

Standard
BOOK "N"

BOOK 2520

FIELD NOTES

OF THE SURVEY OF THE

7th Standard Parallel North, through parts of
Ranges No. 12 and No. 13 East

Of the Gila and Salt River Base and Meridian,
in the Territory of Arizona

EXECUTED
 AS ~~SURVEYED~~ BY

Van L. White, U.S. Transitman, United States Deputy Surveyor,
Special Instructions from the Commissioner of the General Land Office
Under his Contract No. 1, dated Feb. 2nd 1907 and May 15th, 1908

Survey commenced January 8th 1911 190

Survey completed January 9th 1911, 190

BOOK 2520

NAMES AND DUTIES OF ASSISTANTS.

<u>T. Y. White</u>	<u>Chairman</u>
<u>Richard L. Shumway</u>	<u>Chairman</u>
<u>George B. Seig</u>	<u>Chairman</u>
<u>Nelson Polacca</u>	<u>Chairman</u>
<u>Harry Keyope</u>	<u>Moundsman</u>
<u>William R. Carson</u>	<u>Flagman</u>

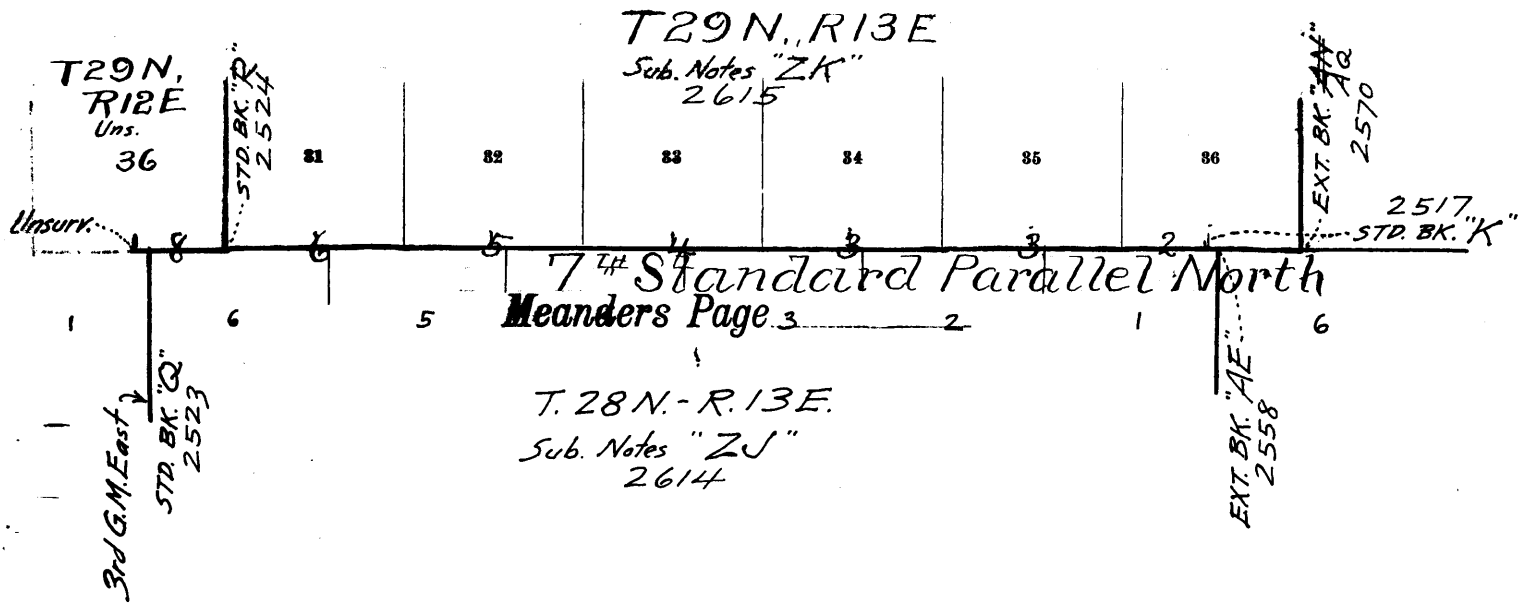
BOOK 2520

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

BOOK 2520



Survey commenced January 8th 1911, and executed with a W & L E. Gurley engineers transit no. 76 with a Burh solar attachment. The horizontal limb is provided with one double vernier reading to single minutes of arc. The verniers of the latitude and declination arcs reading to 0° 30' of arc.

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

At my camp which is located near the cor. of secs. 15, 16, 21 and 22 T 28 N. R 13 E., Latitude 35° 49' N. Longitude 110° 57' W. I set off, 35° 49' N. on the lat. arc 22° 14' S. on the decl. arc and at 4^h 06^m p.m. l.m.t. determine a meridian with the solar and mark a point thereof by a nail driven in a stake set firmly in the ground 5.00 Chs. N. of my instrument.

At 8^h 40^m p.m. l.m.t. by my watch which is correct local mean time I observe Polaris in accordance with instructions in the manual and mark the direction thus determined by a nail driven in a stake set in the ground 5.00 Chs. N. of my instrument.

Astronomical time of observation Jan. 8, 1911

8^h 40^m

Astron. time U.C. Polaris Jan 1st Table V Part I 6^h 46.1

Reduction to Jan. 8 Part II Subtract 27.6

Astron. time U.C. Polaris Jan 8th 6 18 5 Sub. 6 18.5

Hour angle and time argument of Polaris at observation 2 21.5

Azimuth of Polaris at observation 0° 49' W

January 8th 1911.

January 9th 1911. At 7^h 30^m a.m. l.m.t. I lay off the azimuth of Polaris 0° 49' to the East and mark the meridian thus determined by a nail driven in the stake set last evening on which the meridian falls. 0.4 in East of the point determined by the solar observation.

BOOK 2520

At 8^h 07^m a.m. lat. Ditch off $35^{\circ}49'$ N. on the lat. arc. $22^{\circ}08'$ S. on the decl. arc. and determined a meridian with the solar. and mark a point thereof by a nail driven in the stake already set 5.00 chs N. of my instrument. This point falls 0.5 ins East of the meridian determined by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defined positions for meridians respectively about $0'21''$ west. and $0'26''$ East of the meridian established by the Polaris observations, therefore I conclude that the adjustments of the instrument are satisfactory.

I begin at the stand $\frac{1}{4}$ sec. cor. on S. Tery. of ^{estab. Jan. 11, 1910 by Sidney E. Flint and described in Standard Book "K"} sec. 36. T29N. R13E. which is an iron post 1 in. in diam. 10 ins. above ground, firmly set, marked $\frac{1}{4}$ S 36 in N. half., with pits $18 \times 18 \times 12$ ins. E and W. of post 3 ft. dist. and a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor., Latitude. $35^{\circ}51'28''$ N. Longitude $110^{\circ}54'$ W.

At 9^h 07^m a.m. lat. Ditch off $35^{\circ}51\frac{1}{2}'$ N. on the lat. arc. $22^{\circ}10'$ S. on the decl. arc. and determine a meridian with the solar. thence I run the ch. on S. Tery. sec. 36.

Ascend S.E. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass. Difference bet. measurement of 40.00 chs. by two sets of chainmen is 0.2 lbs., position of middle point.

By 1st set. 39.99 chs.

By 2nd set. 40.01 chs. the mean of which is 40.00
Set an iron post 3 ft. long 3 in. in diam. 24 ins. in the ground for stand cor of sec. 35 and 36. marked on brass cap T29N. S35 in N.W. and R13E. S36 in N.E. quadrant.

Dig pits $24 \times 24 \times 12$ ins E and W. of post 3 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high N. of cor.

Land rolling
Soil sandy 3rd rate.
No timber

West on S. ldy. of sec. 35

Around S.E. slope over rolling sandy land through sage and greasewood bush undergrowth and bunch grass

1400 Top of sand ridge bears N and S. desc.

19.90 Dry ravine 10 ft. below top of ridge Course 325° E. asc.
 Difference bet. measurements of 40.00 chs by two sets of chainmen is .02 chs. position of middle point.

By 1st Set. 40.01 chs.

By 2nd Set. 39.99 chs. the mean of which is

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins in the ground for ^{std.} 1/4 sec. cor. marked on brass cap. 1/4 S 35 on N. half.

Dig pits 18 x 18 x 12 ins E. and W. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

55.90 Road bears N 20° W and S 20° E.

Difference bet. measurements of 80.00 chs. by two sets of chainmen is .04 chs. position of middle point.

By 1st Set. 80.02 chs.

By 2nd Set. 79.98 chs. the mean of which is

80.00 Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for Standard Cor. of sec. 34 and 35 marked on brass cap. T 29 N; S 34 in NW., R 13 E. S 35 in N.E. quadrant.

Dig pits 24 x 24 x 12 ins E. and W. of post. 3 ft. dia. and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land rolling.

Soil sandy 3rd rate

No timber

West on S. ldy. of sec. 34

Around S.E. slope over rolling sandy land through sage and greasewood. Bush undergrowth and bunch grass

0.25 Top of sand ridge 10 ft. above cor. bears N and S. desc.

3.65 Dry ravine 40 lbs. wide 25 ft. below top of ridge Course 340° E. asc.

The Seventh Standard Parallel North through ^{part of} Range 13 East.
 Chain

BOOK

2520

Difference bet. measurements of 40.00 Chs. by two sets of chainmen is 04 lks. position of middle point
 By 1st Set 40.02 Chs.

By 2nd Set 39.98 Chs. the mean of which is 40.00
 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for stand $\frac{1}{4}$ sec. cor. marked on base cap $\frac{1}{4}$ S 34 on N. half.

Dig pits 18x18x12 ins. East W. of post 3 ft. dia. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high N. of cor.

Difference bet. measurements of 80.00 Chs by two sets of chainmen is .06 lks. position of middle point

By 1st Set 80.03 Chs.

By 2nd Set 79.97 Chs. the mean of which is 80.00
 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for stand, cor. of sec. 33 and 34 marked on base cap. T 29 N. S 33 in N.W. and R 13 E. S 34 in N.E. quadrants.

Dig pits 24x24x12 ins East W. of post 3 ft. dia. and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land rolling.

Soil sandy 3rd rate.

Not in bed

NOTE At this cor. I set off $22^{\circ}09\frac{1}{2}'$ S. on the decl. arc and at noon observe the sun on the meridian and obtain a reading of $35^{\circ}51\frac{1}{2}'$ N. on the lat. arc.

West on S. bdy of sec. 33.

Acres E. slope over rolling sandy land through sage and greasewood bush undergrowth and bunch grass

Difference bet. measurements of 40.00 Chs. by two sets of chainmen is 02 lks. position of middle point

By 1st Set 39.99 Chs.

By 2nd Set 40.01 Chs. the mean of which is 40.00
 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for standard $\frac{1}{4}$ sec. cor. marked on

74.00 brass cap $\frac{1}{4}$ S 33 on N. half (Dig pits 18x18x12 ins. E. & W. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.)
Top of divide bears N 30° E and S 30° W. desc. gentle N.W. slope

Difference bet. measurements of 80.00 Chs. by two sets of chainmen is 06 lbs. position of middle point.

By 1st Set. 79.97 Chs.

By 2nd Set 80.03 Chs. the mean of which is

80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for Standard cor. of sec. 32 and 33 marked on brass cap T29 N. S 32 in N.W. R13 E S 33 in N.E. quadrant.

Dig pits 24x24x12 ins E and W. of post 3 ft. dist. and raise a mound of earth 4 ft. base 2 ft. high. N. of cor.

Land rolling
Soil sandy 3rd rate.
No timber

Work on Stry. of sec. 32.

Descend N.W. slope over rolling sandy land through sage and greasewood bush undergrowth and bunch grass

Difference bet. measurements of 40.00 Chs. by two sets of chainmen is 06 lbs. position of middle point

By 1st Set. 39.97½ Chs.

By 2nd Set 40.02½ Chs. the mean of which is

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for Stand $\frac{1}{4}$ sec cor. marked on brass cap $\frac{1}{4}$ S 32 on N. half.

Dig pits 18x18x12 ins. E and W. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. N. of cor.

Difference bet. measurements of 80.00 Chs. by two sets of chainmen is 06 lbs. position of middle point

By 1st Set. 80.03 Chs.

By 2nd Set 79.97 Chs. the mean of which is.

80.00 Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for Standard corner of sec 31 and

BOOK 2520

32, marked on brass cap T 29 N. S 31 in N.W. and R 13 E. S 32 in N.E. quadrants.

Dig pits 24x24x12 ins E. and W. of post 3 ft. dia. and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Land rolling

Soil sandy 3rd rate.

No timber

West on S. side of sec. 31.

Descent N.W. slope over rolling sandy land through sage and greasewood bush undergrowth and bunch grass.

Difference bet. measurements of 40.00 chs. by two sets of chainmen is 0.4 chs. position of middle point.

By 1st set. 39.98 chs.

By 2nd set. 40.02 chs. the mean of which is 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins in the ground for ^{1st} 1/4 sec. cor. marked on brass cap. 1/4 S 31 on N. half.

Dig pits 18x18x12 ins E. and W. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

Difference bet. measurements of 80.00 chs. by two sets of chainmen is 0.2 chs. position of middle point.

By 1st set. 79.99 chs.

By 2nd set. 80.01 chs. the mean of which is 80.00 Set an iron post 3 ft. long 3 in. in diam 24 ins in the ground for Standard Cor. of Twp. 29 N. R 12 and 13 E. marked on brass cap. T 29 N. in N. half. R 12 E S 36 in N.W. and R 13 E. S 31 in N.E. quadrant.

Dig pits 30x24x12 ins. Crosswise on each line E. and W. 4 ft. and N. of post 8 ft. dia. and raise a mound of earth 5 ft. base, 2 1/2 ft. high N. of cor.

Land rolling.

Soil sandy 3rd rate.

No timber

January 9th 1911

BOOK 2520

Survey commenced Jan. 9th 1911. and executed with a W. and L. E. Gurley engineers transit No. 76 with a Burt solar attachment the horizontal limb being provided with one double vernier reading to single minutes of arc. The circles of the latitude and declination arcs reading to 0° 30' of arc. Examined the adjustments of the transit and found them perfect and know from recent tests of 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 that the instrument is in satisfactory adjustment.

Begin at the Stand. cor. of Twp. 29 N. R. 12 and 13 E. ^{heretofore described} ch. established Jan. 9th 1911. Latitude 35° 51' 28" N. Longitude 111° 00' W.

At 4^h 07^m p.m. l.m. set off 35° 51½' N. on the lat. arc. 22° 06' S. on the decl. arc and determine a meridian with the solar theodolite.

West. on S. lby of sec. 36.

Descend NW. slope over rolling sandy land through sage and greasewood bush undergrowth and bunch grass. Difference bet. measurements of 40.00 chs by two sets of chainmen is 0.2 chs. position of middle point.

By 1st set 39.99 chs.

By 2nd set 40.01 chs. the mean of which is 40.00. Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ^{1st set} 14 sec cor. marked on brass cap 1/4 S 36 on N. half.

Dig pit 18 x 18 x 12 ins E and W. of post 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

Land rolling

Soil sandy 3rd rate.

No timber

January 9th 1911.

General Description

Through ranges 12 and 13 E. this line runs across low sand ridges and ravines or sand washes having a southerly course. The land to the south of the line is a rolling sandy character poorly watered and no timber. The land to the north is a rolling prairie country which should be subdivided.

U.S. TRANSITMAN
FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

BOOK 2520

LIST OF NAMES.

A list of the names of the individuals employed by Van L. White

U.S. Transitman, ~~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 7th Standard Parallel North through parts of Ranges 12 and 13 East of the S. & P. R. Base and Meridian, Arizona showing the respective capacities in which they acted:

George B. Seig and T. Y. White, Chainmen.

Nelson Polacca and Richard L. Shumway, Chainmen.

Harry Keyope, Moundman.

~~Moundman.~~

~~Arman.~~

~~Arman.~~

William R. Carson, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Van L. White

U.S. Transitman, ~~United States Deputy Surveyor~~, in surveying all those parts or portions of the 7th Standard Parallel North, through parts of Ranges 12 and 13 East

of the Gila and Salt River Base & 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 ^{executed} surveyed, and the corner monuments established, according to the instructions furnished by the ~~United States Surveyor~~

~~General for~~ Commissioner of the General Land Office

George B. Seig and T. Y. White, Chainmen.

Nelson Polacca and Richard L. Shumway, Chainmen.

~~Moundman~~

Harry Keyope, Moundman.

~~Arman.~~

~~Arman.~~

William R. Carson, Flagman.

Subscribed and sworn to before me this 10th

day of January 1911 190



Van L. White
U.S. Transitman

TRANSITMAN
FINAL OATH OF UNITED STATES ~~DEPUTY SURVEYOR~~

I, Van L. White, Transitman, United States ~~Deputy Surveyor~~ do solemnly swear that, in pursuance of ~~the contract~~ Special Instruction received from the Commissioner of the General Land Office, bearing date of the 2nd day of Oct. 1907 ~~and~~ and the 15th day of May, 1908, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Commissioner of the General Land Office, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Seventh Standard Parallel North, through Ranges 12 and 13 East

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 Commissioner of the General Land Office and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Subscribed by said Van L. White, and sworn to before me }
this 27th day of December, 1902



Van L. White
United States Deputy Surveyor
Transitman
Lyle R. Baylor
U.S. Commissioner
at Las Cruces, N.M.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Arizona APR 25 1 1904

The foregoing field notes of the survey of the
Seventh Standard Parallel North thru
parts of Ranges 12 and 13 East, of the
Gila and Salt River Meridian, Arizona.

executed by Van L. White, U.S. Transitman
under Special Instructions from the Commissioner of the General Land Office, dated October 2, 1907 and May 15, 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 J. 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.