A point from which the cor. of secs. 7, 12, 13 and 18 brs. W. 121 lks. dist., which I re-establish in original position by setting a granite stone 24x8x6 ins. 18 ins. in the ground, marked with 2 notches on N. and 4 notches on S. edge, dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist., and raise a mound of earth 4ft. base 2 ft. high W. of cor.  
The course of this half mile is N. 1°44' W., dist 39.89 chs.  
Land, rolling.  
Soil, 3rd. rate. No timber.  
No timber.

Chains.	North bet. secs. 7 and 12. Over broken land. Descend
18.00	Gulch 15 lks. wide, course NW.
40.28	A point from which the 1/4 sec. cor. brs. W. 10 lks. dist., which I re-establish by setting a granite stone 16x10x4 ins. 11 ins. in the ground, marked 1/4 on W. face and raise a mound of stone 3ft. base 2ft. high W. of cor. Pits impracticable.
	Course of this half mile is N. 0°09' W.
	Thence North
2.00	Gulch 50 lks. wide, course NW. Ascend steep ridge.
30.00	Ridge, brs. SE. and NW. Descend.
40.40	A point from which the cor. of secs. 1, 6, 7 and 12 brs. W. 45 lks. dist., which I re-establish in original position by setting a limestone 24x10x6 ins. 18 ins. in the ground, marked with 1 notch on N. and 5 notches on S. edge, and raise a mound of stone 3 ft. base 2ft. high W. of cor. Pits. impracticable.
	Land broken. True course of this half mile is N. 39° W. Soil 3d rate.
	No timber.
	Mountainous land, 80.68 chs.
	At this cor. at noon, I set off 3°48' S. on the decl. arc, and observe the Sun on the meridian, the resulting lat. is 31 58' N!
	North bet. secs. 1 and 6. Over broken land. Descend.
5.00	Head of gulch, Course NW. Ascend.
25.00	Ridge, bears SE. and NW. Descend.
40.28	A point from which the 1/4 sec. cor. bears W. 30 lks. dist. which I re-establish in original position, by setting a limestone 18x10x6 ins., 12 ins. in the ground, marked 1/4 on W. face, and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor., Pits impracticable.
	Course of this 1/2 mile is N. 0°26' W.
	Thence North.
12.00	Road, bears SE. and NW.
12.20	Telephone line, bears SE. and NW.
12.72	Wire fence, bears SE. and NW.
14.23	Center of Southern Pacific Ry. track, bears S. 86° E. and N. 86° W.
14.86	Telegraph line, parallel to railway.
15.70	Wire fence, bears E. and W.
16.25	Road, bears E. and W.
20.00	Ascend.
42.32	A point from which the cor. of Tps. 16 and 17 S., Rs. 18 and 19 E. bears w. 10 lks. dist., a stone 4x5x6 ins. above ground, formerly set, marked with 6 notches on each edge and witnessed by pits and a mound of earth. True Land broken. course N. 0°09' W. Soil 2d and 3d rate. No timber
	Mountainous land 82.60 chs.

Chains.

From the cor. of Tps. 16 and 17 S., Rs. 18 and 19 E. above described, I run  
 West bet. secs. 1 and 36.  
 Over mountainous land.

5.00 Wash, 20 lks. wide, course, SW.  
 Ascend.

12.00 Ridge, bears NE. and SW.  
 Descend.

21.00 Wash, 15 lks. wide, course S. 30° W.

27.00 Ascend.

37.00 Ridge, bears NE. and SW.

40.40 A point from which the 1/4 sec. cor. bears S. 247 lks. dist., I re-establish the cor. in original position by setting a granite stone 18x10x6 ins., 12 ins. in the ground, marked 1/4 on N. face, dig pits 18x18x12 ins. N. 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.  
 True course and dist. of this 1/2 mile, S. 86° 30' W., 40.48 chs.

Thence West.

8.50 Wash, 20 lks. wide, course S. 60° W.

17.00 Wash, 25 lks. wide, course SW.

19.00 Ascend. rocky ridge.

27.00 Ridge, bears NE. and SW.  
 Descend.

40.24 A point from which the cor. of secs. 1, 2, 35 and 36 bears S. 85 lks. dist., which I re-establish in original position, by setting a malpais stone 18x12x6 ins. 12 ins. in the ground, marked with 1 notch on E. and 5 notches on W. edge, dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.  
 True course and dist. of this 1/2 mile, S. 88° 47' W., 40.25 chs.  
 Land mountainous.  
 Soil 3d rate.  
 No timber.  
 Mountainous land, exceptionally difficult to survey,  
 March 11, 1910. 40.73 chs.

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March 12; At 7h 30m, a.m., l.m.t., I set off 31° 59' N on the lat. arc; 3° 29' S. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 1, 2, 35 and 36. thence I run  
 West bet. secs. 2 and 35.  
 Over mountainous land.

Descend.

7.50 Wash, 20 lks. wide, course S.  
 Ascend.

8.15 Road, bears N. and S.

22.00 Ridge brs. N. and S.  
 Descend.

37.60 Wash, 20 lks. wide, course S.  
 Ascend.

40.12 A point from which the 1/4 sec. cor. brs. S. 56 lks. dist., which I re-establish in original position by setting a granite stone 18x10x6 ins. 12 ins. in the ground, marked 1/4 on N. face and raise a mound of stone 3ft. base 2ft. high N. of cor. Pits impracticabl  
 Course of this half mile is S. 89° 12' W.

14.

Re-survey, North Boundry of T. 17 S. R. 18 E.

Chains.	
	Thence West
16.00	Wash, 15 lks. wide. Course NW.
24.50	Same wash. course S. 15°W. Ascend.
34.00	Ridge, brs. NE. and SW. Descend.
40.11	A point from which the cor. of secs. 2, 3, 34 and 35 brs. S. 117 lks., which I re-establish in original position by setting a shist stone 20x10x6 ins. 5 ins. in the ground marked with 2 notches on E. and 4 notches on W. edge, and raise a mound of stone 3ft. base 2ft. high. W. of cor. Pits impracticable. Course of this half mile is S. 88°20' W. 40.12 Chs. Land, mountainous. Soil, 3rd. rate. No timber. Mountainous land, covered with dense undergrowth, exceptionally difficult to survey. 80.24 Chs.
<hr/>	
	West bet. secs. 3 and 34 Over mountainous land. Descend.
2.00	Gulch, 10 lks. wide, course SW.
14.00	Gulch, 40 lks. wide, course SW.
19.00	Ascend.
28.00	Ridge, brs. NE. and SW. Descend.
40.12	A point from which the 1/4 sec. cor. brs. S. 26 lks. dist., which I re-establish in original position by setting a granite stone 16x8x6 ins. 11 ins. in the ground, marked 1/4 on N. face. dig pits 18x18x12 ins. E. and W. of cor. 3ft. dist. and raise a mound of earth 3 1/2ft. base 1 1/2ft. high N. of cor. Course of this half mile is S. 89°38' W.
	Thence West
11.00	Wash, 20 lks. wide, course S. 60°W.
20.00	Wash, 75 lks. wide, course SW.
27.00	Ridge, brs. N. and S. Descend.
33.00	Wash, 25 lks. wide, course S. Ascend.
40.11	A point from which the cor. of secs. 3, 4, 33 and 34 brs. S. 46 lks. dist., which I re-establish in original position by setting a granite stone 18x8x5 ins. 13 ins. in the ground, marked with 3 notches on E. and W. edges and raise a mound of stone 3ft. base 2ft. high W. of cor. Pits impracticable. The true course of this half mile S. 89°21' W. Land, mountainous. Soil, 3rd. rate. No timber. Mountainous land, covered with dense undergrowth exceptionally difficult to survey. 80.23 Chs.

Chains.	
	West bet. secs. 4 and 33. Over mountainous land. Ascend.
50	Ridge, brs. N. and S. Descend.
4.00	Wash, 20 lks. wide, course S. Ascend.
10.00	Ridge, brs. N. and S. Descend.
15.50	Wash, 30 lks. wide, course S. Ascend.
33.00	Ridge, brs. N. and S. Descend.
35.00	Wash, 30 lks. wide, course S. Ascend.
39.00	Ridge, brs. N. and S. Descend.
40.04	A point from which the $1/4$ sec. cor. brs. S. 44 lks. dist., which I re-establish in original position by setting a granite stone 18x8x5 ins. 12 ins. in the ground marked $1/4$ on N. face, dig pits 18x18x12 ins. E. and W. of cor. 3ft. dist., and raise a mound of earth $3\ 1/2$ ft. base $1\ 1/2$ ft. high N. of cor. Course of this half mile is S. $89^{\circ}22'$ W.
	Thence West
6.00	Wash, 20 lks. wide, course S. Ascend.
11.00	Ridge, brs. N. and S. Descend.
17.00	Head of wash, course W.
33.00	Wash, 40 lks. wide, course S. $75^{\circ}$ W.
40.18	A point from <sup>which</sup> the cor. of secs. 4, 5, 32 and 33 brs. S. 28 lks. dist., which I re-establish in original position by setting a granite stone 18x12x6 ins. 12 ins. in the ground, marked with 4 notches on E. and 2 notches on W. edge, dig pits 18x18x12 ins. in each sec. $5\ 1/2$ ft. dist. and raise a mound of earth 3ft. base 2ft. high W. of cor. Course of this half mile is S. $89^{\circ}36'$ W. Land, mountainous. Soil, 3rd. rate. No timber. Mountainous land, covered with dense undergrowth, exceptionally difficult to survey. 80.22 Chs. March 12, 1910.
	March 13; At 7h 40m a.m., l.m.t., I set off $31^{\circ}59'$ N on the lat. arc; $3^{\circ}5'$ S. 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. Over mountainous land.
3.20	Wash, 30 lks. wide, course S. Ascend.
11.00	Ridge, brs. N. and S. Descend.
24.00	Wash, 30 lks. wide, course S.
30.50	Gulch, 15 lks. wide, course S. Ascend.
32.50	Ridge, brs. N. and S. Descend.

Chains.	
39.50	Wash, 1 Ch. wide, course S 10°W.
40.00	A point from which the 1/4 sec. cor. point, located by the
	remains of old B.T., brs. S. 34 lks. dist., The original
	1/4 sec. cor. point falls in the wash, therefore at
40.75	Set a limestone 18x10x5 ins. 12 ins. in the ground for
	witness cor. to 1/4 sec. cor. marked W C 1/4 on N. face,
	from which <del>18x10x5</del> ins.
	an Ironwood 6 ins. in diam. brs. S. 66 1/2° E. 51 lks. dist.
	marked W C 1/4 S 50 B T.
	An Ironwood 8 ins. in diam. brs. N. 23° E. 140 lks. dist.
	marked W C 1/4 S 32 B T.
	Course of this half mile is S. 89° 31' W.
	Thence West.
3.00	Ascend.
37.00	Ridge brs. N. and S.
	Descend.
39.00	A point from which the cor. of secs. <sup>5, 6,</sup> 31 and 32 brs. S.
	30. lks. dist., which I re-establish in original
	position by setting a granite stone 18x10x7 ins. 12 ins.
	in the ground, marked with 5 notches on E. and 1 notch on
	W. edge, and raise a mound of stone 3ft. base 2ft. high
	W. of cor. Pits impracticable.
	Course of this half mile is S. 89° 34' W.
	Land, mountainous.
	Soil, 3rd. rate.
	Timber, mesquite.
	Mountainous land covered with dense undergrowth, except-
	ionally difficult to survey. <del>79.75 Chs.</del>
	At the above cor. I set off 3° 2' S. on the decl. arc
	and observe the sun on the meridian at noon, the resulting
	latitude is 31 59' N.
	West to secs. 6 and 31.
	Over mountainous land.
	Descend.
4.50	Wash, 30 lks. wide, course SW.
	Ascend.
16.00	Ridge, bears NE. and SW.
	Descend.
26.00	Gulch, 20 lks. wide, course S. 75° W.
	Ascend.
40.00	A point from which the 1/4 sec. cor. bears S. 22 lks.
	dist., which I re-establish in original position, by
	setting a limestone 16x8x6 ins., 11 ins. in the ground,
	marked 1/4 on N. face, from which
	A mesquite, 5 ins. in diam, bears S. 75° W., 94 lks. dist.
	marked 1/4 s 6 B T.
	A mesquite, 4 ins. in diam., bears <del>27</del> 1/2° W. 76 lks. dist.
	marked 1/4 S 31 B T. <del>10 S. 80° W.</del>
	True course of this 1/2 mile is S. 89° 41' W.
	Thence West, along N. slope.
35.20	Road, bears S. 75° E. and N. 75° W.
38.66	A point from which the cor. of Tps. 16 and 17 S., Rs. 17
	and 18 E., bears S. 55 lks. dist. recently re-established
	by us.
	Course of this 1/2 mile is S. 89° 11' W.

Latitudes, Departures and closing errors.

Line designated.	True bearing.	Distance.	Latitudes.		Departures.			
			N.	S.	E.	W.		
		Chs.	Chs.	Chs.	Chs.		Chs.	
W. Bdy.	S. 0° 8' W.	79.89		79.89			.18	
"	S. 0° 14' W.	40.64		40.64			.16	
"	S. 0° 29' W.	40.03		40.03			.34	
"	S. 0° 6' E.	40.26		40.26	.7			
"	S. 0° 11' E.	40.07		40.07	.13			
"	S. 0° 9' E.	39.95		39.95	.11			
"	S. 0° 6' E.	40.02		40.02	.7			
"	S. 0° 10' E.	40.00		40.00	.12			
"	South.	39.93		39.93				
"	S. 0° 10' W.	39.80		39.80			.12	
"	South.	39.47		39.47				
S. Bdy.	N. 89° 57' E.	40.74	.4		40.74			
"	N. 89° 8' E.	41.40	.63		41.40			
"	N. 89° 21' E.	40.58	.46		40.58			
"	S. 89° 51' E.	40.04		.10	40.04			
"	N. 89° 26' E.	40.09	.40		40.09			
"	N. 88° 4' E.	40.09	1.35		40.07			
"	S. 89° 50' E.	40.25		.12	40.25			
"	N. 89° 15' E.	40.22	.53		40.22			
"	N. 89° 48' E.	40.04	.14		40.04			
"	N. 89° 40' E.	40.18	.23		40.18			
"	East.	40.32			40.32			
"	S. 89° 46' E.	41.10	.17		41.10			
E. Bdy.	N. 0° 26' W.	39.55	39.55				.30	
"	N. 0° 9' W.	40.45	40.45				.10	
"	N. 0° 15' W.	40.35	40.35				.18	
"	N. 0° 14' W.	39.51	39.51				.16	
"	N. 0° 5' W.	40.14	40.14				.6	
"	N. 0° 15' W.	40.37	40.37				.18	
"	N. 0° 9' W.	40.08	40.08				.11	
"	N. 1° 44' W.	39.89	39.87				1.21	
"	N. 0° 9' W.	40.28	40.28				.10	
"	N. 0° 39' W.	40.40	40.40				.46	
"	N. 0° 26' W.	40.28	40.28				.30	
"	N. 0° 9' W.	42.32	42.32				.10	
N. Bdy.	S. 86° 30' W.	40.48		2.47		40.41		
"	S. 88° 47' W.	40.25		.85		40.24		
"	S. 89° 12' W.	40.12		.56		40.12		
"	S. 88° 20' W.	40.12		1.17		40.10		
"	S. 89° 38' W.	40.12		.26		40.12		
"	S. 89° 21' W.	40.11		.46		40.11		
"	S. 89° 22' W.	40.04		.44		40.04		
"	S. 89° 36' W.	40.18		.28		40.18		
"	S. 89° 31' W.	40.00		.34		40.00		
"	S. 89° 34' W.	39.75		.30		39.75		
"	S. 89° 41' W.	40.00		.22		40.00		
"	S. 89° 11' W.	38.66		.55		38.66		
Convergency.								.45
			487.55	488.18	485.53	484.24		
				487.55	484.24			
Error in Departure				1.63	1.29			

General Description.

The west boundary of the Tp. is broken, the south bdy. very mountainous, the east bdy, Mountainous, broken and rolling and the north bdy. mountainous, broken and rolling.

There is mesquite timber along the north bdy., scattering mesquite and cedar along the west bdy. and scattering mesquite and oak in the sout east.

There is running water where the S. bdy. crosses Cienega Creek.

Wickenburg, Ariz., March 8, 1909, and May 10, 1910.

*Francis Jacobs*  
U.S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

207  
19

LIST OF NAMES.

BOOK 2229

A list of the names of the individuals employed by Jacobs & Curry  
....., 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  
boundaries of T. 17 S. R. 18 E.  
showing the respective capacities in which they acted;

- Jim A. Kellis....., Chainman.
- Harvey H. Calk....., Chainman.
- Harry S. Young....., Moundman.
- J. C. Roberts....., Moundman.
- ....., Axman.
- ....., Axman.
- ....., Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jacobs & Curry  
....., United States Deputy Surveyor, in surveying all  
those parts or portions of the boundaries of  
T. 17 S. R. 18 E.

..... of the State of  
Salt River Basin meridian, Territory of Arizona, which are represented  
in the foregoing field notes as having been surveyed by Jacobs and under Curry's 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
- Jim A. Kellis....., Chainman.
  - Harvey H. Calk....., Chainman.
  - Harry S. Young....., Moundman.
  - J. C. Roberts....., Moundman.
  - ....., Axman.
  - ....., Axman.
  - ....., Flagman.

Subscribed and sworn to before me this 21  
day of September, 1908

Francis Jacobs  
Notary Public

My commission expires September 25, 1911



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

\_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

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

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



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 190 \_\_\_\_\_

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 190 \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

\_\_\_\_\_  
*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.*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

BOOK 2229

LIST OF NAMES.

A list of the names of the individuals employed by Jacob Cherry  
....., 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  
boundaries of T 17. S. R 18 E.  
showing the respective capacities in which they acted:

- Jim A Kellis ..... Chainman.
- Nicholas A Sanchez ..... Chainman.
- Nicolas A Sanchez ..... Moundman.
- ..... Moundman.
- ..... Axman.
- ..... Axman.
- Jim A Kellis ..... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jacob Cherry  
....., United States Deputy Surveyor, in surveying all  
those parts or portions of the boundaries of T 17. S. R 18 E.

..... of the Gila and  
Salt River Bas and 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

- Jimmie A Kellis ..... Chainman.
- Nicolas A. Sanchez ..... Chainman.
- Nicolas A. Sanchez ..... Moundman.
- ..... Moundman.
- ..... Axman.
- ..... Axman.
- ..... Flagman.

Subscribed and sworn to before me this 23  
day of March, 1980

Francis J Jacobs



203  
21  
BOOK 2229

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Francis B. Jacobs 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 20 day of March, 1908, 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 boundaries of

T. 17 S. R. 18 E

of the Gila and Salt River Base and 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.

Francis B. Jacobs  
United States Deputy Surveyor.

Subscribed by said Francis B. Jacobs, and sworn to before me }  
this 17 day of May, 1900

Frank S. Ingalls  
U. S. SURVEYOR GENERAL & D. A.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Francis C. King, Nov. 13, 1901

The foregoing field notes of the survey of the N. 20 E. and W. Boundaries of T. 17 S. R. 18 E. G. & S. R. Meridian, Arizona

executed by Francis B. Jacobs and Daniel J. Curry under his contract No. 148, dated March 20, 1908, 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.