

2170

4-679.

Book A.

BOOK 2170

Accepted, Dept. of the Interior, May 7/1909.

# FIELD NOTES

OF THE SURVEY OF THE

2170

2170

Frac. North Boundary of T. 15 S. R. 28 E.

2170

Of the Gila and Salt River Base and Meridian,  
Arizona.

AS SURVEYED BY

Jesse B. Wright, United States Deputy Surveyor,

Under his Contract No. 159, dated June 4, 1909

Survey commenced August 1, 1909

Survey completed August 2, 1909

6-151

2170

2170

2170

NAMES AND DUTIES OF ASSISTANTS.

Edgar M. Darnall,..... Chairman.

Santiago Vindiola,..... Chairman.

Guadalupe Pacheco,..... Moundman.

Silverio Peralto,..... Axeman.

Manuel Vindiola,..... Flagman.

BOOK 2170  
INDEX DIAGRAM.

N. Boundary

Township 15 South, Range 28 East.

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

Meanders Page

PRELIMINARY OATHS OF ASSISTANTS.

WE, Edgar M. Darnall and Santiago Vindiola,

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

North Boundary of T. 15 S. R. 23 E.

Edgar M. Darnall, Chainman.  
Santiago Vindiola, Chainman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of August, 1909

My commission expires  August 11, 1909

J. H. Penstemaker  
Notary Public

WE, J. Guadalupe Polheco 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

North Boundary of T. 15 S. R. 23 E.

Guadalupe Polheco, Moundman.  
Moundman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of August, 1909

My commission expires  August 11, 1909

J. H. Penstemaker  
Notary Public

WE, Silverio Peratto 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

North Boundary of T. 15 S. R. 23 E.

Silverio Peratto, Axman.  
Axman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of August, 1909

My commission expires  August 11, 1909

J. H. Penstemaker  
Notary Public

I, Manuel Vindiola, 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

North Boundary of T. 15 S. R. 23 E.

Manuel Vindiola, Flagman.

Subscribed and sworn to before me this 2<sup>nd</sup>  
day of August, 1909

  
My commission expires August 11, 1909

J. H. Penstemaker  
Notary Public

## North Boundary of T. 15 S. R. 28 E.

## Chains

Survey commenced August 1, 1909, and executed with a Young & Son's light mountain transit No. 3492 with Smith patent solar attachment on side. The horizontal limb of the instrument is provided with two double verniers placed opposite to each other and each reading to 1' of arc, which is also the least reading of the verniers of the latitude and declination arcs. I examine and test carefully the levels, the standards, and line of collimation of the instrument and find same correct. I also test the latitude arc of the solar with the strident level and find it correct.

Finding all parts of the instrument in satisfactory adjustments as to tests, then, to test the solar apparatus by comparing the results of observations on the sun made during a.m. & p.m. hours with a true meridian determined by observations on Polaris, I proceed as follows :-

At 3h p.m., l.m.t., at the closing cor. of secs. 4 and 33 as heretofore established by me under contract No. 149, Arizona, on W. Bdy. of Camp Bowie Military Reservation, (Abandoned), which cor. is a granite stone 24x24x12 ins., marked C.C. on E., with 6 grooves on N. & S. faces, and mound of stone 3 ft. base 2 ft. high on E. of cor. I set off 32° 10' N. on the lat. arc and 18° 2' N. on the decl. arc and determine a meridian with the solar, and mark a point in the meridian thus determined by a cross on a fixed stone 6 chs. N. of my station.

At 10h 51m p.m., l.m.t., I observe Polaris at E. Elong. in accordance with instructions in the manual and mark the line thus determined by a tack in a stake driven in the ground 6 chs. N. of my station.

August 2, 1909.

At 6h a.m., l.m.t., I set off the azimuth of Polaris, 1° 23.5' to the W. and mark the true meridian thus determined by a cross on the fixed stone 6 chs. N. of my station; which point falls .24 ins. W. of the point on line given by the solar on preceding evening.

At 7h a.m., l.m.t., I set off 17° 52' N. on the decl. arc and 32° 10' N. on the lat. arc and determine a meridian with the solar, which gives a line .18 ins. W. of the point in the true meridian 6 chs. N. of my station established by Polaris observations.

The solar apparatus, by p.m. & a.m. observations defines positions for meridians about 11" E. and 8" W. of the true meridian determined by observations on Polaris. These errors being probably less than the usual errors of observation, I conclude that the instrument is in satisfactory adjustment.

The magnetic bearing of the true meridian at 7h a.m. is N. 13° 05' W.; the angle thus determined gives the magnetic declination as 13° 05' E.

From the closing cor. above described, which was established 19.50 chs. W. of the cor. of secs. 4 and 33, I run, continuing measurement,

As per instructions,

West, on a random line on N. Bdy. of Tp.

Establishing temp. corners at intervals of 40.00 and 80.00 chs.

At 226.10 chs. I intersect the East Bdy. of Tp. 14-S. R. 27 E. at a point 301 chs. N. of Cor. of Tp. 14-S., Rs. 27 and 28 E., where I set a granite 24 X 14 X 10 ins. 18 ins. in the ground, for clos. cor. of Tp., marked C C on E., with 6 grooves on S. E. and N. faces, and raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor. pits impracticable.

North Boundary of T. 15 S. R. 28 E.

Chains

I change the markings of cor. of Tps. 14 S., R. 27 and 28 E., to refer to T. 14-S., R. 27 E., only. Thence I run East, on a true line on the S. boundary of sec. 31. Over mountainous land, broken and stony, ascending.

10.00 Top of low ridge, extends N. and S., descend.  
 14.00 Gulch, 30 lks. wide, course S., ascend.  
 34.00 Ridge, extends N. and S., descend.  
 39.60 Set a granite stone, 20 X 10 X 6 ins., 13 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. face, and raise a mound of stone, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

41.00 Gulch, 30 lks. wide, course SSW., ascend.  
 45.00 Ridge, brs. N. and S., descend.  
 50.00 Gulch, 150 lks. wide, course S., ascend.  
 52.00 Earth reservoir, brs. S., 2 chs. dist., pipe line brs. N. to point in canyon.  
 70.00 Top of ridge, extends N. and S., descend.  
 79.60 Set a granite stone, 36 X 18 X 13 ins. in mound of stone, for cor. of secs. 5 and 6, marked with 5 notches on the E. and 1 notch on the W. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor. Pits impracticable.

An oak, 6 ins. diam., brs. N. 5° E., 52 lks. dist., marked T 14 S R 28 E S 32 B T  
 An oak, 6 ins. diam., brs. N. 87° W., 62 $\frac{1}{2}$  lks. dist., marked T 14 S R 28 E S 31 B T  
 No other trees available.  
 Land, mountainous.  
 Soil, sandy; 2nd and 3rd rate.  
 Timber, scattering oak.  
 Mountainous land, exceptionally difficult to survey, 79.60 acres.

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 East bet. secs. 5 and 32.  
 Over mountainous land, descending, through scattering oak timber, over stony ground with great difficulty.

1.00 Gulch, 50 lks. wide, course SSW., ascend.  
 13.20 Top of ridge, extends SW and NE; descend.  
 20.00 Foot of mountain, slopes NE and SW., enter valley of wash.  
 33.19 Circular earth reservoir on line, 3.00 chs. across.  
 36.00 Begin steep ascent over very stony ground.  
 40.00 Set a granite stone, 14 X 13 X 8 ins., 9 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, N. of cor. Pits impracticable.

68.00 Top of high rocky point on ridge, extends N. and S. Descend precipitiously along SE slope.  
 80.00 Set a porphyry stone, 24 X 10 X 8 ins., 18 ins. in the ground for cor. of secs. 4, 5, 32 and 33, marked with 4 notches on the E. and 2 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.

Land, mountainous.  
 Soil, sandy, rocky; 2nd and 3rd rate.  
 Timber, scattering oak.  
 Mountainous land, exceptionally difficult to survey, 80.00 chs.  
 August 2, 1909, At noon, I set of 17° 48 $\frac{1}{2}$ ' N. on the decl. arc, and observe the sun on the meridian; the resulting lat. is 32° 10' N.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Jesse E. Wright

....., 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

North Boundary of T. 15 S. R. 28 E.

showing the respective capacities in which they acted:

Edgar M. Darnall, ..... *Chainman.*

Santiago Vindiola, ..... *Chainman.*

Guadalupe Pacheco, ..... *Moundman.*

..... *Moundman.*

Silverio Peralto, ..... *Axman.*

..... *Axman.*

Manuel Vindiola, ..... *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Jesse E. Wright

....., United States Deputy Surveyor, in surveying all

those parts or portions of the North Boundary of T. 15 S. R. 28 E.

..... 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 surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Arizona.

Edgar M. Darnall ..... *Chainman.*

Santiago Vindiola ..... *Chainman.*

..... *Moundman.*

Guadalupe Pacheco ..... *Moundman.*

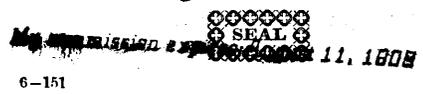
Silverio Peralto ..... *Axman.*

..... *Axman.*

Manuel Vindiola ..... *Flagman.*

Subscribed and sworn to before me this 7<sup>th</sup> day of August, 1909

J. A. Penstemat  
*Notary Public*



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Jesse B Wright, 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 fourth day of June, 1909, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of

North Boundary of Tp 15 S. R. 28 E.

of the Sils and Salt River Bas 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.

Jesse B Wright  
United States Deputy Surveyor.

Subscribed by said Jesse B Wright, and sworn to before me  
this 30th day of August, 1909

W. H. ...  
U. S. Commissioner



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Ariz. July 2, 1910

The foregoing field notes of the survey of a portion of the North Boundary of Tp 15 S. R. 28 E, Sils and Salt River Bas meridian, Arizona

executed by Jesse B Wright U. S. Deputy Surveyor under his contract No. 159, dated June 14, 1909, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

United States Surveyor General.