

- 1816 -

# FIELD NOTES

OF THE SURVEY OF THE BOOK 1816

West and East Boundaries  
of  
Township No. 18 North, Range No. 4 East

- 1816 -

of the Gila and Salt River Basins and Meridian,  
in the Territory of Arizona

AS SURVEYED BY

Edgar C. Districh, United States Deputy Surveyor,

Under his Contract No. 123, dated September 15, 1891

Survey commenced January 21, 1895

Survey completed January 27, 1895

9181

NAMES AND DUTIES OF ASSISTANTS.

John M. Grayson, chairman

William Morris, chairman

Charles Pugh, member

William M. Wood, axman

Brat Drumsby, axman

Frank E. Miller, flagman

BOOK 1816

INDEX DIAGRAM.

Township 18 N, Range 4 E

|   |    |    |    |    |    |    |
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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

56  
10  
BOOK 1816

WE, John M. Gray and William Morris  
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 East boundaries of S. 18 N., R. 4 E.

John M. Gray, Chainman.  
W. Morris, Chainman.

Subscribed and sworn to before me this 21<sup>st</sup>  
day of January, 1899 1905 }

Edgar C. Dietrich  
U.S. Dep. Surveyor

SEAL  
WE, Charles Pogue 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 West and East boundaries of S. 18 N., R. 4 E.

Charles Pogue, Moundman.  
Charles Pogue, Moundman.

Subscribed and sworn to before me this 21<sup>st</sup>  
day of January, 1899 1905 }

Edgar C. Dietrich  
U.S. Dep. Surveyor

SEAL  
WE, William M. Ware and Fred Owenby

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 East boundaries of S. 18 N., R. 4 E.

Wm Ware, Axman.  
Fred Owenby, Axman.

Subscribed and sworn to before me this 21<sup>st</sup>  
day of January, 1899 1905 }

Edgar C. Dietrich  
U.S. Dep. Surveyor

I, Fred E. Miller, 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 East boundaries of S. 18 N., R. 4 E.

Fred E. Miller, Flagman.

Subscribed and sworn to before me this 21<sup>st</sup>  
day of January, 1899 1905 }

Edgar C. Dietrich  
U.S. Dep. Surveyor

No notary public available

Chains

Sunny commenced January 21, 1905, and proceeded with a James W. Quinn and Co. light mountain transit No. 4607, with solar attachment. The horizontal limb is provided with two double mirrors placed opposite to each other, reading to single minutes of arc, which is also the base point of the mirrors of the latitude and declination arcs. The latitude arc reads 3' in excess ~~being an index error.~~

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the surveyor general for Arizona, December 22, 1904. Examined the adjustments of the transit, and corrected 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, & proved as follows:

At the cor. of Sps. 17 and 18 N., Rs. 3 and 4 E., as heretofore described, latitude  $34^{\circ}54'25''$  N., longitude  $111^{\circ}58'29''$  W.

I set off  $34^{\circ}51'$  N., on the lat. arc;  $19^{\circ}50'$  S. on the decl. arc; and, at  $3^h 45^{m}$  p.m. l.m.t., determined with the solar meridian and mark a point thereon, on a stone firmly set in the ground, 5 chs. N. of the cor.

At  $11^h 18^{m}$  a.m. by my watch, which is correct with l.m.t., I observed Polaris at western 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.

January 21, 1905.

January 22: At 8:20 a.m. l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}28'$  to the East, and mark the meridian thus determined, by cutting a small groove in the stone set January 21, on which the meridian falls  $0.3$  ins. west of the mark determined by the solar.

At 8:30 a.m. l.m.t., I set off  $34^{\circ}51'$  on the lat. arc;  $19^{\circ}41'$  S. 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  $0.1$  ins. west of the mark established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations,

6 lines

defines positions for meridians, respectively about 5" west and 0.16" east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8:45 a.m. is N. 14° 36' W.; the angle thus determined gives the mag. decl. 14° 38' E.

Shaner in compliance with my instructions, I run North on a random line along the N. bay of S. 18 N., R. 4 E., setting temp. 4 sec. and sec. cor. at intervals of 40.00 chs., and at 170.17 chs. intersect N. bay of Sp. 6.85 chs. N. of cor. of svs. 32 and 33, S. 19 N., R. 4 E., which is a limestone, 5 x 10 x 6 ins above ground, marked and witnessed as described by the surveyor general. Set a sandstone, 20 x 12 x 6 ins., 15 ins. in the ground, for closing cor. of Sps. 18 N., Rs. 3 and 4 E., marked 66 18 N. on S.,

4 E., on E. and 3 E., on N. face, with 6 grooves on S., E. and N. faces, and raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor. Pits impracticable.

January 23, 1905.

January 24: At 8:55 a.m. l.m.f., I set off 34° 36' on the lat. decl. 19° 13' S. by the def. decl. and determine a true meridian with the solar at the above described Sp. closing cor.

Shaner & I run South, bet. svs. 1 and 6.

Over mountainous land, descending through dense brush.

8.70 Gulch, 20 lbs. wide, course N.; begin gradual ascent.

30.17 Set a sandstone, 18 x 8 x 6 ins. in a mound of stone, for 1/2 sec. cor. marked 7 on N. face, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

37.40 N. slope of spur; descend.

50.00 Enter gulch course N. N. W.

70.17 Set a sandstone, 18 x 10 x 8 ins., 12 ins. in the ground, for witness cor. to cor. of svs. 1, 6, 7 and 12, marked 12 E on N.W. face, with 1 notch on N. and 5 notches on S. ridge, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

Land, mountainous.

50.00  
70.17  
79.07  
119.0

2500-7

Chains

Soil, stony and rocky; 4th rate.  
Timber, scattering cedar, undergrowth, algarrota,  
mangonito and tortilla.  
Mountains, or land covered with dense undergrowth,  
70.17 chs.

South, bet. sec. 7 and 12, from cor. point, in gulch.  
Ascending.

- 7.00 Ascend over bluff.
  - 8.60 Sup. bars E. and W.; ascend along W. edge of gulch.
  - 8.90 Witness cor.
  - 14.00 Enter scattering timber, bars E. and W.
  - 32.70 Leave edge of gulch.
  - 40.00 Set a walpole stone, 18x8x8 ins., 12 ins. in the ground,  
for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on W. face; from which  
A cedar, 20 ins. diam., bears S.  $16\frac{1}{2}^{\circ}$  E., 107 lbs. dist., marked  
 $\frac{1}{4}$  S 7 B S.
  - A pine, 30 ins. diam., bears S.  $51\frac{1}{4}^{\circ}$  W., 52 lbs. dist., marked  
 $\frac{1}{4}$  S 12 B S.
  - 50.00 Spur extending N.; descend.
  - 65.00 Gulch, 10 lbs. wide, course N. W.; ascend.
  - 74.80 Spur, extending N. W.; descend.
  - 80.00 Set a walpole stone, 24x14x10 ins., 15 ins. in the ground,  
for cor. of sec. 7, 12, 13 and 18, marked with 2 notches on  
N. and 4 notches on S. edge; from which  
A cedar, 10 ins. diam., bears S.  $51\frac{1}{2}^{\circ}$  E., 105 lbs. dist., marked  
S 18 N R 4 E S 18 B S.
  - A cedar, 20 ins. diam., bears N.  $61\frac{3}{4}^{\circ}$  W., 59 lbs. dist., marked  
S 18 N R 3 E S 12 B S. no other trees within sight; and  
raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, N. of  
cor. Rio impracticable.  
Land, mountains!  
Soil, stony and rocky; 4th rate.  
Timber, scattering cedar and pine; undergrowth, algar-  
rota and mangonito.  
Mountains land, 80.00 chs.
- January 24. At this cor. I set off 19 $\frac{1}{2}$  S. on the merid.  
wire; and, at 5 m. l. m. t., observed the sun on the  
meridian; the resulting lat. is  $34^{\circ} 53' N.$  or within  $11'$   
of the proper lat.

Chains South, bet. secs. 13 and 18.  
Over mountainous land, descending along N. slope of  
mountain.

38.00 Benchmark, 20 lbs. wide, course N.; ascend.  
40.00 Set a malpais stone, 18x8x6 ins., 12 ins. in the ground,  
for 1/4 sec. cor. marked 1/4 on N. face; and raise a mound  
of stone 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

60.00 Top of spur, extending N.; descend through scattering  
cedar timber and dense brush.

80.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for  
cor. of secs. 13, 18, 19 and 24, marked with 3 notches on  
N. and S. edges; and raise a mound of stone, 2 ft.  
base, 1 1/2 ft. high, N. of cor. Pits impracticable.

Land, mountainous.  
Soil, stony and rocky; 4th rate.  
Timber, scattering cedar; undergrowth, algarrota  
and manzanita.  
Mountainous, or land covered with dense undergrowth,  
5000 chs.

South, bet. secs. 19 and 24.  
Over mountainous land, descending through scatter-  
ing cedar and dense brush.

6.00 Benchmark, 20 lbs. wide, course S. W.

15.50 Benchmark, 20 lbs. wide, course S. W.; ascend.

27.00 Top, thence along N. slope of ridge.

40.00 Set a sandstone, 18x10x8 ins., 12 ins. in the ground, for  
1/4 sec. cor. marked 1/4 on N. face; and raise a mound of  
stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

75.00 Begin descent.

80.00 Set a sandstone, 20x12x8 ins., in a mound of stone, for  
cor. of secs. 19, 24, 25 and 30, marked with 4 notches on  
N. and 2 notches on S. edge; and raise a mound of  
stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable.

Land, mountainous.  
Soil, gravelly, stony and rocky; 3rd and 4th rate.  
Timber, a few cedar; undergrowth, algarrota, trochiloid  
and manzanita.  
Mountainous, or land covered with dense undergrowth, 80.00 chs.

January 24, 1905.



January 25. At 8<sup>h</sup> 40<sup>m</sup> a. m., l. m. t., I set off 34° 53' <sup>N.</sup> on the lat. arc; 18° 58' S. on the decl. arc; and determine a true meridian with the solar at the cor. of sves. 19, 24, 25 and 30.

Spines & run  
South, bet. sves. 25 and 30.

Over mountainous land, descending through scattering cedar and dense brush.

- 12.00 Gulch, 30 lbs. wide, course S. E.; ascend.
- 30.00 Enter heavy cedar timber; bears N. W. and S. E.
- 36.00 Bridge, bears E. and W.; heavy timber; descend.
- 40.00 Set a sandstone, 18 x 8 x 6 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 1/2 ft. high, W. of cor. Site impracticable.
- 42.00 Deep gulch, 40 lbs. wide, course E.; ascend.
- 44.00 Bridge, bears E. and W.; ascend.
- 49.80 Gulch, 15 lbs. wide, course N.; ascend.
- 64.00 Foot of red sandstone bluffs, 300 ft. high, bears N. N. W. and S. S. E. Offset as follows:

East, 4.00 chs.; then on the offset line.  
 South, 9.00 chs.; then  
 West, 4.00 chs. to the true line. then  
 South, along E. edge of bluffs.

- 80.00 Set a sandstone, 18 x 10 x 6 ins., 12 ins. in the ground, for cor. of sves. 25, 30, 31 and 36, marked with 5 notches on N. and 1 notch on S. edge, from which:  
 A cedar, 24 ins. diam., bears N. 49° E., 27 lbs. dist., marked S 18 N R 4 E S 30 B S.  
 A cedar, 20 ins. diam., bears S. 61 1/2° E., 137 lbs. dist., marked S 18 N R 4 E S 31 B S.; nothing trees within limit, and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor. Site impracticable.

Land, mountainous.  
 Soil, gravelly, stony and rocky; 3rd and 4th parts.  
 Signs, scattering cedar, undergrowth, algarrota, palo christo and toyella.  
 Mountainous, heavily timbered or land covered with dense undergrowth, 8000 chs.

South, bet. sves. 31 and 36.

BOOK

Chains

- Over mountainous land, along E. side of bluffs, through scattering cedar timber and dense brush.
- 23.00 Begin strip descent.
- 26.00 Deep gulch, course S. E.; ascend.
- 29.00 Top of S. bank; ascend along E. slope of spur.
- 40.00 Set a malpais stone, 15 x 8 x 6 ins, 12 ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked  $\frac{1}{4}$  on N. face; from which  
 A cedar, 12 ins. diam., bears S. 62° W., 116 lbs. dist., marked  $\frac{1}{4}$  S 36° E.; no other tree within limits; and raise a mound of sand, 2 ft. base, 1 1/2 ft. high, N. of cor. site impracticable.
- 41.2.00 Top of spur; ascend.
- 61.55 Gulch, 15 lbs. wide, course E.; ascend.
- 67.00 Spur, extending E.; descend.
- 80.00 Top cor. of S. 17 and 18 N., R. 3 and 4 E.  
 Land, mountainous.  
 Soil, gravelly, stony and rocky; 3rd and 4th rates.  
 Timber, scattering cedar; undergrowth, algarrota, bacilla and palo christo.  
 No mountains, or land covered with dense undergrowth,  
 80.00 chs.

January 25, 1905.

Note: I have destroyed all marks established on this line by Deputy Sheriff B. M. Maxwell.

### General Description.

This line runs over mountainous land, through scattering timber. Sp. 18 N., R. 3 E., is mountainous, rough and broken.

### East boundary of S. 18 N., R. 4 E.

Survey commenced January 25, 1905, and executed with a Parker N. Cannon and Co. light mountain transit, No. 469, with solar attachment. The horizontal limb is provided with no double verniers (planned) in spite of which other regarding to single verniers of arc, which is also the best part of the verniers of the vertical and declination arcs.

Claims

The instrument was examined, tested on the true meridian at Phoenix, found correct, and was approved by the survey general for Arizona, December 22, 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, & proceed as follows.

At the cor. of Sps. 17 and 18 N., R. 4 and 5 E., as heretofore described, latitude <sup>34° 51' 23" N.</sup> ~~34° 51' N.~~, longitude 111° 52' 29" W.; set off 34° 51' N. on the lat. arc, 18° 58' E. on the decl. arc, and at 3<sup>h</sup> 50<sup>m</sup> p. m., l. m. t., determine with the solar meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

At 11<sup>h</sup> 02<sup>m</sup> p. m., by my watch, which is correct with l. m. t., observe Polaris at maximum 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.

January 25, 1905.

January 26: At 8:50 a. m., l. m. t., I lay off the azimuth of Polaris 1.25 to the east, and mark the meridian thus determined, by cutting a small groove in the stone set January 25, on which the meridian falls 0.2 ins. east of the mark determined by the solar.

At 9<sup>h</sup> 00<sup>m</sup> a. m., l. m. t., I set off 34° 51' on the lat. arc, 18° 58' 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 0.1 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 0.11" west and 0.5" east of the meridian established by the Polaris observations. Therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 9<sup>h</sup> 15<sup>m</sup> a. m. is N. 14° 21' E. The angle thus determined gives the mag. decl. 14° 51' E.

BOOK 1018

Chains

Proving it impracticable to run this line through to an intersection with the N. bay of the Sp. owing to rugged mountains and deep canyons. From north to a tunnel line along the E. bay of the Sp., setting permanent 1/4 sec. and section.

Being the Sp. cor. B run North, on E. bdy of sec. 36.

Down gently rolling land, through cedar timber and dense brush.

40.00 Set a sandstone, 18 x 10 x 4 ins. 12 ins. in the ground, for 1/4 sec. cor. marked 1/4 on N. face, from which a rod, 16 ins. diam., bears S. 26 1/2° E., 38 lbs. dist., marked 1/4 S 31 B S.

A rod, 12 ins. diam., bears S. 29 3/4° N., 161 lbs. dist., marked 1/4 S 36 B S.

47.00 Point of 1st sandstone bluff, 400 ft. high, bears E. and N. B sand flag around west to top of bluff on line and return to 1/4 sec. cor. and triangulate the distance, which is 1300. Run E on base leg 200 chs. from which height of top is 1146' 6" - 1097' 2" 54" = 325 x 7.00 = 1300 + 40.00 =

53.00 Top, bears E. and N.

55.00 Begin strip descent

61.00 End of strip descent

71.30 Dry wash, 400 ft. below top of bluff, 15 lbs. wide, course N. as usual.

81.00 Set a sandstone, 18 x 8 x 7 ins. in a mound of stone, for cor. of secs. 25 and 36, marked with 1 notch on S. and 5 notches on N. edge, from which

A rod, 12 ins. diam., bears S. 13 1/2° N., 129 lbs. dist., marked S 18 N R 46 S 36 B S.

A rod, 14 ins. diam., bears N. 82 1/2° N., 49 lbs. dist., marked S 18 N R 46 S 25 B S; and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor.

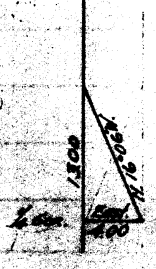
Land gently rolling and mountainous.

Soil, gravelly, stony and rocky; soil prod. 4th root

Timber, cedar and scattering spruce, mangrove, algaroba, hantilla and mangrove.

Mountainous or land covered with dense mangrove, 80.00 chs.

January 26. At this cor. B set off 1540' on the creek line, and at 12 h. m. t. found the same on the main line. The resulting lat. is 39' 50" within 0.1 of the true lat.



Chains

North, on E. bay. of sec. 25.

Over mountains land ascending.

1.45

Point of red sandstone bluff, 200 ft high, bears E. and N. & set flag on top of bluff on line and triangulate the distance from sec. cor. which is 4.77 chs. Run East 2 chs on line where flag bears N. 22° 45' W.  $\tan 67-15 = 2.385 \times 2 = 4.77$  chs.

6.22

Ascend over broken ground, through scattering timber.

18.00

Set a point on line

23.00

Point of mountain, bears E. and N.

& set flag top of mountain <sup>on line</sup> and return to point set at 16.00 chs. and triangulate distance, which is 23.88 chs. Run N. 6° 55' W. 6 chs & set

41.88

top of mountain, about 2200 ft. above sec. cor.

Set a white sandstone, 18 x 10 x 6 ins. in a mound of stone, for witness cor. to  $\frac{1}{4}$  sec. cor. marked N 6  $\frac{1}{4}$  in N. face; from which

A pinon 6 ins. diam. bears N. 82  $\frac{1}{2}$ ° E., 100 chs. dist. marked N 6  $\frac{1}{4}$  S 30° B S.

A pinon 6 ins. diam. bears S. 88  $\frac{1}{4}$ ° W., 6 chs. dist. marked N 6  $\frac{1}{4}$  S 25° B S. The point for  $\frac{1}{4}$  sec. cor. is inaccessible.

Plum along top of mountain, through dense brush.

43.00

Ward of gulch, course S. W.

66.00

Begin descent

76.33

Edge of head of canyon, course W.

Set a white sandstone, 20 x 8 x 6 ins. in a mound of stone, for witness cor. to cor. of secs. 24 and 25, marked N 6 in N. face, with 2 notches on S. and 4 notches in N. side; and raise a mound of stone, 2 ft. base, 1  $\frac{1}{2}$  ft. high, W. of cor. Site impracticable.

80.00

The point for sec. cor. falls in canyon.

Land, mountains!

Soil, gravelly, stony and rocky; 4th rate.

Timber, scattering cedar and pinon; undergrowth, manzanita and algarrota.

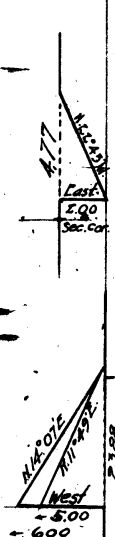
Mountains on land covered with dense undergrowth, 80.00 chs.

January 26, 1905.

January 27: At 8<sup>40</sup> a.m. l.m.t. Set off 34° 53' on the lat. arc, 15° 25' on the decl. arc, and determine true meridian with the solar <sup>with the</sup> the cor. of secs. 24 and 25.

From witness cor. & run

West, 3 chs.; then, on the offset line: along edge of rim

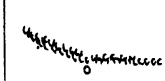


6 chs & set  
Run N. 6° 55' W. 6 chs & set  
of base line where flag bears N 14° 07' E.  $\tan 79-13 = 5.972 \times 6 = 35.832$   
from pt. at sect. cor. base line flag bears N. 14° 07' E.  $\tan 79-11 = 4.782 \times 6 = 28.692$   
 $35.832 - 28.692 = 7.14$   
 $23.88 + 18.00 = 41.88$

Chains  
 North, 33.67 chs. then  
 30.00 East, 3.00 chs to line; then  
 North, on E. bay of sec. 24.  
 Along top of mountain, through scattering timber and  
 dense mangrove brush.  
 40.00 Set a sandstone 20 x 10 x 8 ins. in a mound of stone, for  
 1/4 sec. ev. marked 1/4 on N. face; and raise a mound of  
 stone, 2 ft. base, 1 1/2 ft. high, N. of ev. Pits impracticable.  
 68.00 Edge of bluff. Offset as follows:  
 West, 12.00 chs.; then, on the offset line  
 North, 3.90 chs.; then  
 71.70 East, 12.00 chs. to line; ascending down gully, then  
 North, 1.30 chs. to  
 73.00 Point of perpendicular bluff, 600 ft. high, from this point  
 bears N. N. E.  
 but a cross on face of bluff for witness ev. to ev. of secs. 13  
 and 24, marked N 6 on N.W., with 3 notches on N. and  
 S. sides of cross; and raise a mound of stone, 3 ft. base,  
 2 ft. high, 6 lbs. E. of ev. Pits impracticable. Impossible to set  
 80.00 ~~Point~~ ~~of ev.~~ ~~on account of perpendicular cliffs.~~  
 Point falls on an insurmountable point on bluff.  
 Land, mountainous.  
 Soil, stony and rocky; 4th rate.  
 Timber, scattering pine and fir; undergrowth, man-  
 grove.  
 Mountainous or land covered with dense undergrowth,  
 80.00 chs.  
 January 27. At this ev. Port off, 18° 27' S. on the decl. arc,  
 and, at 12h 6m, l.m.t., observe the sun on the meridian,  
 the resulting lat. is 34° 57' N.

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From witness ev. of secs. 13, and 24, P run  
 East, 20.00 chs.; then, on the offset line.  
 North, 25.00 chs.; then  
 18.00 Offset West, 20.00 chs. back to true line. Thence P run  
 North, on E. bay of sec. 13.  
 Over mountainous land, descending through scattering  
 timber and dense brush.  
 25.50 Gulch, 20 lbs. wide, course S. E.; ascend  
 40.00 Falls on face of bluff, 1000 ft. high, bears from this point  
 N. N. W. and E  
 but a cross (x) on face of bluff, 5 ft. above ground, at the



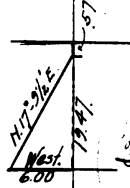
Chains

exact cor. point for  $\frac{1}{4}$  sec. marked  $\frac{1}{4}$  on N. side of road and raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, 8 lbs. S. of cor. Pits impracticable. Imp. practicable to set ms. W of cor. From  $\frac{1}{4}$  sec. cor. offset as follows.

West 15.00 chs.; then North, 10.00 chs.; then West 15.00 chs.; then North, 10.00 chs.; then

West 6.00 chs. to narrow gap; bluffs on both sides 800 ft. high.

This point is on S. edge of canyon, over which it is impracticable to chain. Sand flag north to point on ~~the~~ <sup>due N</sup> S. slope of rocky spur and triangular distance which is 19.43; Run West 6.00 Chs. ~~base line where flag brs. N 17° 42' E. Tan 72° 50' = 3.2385 x 9.00 = 19.43 + 60.00 = 79.43.~~



39.43

North 57 chs.; then

80.00

Offset East 36.00 chs. to true line. (57.00 chs. N. of witness cor) for sec. 13, 14, 19 x 24.

Set a white sandstone, 20 x 14 x 10 ins., in a mound of stone, for cor. of secs. 12 and 13, marked with 4 notches on S. and 2 notches on N. edge; from which a pin, 20 ins. diam., bears S. 27  $\frac{1}{4}$ ° W., 43 chs. dist., marked S 18 N R 4 E S 13 B S.

A pin, 24 ins. diam., bears N. 15  $\frac{1}{4}$ ° W., 62 chs. dist., marked S 18 N R 4 E S 12 B S.

Land, mountains.

Soil, stony and rocky; 4th rate.

Timber, scattering pine, gum, fir and oak, undergrowth, manzanita, algaroba, gum and triloba.

Mountains, or land covered with grass and undergrowth,

80.00.

From this point it is impracticable to extend the line further north, owing to the rough and mountainous character of the ground.

Notes: I have destroyed all cor. on this line established by Deputy Sheriff B. Maxson. January 29, 1905.

Edgar C. Dietrich  
N. S. Deputy Surveyor.

| Line Designation | Bearing | Distance | N+     | S-            | E+            | W-           |
|------------------|---------|----------|--------|---------------|---------------|--------------|
| N. BDY.          | WEST    | 478.91   |        |               |               | 478.91       |
| W. BDY.          | SOUTH   | 470.17   |        | 470.17        |               |              |
| S. BDY.          | S89-62E | 479.53   |        | 0.96          | 479.53        |              |
| E. BDY.          | NORTH   | 470.82   | 470.82 |               |               |              |
| CONVERGENCY      |         |          |        |               |               | 0.45         |
|                  |         |          | 470.82 | 471.13        | 479.53        | 479.36       |
|                  |         |          |        | <u>470.82</u> | <u>479.36</u> |              |
| ERROR IN LAT.    |         |          |        | .31           | .17           | ERROR IN DEP |



LIST OF NAMES.

A list of the names of the individuals employed by Edgar C. Dietrich  
....., 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 West and East boundaries of S. 18 N., R. 4 E.

showing the respective capacities in which they acted:

John M. Gray ✓, Chairman.

William Morris ✓, Chairman.

Charles Pogue ✓, Moundman.

William M. Ware ✓, Axman.

Era Owenby ✓, Axman.

Fred E. Miller ✓, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Edgar C. Dietrich

....., United States Deputy Surveyor, in surveying all  
those parts or portions of the West and East boundaries of S. 18 N., R. 4 E.

..... of the Salt River 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.

John M. Gray ✓, Chairman.

W. A. Morris ✓, Chairman.

Charles Pogue ✓, Moundman.

William M. Ware ✓, Axman.

Era Owenby ✓, Axman.

Fred E. Miller ✓, Flagman.

Subscribed and sworn to before me this 27<sup>th</sup>  
day of January, 1891 1905



Edgar C. Dietrich  
U.S. Dep. Surveyor

No notary public - available

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

70 14  
BOOK 1816

I, Edgar C Dietrich, 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 15 day of September, 1904, 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 West and East boundaries of S. 18 N., R. 4 E.

Salt River of the Gila 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; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Edgar C Dietrich  
United States Deputy Surveyor.

Subscribed by said Edgar C Dietrich, and sworn to before me }  
this eleventh day of July, 1905, 1905

~~No notary public available~~

Frank S Ingalls  
U. S. Surveyor General



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, A. T., July 25, 1905, 1905

The foregoing field notes of the survey of the West and East boundaries of T. 18 N. R. 4 E., of the Gila and Salt River Base and Meridian in the territory of Arizona

executed by Edgar C Dietrich, U. S. deputy surveyor under his contract No. 125, dated September 15, 1904, 1904, 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.~~