

Recd Aug. 14  
1906

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1910

Casimir "a"  
E.V. May 23/07-

BOOK 1910

# FIELD NOTES

RE  
OF THE SURVEY OF THE

1910

WEST BOUNDARY

OF

TOWNSHIP 20 South,

RANGE 18 EAST.

1910

Of the GILA & SALT RIVER Meridian,

ARIZONA

AS SURVEYED BY

Casimir R. Barthelemy, United States Deputy Surveyor,

Under his Contract No. 139, dated April 14, 1906

Survey commenced June 10, 1906

Survey completed June 11, 1906

NAMES AND DUTIES OF ASSISTANTS.

Arthur Pogue, Chairman,  
 Harry Mallory, Chairman,  
 Louis Renaud, Groundsman,  
 L. C. Millar, Axman  
 H. B. Milliken, Flagman.

BOOK 1910

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INDEX DIAGRAM.

Township 20 South, Range 18 East

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PRELIMINARY OATHS OF ASSISTANTS.

BOOK 1910

WE, Arthur Pogue and Harry Mallory  
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

Resurvey of West Boundary of T20 S. R18 E.

Arthur Pogue, Chainman.

Harry Mallory, Chainman.

Subscribed and sworn to before me this 1st  
day of June, 1906



W. G. Power

I WE, Louis Renaud 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

Resurvey of West Boundary of T20 S. R18 E.

Louis Renaud, Moundman.

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

Subscribed and sworn to before me this 1st  
day of June, 1906



W. G. Power

I WE, S. C. Miller 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

Resurvey of West Boundary of T20 S. R18 E.

S. C. Miller, Axman.

\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 1st  
day of June, 1906



W. G. Power

I, A. B. Milliken, 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 West Boundary of T20 S. R18 E.

A. B. Milliken, Flagman.

Subscribed and sworn to before me this 1st  
day of June, 1906



W. G. Power

Survey commenced June 10, 1906, and executed with a W. and L.E. Gurley light mountain transit No. 1000B., 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 arc.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona on June 5, 1906.

I examined 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 the closing corner of secs. 31 and 36, T. 20 S., Rs. 19 and 18 E., on the San Ignacio del Babocomari Land Grant, in latitude  $31^{\circ} 39' N.$ , longitude  $110^{\circ} 31' 30'' W.$ , I set off  $31^{\circ} 39' N.$  on the lat. arc;  $23^{\circ} 01' N.$  on the decl. arc; and at 5 h. p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

June 10, 1906.

June 11: At 2 h. and 4 m., a.m., l.m.t., I observe Polaris at eastern elongation in accordance with Manual of Instruction and mark a point in the line thus determined on a peg driven in the ground 5 chs. N. of my station. At 6 h., a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ} 24'$  to the west, and mark the meridian thus determined by cutting a small groove in the stone set June 10, in which the meridian falls .3 ins. E. of the mark determined by the solar. At 7.30 a.m., I set off  $31^{\circ} 39'$  on the lat. arc;  $23^{\circ} 4'$  on the decl. arc, and mark a point in the meridian determined with the solar by a cross in the stone already set 5 chs. N. of my station; this mark falls .2 ins. E. of the meridian established by the Polaris observations; The solar apparatus by the a.m. and p.m. observations defines positions for meridians respectively about  $16'' W.$  and  $10'' E.$  of the meridian established by the Polaris observations. Therefore I conclude that the adjustments of the instruments are satisfactory.

The magnetic bearing of the true meridian at 7 h, 30 m. a.m. is N.  $12^{\circ} 45' E.$

Re-survey of the West Boundary of Tp. 20-South, R. 18-East.

Chains

From the closing corner of sec. 31 and 36, T. 20-S., Rs. 17 and 18 E., which is a sandstone 12 X 8 X 6 ins. above ground, marked and witnesses as described by the Surveyor General.

I run North bet. secs. 31 and 36

Over gently rolling land

22.50 Draw 140 lks. wide course East.

30.18 Intersect cor. of secs. 25 and 36, which is a limestone 8 X 8 X 6 ins. above ground, properly marked and witnessed. Could find no trace of pits; therefore I reestablish this cor. by digging pits 24 X 24 X 12 ins. in each sec., 6 ft. dist. and raised a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling,

Soil, gravelly loam; 2nd and 3rd rate.

No timber.

From cor. of secs. 25 and 36 old 1/4 sec. cor. brs. N. 0° 8' E.

Therefore I run

N. 0° 8' E. on the E. bdy. of sec. 25.

Over gently rolling land

17.85 Road bears East and West.

36.00 Draw 1.00 ch. wide course West.

39.80 Old 1/4 sec. cor. stone properly marked, but find no trace of pits.

I reestablish this corner at same point as follows:

Set a silicate stone 18 X 6 X 6 ins. 12 ins. in the ground for 1/4 sec. cor. marked 1/4 on the W. face; dug pits 18 X 18 X 12 ins. N. and S. of stone 3 ft. dist.; and raised a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.

From 1/4 sec. cor. old sec. cor. of secs. 24 and 25 brs. N. 0° 9' E.

Therefore I run

N. 0° 9' E.

22.80 Road bears East and West.

31.74 Wire fence brs. S. 89° 15' W. and N. 89° 15' E.

32.13 Railroad brs. S. 89° 15' W. and N 89° 15' E.

33.88 Telegraph line brs. S. 89° 15' W and N. 89° 15' E.

39.70 Old sec. cor. <sup>to sec. 24 and 25</sup> which is a sandstone 8 X 7 X 6 ins. above ground, properly marked but no trace of pits.

I dig pits 24 X 24 X 12 ins. in each sec., 6 ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling.

Soil, gravelly loam; 2nd and 3rd rate.

No timber.

From Cor. of secs. 24 and 25, old 1/4 sec. cor. brs. N. 0° 10' E.

Therefore I run

N. 0° 10' E. on East bdy. of sec. 24.

Over gently rolling land.

1.80 Road bears east and west.

9.90 Enter Babocomari Creek bottom brs. E. and W.

13.70 Road bears N.W. and S.E.

19.30 Babocomari Creek bottom 20 lks. wide course East.

21.20 Leave creek bottom, thence over rolling land.

39.63 Old 1/4 sec. cor. which is a sandstone 6 X 6 X 4 ins. above ground, properly marked but find no trace of pits. I dig pits 24 X 24 X 12 ins. in each sec., 6 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

From 1/4 sec. cor., old sec. cor. brs. N. 0° 10' W.

Re-survey of the West Boundary of Tp. 20-South, R. 18-East.

chains

Therefore I run  
N. 0° 10' W.  
39.89 Old sec. cor., which is in a badly dilapidated condition and mound of stone scattered. I reestablish this corner as follows:  
Set a sandstone 18 X 12 X 10 ins., 12 ins. in the ground for cor. of secs. 13 and 24, marked with 3 notches on the north and south edges, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
June 11, 1906, At this cor. I set off 25° 4' N on the decl. arc; at 11 h. 59 m. A.M. observe the sun on the meridian; the resulting lat. is 32° 41' N.

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From cor. secs. 13 and 14, old sec. cor. brs. N. 0° 6' W.  
Therefore I run  
N. 0° 6' W. on East bdy. of sec. 13.  
Over rolling land.  
39.96 Old ¼ sec. cor., which is in a badly dilapidated condition and mound of stone scattered. I therefore reestablish cor. at same point as follows:  
Set a sandstone 18 X 14 X 12 ins., 12 ins. in the ground, for ¼ sec. cor. marked ¼ on W. face; and raised a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
From ¼ sec. cor. old sec. cor. brs. N. 0° 20' W.  
Therefore I run  
N. 0° 20' W.  
11.50 Draw 45 lks. wide course N.E.  
28.00 Draw 200 lks. wide course N.W.  
39.85 Old sec. of secs. 12 and 13, which is a sandstone 6 X 6 X 6 ins. above ground, properly marked but mound of stone scattered.  
I raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
Land, rolling.  
Soil, gravelly and stony; 3rd and 4th rate.  
No timber.

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From cor. of secs. 12 and 13 old sec. cor. brs. N. 0° 9' W.  
Therefore I run  
N. 0° 9' W. on E. bdy. of sec. 12.  
Over rolling land.  
1.50 Draw 1.00 ch. wide course West.  
23.50 Draw 1.00 ch. wide course N.W.  
30.00 Draw 1.30 ch. wide course W.N.W.  
39.78 Old ¼ sec. cor. which is a sandstone 6 X 6 X 6 ins. above ground, properly marked and mound of stone scattered.  
I raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
From ¼ sec. cor. old sec. cor. brs. N. 0° 8' W.  
Therefore I run  
N. 0° 8' W.  
9.90 Draw 1.00 ch. wide course West.  
17.80 Draw 8 lks. wide course West.  
32.00 Draw 2.00 chs. wide course West, thence S.W.  
37.85 Draw 1.20 chs. wide course S.W.  
39.72 Old sec. cor. which is a sandstone 7 X 6 X 6 ins. above ground properly marked, mound of stone scattered.  
I raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.  
Land, rolling.  
Soil, gravelly and stony; 3rd and 4th rate.  
No timber.

## Re-survey of the West Boundary of Tp. 20-South, R. 18-East.

chains.

From cor. of secs. 1 and 12, old  $\frac{1}{4}$  sec. brs. N.  $0^{\circ}$  20' W.  
 Therefore I run  
 N.  $0^{\circ}$  20' W., on E. bdy. of Sec. 6.  
 Over rolling land.  
 17.00 Draw 60 lks. wide course S.E.  
 39.76 Old  $\frac{1}{4}$  sec. cor., which is in a badly dilapidated  
 condition, mound of stone scattered. I reestablish  
 cor. at same point as follows:  
 Set a sandstone 18 X 7 X 6 ins., 12 ins. in the ground,  
 for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  on W. face, and raised a  
 mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of Cor.  
 Pits impracticable.  
 From  ~~$\frac{1}{4}$  sec. cor.~~ <sup>Sec. 6</sup>, old tp. cor. brs. N.  $0^{\circ}$  2' W.  
 Therefore I run  
 N.  $0^{\circ}$  2' W.  
 6.00 Draw 15 lks. wide course N.W.  
 17.10 Deep draw 65 lks. wide course W.  
 38.50 Deep draw 60 lks. wide course N.W.  
 39.66 Old tp. cor., which is a decayed stake, with marks  
 partly obliterated, lying on ground, mound of stone  
 scattered. I reestablish cor. at same point as follows:  
 Set a sandstone 21 X 14 X 14 ins., set 15 ins. in ground,  
 for cor. of tps. 19 and 20 S., Rs. 17 and 18 East, marked  
 with 6 notches on each edge, and raised a mound of  
 stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, S. of Cor. Pits impracti-  
 cable.  
 Land, rolling.  
 Soil, gravelly and stony; 3rd and 4th rate.  
 No timber.

June 11, 1906.

For general description see subs. T.20. S. R.18, E.

*J. R. Barthelmy*  
 U. S. Deputy Surveyor.



FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

9

LIST OF NAMES.

BOOK 1910

A list of the names of the individuals employed by

*Pasimiro R. Barthelmy*

, 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

*Resurvey of West Boundary*

*of T 20 S R 18 E*

showing the respective capacities in which they acted:

*Arthur Pogue*, Chainman.

*Harry Mallory*, Chainman.

*Louis Renaud*, Moundman.

Moundman.

*L. G. Millar*, Axman.

Axman.

*H. B. Milliken*, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted

*Pasimiro R. Barthelmy*

, United States Deputy Surveyor, in surveying all

those parts or portions of the

*Resurvey of West Boundary of T 20 S R 18 E*

of the

*Gila and Salt*

*River Base 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*

*Arthur Pogue*, Chainman. ✓

*Harry Mallory*, Chainman. ✓

*Louis Renaud*, Moundman. ✓

Moundman.

*L. G. Millar*, Axman. ✓

Axman.

*H. B. Milliken*, Flagman. ✓

Subscribed and sworn to before me this

*11<sup>th</sup>*

day of

*August*

, 190

*6*

*W. G. Power*



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Casimiro R. Barthelmy, 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 14 day of April, 1906, 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 Resurvey of the West Boundary of Township 20 South Range 18 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 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.

Casimiro R. Barthelmy  
United States Deputy Surveyor.

Subscribed by said Casimiro R. Barthelmy and sworn to before me }  
this 11th day of August, 1906



Allen D. Jaynes  
CLERK U. S. DISTRICT COURT FOR  
FIRST JUDICIAL DISTRICT, ARIZONA.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, A. T. March 15<sup>th</sup>, 1907

The foregoing field notes of the ~~survey of~~ the resurvey of the West boundary of T. 20 S., R. 18 E. of the Gila and Salt River Base and Meridian, in the territory of Arizona.

executed by Casimiro R. Barthelmy, U. S. deputy surveyor. under his contract No. 139, dated April 14<sup>th</sup>, 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.