

Subdivisional
BOOK "ZM"

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FIELD NOTES

BOOK 2617

OF THE SURVEY OF THE

Subdivision lines of Twp. 30 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. Mansitman, ~~United States Deputy Surveyor,~~
Special Instruction from the Commissioner of the General Land Office
Under ~~his~~ Contract No. _____, dated *Oct 2nd 1907 and May 15th 1908**

Survey commenced November 18th _____, 1910

Survey completed November 30th _____, 1910

NAMES AND DUTIES OF ASSISTANTS.

T. Y. White

Chairman

Oscar W. Fellers

Chairman

Ralph C. Sampson

Mouldman

George B. Seig

Axman

Nelson Polacco

Axman

William R. Carson

Flagman

(13)

BOOK 2617

Book No. 2617

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"AQ"	Meanders Page										"W"	

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 Subdivision lines of Tp 30 N. R. 14 E. G. & S. P. B. & M. Arizona.

T. Y. White, Chainman.
Oscar W. Fetters, Chainman.

Subscribed and sworn to before me this 15th
 day of November, 1910



Van L. White
 U.S. Transitman

~~WE~~, Ralph C. Sampson and
 do solemnly swear that ~~we~~ will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given ~~me~~ to the best of ~~my~~ skill and ability, in the survey of the Subdivision lines of Tp 30 N R 14 E, G. & S. P. B. & M., Arizona.

Ralph C. Sampson, Moundman.
 _____, Moundman.

Subscribed and sworn to before me this 15th
 day of November, 1910



Van L. White
 U.S. Transitman

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 Subdivision lines of Tp 30 N R 14 E, G. & S. P. B. & M., Arizona.

George B. Seig, Axman.
Nelson Polacca, Axman.

Subscribed and sworn to before me this 15th
 day of November, 1910



Van L. White
 U.S. Transitman

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 Subdivision lines of Tp 30 N. R. 14 E, G. & S. P. B. & M. Arizona.

William R. Carson Flagman.

Subscribed and sworn to before me this 15th
 day of November, 1910



Van L. White
 U.S. Transitman

Chains

Survey commenced November 18th 1910, and executed with A. W. & L. E. Turley 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, reading to 0' 30" of arc.

Examined 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, established by observations on Polaris, that the instrument is in satisfactory adjustment. For last complete test of instrument see the field notes of the

Survey of the East boundary of ^{is Exterior Book "AR"} Twp 30 N. 71 E. I begin at the cor. of sec. 12, 35 and 36 on S. 1/2 of Twp. which I established September 28th 1910.

as described in Exterior Book "AQ"
Latitude 35° 56' 41" N., Longitude 110° 48' 18" W.

At 7^h 46^m a.m. l.m. I set off 35° 56' 1/2" N. on the lat. arc., 19° 01 1/2" S. on the decl. arc. and determine a meridian with the solar at the above mentioned cor., thence I run,

N. 0° 01' W., bet. sec. 35 and 36;

ascend rolling ~~South~~ slope, over 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 cor. marked on brass cap. 14535 on W. half and S36 on E. half.

Dig pits 18x18x12 ins N and S. of post, 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. W. of cor.

62.00 Top of sand ridge bears N.W. and S.E. decl.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam. 24 ins. in the ground for cor. of sec. 25, 26, 35 and 36., marked on brass cap 730 N. S26 in N.W. 714 E. S25 in N.E., S36 in S.E. and S35 in S.W. quadrant.

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high. W. of cor.

Sand rolling.

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Soil sandy 3rd rate.
No timber

40.00 $N89^{\circ}57'E$, on a random line, bet. secs. 25 and 36,
Set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect E. l. by. of N/4 5 lks. S. of the cor. of secs.
25, 30, 31, and 36, estab. by Sidney E. Blout, May 11, 1909 as described in
Exterior Book "X", thence 11 run,
 $S89^{\circ}55'W$, on a true line, bet. secs. 25 and 36,
ascend N.E. slope over rolling & sandy land through
sage and greasewood brush undergrowth and
bunch grass

39.98 Set an iron post. 3 ft. long 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. marked on brass cap.
 $\frac{1}{4}$ S 25 or W. half and S 36 on S. half.
Dig pits 18x18x12 ins. E and W. of post 3 ft. dist. and
raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high N.
of cor

79.96 The cor. of secs. 25, 26, 35 and 36, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

$N0^{\circ}01'W$, bet. secs. 25 and 26,
Descend N.E. slope over rolling sandy land through
sage and greasewood brush undergrowth and bunch
grass.

35.00 Top of descent in depression bears N.W. and S.E. ^{drains SE.} as follows.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$
S 26 on W. half and S 25 on E. half.
Dig pits 18x18x12 ins. N and S. of post 3 ft. dist.
and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft.
high W. of cor.

42.32 Sand stone ledge 6 ft. high bears $N70^{\circ}W$. and
 $S70^{\circ}E$.

42.50 Top of ascent on ledge, thence asc. gradually.

80.00 Set an iron post. 3 ft. long 2 ins. in diam. 24 ins
in the ground for cor. of secs. 23, 24, 25 and 26.
marked on brass cap. T 30 N. S 23 in N.W. R 14 E.
S 24 in N.E. S 25 in S.E. and S 26 in S.W. quadrant

Chain

3

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high. W. of cor.

Land rolling and broken.
Soil sandy and stony 3rd and 4th rate.
No timber

NOTE:- At this cor. Dsch off. 19° 08 1/2' S, on the decl. arc and at noon observe the sun on the meridian and obtain a reading of 35° 58 1/2' N. on the lat. arc.

40.00 N 89° 55' E. on a random line, bet. sec. 24 and 25, 1/4 sec. cor.

80.02 Intersect E. l. l. of Twp, 5 lks. N. of the cor. of sec. 19, 24, 25, and 30, established by Sidney E. Blout, May 11, 1909 as described in Exterior Book "X", thence I run, S 89° 57' W., on a true line, bet. sec. 24 and 25,

Over rolling South slope over sandy land through scattering sage and greasewood brush undergrowth and bunch grass.

40.01 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 N. half and S 25 on S. half.

Dig pits 18x18x12 ins. E and W. of post 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.

80.02 The cor. of sec. 23, 24, 25 and 26; hereinbefore described.

Land rolling.
Soil sandy 3rd rate.
No timber

N. 0° 01' W., bet. sec. 23 and 24,

Ascend S.E. 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 1/4 sec. cor. marked on brass cap 1/4 S 23 on W. half and S 24 on E. half.

Dig pits 18x18x12 ins. N. and S. of post 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. W. of cor.

53.60 Hard rolling land bears E and W., Enter hill.

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land, are steep S. slope
 56.00 Top of steep are wh. are, gradually.
 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins in
 the ground for cor. of sec. 13, 14, 23, and 24 marked
 on brass cap T 36 N. S 14 in N.W., R 14 E. S 13 in
 N.E. S 24 in S.E. and S 23 in S.W. quadrants.
 Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. deep.
 and raise a mound of earth 4 ft. base, 2 ft. high.
 W. of cor.
 Land rolling and hilly.
 Soil sandy land stony 3rd and 4th rate.
 No timber

N. 89° 57' E. on a random line, bet. sec. 13 and 24,
 40.00 Set temp 1/4 sec. cor.
 80.04 Intersect E. line of T₁, 8 lks. S. of the cor. of sec.
 13, 18, 19 and 24, established by Sidney E. Blout, May 11, 1909 as
 described in Exterior Book "X" thence I run,
 S. 89° 54' W., on a true line, bet. sec. 13 and 24,
 across E. slope over hilly sandy land through
 sage and greasewood brush undergrowth and
 bunch grass
 12.75 Top of sand ridges bear N. and S. desc.
 22.38 Dry ravine 20 lks. wide course south. are.
 40.02 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 N 1/4 S 13 on N. half and S 24 on S. half.
 Dig pits 18x18x12 ins. E and W. of post. 3 ft. deep.
 and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high.
 W. of cor.
 80.04 The cor. of sec. 13, 14, 23, and 24, hereinbefore described.
 Land rolling and hilly.
 Soil sandy 3rd rate.
 No timber

N. 0° 01' W., bet. sec. 13 and 14,
 Over rolling S.E. 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 1/4 sec. cor. marked on brass cap.

Subdivision of Twp 30 N., R 14 E.

Chain

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1/4 S 1/4 on W. half and S 1/3 on E. half.
 Dig pits 18x18x12 ins. N. and S. of post. 3 ft. dist.
 and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft.
 high. W. of cor. descend rolling N.W. slope.
 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins.
 in the ground for Cor. of secs. 11, 12, 13 and 14, marked
 on brass cap T 30 N. S 11 in N.W., R 14 E. S 12 in N.E.
 S 13 in S.E. and S 14 in S.W. quadrant.
 Dig pits 18x18x12 ins. in each sec. 5 1/2 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

November 18th 1910.

November 24th 1910
 Ah. 8th 47^m a.m. Lm. l. Dist. off. 36⁰⁰ N.
 on the lat. arc. 20° 26' S. on the decl. arc, and determine
 a meridian with the solar alt. the cor. of secs. 11
 12, 13, and 14, ^{above described} thence S run,
 N. 89° 54' E., on a random line bet. secs. 12. and 13.
 40.00 Set temp 1/4 sec. cor.
 80.04 Intersect E. line of Twp. 2 lks N. of the cor. of secs.
 7, 12, 13, and 18, ^{established by Sidney E. Blout, May 11, 1899 as described}
 in Exterior Book "X", thence 1 run,
 S 89° 55' W., on a true line, bet. secs. 12 and 13.
 Ascend N.E. slope over hilly clayey land through
 scattering greasewood brush and bunch grass.
 8.55- Top of clay ridge bears N.W. and S.E. dec.
 16.35- Dry ravine 30 lks. wide course south asc.
 22.00 Top of sand ridge bears N. and S. dec.
 32.00 Dry ravine course S.E. asc.
 37.60 Top of sand ridge bears N and S. dec.
 over rolling land.
 40.02 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 1/2 on N. half and S 1/3 on S. half.
 Dig pits 18x18x12 ins. E and W. of post. 3 ft.
 dist. and raise a mound of earth 3 1/2 ft. base
 1 1/2 ft. high N. of cor.
 80.04 The cor. of secs. 11, 12, 13 and 14, hereinbefore described.
 Land rolling and hilly.
 Soil sandy and clayey 3rd and 4th rate.

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No timber

- N. $0^{\circ} 01' W.$; Feb. secs. 11 and 12,
Descend gradually over N.W. slope through scattering
sage and greasewood brush and bunch grass
17.00 Top of bench in depression toward E and W.
drains to the west. ascend gradually.
40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. marked on brass cap
N 511 on W. half and S 12, on E. half.
Dig pits 18x18x12 ins. N. and S. of post. 3 ft. dia.
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
high W. of cor.
45.00 Top of sand ridge toward E and W. desc. gently.
80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins.
in the ground for cor. of secs. 1, 2, 11 and 12.
marked on brass cap T 30 N. S 2 in N.W. R 14 E.
S 1 in N.E. S 12 in S.E. and S 11 in S.W. quadrants.
Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dia.
and raise a mound of earth 4 ft. base, 2 ft.
high W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber
- NOTE: At this cor. set off $20^{\circ} 24' S.$ on the decl. arc, and
at noon observe the sun on the meridian and
obtain a reading of $36^{\circ} 01' N.$ on the lab. arc.

- N. $89^{\circ} 55' E.$, on a random line, Feb. secs. 1 and 12,
40.00 Set temp. $\frac{1}{4}$ sec. cor.
80.08 Intersect E. line of Tp. 30 N. S. of the cor. of secs.
1, 6, 7 and 12, established by Sidney E. Blout, May 11, 1909 as described
in Exterior Book "X", thence 1 run,
 $89^{\circ} 54' W.$, on a true line, Feb. secs. 1 and 12,
Descend abrupt rocky N.W. slope over hilly broken
sandy and stony land. through scattering cedar
timber and greasewood brush undergrowth
7.40 Sand stone ledge 10 ft. high toward N.E. and S.W.
11.80 Dry rocky ravine course (north asp.)
18.25 Top of sand ridge toward N. and S. desc.
27.85 A point 50 lbs. south of Indian Hogan

Behain

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- 30.95 Dry ravine 15 lks. wide course N.W. are.
- 37.00 Np of ridge bears N and S. desc.
- 40.04 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap. $\frac{1}{4}$ S 1 on N. half, and S 12 on S. half. from which.
A cedar 8 ins. in diam. bears $S 48\frac{1}{4}^{\circ}$ W. 57 lks. dist. marked $\frac{1}{4}$ S 12 B.T. No other trees available.
Dig pits 18x18x12 ins. E and W. of post. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
- 40.80 Dry ravine 25 lks. wide 3 ft. deep course N.W. Leave timber bears N.W. and S.E. are.
- 46.00 Np of ridge bears N and S. desc. over rolling land.
- 80.08 The cor. of secs. 1, 2, 11 and 12, hereinbefore described.
Land rolling and hilly.
Soil sandy and stony 3rd and 4th rate.
Timber cedar.
-
- 40.00 N. 0° 01' W., on a random line, bet. sec. 1 and 2, Set temp $\frac{1}{4}$ sec. cor.
- 80.14 Intersect N. line of Np. 5 lks. S 89° 59' W. of the cor. of sec. 1, 2, 35 and 36, recently established by me as described in Exterior Book "AR"; thence I run,
S. 0° 01' W., on a true line, bet. sec. 1 and 2,
Descend S.W. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.
- 15.10 Road bears N 65° E. and S 65° W.
- 29.45 Dry ravine 40 lks. wide 5 ft. deep course N 70° W. are.
- 40.14 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 2 on W. half and S 1 on E. half.
Dig pits 18x18x12 ins. N and S. of post. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
- 58.80 Np of sand ridge bears E and W. desc.
- 59.75 Dry ravine covered with are. gently.
- 80.14 The cor. of sec. 1, 2, 11, and 12, hereinbefore described.
Land rolling and hilly.
Soil sandy 3rd rate.

No timber

November 24th 1910

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November 19th 1910, Ab. 7^h 46^m a.m. limit Dept off. $35^{\circ} 56' 2''$ N.
 on the lab. arc. $19^{\circ} 16'$ S. on the decl. arc and determine
 a meridian with the polar at the cor. of secs 2, 3,
 34, and 35 on S. ^{recently estab. by me as described in Exterior Book "AQ"} ~~line~~ ^{thence} ~~run~~,
 N. 00^o 1' W., bet. secs 34 and 35,

Ascend S.E. slope over rolling sandy land, through
 scattering sage and greasewood brush undergrowth
 and bunch grass.

15.80 Road to Tuba, Ariz bears N.E. and S.W.

40.00 Set an iron post 3 ft long 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$
 S 34 on W. half and S 35 on E. half.

Dig pits 18x18x12 ins., N and S. of post. 3 ft. dist and
 raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W.
 of cor.

45.90 Dry ravine 15 lbs. wide course S.E. Roll rolling
 land bears N.W. and S.E. Enter hilly land. Ascend
 steep South slope.

56.80 Top of steep ascent. Leave hilly land bears E and W.
 Enter rolling land, descend.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in
 the ground for cor. of secs. 26, 27, 34 and 35. marked
 on brass cap T30 N. S 27 in N.W., R 14 E. S 26 in N.E.
 S 35 in S.E. and S 34 in S.W. quadrants.

Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist. and
 raise a mound of earth 4 ft. base, 2 ft. high.
 W. of cor.

Land rolling and hilly.

Soil sandy 3rd rate.

No timber

N. $89^{\circ} 57' E.$, on a random line, bet. secs. 26 and 35;
 40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.90 Intersect N. and S. line 2. lbs. N. of the cor. of secs.
 25, 26, 35 and 36, ^{hereinbefore described} ~~thence~~ ^{thence} ~~run~~,

S. $89^{\circ} 58' W.$, on a true line, bet. secs. 26 and 35,

Ascend N.E. slope over rolling sandy land through
 sage and greasewood brush undergrowth and bunch grass.

Subdivision of Twp 30 N., R14 E.

Chains

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39.95 - 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 4 S 26. on N. half and S 35 on S. half.

Dig pits 18x18x12 ins. E and W. of post. 3 ft. dish and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

70.55 - Road to Tuba, Arizona bears N 20° W. and S 20° E.

79.90 The cor. of secs. 26, 27, 34 and 35, hereinbefore described.

Land rolling.
Soil sandy 3rd rate.
No timber

N 0° 01' W, bet. secs. 26 and 27,
Descend
Over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.

31.00 Road to Tuba, Arizona bears N 10° W. and S 10° E.

38.05 - Pyramine 5 lbs. wide 2 ft. deep ^{ascend over rolling S.E. slope} corner east

38.92 Road bears E and W.

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 4 S 27 on W. half and S 26 on E. half.

Dig pits 18x18x12 ins. N. and S. of post. 3 ft. dish and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.

80.00 Set an iron post 3 ft. long 2 ins diam. 24 ins in the ground, for cor. of secs. 22, 23, 26 and 27, marked on brass cap T 30 N. S 22 in N.W. R 14 E.

S 23 in N.E. S 26 in S.E. and S 27 in S.W. quadrants.
Dig pits 18x18x12 ins. in each sec. 5 1/2 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° 58' E., on a random line, bet. secs 23 and 26,
40.00 Set temp. 1/4 sec. cor.

79.92 Intersect N. and S. line 5 lbs S. of the cor. of secs. 23, 24, 25 and 26, ^{hereinbefore described} three drum

BOOK 2617

S89°56' W., on a true line, bet. sec. 23 and 26,
 Around S.E. slope over rolling sandy land through
 sage and greasewood bush undergrowth and
 bunch grass.

39.96 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins.
 in the ground for $\frac{1}{4}$ sec. cor. marked on brass
 cap. $\frac{1}{4}$ S 23 on N. half and S 26 on S. half.
 Dig pits 18x18x12 ins. E and W. of post, 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft.
 high W. of cor.

79.92 This cor. of sec. 22, 23, 26 and 27, hereinbefore described.
 Land rolling.

Soil sandy 3rd rate.

No timber

NOTE: - At this cor. I set off 19°23' S. on the decl. arc and
 at noon observed the sun on the meridian
 and obtain a reading of 35°58 $\frac{1}{2}$ ' N. on the lab
 arc.

N. 0°01' W., bet. sec. 22 and 23,

Over rolling sandy land slopes to the S.E., through
 scattering sage and greasewood bush under
 growth and bunch grass.

36.00 Top of divide bet. N 50° E and S 50° W. desc.

40.00 Set an iron post, 3 ft. long 1 in. in diam. 26 ins.
 in the ground for $\frac{1}{4}$ sec. cor. marked on brass
 cap $\frac{1}{4}$ S 22 on W. half and S 23 on E. half.
 Dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
 high W. of cor.

80.00 Set an iron post, 3 ft. long 2 in. in diam. 24
 ins. in the ground for cor. of sec. 14, 15, 22,
 and 23. marked on brass cap T 30 N. S 15 in
 N.W., R14 E S 14 in N.E. S 23 in S.E. and S 22
 in S.W. quadrants.

Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ 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

Chains

- W $89^{\circ}56'$ E. on a random line bet. sec. 14 and 23.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.98 Intersect N. and S. line 4 lks. N. of the cor. of sec.
 13, 14, 23 and 24, ^{hereinbefore described} thence true,
 S $89^{\circ}58'$ W. on a true line bet. sec. 14 and 23.
 Ascend E. slope over rolling sandy land through
 sage and greasewood brush undergrowth and
 bunch grass.
 24.00 Top of sand ridge bears N and S. due gently.
 39.99 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor. marked on brass cap
 N 5 14 on N. half and S 23 on S. half.
 Dig pits 18x18x12 ins. E and W. of post. 3 ft. dish.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
 high N. of cor.
 79.98 The cor. of sec. 14, 15, 22, and 23, hereinbefore described.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

- N $0^{\circ}01'$ W. bet. sec. 14 and 15,
 Descend NW. 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 $\frac{1}{4}$ sec. cor. marked on brass cap
 N 5 15 on W. half and S 14 on E. half.
 Dig pits 18x18x12 ins. N. and S. of post. 3 ft. dish.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
 high W. of cor.
 80.00 Set an iron post. 3 ft. long. 2 ins. in diam. 24
 ins. in the ground for cor. of sec. 10, 11, 14, and
 15, marked on brass cap. T 30 N. S 10 in N.W.
 R 14 E S 11 in N.E. S 14 in S.E. and S 15 in S.W.
 quadrant.
 Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ 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

November 19th 1910

BOOK 2617

November 25th 1910, Ah. 8^h 47^m a.m. l.m.l. - Dash off 36° 00' N. on the lab. arc. 20° 38' N. on the decl. arc and determine a meridian with the solar at the cor. of secs. 10, 11, 14, and 15^{above described} thence run,

N. 89° 58' E., on a random line, bet. secs. 11 and 14, 40.00 Set temp 1/4 sec. cor.

79.98 Intersect N. and S. line, 8 lks. S. of the cor. of secs. 11, 12, 13, and 14^{hereinbefore described} thence run,

S 89° 55' W., on a true line, bet. secs. 11 and 14, Descend W. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.

39.49 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 11 on N. half and S 14 on S. half. Dig pits 18x18x12 ins. E. and W. of post, 3 ft. dish. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high N. of cor.

79.98 The cor. of secs. 10, 11, 14 and 15, hereinbefore described. Land rolling. Soil sandy 3rd rate. No timber

W 0° 01' W. bet. secs. 10 and 11

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

16.50 Dry ravine 15 lks. wide 2 ft. deep ^{ascend rolling West slope} course west,

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 10 on W. half and S 11 on E. half. Dig pits 18x18x12 ins. N. and S. of post 3 ft. dish. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. W. of cor.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the ground for cor. of secs. 2, 3, 10 and 11. marked on brass cap. T 30 N. S 2 in N.W., R 14 E. S 2 in N.E. S 11 in S.E. and S 10 in S.W. quadrant. Dig pits 18x18x12 ins in each sec. 5 1/2 ft. dish. and raise a mound of earth 4 ft. base, 2 ft. high. W. of cor. Land rolling

Chain

Soil sandy 3rd rate
No timber

NOTE: - At this cor. Dech off. $20^{\circ}41'S$, on the decl. arc and at noon observe the sun on the meridian and obtain a reading of $36^{\circ}01'N$. on the lab. arc.

40.00 $N. 89^{\circ}55'E$, on a random line, bet. sec. 2 and 11, set temp. $\frac{1}{4}$ sec. cor.

79.96 Intersect N. and S. line at the cor. of sec. 1, 2, 11, and 12, ^{hereinbefore described} thence Drun,

$S. 89^{\circ}55'W$, on a true line, bet. sec. 2 and 11, descend N.W. slope over rolling sandy land through scattering sage and greasewood brush and bunch grass.

39.98 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4} S 2$. on N. half, and $S 11$ on S. half. Dig pits $18 \times 18 \times 12$ ins E and W. of post. 3 ft. deep. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

79.96 The cor of sec. 2, 3, 10, and 11, hereinbefore described. Land rolling. Soil sandy 3rd rate. No timber

$N 0^{\circ}01'W$, on a random line bet. sec. 2 and 3.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.14 Intersect N. bdy of *Mp* 3 lks. $S. 89^{\circ}59'W$ of the cor. of sec. 2, 3, 34, and 35, ^{recently established by me as described in Exterior Book "AR,"} thence I run,

South, on a true line, bet. sec. 2 and 3, descend S. slope over rolling sandy land through sage and greasewood brush and bunch grass.

28.00 Road leads to Tuba, Ariz. bear $N 65^{\circ}E$. and $S 65^{\circ}W$.

40.14 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4} S 3$ on W. half and $S 2$ on E. half. Dig pits $18 \times 18 \times 12$ ins N. and S. of post. 3 ft. deep. and raise a mound of earth $3\frac{1}{2}$ ft. base

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51.95 $1\frac{1}{2}$ ft. high. W. of cor
Dry ravine 30 lbs. wide 3 ft. deep course $S 40^{\circ} W$
ascend N.W. slope.

80.14 The cor. of secs. 2, 3, 10, and 11, hereinbefore described.
Land rolling.

Soil sandy 3rd rate.

No timber

November 25th 1910

November 21st ¹⁹¹⁰ A.M. 8^h 16^m a.m. l.m. l.d. sep. off.
 $35^{\circ} 56\frac{1}{2}' N.$ on the lat. arc. $19^{\circ} 46' S.$ on the decl. arc.
and determine a meridian with the solar alt.
the cor. of secs. 3, 4, 33, and 34 on S. boundary of N.W.
recently established by me as described in Exterior Book "AQ", thence I run,

$N 0^{\circ} 02' W.$, bet. secs. 33 and 34,

Ascend gently over S.E. 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 the sec. cor. marked on brass cap.

$S 33$ on W. half and $S 34$ on E. half.

Dig pits $18 \times 18 \times 12$ ins. N. and S. of post 3 ft. dia.,
and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high.
W. of cor.

43.52 Dry ravine 30 lbs. wide, banks 2 ft. high. Course
 $S 45^{\circ} E.$

60.10 A point from which a diverted stone house head
East 20 lbs. dist.

60.80 Heavy rolling land bears N.E. and S.W., ascend S slope
of rock ledge 15 ft. high over broken land.

77.00 N.W. of abt. h. ascen. heavy broken land bears E and W.
Enter rolling sandy land.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in
the ground for cor. of secs. 27, 28, 33, and 34 marked
on brass cap T 30 N. S 28 in N.W. R 14 E. S 27 in N.E.
S 34 in S.E. and S 33 in S.W. quad draft

Dig pits $18 \times 18 \times 12$ ins. in each sec. $5\frac{1}{2}$ ft. dia. and
raise a mound of earth 4 ft. base, 2 ft. high W. of
cor.

Land rolling and broken.

Soil sandy and stony 3rd and 4th rate.

No timber

Chains

- 40.00 N. $89^{\circ}57' E$, on a random line, bet. secs 27 and 34,
 Sec temp. $\frac{1}{4}$ sec. cor.
- 79.90 Intersect N. and S. line, 2 lks. S. of the cor. of
 secs. 26, 27, 34 and ^{hereinbefore described} 35, thence run,
 $S 89^{\circ}56' W$, on a true line, bet. secs. 27 and 34,
 Ascend N.E. slope over rolling sandy land, through
 scattering sage and greasewood brush undergrowth
 and bunch grass.
- 39.95 Set an iron post 3 ft. long 1 in. in diam. 26 ins.
 in the ground for $\frac{1}{4}$ sec. cor. marked on brass
 cap 4 S 27 on N. half and S 34 on S. half.
 Dig pits 18 x 18 x 12 ins. E and W. of post, 3 ft. dist.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$
 ft. high. N. of cor.
- 79.90 The cor. of secs. 27, 28, 33 and 34, hereinbefore described.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

- N $0^{\circ}02' W$, bet. secs. 27 and 28.
 Over rolling sandy land, through scattering
 sage and greasewood brush undergrowth and
 bunch grass. Slopes to S.E.
- 40.00 Set an iron post 3 ft. long 1 in. in diam., 26 ins.
 in the ground for $\frac{1}{4}$ sec. cor. marked on brass
 cap 4 S 28 on W. half and S 27 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 $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
 high W. of cor.
- 75.00 Top of arc of line gradually over N.W. slope.
- 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24
 ins in the ground for cor. of secs. 21, 22, 27,
 and 28, marked on brass cap T 30 N, S 21 in
 N.W., R 14 E. S 22 in N.E. S 27 in S.E. and S 28 in
 S.W. quadrant.
 Dig pits 18 x 18 x 12 ins. in each. sec. $5\frac{1}{2}$ 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: - At this cor. I set off $19^{\circ}50' S$ on the decl. arc, and

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at noon observe the sun on the meridian and obtain a reading of $35^{\circ}58'2''$ N. on the lat. arc.

40.00 N. $89^{\circ}56'$ E, on a random line, bet. sec. 22 and 27, 1/4 sec. cor.

79.84 Intersect N. and S. line, 5 lks. S. of the cor. of sec. 22, 23, 26 and ^{hereinbefore described} 27, thence run,

S. $89^{\circ}54'$ W., on a true line, bet. sec. 22 and 27, Ascend S.E. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.

6.85 Road to Tuba, Arizona bears N. and S.

39.92 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 "4 322 on N. half. and 327 on S. half. Dig pits 18x18x12 ins E and W. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. N. of cor.

78.70 Slope of gradual ascent over sand ridge bears N. and S. desc. gently over W. slope.

79.84 The cor. of sec. 21, 22, 27, and 28, hereinbefore described
Land rolling
Soil sandy 3rd. rate.
No timber

N. $0^{\circ}02'$ W., bet. sec. 21 and 22.

Over rolling sandy land through scattering sage and greasewood brush undergrowth and bunch grass. Slopes to N.W.

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 "4 321 on W. half and 322 on E half. Dig pits 18x18x12 ins N and S. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high W. of cor.

58.00 Along rolling S.E. slope.
80.00 Set an iron post 3 ft. long, 2 ins. in diam. 24 ins. in the ground for cor. of sec. 15, 16, 21 and 22. marked on brass cap T 30 N. S 16 in N.W. R14 E. S 15 in N.E. S. 22 in S.E. and S 21 in S.W. quadrant.

Chains

Dig pits 18x18x12 ins. in each sec. 5 1/2 ft. deep and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

40.00 ON 89° 54' E, on a random line, bet. secs. 15 and 22, Set temp. 1/4 sec. cor.

79.86 Intersect N. and S. line, 3 lks. N. of the cor. of sec. ^{hereinbefore described} 14, 15, 22, and 23, thence Drum,

S. 89° 55' W., on a true line, bet. secs. 15 and 22, Descend NW. slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass

12.15 Road to Tuba, Arizona bear N. and S. at foot of descent in depression bear N. and S. ^{drains North} are. E. slope.

39.93 Set an iron post 3 ft. long 1 in. in diam. 26 in. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 15 on N. half and S 22. on S. half. Dig pits 18x18x12 ins. E. and W. of post. 3 ft. deep and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.

79.86 The cor. of secs. 15, 16, 21 and 22, hereinbefore described. Land rolling.
Soil sandy 3rd rate.
No timber

November 21st 1910

1910
November 26th At 8^h 47^m a.m. L. M. L. D. set off 35° 39' N. on the lat. arc. 20° 50' S. on the decl. arc and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22, ^{hereinbefore described} thence Drum,
ON 8° 02' W., bet. secs. 15 and 16,

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

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 in. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 16 on W. half and S 15 on E. half. Raise a mound of stone 2 ft. base, 1 1/2 ft. high W.

Chain

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of Cor. Pits impracticable.
 80.00 Set an iron post 3 ft. long, 2 in. in diam 24 in.
 in the ground for Cor. of sec. 9, 10, 15 and 16.
 marked on brass cap T 30 N. 39 in N.W. R 14 E.
 S 10 in N.E. S 15 in S.E. and S 16 in S.W. quadrant.
 Dig pits 18 x 18 x 12 in. in each sec., 5 1/2 ft. dia.
 and raise a mound of earth 4 ft. base, 2 ft.
 high W. of cor.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

40.00 N 89° 55' E. on a random line bet. sec. 10 and 15 -
 Sep temp. 1/4 sec. cor.
 79.88 Intersect N. and S. line at the cor. of sec. 10, 11, 14, and
 15, ^{hereinbefore described} thence S run,

S 89° 55' W., on a true line, bet. sec. 10 and 15,
 Descend gradually over N.W. slope through sage
 and greasewood brush undergrowth and bunch
 grass.

24.00 Proof of gradual descent in depression between
 N. and S. drains, to the north, asc. gently.

30.47 Road to Tubia, Arizona bet. N. and S.

39.94 Set an iron post 3 ft. long, 1 in. in diam. 26 in.
 in the ground for 1/4 sec. cor. marked on brass
 cap 1/4 S 10 on N. half and S 15 on S. half.
 Dig pits 18 x 18 x 12 in. E and W. of post. 3 ft. dia.
 and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high.
 N. of cor.

50.40 Top of sandy ridge between N.E. and S.W. descend
 gently over N.W. slope.

79.88 The cor. of sec. 9, 10, 15 and 16, hereinbefore described.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

Note: At this cor. I set off 20° 53 1/2' S. on the decl. arc and
 at noon observe the sun on the meridian and
 obtain a reading of 36° 00' N. on the lab. arc.

N 0° 02' W., bet. sec. 9 and 10,

Subdivision of Twp 30 N., R 14 E.

Chain

Descend 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 1/4 sec. cor. marked on brass cap 1439 on W. half and S 10 on E half.

Raise a mound of stone 2 ft. base 1 1/2 ft. high. W. of cor. Pit impracticable.

75.75 Road to Spring bears N 65° W. and S 65° E.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the ground for cor. of secs. 3, 4, 9, and 10.

marked on brass cap 130 N. S 4 in N.W., R 14 E. S 3 in N.E. S 10 in S.E. and S 9 in S.W. quadrant.

Dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dia. 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° 55' E., on a random line, bet. secs 3 and 10, 40.00 Set temp 1/4 sec. cor.

79.92 Intersect N and S line 5 lbs. N. of the cor. of secs. 2, 3, 10, and 11, ^{hereinbefore described} thence Drum,

S 89° 57' W. on a true line bet. secs. 3 and 10.

Descend N.W. slope over rolling sandy land, through scattering sage and greasewood brush undergrowth and bunch grass.

20.00 Prob of descent in depression bears N. and S. drains to the north, ascend gradually.

39.96 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} 1433 on N. half, and S 10 on S. half.

Dig pits 18 x 18 x 12 ins. East W. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.

44.00 Top of sand ridge bears N. and S. desc. gently.

52.00 Road to Tuba, Arizona bears N 25° W. and S 25° E.

79.92 The cor. of secs. 3, 4, 9, and 10, hereinbefore described.
Land rolling

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Soil sandy 3rd rate.
No timber

N. 0° 02' W., on a random line, bet. secs 3 and 4,
40.00 Sec temp. 1/4 sec. cor.

80.16 Intersect N. bdy. of Twp. 8 lks N 89° 59' E. of the cor. of sec.
3, 4, 33, and 34, Recently established by me as described
in Exterior Book "AR", thence I run,

S. 0° 05' E., on a true line, bet. secs. 3 and 4,
Descend gradually over sandy S.W. slope, through
scattering sage and greasewood brush undergrowth
and bunch grass.

20.56 Road to Tuba, Arizona bears N 20° W. and S 20° E.

40.16 Set an iron post 3 ft. long, 1 in. in diam. 20 ins in
the ground for 1/4 sec. cor. marked on brass cap.
N 45° 4 on W. half and S 3 on E. half
Dig pits 18 x 18 x 12 ins N. and S. of post 3 ft. deep.
and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft.
high. W. of cor.

53.48 Road to Spring bears N 80° E, and S 80° W.

73.10 Dry ravine 30 lks. wide, 4 ft. deep course N 60° W.

80.16 The cor. of secs. 3, 4, 9, and 10, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

November 26th 1910.

November 22nd 1910. At 8^h 16^m a.m. l.m.t. Set off. 35°
56 1/2' N. on the lat. arc. 19° 59 1/2' S. on the decl. arc.
and determine a meridian with the solar
at the cor. of secs. 4, 5, 32, and 33, on S bdy.
of Twp; recently established by me as described in Exterior Book "AQ", thence I run,
N. 0° 03' W., bet. secs. 32 and 33,
ascend S.E. slope over clayey hilly land, through
scattering sage and greasewood brush undergrowth
and bunch grass.

11.70 Top of clay ridge bears N.E. and S.W. desc. steeply.

17.55 Dry ravine course N.E. asc.

20.75 Top of clay ridge bears E and W. desc.

22.90 Dry ravine course east. asc.

32.50 Road from Oraibi, Arizona, to Tuba City, Arizona
bears N 65° W. and S 65° E.

Chain

- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap 4532 on W. half and 533 on E. half.
Dig pits 18x18x12 ins N and S. of post. 3 ft. deep. and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. W. of cor.
- 45.00 Top of divide between the De Nebito and Moncofus Washes bears $N80^{\circ}E.$ and $S80^{\circ}W.$ desc NW. slope. Leads hilly land bears N.E. and S.W. Enter rolling sandy land.
- 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins. in the ground for cor. of secs 28, 29, 32, and 33. marked on brass cap T 30 N. S 29 in NW, R 14 E. S 28 in N.E. S 33 in S.E. and S 32 in S.W. quadrants.
Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. deep. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
Land rolling and hilly.
Soil sandy and clayey 3rd and 4th rate.
No timber
-
- 40.00 Set temp $\frac{1}{4}$ sec. cor.
- 79.90 Intersect N and S. line, 3 lks. N. of the cor. of secs. 27, 28, 33, and 34, hereinbefore described, thence I run, $S89^{\circ}58' W.$, on a true line, bet. secs. 28 and 33. Ascend S.E. slope over rolling sandy land through scattering sage and greasewood brush and bunch grass.
- 39.95 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap 4528 on N. half and 533 on S. half.
Dig pits 18x18x12 ins. E and W of post 3 ft. deep. and raise a mound of earth, $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. N. of cor. ascend N.E. slope.
- 52.80 Top of clay ridge bears NW. and S.E., Leads rolling land bears NW. and S.E., Enter hilly land, desc. S.W. slope.
- 55.35 Dry ravine 20 ft. below top of ridge course S.E. abo.
- 68.00 Top of divide between the De Nebito and Moncofus

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Washes bears N.E. and S.W. Leads hilly land bears N.E. and S.W. Enters rolling sandy land, desc gently over N.W. slope
 79.90 The cor. of secs. 28, 29, 32, and 33, hereinbefore described. Land rolling and hilly. Soil sandy and clayey 3rd and 4th rate. No timber.

N. 0° 03' W., bet. secs. 28 and 29,
 Descend N.W. slope over rolling sandy land through sage and greasewood, brush undergrowth and bunchgrass.
 40.00 Set an iron post 3 ft. long 1 in. in diam. 26 in. in the ground for the sec. cor. marked on brass cap. 4 S 29 on W. half, and S 28 on E. half. Dig pits 18 x 18 x 12 ins. N and S. of post. 3 ft. dia. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high W. of cor.
 80.00 Set an iron post 3 ft. long, 2 in. in diam. 24 in. in the ground for cor. of secs. 20, 21, 28, and 29, marked on brass cap T 30 N. S 20 in N.W. T 14 E. S. 21 in N.E. S 28 in S.E. and S 29 in S.W. quadrang. Dig pits 18 x 18 x 12 ins. in each sec. 5 ft. dia. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
 Land rolling.
 Soil sandy 3rd rate.
 No timber.

NOTE: At this cor. I set off 20° 03 1/2' S. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 35° 58 1/2' N. on the lab. arc!

N 89° 58' E, on a random line, bet. secs. 21 and 28,
 40.00 Set temp. 1/4 sec. cor.
 79.92 Intersect N. and S. line 2 lks. S. of the cor. of secs. 21, 22, 27 and 28, ^{hereinbefore described} thence I run, S 89° 57' W., on a true line, bet. secs. 21 and 28, over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.
 39.96 Set an iron post. 3 ft. long, 1 in. in diam. 26 in. in

Chain

the ground for $\frac{1}{4}$ sec. cor. marked on brass cap.
 4521 on N. half and 528. on S. half.
 Dig pits 18x18x12 ins. East W. of post 3 ft. dish.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
 high. N. of cor.

79.92 NW cor. of secs. 20, 21, 28 and 29, hereinbefore described.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

N. $0^{\circ} 03' W.$, bet. secs. 20 and 21,
 descend NE slope over rolling sandy land through
 scattering sage and greasewood brush underground
 and bunch grass.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins.
 in the ground for $\frac{1}{4}$ sec. cor. marked on brass
 cap 4520 on W. half and 521 on E. half.
 Dig pits 18x18x12 ins. N. and S. of post 3 ft. dish.
 and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high.
 W. of cor.

45.75 Road to Indian Hogan bears NE. and SW.

80.00 Set an iron post 3 ft. long 2 in. in diam. 24
 ins. in the ground for cor. of secs. 16, 17, 20 and 21
 marked on brass cap T 30 N. S 17 in N.W., R14 E.
 S16 in N.E., S21 in S.E. and S20 in S.W. quadrants.
 Raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft.
 high. W. of cor. Pit impracticable.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

Work done by 22nd 1910

Work done by 28th 1910
 At 8^h 12^m a.m. level disk off.
 $35^{\circ} 59' N.$ on the lat. arc. $21^{\circ} 11' S.$ on the decl. arc.
 and determine a meridian with the solar ab.
 the cor. of secs. 16, 17, 20, and 21, ^{above described} thence S run,
 $N. 89^{\circ} 57' E.$, on a random line, bet. secs. 16 and 21,

40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.88 Intersect N. and S. line, 3 lks. S. of the cor. of secs.
^{hereinbefore described} 15, 16, 21, and 22, thence S run,
 $S. 89^{\circ} 56' W.$, on a true line, bet. secs. 16 and 21,

BOOK 2617

- Ascend E. slope of sand ridge, over rolling land through sage and greasewood bush, underground and bunch grass
- 13.00 Top of sand ridge bears N. and S. desc.
- 39.94 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap. $\frac{1}{4}$ S 16 on N. half and S 21 on S. half.
Raise a mound of stone 2 ft. base, $\frac{1}{2}$ ft. high. W. of cor. Pits impracticable
- 60.00 Foot of descent in depression bears N.E. and S.W. drain to the N.E. asc. gradually
- 68.60 A point from which an Indian Stogaw. bears North 4.00 chs. dist
- 79.88 The cor. of secs. 16, 17, 20, and 21, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

- N. $0^{\circ} 03' W.$, bet. secs. 16 and 17,
Descend gradually over N. slope, over rolling sandy land through sage and greasewood bush, underground and bunch grass.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap. $\frac{1}{4}$ S 17 on W. half and S 16 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 $3\frac{1}{2}$ ft. base, $\frac{1}{2}$ ft. high. W. of cor.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam. 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap. T 30 N. S 8 in N.W., R 14 E S 9 in N.E. S 16 in S.E. and S 17 in S.W. quadrant.
Dig pits 18 x 18 x 12 ins. in each sec., $5\frac{1}{2}$ 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

N. $89^{\circ} 56' E.$, on a random line, bet. secs. 9 and 16,

Chain

- 40.00 Set temp. 1/4 sec. cor.
- 79.92 Intersect N and S. line 8 lks. N. of the cor. of sec. 9, 10, 15 and 16 ^{hereinbefore described} thence drive, S 89° 59' W, on a true line, bet. sec. 9 and 10, Descend N.W. Slope over rolling sandy land through sage and greasewood brush undergrowth and bunch grass
- 39.96 Set an iron post 3 ft. long, 1 in. in diam. 26 in. in the ground for 1/4 sec. cor. marked on brass cap. 14 39 on N. half, and S 16 on S. half. Dig pits 18 x 18 x 12 in. E and W. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.
- 42.00 Foot of descent in depression toward N.E. and S.W. drains to the N.E. ascend gradually over N.E. slope
- 79.92 The cor. of sec. 8, 9, 16 and 17, hereinbefore described. Land rolling. Soil sandy 3rd rate. No timber

N. 0° 03' W., bet. sec. 8 and 9, Descend N.E. 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 in. in the ground for 1/4 sec. cor. marked on brass cap. 14 38 on W. half, and S 9 on E half. Dig pits 18 x 18 x 12 in. N. and S. of post 3 ft. dia. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high. W. of cor.

NOTE: On this cor. D set off. 21° 4 1/2' S. on the decl. arc, and at noon observe the sun on the meridian and obtain a reading of 36° 00 1/2' N. on the lat. arc.

- 77.35 A point from which a spring. bears east. 75 lks. dia.
- 80.00 Set an iron post 3 ft. long 2 in. in diam 24 in. in the ground for cor. of sec. 4, 5, 8, and 9 marked on brass cap. T 30N 35 in N.W. R14E. S 4 in N.E., S 9 in S.E. and S 8 in S.W. quadrant. Raise a mound of stone 2 ft. base, 1 1/2 ft. high. W. of

BOOK 2617

Cor. Pib impracticable
Land rolling.
Soil sandy 3rd rate.
No timber

W 89° 59' E on a random line bet. sec. 4 and 9,
40.00 Set temp. 1/4 sec. cor.

79.90 Intersect N. and S. line, 5 lks. S. of the cor. of sec.
3, 4, 9, and 10, hereinbefore described, thence I run,

S 89° 57' W, on a true line, bet. sec. 4 and 9,

Descend gradually over N.W. slope through scattering
sage and greasewood brush undergrowth and
bunch grass.

39.95 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.
1454 on N. half and 59 on S. half.

Set pits 18x18x12 ins. E and W. of post. 3 ft. dist. and
raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high.
N. of cor.

63.50 A point from which an Indian Hogan trail
leads north 150 lks. dist.

74.10 Dry ravine 25 lks. wide 3 ft. deep course S.W.

79.50 Dry ravine 30 lks. wide 2 ft. deep course N.W. asc.
gradually.

79.90 The cor. of sec. 4, 5, 8 and 9, hereinbefore described.

Land rolling
Soil sandy 3rd rate.
No timber

N. 0° 03' W, on a random line, bet. sec. 4 and 5,
40.00 Set temp. 1/4 sec. cor.

80.16 Intersect N. ldy. of Mc., 10 lks. N 89° 59' E of the cor. of
sec. 4, 5, 32, and 33, ^{recently established by me as described} in Exterior Book "AR," thence I run,

S 0° 07' E, on a true line, bet. sec. 4 and 5,

Descend S.W. slope over rolling sandy land
through sage and greasewood brush undergrowth
and bunch grass.

6.90 Dry ravine course S 50° W. asc. Lead rolling
land bears N 50° E and S 50° W. Enter hilly land.

8.25 Top of sand ridge bears N.E. and S.W. d.b.c.

Chains

- 40.16 Set an iron post 3 ft. long 1 in. in diam 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 5 on W. half and S 4 on E. half. Dig pits 18 x 18 x 12 ins N and S. of post 3 ft. dish and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. W. of cor.
- 72.66 Digs and wash. 35 lbs. wide 5 ft. deep course N 60° W. arc.
- 80.16 The cor. of secs. 4, 5, 8, and 9, hereinbefore described. Land rolling and hilly. Soil sandy 3rd rate. No timber

March 28th 1910.

November 23rd ¹⁹¹⁰ A.M. 8 to 17 m. l.m.t., D sec. off 35° 56 $\frac{1}{2}$ ' N. on the lat. arc, 20° 12 $\frac{1}{2}$ ' S. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5, 6, 31, and 32. on S. side of Np., recently estab. by me as described in Exterior Book "AQ," thence I run, N. 0° 03' W., bet. secs. 31 and 32,

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

- 17.60 Dry ravine 20 lbs. wide 2 ft. deep course N.W.
- 29.83 Dry ravine 20 lbs. wide 2 ft. deep course N.W.
- 32.35 The same ravine 25 lbs. wide 2 $\frac{1}{2}$ ft. deep course N.E.
- 35.70 The same ravine 20 lbs. wide 2 ft. deep course N.W. are gently over South slope.

40.00 Set an iron post 3 ft. long 1 in. in diam. 26 ins in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 31 on W. half and S 32 on E. half. No trees suitable for bearing trees available. Dig pits 18 x 18 x 12 ins. N and S. of post 3 ft. dish and raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. W. of cor.

- 41.92 Road bears N.E. and S.W.
- 63.80 Top of sand ridge bears E and W. due.
- 80.00 Set an iron post 3 ft. long 2 ins. in diam. 24 ins in the ground for cor. of secs. 29, 30, 31, and 32. marked on brass cap T 30 N. S 30 in N.W. R14 E. S 29 in N.E. S 32 in S.E. and S 31 in S.W. quadrant from which
A cedar 10 ins. in diam. bears S 39 $\frac{1}{2}$ ' E 174 lbs. dist.

marked T₃₀N., R₁₄E. S₃₂B.T.

A cedar 14 ins. in diam. bears $35\frac{3}{4}^{\circ}$ W. 226 lbs. dist.

marked T₃₀N., R₁₄E. S₃₁B.T. and

A cedar 12 ins. in diam. bears $78\frac{1}{2}^{\circ}$ W 145 lbs. dist.

marked T₃₀N., R₁₄E. S₃₀B.T.

No other trees within limits

Dig pits 18x18x12 ins in each sec 5 $\frac{1}{2}$ ft. dist.

and raise a mound of earth 4 ft base, 2 ft. high. W. of cor.

Land rolling

Soil sandy 3rd rate.

Timber scattering cedars.

40.00 N $89^{\circ}57'$ E, on a random line, bet. secs. 29 and 32,
Set temp $\frac{1}{4}$ sec. cor.

79.90 Intersect N. and S. line, at the cor. of secs. 28, 29,
32 and 33, ^{hereinbefore described} thence S run,

S $89^{\circ}57'$ W., on a true line, bet. secs. 29 and 32,

Descend W. slope over rolling sandy land through scattering sage and greasewood brush undergrowth and bunch grass.

39.95 Set an iron post 3 ft. long 1 in. in diam. 26 ins in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 29 on N. half and S 32, on S. half.

Dig pits 18x18x12 ins E and W. of post. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. N. of cor.

62.10 Dry ravine 10 lbs. wide course N.W. asc., Enter scattering cedar timber bears N.W. and S.E.

69.00 Road bears N. and S.

71.00 Top of sand ridge bears N. and S. desc gently over W. slope.

79.90 The cor. of secs. 29, 30, 31, and 32, hereinbefore described.

Land rolling.

Soil sandy 3rd rate.

Timber Cedar.

40.00 N $89^{\circ}57'$ W., on a random line, bet. secs. 30 and 31,
Set temp $\frac{1}{4}$ sec. cor.

79.48 Intersect W. bdy. of N₃₀, 2 lbs. N. of the cor. of.

Chain

recently estab. by me as described in Exterior Book "AR"
 Secs. 25, 30, 31 and 36, thence from,
 N. 89° 58' E, on a true line, bet. secs. 30 and 31,
 descend E. slope over hilly sandy land through
 scattering cedar timber and sage brush under
 growth and bunch grass.

- 17.05 Dry ravine 20 lbs. wide course north asc.
 - 20.00 Top of sand ridge bears N and S. desc.
 - 28.45 Dry ravine 40 lbs. wide course north asc.
 - 36.00 Top of sand ridge bears N and S. desc.
 - 39.48 Set an iron fork 3 ft. long 1 in. in diam. 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor. marked on brass cap.
 $\frac{1}{4}$ S 30 on N. half and S 31 on S. half, from which
 a cedar 8 ins. in diam. bears N 71 $\frac{1}{4}$ ° E. 138 lbs. dist.
 marked $\frac{1}{4}$ S 30 B.T. and
 a cedar 10 ins. in diam. bears S 8° W 191 lbs. dist.
 marked $\frac{1}{4}$ S 31 B.T.
- NOTE: At this cor. set off 20° 16' S. on the decl. arc and
 at noon observe the sun on the meridian
 and obtain a reading of 35° 57 $\frac{1}{2}$ ' N. on the lat. arc.
- 47.68 Dry ravine 20 lbs. wide course north asc.
 - 51.45 Top of sand ridge bears N and S. desc.
 - 68.50 Dry ravine 40 lbs. wide course N.W. asc.
 - 79.48 The cor. of secs. 29, 30, 31 and 32, hereinbefore described.
 Land hilly.
 Soil sandy 3rd and 4th rates.
 Timber Cedar.

N. 0° 03' W., bet. secs. 29 and 30,
 descend N.W. slope over rolling sandy land
 through scattering cedar timber, sage and
 greasewood brush undergrowth and bunch grass.

- 28.00 Clear timber bears N.E. and S.W.
- 40.00 Set an iron fork 3 ft. long 1 in. in diam. 26
 ins. in the ground for $\frac{1}{4}$ sec. cor. marked
 on brass cap. $\frac{1}{4}$ S 30 on W. half and S 29 on
 E. half.
 Dig pits 18x18x12 ins. N. and S. of fork 3 ft.
 dist. and raise a mound of earth 3 $\frac{1}{2}$ ft. base
 $\frac{1}{2}$ ft. high W. of cor.
- 49.00 Dry ravine 20 lbs. wide course N.W., leave
 rolling land bears N.W. and S.E., ascend South slope

BOOK 30 2617

Chain

- over hilly land
- 61.40 Top of sand ridge bears E and W. desc.
- 68.50 Dry ravine 25 lbs. wide course west. asc.
- 74.00 Top of sand ridge bears E. and W. desc.
- 76.90 Dry ravine 25 ft. below top of ridge course S.W. etc.
- 80.00 Set an iron post 3 ft. long, 2 ins. in diam. 24 ins. in the ground for cor. of secs. 19, 20, 29, and 30 marked on brass cap T 30 N S 19 in N.W., R 14 E S 20 in N.E., S 29 in S.E. and S 30 in S.W. quadrants. Raise a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor. Pit. impracticable
Land rolling and hilly.
Soil sandy 3rd rate
Timber Cedar.
- November 23rd 1910.
- November 29th 1910. At 8^h 11^m 49^{sec} a.m. Lined Desc. off. 35° 58' 1/2' N. on the lat. arc. 21° 32' S. on the decl. arc and determine a meridian with the solar at the cor. of secs. 19, 20, 29, and 30, ^{above described} thence D. run,
- 40.00 Set temp. 1/4 sec. cor.
- 79.86 Intersect N and S. line 3 lbs. S. of the cor. of secs. 20, 21, 28 and 29 ^{hereinbefore described} thence D. run,
S 89° 56' W. on a true line, bet. secs. 20 and 29, Over rolling sandy land through sage and greasewood brush undergrowth and bunch grass.
- 32.50 Road to Indian Hogan bears N.E. and S.W.
- 39.93 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 20 on N. half. and S 29 on S. half. Dig pits 18 x 18 x 12 ins. E and W. of post. 3 ft. dish and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high. N. of cor.
- 53.05 Road to Spring bears N 20° E. and S 20° W.
- 67.57 Road bears N 15° E. and S 15° W.
- 67.60 Top of sand ridge bears N. and S. desc.
- 77.00 Dry ravine 15 lbs. wide course S.W. asc.
- 79.86 The cor. of secs. 19, 20, 29, and 30, hereinbefore described.
Land rolling

Chau

Soil sandy 3rd rate.
No timber

40.00 S 89° 58' W., on a random line, bet. secs. 19 and 30.
Set tens, 1/4 sec. cor.

79.34 Intersect W. ldy. of Twp. 5 lks. S. of the cor. of
recently established by me as described in Exterior Book "AR,"
secs. 19, 24, 25 and 30, the well known,

Earth, on a true line, bet. secs. 19 and 30,
Ascend W. slope over hilly clayey and sandy land
through scattering greasewood brush undergrowth.

23.00 Top of clay ridge bears N. and S. desc.

30.00 Dry ravine 15 lks. wide 30 ft. below top of ridge
course North asc. steeply.

36.00 Top of clay ridge bears N.W. and S.E. desc.

39.34 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 19 on N. half, and S 30 on S. half.

Dig pits 18 x 18 x 12 ins E and W. of post 3 ft. deep.
and raise a mound of earth 3 1/2 ft. base 1 1/2 ft.
high N. of cor.

41.30 Dry ravine 10 lks. wide course South asc.

44.35 Top of ridge bears N and S. desc.

54.15 Dry ravine 20 lks. wide course N.W. asc.

61.10 Top of clay ridge bears N. and S. desc.

63.90 Dry ravine 30 lks. wide course N.W.

65.25 The same ravine course S.W.

68.30 The same ravine course N.W. Leave hilly
land bears N.W. and S.E. Enter rolling land
ascend gently over S.W. slope.

79.34 The cor. of secs. 19, 20, 29, and 30, hereinbefore described.

Land rolling and hilly.
Soil sandy and clayey 3rd and 4th rate.
No timber

W. 0° 03' W., bet. secs. 19, and 20,

Ascend gradually over S.W. slope through sage
and greasewood brush undergrowth and
lunch grass.

1.00 Top of sand ridge bears E and W. desc.

6.95 Dry ravine course West asc.

Subdivision of Twp 30 N., R 14 E.

32

Chain

BOOK 2617

- 29.00 Top of sand ridge 30 ft. above ravine bears N.W. and S.E. desc. N.E. slope.
- 35.15 Road to Tuba, Arizona bears N 20° W, and S 20° E.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 19° W W. half and S 20° 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 $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. W. of cor.
 Ascend S.E. slope.
- 60.00 ~~80.00~~ Set an iron post 3 ft. long, 2 ins. in diam 24 ins. in the ground for cor. of secv. 17, 18, 19, and 20 marked on brass cap. T 30 N 31 8 in N.W., R 14 E. S. 17 in N.E. S 20 in S.E. and S 19 in S.W. quadrants. Raise a mound of stone 2 ft base $1\frac{1}{2}$ ft. high. W. of cor. Pits impracticable.
 Land rolling and hilly.
 Soil sandy 3rd rate.
 No timber
- NOTE: - Clouds obscured the sun at noon today rendering an observation for latitude impossible
-
- 40.00 Set temp. $\frac{1}{4}$ sec. cor. N. 89° 56' E, on a random line, bet. secv. 17 and 20.
- 79.80 Intersect N. and S. line, at the cor. of secv. 16, 17 and 20, ^{hereinbefore described} thence drum, S 89° 56' W, on a true line, bet. secv. 17 and 20,
 Ascend
 Over rolling sandy land through scattering sage and greasewood brush undergrowth and bunch grass.
- 36.35 Road to Spring. bears N. and S.
- 39.90 Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap. $\frac{1}{4}$ S 17° W N. half, and S 20° on S. half. Dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. N. of cor.
- 79.80 The cor. of secv. 17, 18, 19 and 20, hereinbefore described.
 Land rolling
 Soil sandy 3rd rate.
 No timber

Subdivision of Twp 30 N., R 14 E.

Chains

40.00 West on a random line, bet. sec. 18 and 19,
 40.00 Set temp. 1/4 sec. cor.
 79.26 Descend N. E. slope of Twp. at the cor. of sec.
 recently established by me as described in Exterior Book "AR"
 13, 18, 19, and 24, thence S. 1/4
 East, on a true line, bet. sec. 18 and 19,
 Descend gradually on S. E. slope, through scattering
 greasewood brush and bunch grass.
 5.80 Dry ravine 10 lbs. wide course S. W. as is.
 39.26 Set an iron post 3 ft. long 1 in. in diam. 26 ins.
 in the ground for 1/4 sec. cor. marked out brass
 cap 1/4 S 18 on N. half and S 19 on S. half.
 Dig pits 18 x 18 x 12 ins. East W. of post 3 ft. dist.
 and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft.
 high N. of cor.
 56.50 Road bears N. W. and S. E.
 67.43 Road bears N. E. and S. W.
 75.70 Top of sand ridge bears N. W. and S. E. desc. gently.
 79.26 The cor. of sec. 17, 18, 19, and 20, hereinbefore described.
 Land rolling.
 Soil sandy 3rd rate.
 No timber

N. 0° 03' W., bet. sec. 17 and 18,
 Descend N. E. 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
 out brass cap 1/4 S 18 on W. half and S 17 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 3 1/2 ft. base 1 1/2 ft.
 high W. of cor.
 77.00 Foot of descent in depression bears N. E. and S. W.
 drains to the N. E. as is.
 80.00 Set an iron post 3 ft. long, 2 ins. in diam. 24
 ins. in the ground for cor. of sec. 7, 8, 17 and 18.
 marked out brass cap T 30 N. S 7 in N. W. R 14 E.
 S 8 in N. E. S 17 in S. E. and S 18 in S. W. quadrants.
 Dig pits 18 x 18 x 12 ins. in each sec. 5 1/2 ft. dist.
 and raise a mound of earth 4 ft. base, 2 ft.
 high W. of cor.

BOOK 2617

Land rolling
Soil sandy, 3rd rate.
No timber

November 29th 1910.

November 30th ¹⁹¹⁰ 11^h 11¹/₂ a.m. l.m.c. - D reb off.
36° 00' N. on the lat. arc 21° 31¹/₂' S. on the decl. arc.
and determine a meridian with the solar ab.
the cor. of sec. 7, 8, 17 and 18, ^{above described} thence Drum,
N. 89° 56' E, on a random line, bet. sec. 8 and
17,

40.00 Sep temp. ¹/₄ sec. cor.79.82 Intersect N. and S. line, 5 lbs. N. of the cor. of sec.
8, 9, 16 and 17, ^{hereinbefore described} thence Drum,

S. 89° 58' W, on a true line, bet. sec. 8 and 17,
Ascend N.E. slope over rolling sandy land through
sage and greasewood brush undergrowth and
 bunch grass

27.08 Road to Spring bear N. and S.

39.91 Sep and iron post, 3 ft. long 1 in. in diam. 26 in.
in the ground for ¹/₄ sec. cor. marked on brass
cap ¹/₄ S 8 on N. half and S 17 on S half.
Dig pits 18 x 18 x 12 ins E and W. of post 3 ft. dia.
and raise a mound of earth 3¹/₂ ft. base 1¹/₂ ft.
high. N. of cor.

79.82 The cor. of sec. 7, 8, 17, and 18, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

Wash, on a random line, bet. sec. 7 and 18,

40.00 Sep temp ¹/₄ sec. cor.

79.16 Intersect W. line of N. 4 lbs. N. of the cor. of
sec. 7, 12, 13, and 18, ^{recently established by me as described in Exterior Book "AR"} thence Drum,

N. 89° 58' E, on a true line, bet. sec. 7 and 18,
Descend N.E. slope over rolling sandy land
through scattering sage and greasewood brush
undergrowth and bunch grass

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

39.16 Sep and iron post 3 ft. long 1 in. in diam. 26 in.
in the ground for ¹/₄ sec. cor. marked on brass

Subdivision of T₃₀N, R₁₄E.

Chains

79.16 Cop $\frac{1}{4}$ S₇ on N. half and S₁₈ on S. half.
Dig pits 18x18x12 ins. East W. of post. 3 ft. deep.
And raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft.
high N. of cor.
The cor. of secs. 7, 8, 17 and 18, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

11.50 W. $0^{\circ}03'$ W., bet. sec. 7 and 8,
around S. slope over rolling sandy land through
scattering sage and greasewood bush undergrowth
and bunch grass.
Top of low ridge-trail East W. descend gently
over N. slope.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in
the ground for $\frac{1}{4}$ sec. cor. marked on brass cap.
N₄S₇ on W. half and S₈ on E. half.
Dig pits 18x18x12 ins. N and S of post 3 ft. deep, and
raise a mound of earth $3\frac{1}{2}$ ft. base $1\frac{1}{2}$ ft. high. W.
of cor.

80.00 Set an iron post 3 ft. long 2 ins. in diam. 24
ins. in the ground for cor. of secs. 5, 6, 7 and 8.
marked on brass cap T₃₀N, S₆ in N.W., R₁₄E.
S₅ in N.E. S₈ in S.E. and S₇ in S.W. quadrant.
Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. deep,
and raise a mound of earth 4 ft. base, 2 ft. high.
W. of cor.
Land rolling.
Soil sandy 3rd rate.
No timber

40.00 N. $89^{\circ}58'$ E., on a random line, bet. sec. 5 and 8,
Set temp. $\frac{1}{4}$ sec. cor.
79.80 Intersect N. and S. line, 3 lks. S. of the cor. of
secs. 4, 5, 8 and ^{hereinbefore described} $\frac{1}{4}$ thence
S $89^{\circ}57'$ W., on a true line, bet. sec. 5 and 8,
around N.E. slope over rolling sandy land through
scattering greasewood bush undergrowth and
bunch grass.

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39.90 Set an iron post, 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 5 on N. half and 38 on S. half. Dig pits 18 x 18 x 12 ins. East W. of post 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. N. of cor.

NOTE: At this cor. I set off $21^{\circ}35'$ S. on the decl. arc and at noon observed the sun on the meridian and obtain a reading of $36^{\circ}01'$ N. on the lat. arc.

50.90 Dry ravine 30 lbs. wide 6 ft. deep curved N.E. and gently.

79.80 The cor. of secs. 5, 6, 7, and 8, hereinbefore described.
Land rolling.
Soil sandy 3rd rate.
No timber

$S 89^{\circ}58'$ W., on a random line, bet. secs. 6 and 7,
40.00 Set temp. $\frac{1}{4}$ sec. cor.

79.04 Intersect W. bdy. of Np, 5 lbs. S. of the cor. of sec. recently estab. by ~~the~~ as described in Exterior Book "AR"; 1, 6, 7, and 12, thence run,
Each, on a true line, bet. secs. 6 and 7,
Descend N.E. slope over gently rolling sandy land through scattering sage and greasewood brush. undergrowth and bunch grass.

39.04 Set an iron post 3 ft. long 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap $\frac{1}{4}$ S 6 on N. half and 37 on S. half. Dig pits 18 x 18 x 12 ins. E and W. of post, 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

79.04 The cor. of secs. 5, 6, 7 and 8, hereinbefore described.
Land rolling.
Soil sandy 3rd rate
No timber

$N 0^{\circ}03'$ W., on a random line, bet. secs. 5 and 6,
40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.14 Intersect N. bdy. of Np, 28 lbs. $N 89^{\circ}59'$ E of the cor. of recently estab. by ~~the~~ as described in Exterior Book "AR"; secs. 5, 6, 31 and 32, thence run,
 $S 0^{\circ}15'$ E., on a true line, bet. secs. 5 and 6,

- 11.80 Descend S.E. slope over hilly sandy land through scattering sage and greasewood, brush undergrowth and bunch grass
- 26.00 Dry ravine 15 lbs. wide course N.E. asc.
- 39.10 Top of sand ridge bears N.E. and S.W. desc. Dry ravine 20 lbs. wide course N. 35° E. asc. Bear hilly land bears N.E. and S.W., enter rolling land.
- 40.14 Set all iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for 1/4 sec. cor. marked out brass cap 1/4 S 60 W. half and S 50 W E. half. Dig pits 18 x 18 x 12 ins. N. and S. of post. 3 ft. deep and raise a mound of earth 3 1/2 ft. tall 1 1/2 ft. high W. of cor.
- 80.14 This cor. of sec. 5, 6, 7 and 8, hereinbefore described. Land rolling and hilly. Soil sandy 3rd rate. No timber

November 30th 1910.

General Description

The land included in this township is generally a high sandy and stony mesa. Cut by deep ravines on the west and north west land traversed through the south central part by a high sand ridge, which forms the watershed between the waters which drain into the De Nebeto Wash on the south and the Moencopie Wash on the north. From the crest of this ridge the land slopes gently to the North west to near the north boundary of the township where it breaks off abruptly into the heads of canyons which carry the waters into the Moencopie Wash, and to the south the slope is gradual all the way to the De Nebeto Wash. With the exception of some low sand ridges in sec. 33, 34 and 35. The soil in this township ranges from clayey stony land to sandy loam. The soil of the mesa portion of the township can nearly all be classed as third rate and is

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Covered with sage and greasewood brush. The soil of the ridges and steep mesa slopes, is very stony and can nearly all be classed as 4th rate.

No mineral or stone of any value was found in the township, however I think that coal beds underlie the mesa portions of the township at from 600 to 1000 ft.

Scattering cedar timber is found near the north east ^{and south west} corners of the township in secs 1, 12, 30, 31 and 32, the trees however are too small to be of any value except for domestic purposes such as fuel. The township is poorly watered, a spring in section 9, being the only water in the township. There are three families of Navajo Indians residing in the township one of which is located in section 1, one in section 4, and one in section 16.

Nov. 30 - 1910

Van L. White
U.S. Geologist

U.S. TRANSITMAN
FINAL OATHS OF ~~DEPUTY SURVEYOR~~ 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 Subdivision
lines of Tp 30 N R 14 E., of the G. & S. R. Base and Meridian, 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 Palacca, 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 Subdivision lines of Tp 30 N. R.
14 E

of the Gila and
Salt River Base ~~of~~ 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
- Van L. White, Chainman.
- Oscar W. Fetters, Chainman.
- Ralph C. Sampson, Moundman.
- ~~Moundman.~~
- George B. Seig, Axman.
- Nelson Palacca, Axman.
- William R. Carson, Flagman.

Subscribed and sworn to before me this 30th
day of November, 1910

Van L. White
U.S. Transitman



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

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I, Van L. White, U.S. Transitman, ~~United States Deputy Surveyor~~, do solemnly swear that, in pursuance of ~~contract~~ ^{Special Instructions} received from ~~The Commissioner of the General Land Office~~ ^{of the General Land Office}, bearing date of the 2nd day of Oct. 1907 ~~day~~ 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 General~~ ^{Commissioner} of the ~~General Land Office~~, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Subdivision lines of Township No. 30 North of 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 General~~ ^{Commissioner} of the ~~General Land Office~~ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Subscribed by said Van L. White, and sworn to before me }
this 27th day of December, 1912

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

Lyleon R. Taylor
U.S. Commissioner
at Las Vegas, N.M.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona APR 26 1, 1914

The foregoing field notes of the survey of the
Subdivision lines of
Township No. 30 North, Range No. 14 East of the
Gila and Salt River Base and Meridian, Arizona.
executed by VAN L. WHITE, U.S. Transitman,
~~executed by~~ under Special Instructions from 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 Ingalls
~~United States Surveyor General~~
SURVEYOR-GENERAL OF ARIZONA

~~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~~