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Exterior

BOOK "AS" 2572

FIELD NOTES BOOK 2572

OF THE SURVEY OF THE

West, East and North boundaries of Tp. 31 N.
R. 14 E.

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

EXECUTED
AS ~~SURVEYED~~ BY

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

Survey commenced December 1st, 1910

Survey completed December 6th, 1910

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BOOK 2572 NAMES AND DUTIES OF ASSISTANTS.

F. Y. White	Chainman
Oscar W. Fetters	Chainman
Ralph C. Sampson	Moundman
George B. Seig	Axman
Nelson Polacca	Axman
William R. Carson	Flagman

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BOOK 2572

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BOOK 2572

PRELIMINARY OATHS OF ASSISTANTS.

We, T. Y. White and Oscar W. Fetters 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 the East, West and North Bdrys of Tp 31 N., R 14 E. of the G. & S. R. Base & Meridian, Arizona

T. Y. White, Chainman.

Oscar W Fetters, Chainman.

Subscribed and sworn to before me this 1st day of December, 1910

Van L. White
U.S. Transitman

SEAL

~~I~~ We, Ralph C. Sampson ~~and~~

do solemnly swear that ~~I~~ ~~we~~ will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ~~me~~ ~~us~~, to the best of ~~my~~ ~~our~~ skill and ability, in the survey of the East, West and North Bdrys of Tp 31 N R.14 E of the G. & S. R. Base & Meridian, Arizona

Ralph C. Sampson, Moundman.

, ~~Moundman.~~

Subscribed and sworn to before me this 1st day of December, 1910

Van L. White
U.S. Transitman

SEAL

We, George B. Seig and Nelson Polacca 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 East, West and North Bdrys of Tps. 31 N. R. 14 E. of the G. & S. R. Base & Meridian, Arizona.

George B. Seig, Axman.

Nelson Polacca, Axman.

Subscribed and sworn to before me this 1st day of December, 1910

Van L. White
U.S. Transitman

SEAL

I, William R. Carson, 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 East West and North Bdrys of Tp. 31 N. R 14 E. of the G. & S. R. Base & Meridian, Arizona

William R Carson, Flagman.

Subscribed and sworn to before me this 1st day of December, 1910

Van L. White
U.S. Transitman

SEAL

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West Boundary of T31 N. R14E.

Chains

Survey commenced Dec. 1st 1910 and executed with a W. & 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 verniers of the latitude and declination arcs read to 0'30" of arc.

Examine the adjustments of the transit and find them correct 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 cor. of Nps. 30 and 31 N. Rs 13 and 14 E.[1] described in Exterior Book "AR" which established November 16th 1910.

Latitude 36° 01' 54" N. Longitude 110° 5' 38" W.

Dec. 1st 1910; at 9h 49m a.m. l.m.t. of sch. off 36° 02' N. on the lat. arc. 21° 43' S. on the decl. arc. and determine a meridian with the solar at the above Nps. cor.,

thence I run,

North, between secs. 31 and 36,

Ascend S.E. slope over stony hilly land. through scattering sage brush underg growth and bunch grass

6.00 Pass of Sand ridge bears N.E. and S.W. desc.

14.50 Dry ravine 50 lks. wide 15 ft. deep course N.E. asc.

15.50 Pass of ridge bears N.E. and S.W. desc.

17.30 Dry ravine 25 lks. wide 10 ft. deep course E. asc.

26.00 Pass of Sand ridge bears N.E. and S.W. desc.

39.50 Dry ravine 06 lks. wide course N 50° E asc

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap. 1/4 S 36 on W. half and S 31 on E half.

Raise a mound of stone 2 ft. base 1½ ft. high W. of cor. Pits impracticable

41.90 Pass of Sand ridge 10 ft. above 1/4 sec. cor. bears N.E. and S.W. desc.

43.00 Dry ravine 20 lks. wide 30 ft. deep course N 20° E asc.

63.50 Pass of Sand ridge bears N.E. and S.W. desc.

80.00 Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for cor. of secs. 25. 30. 31 and 36 marked on brass cap T 31 N. in N. half, R 13 E S 25 in N.W. R 14 E S 30 in N.E. S 31 in S.E. and S 36 in S.W.

2 Chains — West boundary of Tp. 31 N R 14 E

quadrants., Raise a mound of stone 2 ft. base, 1½ ft high. W. of cor. Pits impracticable
Land hilly.
Soil sandy and stony 3rd and 4th rate.
No timber
NOTE:- At this Cor. D sets off. 21° 45' S. on the decl. and at noon observe the sun on the meridian and obtain a reading of 36° 02½' N. on the lat. arc.

North, bet. secs. 25 and 30,
Descend NE slope over hilly sandy land, through sage and greasewood brush undergrowth and bunch grass
12.55 Dry ravine 50 lks. wide 5 ft. deep course W. and over broken land.
21.40 Enter same ravine course NE. thence in ravine.
26.00 Leave ravine course NW. ascend along SW. slope.
40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. marked on brass cap. ¼ S 25 on W. half and S 30 on E half.
Raise a mound of stone 2 ft. base. 1½ ft. high. W. of. cor. Pits impracticable
40.30 Top of rocky spur 20 ft. above the ¼ sec. cor. bears E. and W. extends W. of line 20 lks. desc. steeply
50.40 Dry ravine 30 ft. below top of spur. course W. asc.
53.50 Top of Mesa ascend abruptly S. slope
60.75 Top of abrupt ascent on S. edge of Mesa 150 ft. high. bears E and W. asc gradually
75.00 Top of gradual ascent on Sand Ridge bears E and W. desc
80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for Cor. of secs. 19, 24, 25 and 30. marked on brass Cap T 31 N. in N. half. R 13 E. S 24 in NW., R 14 E S 19 in NE. S 30 in SE. and S 25 in SW. quadrants.
Dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist, and raise a mound of earth 4 ft. base, 2 ft. high. W. of. cor.
Land hilly.
Soil sandy and stony 3rd and 4th rate
No timber

West boundary of Tp 31 N. R 14 E 3

Chains

North, bet. secs. 19 and 24,
Descend N.W. slope over rolling sandy land through scattering sage and greasewood brush undergrowth and bunch grass.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 24 on W half and S 19 on E half.
Dig pits 18 X 18 X 12 ins. N and S. of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. W. of cor.

80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground, for cor. of secs. 13. 18. 19. and 24. marked on brass cap T 31 N. in N. half. R 13 E S 13 in N.W., R 14 E S 18 in N.E., S 19 in S.E. and S 24 in S.W. quadrants.
Dig pits 18 X 18 X 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

December 1st 1910

December 2nd 1910 At. 7h 49m a.m., l.m.l. Arch 7 ft. 36° 04½ N. on the lat. arc. 21° 47' S. on the decl. arc. and determined a mer. d'an with the solar at the cor. of secs. 13. 18. 19. and 24, above described thence I run North, bet. secs 13 and 18;
Descend N.W. slope over rolling sandy land. through scattering sage and greasewood brush undergrowth about 3 ft. high.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground, for 1/4 sec. cor. marked on brass cap 1/4 S 13 on W. half and S 18 on E half.
Dig pits 18 X 18 X 12 ins. N and S. of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft high. W of cor.

80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 7. 12. 13 and 18. marked on brass cap T 31 N. in N. half. R 13 E S 12 in N.W., R 14 E S 7 in N.E. S 18 in S.E. and S 13 in S.W. quadrants.

West boundary of Dpl 31 N., R 14 E

4 Chains

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Dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high. W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

North, bet. secs. 7 and 12,
Descend N.W. slope over rolling sandy land through scattering sage and greasewood, brush undergrowth 2½ ft. high and bunch grass.

40.00 Set an iron post 3 ft. long. 1 in. in diam. 26 ins in the ground for ¼ sec. cor. marked on brass cap ¼ S 12 on W half and S 7 on E half
Dig pits 18 x 18 x 12 ins. N and S of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. W. of cor.

67.82 Road to Tuba, Arizona, bears N 40° W. and S 40° E

80.00 Set an iron post 3 ft. long. 3 ins. in diam. 24 ins. in the ground. for cor. of secs. 1. 6. 7 and 12. marked on brass cap T 31 N. in N. half, R 13 E S 1 in N.W. R 14 E S 6 in N.E. S 7 in S.E. and S 12 in S.W. quadrant.
Dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base. 2 ft. high W of cor.
Land rolling
Soil sandy 3rd rate.
No timber

North bet. secs. 1 and 6.
Descend gradually over N.W. slope, through scattering sage and greasewood brush undergrowth and bunch grass.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground. for ¼ sec. cor. marked on brass cap ¼ S 1 on W half and S 6 on E half
Dig pits 18 x 18 x 12 ins. N and S. of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. W. of cor.

West boundary of Ns. 31 N. R 14 E.

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Chains	
80.00	Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for Cor. of Nos. 31 and 32 N. R's 13 and 14 E. marked on brass Cap T 32 N. in N. half and T 31 N. in S. half., R 13 E S 36 in N.W. R 14 E S 31 in N.E. R 14 E S. 6 in S.E. and R 13 E. S 1 in S.W. quadrants. Dig pits 24 x 24 x 12. ins N.E and W. 4 ft. and S. of post. 8 ft. dist. and raise a mound of earth 5 ft. base. 2½ ft. high. S. of cor. Land rolling. Soil Sandy 3rd rate. No timber
Note:-	At this Cor. I set off 21° 54' S on the decl. are. and at noon observed the sun on the meridian and obtain a reading of 36° 07' N. on the lok. are.

December 2nd 1910.

6 chains

East boundary of Nfl 31 N., R 14 E

Survey Commenced Dec. 3rd 1910 and executed with a W. & L.E. Gurley engineers transit No. 76 with a Burh Solar attachment, the horizontal limb being 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.,

Dex amine the adjustments of the transit and find them to be correct 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 good adjustment.

Begin at the cor of Nfl. 30 and 31 N. Rs 14 and 15 E., estab. by Sidney E. Block May 11, 1909 which is an iron post 3 ins. in diam. 12 ins. above ground, firmly set, marked on brass cap. T 31 N. in N. half. and T 30 N. in S. half., R 14 E S 36 in N.W., R 15 E S 31 in N.E. R 15 E S 6 in S.E. and R 14 E S 1 in S.W. quadrant. from which.

A cedar 6 ins. in diam. bears N 45° E 149 lks. dist. marked T 31 N. R 15 E. S 31 B.T.

A cedar 6 ins. in diam. bears S 5° E 126 lks. dist. marked T 30 N. R 15 E. S 6 B.T.

A cedar 10 ins. in diam. bears S 41½° W 94 lks. dist. marked T 30 N. R 14 E. S 1 B.T. and

A cedar 8 ins. in diam. bears N 10¼° W 73 lks dist. marked T 31 N. R 14 E. S 36 B.T.

~~Latitude~~ 36° 01' 54" N. Longitude 110° 47' 13" W.

December 3rd 1910 At 7h 49m a.m. l.m.t. I set off 36° 02' N. on the lat. arc. 21° 55½' S. on the decl. arc. and determine a meridian with the solar at the above described cor., Thence I run North, set. secs. 31 and 36,

Ascend S.W. slope over stony land., through scattering cedar timber

20.00 N of a stony ridge bears N.W. and S.E. descend gradually over rolling N.E. slope.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins in the ground for ¼ sec. cor. marked on brass cap ¼ S 36 on W half and S 31 on E half. from which.

East boundary of Wp 31 N. R 14 E.

Chains	
	7
	A cedar 8 ins. in diam. bears N 80½° W. 158 lks. dist. marked ¼ S 36 B.T. No other trees available Dig pits 18×18×12 ins. N and S. of post. 3 ft. dist. and raise a mound of earth 3½ ft. base 1½ ft. high. W. ¼ cor.
80.00	Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for cor. of secs. 25, 30 31 and 36., marked on brass cap T 31 N. in N. half R 14 E S 25 in N.W., R 15 E S 30 in N.E., S 31 in S.E. and S 36 in S.W. quadrants. from which. A cedar 8 ins. in diam. bears N 20½° E 77 lks. dist. marked T 31 N. R 15 E S 30 B.T. A cedar 14 ins. in diam. bears S 17½° E 92 lks. dist. marked T 31 N. R 15 E S 31 B.T. A cedar 10 ins. in diam. bears S 50½° W 76 lks. dist. marked T 31 N. R 14 E S 36 B.T. and. A cedar 14 ins. in diam. bears N 61¼° W 141 lks. dist., marked T 31 N. R 14 E S 25 B.T. Land hilly. Soil Sandy and stony 3rd rate. Timber Cedars
	North, bet. secs. 25 and 30, Ascend S.W. slope of ridge over hilly Sandy and stony land through scattering cedar timber and Sage brush undergrowth.
5.00	Top of stony ridge bears N 20° W. and S 20° E dec.
21.35	Road to Tuba, Arizona, bears N.W. and S.E.
36.00	Cedar timber bears E and W.
40.00	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. marked on brass Cap ¼ S 25 on W. half and S 30 on E half. Dig pits 18×18×12 ins. N and S. of post. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. W. of cor.
50.00	Enter scattering cedar timber bears N.E and S.W.
70.40	Dry rocky ravine 30 lks. wide Course S 35° E. abc.
80.00	Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for cor. of secs. 19, 24, 25-

East boundary of Tp 31 N, R 14 E

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and 30, marked on brass Cap T 31 N, in N. half. R 14 E S 24 in N.W., R 15 E S 19 in N.E., S 30 in S.E. and S 25 in S.W. quadrants. from which.
A pinion pine 12 ins. in diam. bears N 21° E 193 lks. dist. marked T 31 N, R 15 E S 19 B.T.
A cedar 7 ins. in diam. bears S 58° E 146 lks. dist. marked T 31 N, R 15 E. S 30 B.T.
A cedar 12 ins. in diam. bears S 68½° W 140 lks. dist. marked T 31 N, R 14 E S. 25 B.T. and.
A cedar 8 ins. in diam. bears N 41¾° W 137 lks. dist. marked T 31 N. R 14 E S 24 B.T.
Land hilly.
Soil sandy and stony 3rd and 4th rate.
Timber pinion pine and cedar

North, bet. secs. 19 and 24,
Ascend S.E. slope of ridge over stony hilly land through scattering pinion pine and cedar timber and sage brush undergrowth

5.00 Pass of sand ridge bears N.E. and S.W. desc

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. marked on brass Cap. ¼ S 24 on W. half and S 19 on E half. from which.
A cedar 10 ins. in diam. bears N 27½° E 190 lks. dist. marked ¼ S 19 B.T. and
A cedar 7 ins. in diam. bears N 36° W 86 lks. dist. marked ¼ S 24 B.T.

NOTE: At this cor. I set off 22° 03' S. on the decl. arc and at noon observed the sun on the meridian and obtain a reading of 36° 04' N. on the lat. arc.

47.90 Dry rocky ravine 100 lks. wide 8 ft. deep course N 30° E

70.00 Pass of stony ridge bears N 35° E. and S 35° W. desc.

80.00 Set an iron post 3 ft. long 3 ins. in diam 24 ins. in the ground for cor. of secs 13, 18, 19, and 24 marked on brass Cap T 31 N, in N. half., R 14 E S. 13 in N.W. R 15 E. S 18 in N.E. S 19 in S.E. and S 24 in S.W. quadrants. from which.
A pinion pine 10 ins. in diam. bears S 86¾° E 91 lks.

Claims

East boundary of Dpt 31 N. R 14 E

dish. marked T 31 N. R 15 E S. 19 B.T.
A cedar 16 ins. in diam. bears S 47° W. 46 lks.
dish. marked T 31 N. R 14 E. S 24 B.T. and
A cedar 10 ins. in diam. bears N 14½° W 79 lks. dist.
marked T 31 N. R 14 E S. 13 B.T. No other trees
suitable for bearing trees available
Dig pits 18 x 18 x 12 ins. in each sec, 5½ ft. dist. and
raise a mound of earth 4 ft. base, 2 ft. high.
W. of cor.
Land hilly.
Soil sandy and stony 3rd and 4th rate.
Timber pinion pine and cedar

North, bet. secs. 13 and 18,
Descend N.W. slope over stony hilly land, through
scattering cedar and pinion pine timber, sage
and greasewood brush undergrowth and bunch
grass

24.80 Begin abrupt descent over N.W. slope of wall
of Canyon

40.00 Set an iron post 3 ft. long 1 in. in diam 26 ins.
in the ground for ¼ sec. cor. marked on brass
cap ¼ S 13 on W half and S 18 on E half, from
which
A cedar 16 ins. in diam. bears S 83° E 53 lks. dist.
marked ¼ S 18 B.T. No other trees available
Dig pits 18 x 18 x 12 ins N. and S. of post 3 ft. dist.
and raise a mound of earth 3½ ft. base 1½ ft.
high. W of cor.

61.25 Dry ravine in bottom of Canyon course N 30° E
asc. abruptly.

79.00 Top of rocky spur bears E and W. desc. steeply

80.00 Set an iron post 3 ft. long. 3 ins. in diam. 24
ins in the ground for Cor. of secs. 7, 12, 13 and
18 marked on brass Cap T 31 N. in N. half., R 14 E.
S 12 in N.W., R 15 E. S 7 in N.E. S 18 in S.E and S 13
in S.W. geradraus.
No trees suitable for bearing trees available.
Raise a mound of stone 2 ft. base, 1½ ft. high. W.
of Cor. Pits impracticable
Land hilly and broken

East boundary of Nfp 31 N, R 14 E

10 Chains	
	Soil sandy and stony 3rd and 4th rate. Timber Ponderosa pine and cedar
	North, bet. secs. 7 and 12,
	Descend steep N. slope of spur over broken stony land, through scattering, ponderosa pine and cedar timber
1.00	Dry rocky ravine 30 ft. below cor. course E asc.
	Steep S slope.
5.13	Nfp of steep ascent on N. rim of canyon, bears NE and SW., ascend gradually over sandy land.
6.00	Nfp of ridge bears NE and SW desc.
13.50	Dry ravine 10 lks. wide course N 50° E
19.00	Nfp of stony ridge bears E and W. desc.
25.20	Dry ravine 15 lks. wide course NE. asc.
40.00	Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 sec cor. marked on brass Cap. 1/4 S 12 on W. half and 37 on E half. from which. A cedar 10 ins. in diam. bears N 83° E 56 lks. dist. marked 1/4 S 7 B.T. and A cedar 10 ins. in diam. bears N 74° W 60 lks. dist, marked 1/4 S 12 B.T.
40.40	Nfp of sand ridge bears N 70° E and S 70° W. desc.
60.75	Dry ravine 25 lks. wide course E. asc.
68.00	Nfp of ridge bears E and W. desc.
69.50	Dry ravine 20 lks. wide course E. asc.
75.00	Nfp of sand ridge bears E and W. desc.
77.60	Dry ravine 10 lks. wide course S 40° E. asc.
80.00	Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1, 6, 7, and 12. marked on brass Cap T 31 N. in N. half, R 14 E S 1 in N.W., R 15 E S 6 in N.E. 57 in SE and 1 S 12 in S.W. quadrant, from which. A cedar 14 ins. in diam. bears N 5½° E 130 lks. dist. marked T 31 N. R 15 E S 6 B.T. A cedar 17 ins. in diam. bears S 61½° E 41 lks. dist. marked T 31 N. R 15 E. S 7 B.T. A cedar 24 ins. in diam. bears S 53½° W 278 lks. dist. marked T 31 N. R 14 E S 12 B.T. and A cedar 14 ins. in diam. bears N 83½° W 77 lks. dist

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East boundary of Ns 31 N, R 14 E

Chains | 11

marked T 31 N. R 14 E. S 1 B.T.
Land broken and hilly.
Soil sandy and stony 3rd and 4th rate.
Timber pinion pine and cedar.

North, bet. secs. 1 and 6,
Ascend S. slope through scattering pinion pine and cedar over broken stony hilly land.

27.00 Pass E and W ridge bears N 20° E and S 20° W. dist.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground, for 1/4 sec. cor. marked on brass cap 1/4 S 1 on W half and S 6 on E half, from which.
A cedar 8 ins. in diam. bears S 9° E 107 lks. dist. marked 1/4 S 6 B.T.
A cedar 6 ins. in diam. bears N 49° W 71 lks. dist. marked 1/4 S 1 B.T.

65.45 Dry ravine 30 lks. wide course N.E. asc.

73.00 Pass timber bears E and W.

77.80 Pass E. and W. ridge bears N 40° E and S 40° W. dist.

80.00 Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground for Cor. of Ns. 31 and 32 N, R's 14 and 15 E. marked on brass cap T 32 N. in N. half., T 31 N. in S. half., R 14 E S 36 in N.W. R 15 E S 31 in N.E. R 15 E S 6 in S.E. and, R 14 E S 1 in S.W. quadrant.
Raise a mound of stone 2 ft. base, 1 1/2 ft. high S. of cor. Pits impracticable
Land broken and hilly
Soil sandy and stony 3rd and 4th rate.
Timber pinion pine and cedar.

December 3rd 1910.

57

12 Chains

North boundary of T. 31 N., R. 14 E.

BOOK 2572

Survey commenced December 3rd 1910 and executed with a U.S.L.E. Gurley engineers transit No. 76. with a Burt solar attachment. The horizontal limb is provided with one double vernier which reads to single minutes of arc. The verniers of the latitude and declination arcs. read to 0' 30" of arc.

Dex amine the adjustments of the transit and find them correct: 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 established by observations on Polaris I proceed as follows.

At my Camp which is located near the point for Cor. of secs. 15. 16. 21 and 22. T 31 N. R 14 E. Latitude 36° 04½' N., Longitude 110° 50½' W.

At. 8 24m p.m. l.m.t. by my watch which is correct. local mean time, I observed Polaris., in accordance with instructions in the Manual and mark. the direction thus determined by a tack driven in a stake set in the ground 5.00 chs. N. of my. instrument

Astronomical time of Observation Dec. 3. 1910. 9h 24m p.m.

Astronomical time U.C. Polaris Dec 1. 1910	8h 48.5m	
Reduction to Dec. 3 Subtract	7.9	
Astron time U.C. Polaris Dec. 3, 1910	8 40.6	
Subtract from	9h 24.	
	8 40.6	
Hour angle of Polaris at obs.	43.4	
Azimuth of Polaris at obs. Table VII	0° 17' W.	

December 3 1910

December 4th 1910 At. 8h 00m a.m. l.m.t. I lay off the azimuth of Polaris. 0° 17' to the East and mark the meridian thus determined by a tack driven in a stake set in the ground 5.00 chs. N. of my instrument At. 8h 57m a.m. l.m.t. I set off 36° 04½' N. on the Lat. arc. 22° 09½' S. on the decl. arc and determine a meridian with the solar and mark a point thereof on the stake already set 5.00 chs. N. of

my instrument. This point falls 0.4 lns East of the point determined by the Polaris observation Ah. 3h 51m p.m. l.m.t. D sets off 36° 4½' N. on the lat. arc. 22° 10½' S. on the decl. arc. and determine a meridian with the solar. and mark a point thereof by a tack driven in the stake already set. 5.00 Chs. N. of my instrument, this point falls 0.2 lns. West of the meridian established by the Polaris observation

The solar apparatus by a.m. and p.m. observations defines positions for meridians respectively about 0'21" East and 0'10" West of the meridian determined by the Polaris observation therefore I conclude that the adjustments of the instrument are satisfactory

December 4th 1910

I began at the cor. of Ns. 31 and 32 N. Rs 14 and 15 E, hereinbefore described, which I established Dec. 3 1910. Latitude 36° 07' 07" N. Longitude 110° 47' 13" W.

Dec. 5th 1910. Ah. 8h 51m a.m. l.m.t. D set off 36° 07' N. on the lat. arc. 22° 17' S. on the decl. arc. and determine a meridian, with the solar ah the above Ns. cor., thence I run,

S. 89° 59' W., on a random line, along the N. bdry. of T 31 N. R 14 E., Setting temp 1/4 secs and sec. cors ah intervals of 40.00 chs.

NOTE:- Ah. the temp point for 1/4 sec. cor. bet. secs. 2 and 35. D set off 22° 19' S. on the decl arc. and ah noon observe the sun on the meridian, and obtain a reading of 36° 07' N. on the lat. arc.

I discontinued field work on this day ah. the temp point for cor. of secs. 3. 4. 33. and 34.

December 5th 1910.

December. 6th 1910 Ah. 7h 51m a.m. l.m.t. D set off 36° 07' N. on the lat. arc. 22° 22' S. on the decl. arc. and determine a meridian with the solar ah the temp point for cor. of secs. 3. 4. 33 and 34 set last evening thence I continued my random line

54

14 Chains

North boundary of Tps 31 N. R 14 E

BOOK 2572

S 89° 59' W, along the N. bdy. of T. 31 N. R. 14 E., and at. 478.00 chs. Intersect W. bdy. of Tp. 30 lks. N. of the Cor. of Tps. 31 and 32 N., Rs 13 and 14 E. which I established December 2nd 1910, as hereinbefore described. The following answers to a correction of 0° 02' or 03 lks. S. per mile counting from the N.E. cor. of the Tp., therefore Drive,

N. 89° 57' E., beh. secs. 6 and 31, marking and blazing true line,

Over rolling sandy land. through sage and greasewood brush. undergrowth and bunch grass

38.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 31 ow N. half. and S 6. ow S half., Dig pits 18 x 18 x 12. ins. E and W. of post 3 ft. dist and raise a mound of earth 3½ ft. base, 1½ ft. high. N. of cor.

52 40 Road to Tuba, Arizona, bears N 45° W. and S 45° E.

78.00 Set an iron post 3 ft. long, 3 ins. in diam, 24 ins. in the ground for cor. of secs. 5. 6. 31 and 32. marked on brass cap R 14 E in E half T 32 N. S 32 in N.E., T 31 N. S 5 in S.E. S 6 in S.W. and S 31 in N.W. quadrants. Dig pits 18 x 18 x 12. ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high. W. of. cor.

Land rolling

Soil sandy 3rd rate.

No timber

NOTE:- Clouds obscure the sun or moon today rendering an observation for latitude impossible

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N. 89° 57' E, beh. secs. 5 and 32,

Over rolling sandy land, through scattering sage and greasewood brush undergrowth and bunch grass.

40.00 Set an iron post 3 ft. long, 1 in in diam. 26 ins in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 32 ow N. half and S 6 ow S. half., Dig pits 18 x 18 x 12 ins. E and W. of post 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high. N. of. cor.

65.65 Road bears N 65° W and S 65° E. to Tuba, Arizona.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 4. 5. 32. and 33. marked on brass cap. R 14 E in E half. T 32 N. S. 33 in N.E., T 31 N. S 4 in S.E., S 5 in S.W. and S 32 in N.W. quadrants. Dig pits.

18x18x12. ins. in each sec. 5½ ft. dish. and raise a mound of earth 4 ft. base. 2 ft. high. W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

N. 89° 57' E., bet. secs. 4 and 33,
Ascend N.W. slope over rolling sandy land, through sage and greasewood brush undergrowth and bunch grass
15.00 Top of sand ridge bears N and S. desc
40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. marked on brass cap ¼ S. 33 on N. half. and S 4 on S. half.; Dig pits 18x18x12 ins. E and W. of post. 3 ft. dish. and raise a mound of earth 3½ ft. base 2 ft. high. N. of cor.
59.50 Dry ravine 300 lks. wide 25 ft. deep course N 30° W. asc.
80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground, for cor. of secs. 3, 4, 33 and 34, marked on brass cap. R 14 E in E. half., T 32 N. S 34 in N.E., T 31 N. S 3 in S.E. S 4 in S.W. and S 33 in N.W. quadrants.; Dig pits 18x18x12. ins. in each sec. 5½ ft. dish. and raise a mound of earth 4 ft. base. 2 ft. high. W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

N. 89° 57' E, bet. secs. 3 and 34,
Ascend N.W. slope over rolling sandy land., through sage and greasewood brush undergrowth and bunch grass.
40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for ¼ sec. cor. marked on brass cap. ¼ S 34 on N. half and S 3 on S. half.; Dig pits 18x18x12 ins. E and W. of post. 3 ft. dish. and raise a mound of earth 3½ ft. base. 1½ ft. high N. of cor.
This cor. is situated at top of ascent on ridge bears N and S. desc. E. slope.
80.00 Set an iron post 3 ft. long, 3 ins. in diam. 24 ins. in the ground for cor. of secs. 2. 3. 34. and 35 marked on brass cap R 14 E in E half. T 32 N. S 35 in N.E., T 31 N. S 2 in S.E. S 3 in S.W. and S 34 in N.W. quadrant.; Dig. pits. 18x18x12 ins in each sec. 5½ ft. dish. and raise a mound. of earth 4 ft. base. 2 ft. high W of cor.
Land rolling.

16 chains

North boundary of Twp 31 N., R 14 E.

BOOK 2572

Soil sandy 3rd rate.
No timber.

N. 89° 57' E., bet. secs. 2 and 35,
Ascend N.W. slope over rolling sandy land. through sage and greasewood brush. underg rowth and. bunch. grass.

34.05 Wp. of sand ridge bears N and S. desc. gradually.
40.00 Set an iron post 3 ft. long., 1 in. in diam. 26 ins in the ground. for 1/4 sec. cor. marked on brass cap 1/4 S 35 on N. half. and. S 2 on S. half., Raise a mound of stone, 2 ft. base, 1½ ft. high. N. of cor., Pits impracticable
40.60 Dry ravine 20 lks. wide course N.E. asc.
47.15 Wp of clay ridge bears N 30° E and S 30° W. desc.
52.55 Dry ravine 10 lks. wide course N 25° E asc.
64.10 Wp of clay ridge bears N and S. desc.
70.60 Dry ravine Course N. asc.
75.10 Wp of clay ridge bears N and S. desc. E slope.
80.00 Set an iron post. 3 ft. long. 3 ins. in diam. 24 ins. in the ground for cor. of secs. 1. 2. 35, and 36 mkd on brass cap R 14 E in E half., T 32 N. S 36 in N.E., T 31 N. S 1 in S.E. S 2. in S.W. and S 35 in N.W. quadrant, ; Raise a mound of stone 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable
Land rolling and hilly.
Soil sandy and Clayey 3rd rate.
No timber

N. 89° 57' E., bet. secs. 1 and 36,
Descend E. slope over clayey hilly land through. scattering sage and greasewood brush undergrowth and bunch grass

1.75 Dry ravine 20 lks. below cor. course N.E. asc.
18.25 Wp. of. clay ridge bears N and S. desc.
19.70 Wp of. descent in depression cross dry ravine 10 lks. wide course N. asc.
28.90 Wp of bluff 60 ft. high. bears N. and S. desc.
40.00 Set an iron post 3 ft. long., 1 in. in diam. 26 ins in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 36 on N. half and S 1 on S. half. Raise a mound of stone 2 ft. base, 1½ ft. high. N. of cor. Pits impracticable

Chains

North boundary of Wp. 31 N, R 14 E. 17

68.00 Dry ravine 15 lks. wide course N 40° E ave.
75.00 Wp of ridge bears NE. and SW. dese.
80.00 Intersect the cor of Wps. 31 and 32. N, Rs 14 and 15 E, hereinbefore described.
Land rolling, and hilly.
Soil sandy and clayly 3rd rate.
No timber

December 6th 1910.

Boundaries of Wp. 31 N, R 14 E.
Latitudes Departures and Closing Errors.

Line Designated	Grnc Bearing	Distance	Latitudes N	Latitudes S	Departures E	Departures W
South, Bdry	89°58' W	478.70		.14		478.70
West, Bdry	North	480.00	480.00			
North, Bdry	N 89°57' E	478.00	.42		478.00	
East, Bdry	South	480.00		480.00		
Convergency					.52	
TOTALS			480.42	480.14	478.52	478.70
			480.14			478.52
	Error in Lat.		0.28			
				Error in Dep.		0.18

General Description.

This township is very rough and broken in the North eastern and South western parts, and rolling in the interior and northern parts, while prairie land is found over a large part of the township.,

The township is poorly watered and very little timber of any value except for fuel., The soil of the greater portion of the township is very sandy and can nearly all be classed as 3rd rate, very little of which is suitable for agricultural purposes without the aid of irrigation. The township should be surveyed on account of its grazing possibilities.

Van L. White
U.S. Transitman

Dec. 6th 1910

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

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 the East, West and North Bdrys of Tp. 31 N. R. 14 E. of the G.&S.R. Base & Mer. Arizona. showing the respective capacities in which they acted:

T. Y. White, *Chainman.*
Oscar W. Fetters, *Chainman.*
Ralph C. Sampson, *Moundman.*
, ~~*Moundman.*~~
George B Seig, *Axman.*
Nelson Polacca, *Axman.*
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 East, West and North Bdrys of Tp. 31 N. R. 14 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~~ executed, and the corner monuments established, according to the instructions furnished by the ~~United States Surveyor General for~~ Commissioner of the General Land Office

T. Y. White, *Chainman.*
Oscar W Fetters, *Chainman.*
Ralph C Sampson, *Moundman.*
, ~~*Moundman.*~~
George B Seig, *Axman.*
Nelson Polacca, *Axman.*
William R Carson, *Flagman.*

Subscribed and sworn to before me this 20 day of December, 1910

Van L. White
U.S. Transitman

SEAL

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BOOK 2572

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

I, Van L. White U.S. Transitman, ~~United States Deputy Surveyor,~~ do solemnly swear that, in pursuance of ~~a contract~~ Special Instructions received from the Commissioner of the ~~United States Surveyor General for~~ General Land Office, bearing date of the 2nd day of Oct 1907 ~~day of~~ 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 Surveyor~~ Commissioner of the General ~~for~~ Land Office, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the East, West and North boundaries of Township No. 31 North, Range No. 14 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~~ Commissioner of the General ~~for~~ Land Office and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Van L. White
~~United States Deputy Surveyor.~~
Transitman

Subscribed by said Van L. White, and sworn to before me this 27th day of December, 1907

Lyton R. Taylor
U.S. Commissioner
at Las Cruces, N.M.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, APR 25, 1914

The foregoing field notes of the survey of the

East, West and North boundaries of

Township No. 31 North, Range No. 14 East of the
Gila and Salt River Base and Meridian, Arizona

executed by VAN L. WHITE, U.S. Transitman, under Special Instructions from
~~executed by~~ the Commissioner of the General Land Office
~~under his contract No.~~ _____, 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 C. 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.~~

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