

-1843-  
Book E.

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# FIELD NOTES

OF THE SURVEY OF THE

*West and North boundaries*

*of*  
*T. 24 S. R. 17 E.*

-1843-

1843

Of the *Gila & Salt River* Meridian,

AS SURVEYED BY

*Philip Couzner*

, United States Deputy Surveyor,

Under his Contract No. *115*, dated *March 15<sup>th</sup>*, *1894*

Survey commenced *September 18<sup>th</sup>*, *1894*

Survey completed *September 20<sup>th</sup>*, *1894*

NAMES AND DUTIES OF ASSISTANTS.

H. W. Higgins, chairman

Mariano Adorame, chairman

Joaquin Bonillas, moundman

Manuel Salazar, moundman

Chas. M. Pogue, ax man

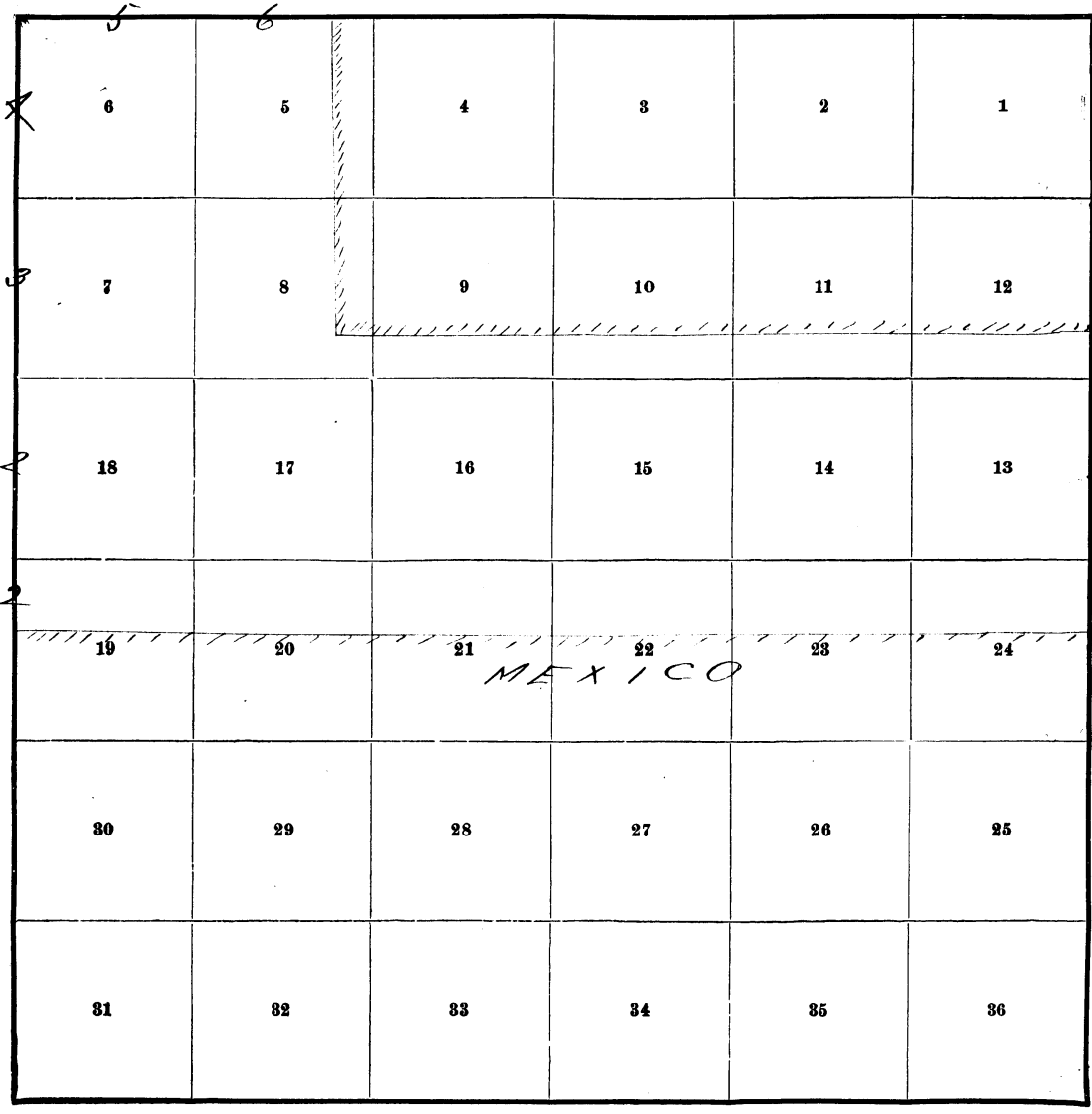
Tom Jones, ax man

Arthur Pogue, flag man

BOOK 1843

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Township 24 N., Range 17 E



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BOOK 1843

PRELIMINARY OATHS OF ASSISTANTS.

WE, H. W. Huggins and Mariano Adrame  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the

West and North boundaries of T. 24 S. R. 17 E

H. W. Huggins, Chainman. ✓  
Mariano Adrame, Chainman. ✓

Subscribed and sworn to before me this 14<sup>th</sup>  
day of September, 1894



H. G. Power

NOTARY PUBLIC,  
YUMA COUNTY, ARIZONA  
MY COMMISSION EXPIRES  
April 27<sup>th</sup> 1908

WE, Joaquim Bonillas and Mmanuel Salazar  
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 West and North boundaries of T. 24 S. R. 17 E

Joaquim Bonillas, Moundman. ✓  
Mmanuel Salazar, Moundman. ✓

Subscribed and sworn to before me this 14<sup>th</sup>  
day of September, 1894



H. G. Power

NOTARY PUBLIC,  
YUMA COUNTY, ARIZONA  
MY COMMISSION EXPIRES  
April 27<sup>th</sup> 1908

WE, Chas. M. Pogue and Tom Jones  
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

the West and North boundaries of T. 24 S. R. 17 E

Chas. M. Pogue, Axman. ✓  
Tom Jones, Axman. ✓

Subscribed and sworn to before me this 14<sup>th</sup>  
day of September, 1894



H. G. Power

NOTARY PUBLIC,  
YUMA COUNTY, ARIZONA  
MY COMMISSION EXPIRES  
April 27<sup>th</sup> 1908

I, Arthur Pogue, 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 West and North boundaries of T. 24 S. R. 17 E

Arthur Pogue, Flagman. ✓

Subscribed and sworn to before me this 14<sup>th</sup>  
day of September, 1894



H. G. Power

NOTARY PUBLIC,  
YUMA COUNTY, ARIZONA  
MY COMMISSION EXPIRES  
April 27<sup>th</sup> 1908

Kohain

Survey commenced September 13, 1904, and extended with a spring and Jones light mountain transit, No. 5607, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona, June 10, 1904.

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 cor. of sec. 13, 18, 19 and 24, Tps. 24 S., Rs. 16 and 17 E., as heretofore described, <sup>the survey of the entire base line</sup> latitude  $31^{\circ}20' N.$ ; longitude  $110^{\circ}40' W.$ ; I set off  $31^{\circ}20' N.$ , on the lat. arc;  $10^{\circ}46\frac{1}{2}' N.$  on the decl. arc, and, at  $3^h 50^m$  p.m. l.m.t., determined with the solar meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

At  $7^h 39^m$  p.m. l.m.t., by my watch, which is correct, I observed Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

September 13, 1904.

September 19: At 6:30 a.m. l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}25'$  to the west, and mark the meridian thus determined, by cutting a small groove in the stone set September 13, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At  $7^h 30^m$  a.m. l.m.t., I set off  $31^{\circ}20'$  on the lat. arc;  $10^{\circ}32'$  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; this mark falls 0.4 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about  $0^{\circ}16'$  west and  $0^{\circ}25'$  east of the meridian established by the Polaris observations; therefore, I conclude that the adjust-

Chains

ments of the instrument are satisfactory.  
 The magnetic bearing of the true meridian at 4<sup>h</sup> 30<sup>m</sup> a.m. is N. 12° 30' W.; the angle thus determined gives the mag. decl. 12° 30' E.

Placer 8 run  
 S. brt. sres. 19 and 24.  
 Dry rolling land, through heavy oak timber.  
 9.26 Road, bears N. W. and S. E.  
 31.64 Intersect international boundary line bet the United States and Mexico, at a point from which the 112 monument of the bdy. bears S 89° 45' E, 170.69 chs. dist.  
 Set a granite stone, 18 x 8 x 6 ins., 12 ins. in the ground, for closing cor. of Spt. 24 S., R 17 E and 17 E. marked <sup>C.C. on N face</sup> with 6 grooves on N., E. and W. faces, and M & X on S. face, from which an oak, 24 ins. diam., bears N. 48 1/2° E, 281 lbs. dist. marked S 24 S R 17 E S 17 B S.  
 An oak, 6 ins. diam., bears N. 65° W., 100 lbs. dist., marked S 24 S R 16 E S 24 B S; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.  
 Land, rolling.  
 Soil, gravelly, 3rd rate.  
 Timber, oak.  
 Heavily timbered land, 31.64 chs.

N. brt. sres. 13 and 19.  
 Dry rolling land, through heavy oak timber.  
 5.35 Dry wash, 20 lbs. wide, course S. E.  
 6.15 Dry wash, 25 lbs. wide, course W.; ascend.  
 19.00 Spur, 300 ft. above sec. cor. (13, 18, 19 and 24); extending S. E., descend.  
 40.00 Set a granite stone, 18 x 10 x 5 ins., 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face, from which an oak, 10 ins. diam., bears N. 85 1/4° E, 150 lbs. dist., marked 1/4 S 18 B S.  
 An oak, 12 ins. diam., bears N. 32 1/2° W., 73 lbs. dist., marked 1/4 S 13 B S; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.  
 41.90 Ridge, bears E. and W.; wood fence bears N. W. and S. E.; descend  
 48.50 Gulch, 15 lbs. wide, course E.; ascend.  
 55.00 Ridge, 100 ft. above gulch, bears E. and W.; descend

Chains

66.80

Culch, 15 lbs. wide, course E.; ascend.

67.90

Bridge, bars E. and N.; ascend.

71.00

Culch, 15 lbs. wide, course E.; ascend.

76.00

Bridge, bars E. and N.; ascend.

78.30

Culch, 25 lbs. wide, course E.; ascend.

80.00

Set a sandstone, 18x12x8 ins., 12 ins. in the ground, for cor. of  
ores. 7, 12, 13 and 18, marked with 4 notches on S. and 3 notches  
on N. side, from whichAn oak, 14 ins. diam., bears N. 70° E., 110 lbs. dist., marked  
S 24 S R 17 E S 7 B S.An oak, 10 ins. diam., bears S. 10° E., 40 lbs. dist., marked  
S 24 S R 17 E S 18 B S.An oak, 10 ins. diam., bears S. 65° W., 107 lbs. dist., marked  
S 24 S R 16 E S 13 B S.An oak, 24 ins. diam., bears N. 22° W., 6 lbs. dist., marked  
S 24 S R 16 E S 12 B S.; and raised a mound of stone, 2 ft.  
base, 1 1/2 ft. high, N. of cor.

Land, mountainous.

Soil, gravelly; 3rd rate.

Timber, oak.

Mountainous or heavily timbered land, 80.00 ch.

September 19: ft. this cor. Set off 1026' N on the sec. and  
and of 12' 2" l. m. t., show the sun on the meridian; the  
resulting lat. is 31° 31' N.

N. bet ores. 7 and 12.

Over mountainous land, ascending through heavy oak timber.

80

Bridge, bars N. W. and S. E.; descend.

8.75

Dry wash, 20 lbs. wide, course S. E.; ascend.

10.75

Spur, extending S. E.; descend.

18.00

Enter draw, course S. E.

18.70

Dry wash, 1 ch. wide, course S. E.

21.00

Barre draw; ascend.

40.00

Set a granite stone, 18x12x8 ins., 12 ins. in the ground for  
1/4 sec. cor. marked 1/4 on W. face, from whichAn oak, 6 ins. diam., bears S. 45° E., 70 lbs. dist., marked  
1/4 S 7 B S.An oak, 8 ins. diam., bears S. 26° W., 115 lbs. dist., marked  
1/4 S 12 B S.; and raised a mound of stone, 2 ft. base, 1 1/2 ft.  
high, N. of cor.

49.50

Spur, extending N. E.; descend.

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Chains  
 55.00 Road, bears N. W. and S. E.  
 61.30 Enter draw, course S. E.  
 64.40 Road, bears N. W. and S. E.  
 68.00 Leave draw; ascend.  
 80.00 Set a granite stone, 18 x 8 x 6 ins., 12 ins. in the ground, for cor.  
 of secs. 1, 6, 7 and 12 marked with 5 notches on E. and 7 notches on  
 N. side; from which  
 An oak, 6 ins. diam., bears N. 61 1/4° E., 225 lbs. dist. marked  
 S 24 S R 17 E S 6 B S.  
 An oak, 8 ins. diam., bears S. 70 1/2° E., 149 lbs. dist. marked  
 S 24 S R 17 E S 7 B S.  
 An oak, 8 ins. diam., bears S. 41° W., 222 lbs. dist., marked  
 S 24 S R 16 E S 12 B S.  
 An oak, 20 ins. diam., bears N. 1 1/4° W., 312 lbs. dist., marked  
 S 24 S R 16 E S 1 B S.; and raise a mound of stone, 2 ft. base, 1 1/2 ft.  
 high, W. of cor.  
 Land, mountain and level.  
 Soil, gravelly; 2nd and 3rd water.  
 Timber, oak.  
 Mountainous or heavily timbered land, 80.00 chs.

N. bet. secs. 1 and 6.  
 Over mountainous land, ascending through heavy oak timber.  
 19.30 Old road, bears N. W. and S. E.  
 38.70 Bridge, bears E. and W.; descend.  
 41.00 Set a granite stone, 18 x 10 x 5 ins., 12 ins. in the ground, for  
 1/4 sec. cor. marked 1/4 on W. face; from which  
 An oak, 5 ins. diam., bears S. 87° E., 59 lbs. dist., marked  
 1/4 S 6 B S.  
 An oak, 8 ins. diam., bears S. 45 1/2° W., 61 lbs. dist., marked  
 1/4 S 7 B S.; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,  
 W. of cor.  
 45.00 Foot, bears E. and W., ascend.  
 52.00 Bridge, bears E. and W.; descend.  
 58.00 Foot, bears E. and W.; ascend.  
 62.00 Bridge, bears E. and W.; descend.  
 64.00 Enter draw, course S. E.  
 67.80 Road, bears N. W. and S. E.  
 72.00 Leave draw; ascend.  
 76.00 Bridge, bears E. and W.; descend.  
 80.00 Set a granite stone, 18 x 10 x 8 ins., 12 ins. in the ground, for cor.