1874
Book "A"

FIELD NOTES

OF THE SURVEY OF THE

South boundary of Township 27 North, Range 27 East, and the East, South and West boundaries of Townships 27 North, Range 26 E.

1874

Of the Gila and Salt River Base and Meridian,

AS SURVEYED BY

Samuel E Day, United States Deputy Surveyor,

Under his Contract No. 106, dated April 16th 1903, ~~189~~

Survey commenced December 14th 1904, ~~189~~

Survey completed December 21st 1904, ~~189~~

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BOOK 1874

NAMES AND DUTIES OF ASSISTANTS.

Samuel E. Day Jr.		Chainman
William A. Day		Chainman
White Singer	a Navajo Indian	Monumman
Left Hand	"	Axman
Yellow Left Hand	"	Flagman
Tall Man	"	Flagman

The preliminary and final oaths to Assistants had to be administered by the Deputy because there was no officer authorized to administer oaths, within fifty miles.

Samuel E. Day
U. S. Deputy Surveyor.

6—151

BOOK 1874

INDEX DIAGRAM.

Township 27 N, *Range* 27 E.

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Township 27 N Range 26 E.

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BOOK 1874

PRELIMINARY OATHS OF ASSISTANTS.

WE, Samuel E. Day Jr and William A. Day,
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the South boundary of T. 27 N. R. 27 E. and the East, South and West bdys T. 27 N. R. 26 E. Gr and S. R. M.

Samuel E. Day Jr, Chainman.
William A. Day, Chainman.

Subscribed and sworn to before me this 12th day of December 1904, 189

Samuel E. Day
U. S. Deputy Surveyor

SEAL

I, WE, White Singer and
do solemnly swear that I will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given me to the best of my skill and ability, in the survey of the South bdy of T. 27 N. R. 27 E. and the East, South and West bdys T. 27 N. R. 26 E. Gr and S. R. M.
Witnesses
William A Day
Samuel E Day Jr

White Singer his X mark, Moundman.
, Moundman.

Subscribed and sworn to before me this 12th day of December 1904, 189

Samuel E. Day
U. S. Deputy Surveyor

SEAL

I, WE, Left Hand and
do solemnly swear that I will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given me to the best of my skill and ability, in the survey of the South bdy of T. 27 N. R. 27 E. and the East, South and West bdys T. 27 N. R. 26 E. Gr and S. R. B. & M.
Witnesses
William A. Day
Samuel E Day Jr

Left Hand his + mark, Axman.
, Axman.

Subscribed and sworn to before me this 12th day of December 1904, 189

Samuel E. Day
U. S. Deputy Surveyor

SEAL

WE, Yellow Left Hand and Tall Man, 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 S. bdy T. 27 N. R. 27 E. and E., S. and W. bdys T. 27 N. R. 26 E. Gr and S. R. B and M.
Witnesses
William A. Day
Samuel E Day Jr

Yellow Left Hand his + mark, Flagman.
Tall Man his + mark, Flagman

Subscribed and sworn to before me this 12th day of December 1904, 189

Samuel E Day
U. S. Deputy Surveyor

SEAL

6—151

Survey commenced Dec. 14th 1904, and executed with a W. and L. E. Gurley Engineers transit with solar attachment, the horizontal limb having two opposite verniers reading to 1' of arc. The verniers of the latitude and declination arcs reading to 30" of arc.

I begin at the cor. of Tps 26 and 27 N. Rs. 27 and 28 E which is a post set in the ground marked and witnessed as described by the Surveyor General.

Lat. ~~35°41'23" N.~~ 35°41'07" N. Long. ~~109°25'11" W.~~ 109°24'40" W.

I wish to observe Polaris at Western Elongation

From table V. U. C. Dec 1	8h 43.7m
Reduction to Dec 14	-51.3
Time to add for elongation	5 55.
	13 47.4

2.39 ft S. of the corner above described about 1h 40m a.m. Dec 15th 1904 I commence to observe the western progress of ~~Polaris~~; when the star begins to recede I mark the maximum position in azimuth upon the ground by a tack driven in a wooden peg set in the ground five chains north of my station.

Dec 15th at 8 a.m. I lay off the azimuth of Polaris 1°29' to the East of the point established last night and mark the meridian thus determined by a tack driven in a wooden peg set in the ground east of the point established last night; the magnetic bearing of the true meridian is N. 14°2' W. which gives the magnetic declination 14°2' E.

I examine the adjustments of the transit and find them correct, and, to test the solar apparatus, at 9h 0m a.m. L.M.T. I set off 35°41½ ~~23"~~ N. on the lat. arc, 23°14½ ~~45.42~~ S. on the decl. arc and determine with the solar a meridian and mark a point thereof which coincides with the meridian established by the Polaris observation.

At this corner I set off 23°-12'-30" S on the decl. arc and at 11h 55m l.m.t. observe the sun on the meridian and obtain on the lat. arc the reading 35°-41'-30" N. At 3h p.m. l.m.t. I set off 35°-41'-30" N on the lat. arc and 23°-12'-30" S on the decl. arc and determine a meridian with the solar and mark a point ~~thereof~~ with a tack driven in a peg set in the ground 5 chs. north of cor.

South boundary of T. 27 N. R. 27 E.

BOOK 1874

Chains	
	At this station I turn off an angle of 89°58".2 toward the West and run N. 89°58' W. on the secant. S. of sec. 36 ascending
7.00	Top of ridge - descend
40.00	N. 1.08 ft. from the secant, Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground for 1/4 sec. Cor. Marked 1/4 S 36 on N. face, S 1 on S. face. Dig pits 18 x 18 x 12 ins E. and W. 3 ft. dist. and raise a mound of Earth 3½ ft. base 1½ ft. high N. of Cor. A pinon 12 ins. in dia. brs. N. 12°15' E. 21 lks. dist. Marked 1/4 S 36 B T A pinon 8 ins. in dia. bre S. 42°45' W. 20 lks. dist. marked 1/4 S 1 B T
56.00	Cross swail, N. & S. ascend
63.00	Top of ridge. descend
80.00	Set a pinon post 3 ft long. 4 ins. sq. 24 ins. in the ground for Cor. of secs. 35. 36. 1 & 2. Marked T 27 N S 36 on NE. R 27 E S 1 on SE. T 26 N S 2 on SW. R 27 E S 35 on NW. faces with 1 notch on E. edge and 5 notches on W. edge. 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 ~~A.W~~ of cor. A pinon 9 ins. in dia bre N. 39°0' E. 88 lks. dist Marked T. 27 N. R 27 E S 36 B T A pinon 12 ins. in dia bre N. 40°12' W. 92 lks. dist. Marked T 27 N R 27 E S 35 B T A pinon 8 ins. in dia. bre. S. 5°15' W. 50 lks. dist. Marked T 26 N R 27 E S 2 B T A pinon 8 ins. in dia. bre S. 30° 5' E. 31 lks. dist. Marked T 26 N R 27 E S 1 B T Surface rolling - covered with scrubby pinon, juniper and sage brush Soil 3d rate Brush undergrowth 80.00 chains

Dec 15th 1904.

Chains	
	Dec. 16, 1904 at 9 h. a.m. l.m.t. Set off 23°17'39" S. on the dec. arc and 35°41' N. on the lat. arc and determine a meridian with the solar
	N. 89°59' W. on the secant through Sec. 35 descending
6.00	Leave timber
12.00	Bottom of swail N. & S. ascend
17.00	Enter timber
20.00	Top of ridge N. & S.
40.00	S. 0.84 ft from the secant
	Set a pinon post 3 ft long, 4 ins. sq. 24 ins. in the ground for 1/4 sec. cor. Marked 1/4 S 35 on N. face and S 2 on S. face. Dig pits 18 × 18 × 12 ins. E. and W. 3 ft. dist. and raise a mound of earth 3 1/2 ft base, 1 1/2 ft high N. of cor.
	A pinon 14 ins. in dia brs. N. 4°30' E 86 lks. dist. marked 1/4 S 35 BT
	A pinon 14 ins. in dia. brs. S. 16°50' W. 67 lks dist. Marked 1/4 S 2 BT
65.00	Leave timber - descending
80.00	~~S. 1.44 ft from the~~ secant,
	Set a sandstone 30 × 10 × 4 ins. 16 ins. (impossible to set deeper) in the ground, for cor. of secs 34-35-2 & 3. Marked with 2 notches on the E. edge and 4 notches on the W. edge. Dig pits 18 × 18 × 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.
	No trees within limits
	Surface rolling - Covered with pinon, juniper and thick sage brush.
	Soil 2d rate
	Dense undergrowth 80.00 chains.
	N. 89°59' W. on the secant, through sec. 34
35.00	Arroya 1.00 ch. wide. Course N.W.
37.00	Wagon road, Granada to St Michaels N.W. & S.E.
40.00	S 1.80 ft from the secant,
	Set a sandstone 24 × 12 × 3 ins. 14 ins. (impossible to set deeper) in the ground, for 1/4 sec. cor. Marked 1/4 on N. face, Dig pits 18 × 18 × 12 ins E. and W. 3 ft. dist. and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N. of cor.
	A pinon 6 ins. in dia. brs. N. 28°58' E. 2.50 chs. dist.

South boundary T. 27 N. R. 27 E.

Chains	
	Marked 1/4 S 34 BT
	No trees in sec. 3 within limits
64.00	Enter timber
71.00	Top of ridge N. & S.
80.00	S. 1.92 ft. from the secant.
	Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground, for Cor. of Secs. 33. 34. 3 & 4. Marked
	T 27 N S 34 on NE.
	R 27 E S 3 on SE.
	T 26 N S 4 on SW.
	R 27 E S 33 on NW faces, with 3 notches on E. and W. edges. 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.
	A pinon 10 ins. in dia. bre. S. 82° 22' W. 2.35 chs. dist.
	Marked T 26 N R 27 E S 4 BT
	A pinon 10 ins. in dia. bre. N. 62° W. 2.35 chs. dist.
	T 27 N R 27 E S 33 BT
	A pinon 8 ins. in dia. bre N. 44° 30' E. 2.52 chs. dist.
	Marked T 27 N R 27 E S 34 BT
	A pinon 9 ins. in dia. bre. S. 5° 39' E. 1.51 chs. dist.
	Marked T 26 N R 27 E S 3 BT
	Surface rolling - covered with pinon, juniper and thick Sage brush.
	Soil 2d rate.
	Dense undergrowth 80.00 chains

Dec 16th 1904.

December 17th 1904.

West, on the secant, through Sec. 33.

4.00	Top of ridge,
13.00	Leave timber. Sage brush flat.
36.00	Enter timber
40.00	S. 1.80 ft. from the secant.
	Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground, for 1/4 Sec. Cor. Marked 1/4 S 33 on N. face and S 4 on S. face. Dig pits 18 x 18 x 12 ins. E. and W. 3 ft dist. and raise a mound of earth 3½ ft. base 1½ ft. high N. of Cor.
	A pinon 8 ins. in dia bre. S. 29° 13' W. 19 lks. dist.
	Marked 1/4 S. 4 BT

Chains

A pinon 6 ins. in dia. brs. N. 18°38'E. 24 lks. dist.
Marked 1/4 S 33 BT

72.00 Indian trail. N. and S.

80.00 S. 1.44 ft. from the secant

Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground for cor. of secs 32. 33. 4 + 5. Marked
T 27 N S 33 on NE.
R 27 E S 4 on SE.
T 26 N S 5 on SW.
R 27 E S 32 on NW. faces, with 4 notches on the E. edge and 2 notches on the W. edge.
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, N. of Cor.

A juniper 24 ins. in dia. brs N. 20°9'E. 4.58 chs dist. Marked T 27 N R 27 E S 33 BT

A pinon 6 ins. in dia. brs. S. 61°E. 3.21 chs. dist. marked T 26 N R 27 E S 4 BT

No trees in secs. 5 and 32 within limits.

Surface rolling - pinon, juniper and sage brush.
Soil 2d rate
Dense undergrowth 80.00 chains

At this corner at 9 h. am. but. I set off 23°30' S on the decl. arc and 35°41' N on the lat. arc and determine a meridian with the Solar

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S. 89°59' W. on the secant through sec. 32

Ascending

17.00 Top of ridge. N and S. descend

40.00 S. 0.84 ft. from the secant

Set a pinon post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for 1/4 sec. Cor., Marked 1/4 S 32 on N. face, and S. 5 on S. face. Dig pits 18 x 18 x 12 ins. E. and W. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of Cor.

A pinon 6 ins. in dia. brs N. 43°W. 2.62 chs. dist. marked 1/4 S 32 BT

A pinon 12 ins. in dia. brs S. 23°13'E. 4.99 chs. dist. marked 1/4 S 5 BT

80.00 Set a pinon post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for Cor. of secs. 31. 32. 5 + 6. Marked
T 27 N S 32 on NE.

South boundary T. 27 N. R. 27 E.

BOOK 1874

Chains	
	R 27 E S 5 on S E.
	T 26 N S 6 on S W.
	R 27 E S 31 on N W faces, with 5 notches on the E. edge and 1 notch on the N. edge.
	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.
	A pinon 4 ins. in dia. bre. N. 38° 19' E. 47 lks. dist.
	Marked T 27 N R 27 E S 32 B T
	A pinon 4 ins. in dia. bre. S. 47° 49' E. 65 lks dist.
	Marked T 26 N R 27 E S 5 B T
	A pinon 9 ins. in dia. bre. S. 48° 13' W. 1.94 chs. dist.
	Marked T 26 N R 27 E S 6 B T
	A pinon 6 ins. in dia. bre. N. 73° 35' W. 4.73 chs dist.
	Marked T 27 N R 27 E S 31 B T
	Surface rolling - scattering pinon & juniper, thick sage brush
	Soil 2d rate
	Dense undergrowth 80.00 chains
	S. 89° 59' W on the secant, S. of sec. 31
16.00	Top of ridge N. & S.
39.50	Indian trail N. & S.
40.00	N. 1.08 ft. from the secant,
	Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground for 1/4 sec. Cor. Marked 1/4 S 31 on the N. face and S 6 on the S. face. Dig pits 18 x 18 x 12 ins E. and W. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of Cor.
	No trees within limits
53.00	Indian trail, N. and S.
69.00	Cross owail, N. and S.
75.00	Top of ridge, N. and S.
78.96	N. 2.39 ft from the secant,
	Set a pinon post, 3 ft. long, 4 ins. sq. 24 ins. in the ground for Cor. of Tps 26 and 27 N. Rs. 26 and 27 E. marked
	T 27 N R 27 E S 31 on N E.
	T 26 N R 27 E S 6 on S E.

Chains

T 26 N R 26 E S 1 on S W. and
T 27 N R 26 E S 36 on N W. Faces with 6 notches on N., E., S. and W. edges. Dig pits 24 x 24 x 12 ins., on each line 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.
A pinon, 8 ins. in dia. bre. S. 38° E. 1.05 chs. dist.
Marked T 26 N R 27 E S 6 B T
A pinon, 6 ins in dia bre S. 1° 10' W. 2.05 chs. dist.
Marked T 26 N R 26 E S 1 B T
A pinon 12 ins in dia. bre. N. 67° 52 W. 1.27 chs. dist.
Marked T 27 N. R 26 E S 36 B T
A pinon 8 ins in dia bre. N. 28° 53' E. 3.51 chs. dist.
Marked T 27 N. R 27 E S 31 B T
Surface rolling - scattering pinon and juniper. Thick sage brush
Soil 2d rate
Dense undergrowth 78.96 chains

December 17th 1904.

East boundary T.27N. R.26E.

Chains

I wish to observe Polaris at Western elongation

From table V. U C Dec 15	$7^h\ 48.5^m$
Reduction to Dec 17	−7.9
Time to add for elongation	5 55
	13 35.6

At the cor. of Tps. 26 and 27 N. Rs. 26 and 27 E., which I established December 17th 1904, about $1^h\ 25^m$ a.m. L.M.T. December 18th 1904, I commence to observe the western progress of Polaris; when the star begins to recede I mark the maximum position in azimuth upon the ground by a tack driven in a wooden peg set in the ground five chains North of my station.

December 18th at 8 a.m. I lay off the azimuth of Polaris 1°29' to the East of the point established last night and mark the meridian thus determined by a tack driven in a wooden peg set in the ground East of the point established last night; the magnetic bearing of the true meridian is N.14° 2' W. which gives the magnetic declination 14° 2' E.

December 18th 1904 I begin at the corner above described and set off 23°22' S on decl. arc. at 9h. am and 35°41' N on lat. arc. and determine a meridian with the solar which coincides with the meridian established by Polaris observation. Thence I run North between Secs. 31 and 36.

13.00 Enter timber

28.00 Leave timber

40.00 Set a pinon post 3 ft. long 4 ins sq. 24 ins. in the ground for 1/4 sec. cor., marked 1/4 S 36 on W. face S 31 on E. face, Dig pits 18 × 18 × 12 ins N. and S. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base 1 1/2 ft. high W. of cor.
No trees within limits

60.45 Wagon road. NE. and SW.

80.00 Set a pinon post. 3 ft. long, 4 ins. sq., 24 ins. in the ground for Cor. of secs. 30, 31, 25 and 36. Marked
T 27 N S 30 on NE.
R 27 E S 31 on SE.
T 27 N S 36 on SW. and
R 26 E S 25 on NW. faces, with 1 notch on the S.

Chains

edge and 5 notches on the N. edge. 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.
A pinon 12 ins. in dia. brs. S. 14° 19' W. 2.04 chs. dist.
Marked T 27 N R 26 E S 36 B T
A pinon 6 ins in dia. brs. S. 84° 04' E. 2.00 chs. dist.
Marked T 27 N R 27 E S 31 B T
A pinon 14 ins. in dia. brs. N. 60° 11' E. 3.31 chs. dist.
Marked T 27 N R 27 E S 30 B T
No trees in sec. 25 within limits.
Surface rolling. Pinon, juniper & sage brush
Soil 2d rate
Dense undergrowth 80.00 chains.

North, between secs. 25 and 30
16.20 Wagon road. Granada A.T. to Gallup N.M. E. and W.
40.00 Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground for ¼ sec. Cor. marked ¼ S 25 on on W. face, and S 30 on E. face. Dig pits 18 x 18 x 12 ins. N. and S. 3 ft. dist. and raise a mound of earth 3½ ft base 1½ ft high W. of Cor.
No trees within limits
49.00 Enter timber
80.00 Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground for Cor. of Sec. 24. 25. 19 and 30
Marked
T 27 N S 19 on NE.
R 27 E S 30 on SE.
T 27 N S 25 on SW. and
R 26 E S 24 on NW. face, with 2 notches on S. edge and 4 notches on N. edge, Dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft base 1½ ft high W. of Cor.
A pinon 14 ins. in dia. brs S. 31° 15' W. 1.42 chs. dist.
Marked T 27 N R 26 E S 25 B T
A pinon 10 ins. in dia. brs. S. 16° 10' E. 1.07 chs. dist.
marked T 27 N R 27 E S 30 B T
A pinon 20 ins. in dia. brs. N. 30° 15' E. 3.58 chs. dist.

East boundary T. 27 N. R. 26 E.

Chains	
	Marked T 27 N R 27 E S 19 B T A pinon 16 ins. in dia. brs. N. 60° 6' W. 2.55 chs. dist Marked T 27 N R 26 E S 24 B T Surface rolling and rough. Pinon - juniper and sage brush Soil 2d and 3d rate Dense undergrowth 80.00 chains
	North. between Secs. 19 and 24
23.00	Edge of bluff overlooking Pueblo Colorado Creek.
30.00	Foot of bluff.
31.10	Indian trail N W. and S E.
31.40	Wagon road N W and S E
35.00	South bank of Pueblo Colorado Creek. Running water. Course West.
37.00	North bank of Pueblo Colorado Creek.
37.60	Irrigating ditch impossible to set deeper
40.00	Set a sandstone, 24 x 13 x 3 ins. 16 ins. in the ground, for 1/4 sec. cor. Mkd 1/4 on W. face. Dig pits 18 x 18 x 12 ins. N. and S. and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of Cor. No trees within limits West of this corner and near the center of sec 24 are some Indian corn fields.
50.50	Top of sharp ridge. N E. and S W.
60.00	Foot of ridge
75.05	Fence. E. and W. impossible to set deeper
80.00	Set a sandstone 32 x 12 x 3 ins. 18 ins. in the ground for cor. of secs. 18. 19. 13 and 24. Mkd with 3 notches on the N. and S. edges. 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. No trees within limits Surface rough - Pinon, juniper and sage brush Soil 3d rate Dense undergrowth and mountainous 80.00 chs. Dec. 18th 1904

Chains

December 19th 1904

At a point 2.39 ft. S. of the cor. of Tps. 26 and 27 N. R. 26 and 27 E., using the meridian established by Polaris observation Dec. 18th 1904, I turn off an angle of 89° 58' 2 toward the W. and run N. 89° 58' W. on the secant S. of Sec 36.

40.00 N. 1.08 ft. from the secant.

Set a pinon post 3 ft. long, 4 ins sq. 24 ins in the ground for 1/4 sec. cor. Mkd 1/4 S 36 on N. face and S 1 on S. face, Dig pits 18 x 18 x 12 ins. E. and W. 3 ft. dist and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor.

No trees within limits.

80.00 Set a pinon post, 3 ft. long, 4 ins. sq, 24 ins. in the ground, for cor. of secs, 1. 2. 35 and 36. Mkd

T 27 N S 36 on NE.

R 26 E S 1 on SE.

T 26 N S 2 on SW. and

R 26 E S 35 on NW. faces, ~~with 1 notch on E.~~ edge and 5 notches on W. edge. 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.

A pinon, 9 ins. in dia. brs. S. 42° 55' W. 1.76 chs. dist. Mkd. T 26 N R 26 E S 2 B T

A pinon, 6 ins. in dia. brs. N. 75° 15' W. 1.87 chs. dist. Mkd T 27 N R 26 E S 35 B T

A pinon, 6 ins. in dia. brs. N. 63° 45' E. 71 lks. dist. Mkd T 27 N R 26 E S 36 B T

A pinon, 14 ins. in dia. brs. S. 42° E. 86 lks. dist. Mkd T 26 N R 26 E S 1 B T

Surface rolling - covered with thick sage brush, scattering pinon and juniper

Soil 2d rate

Dense undergrowth 80.00 chains.

N. 89° 59' W. on the secant, through sec. 35

3.40 Wagon road. SW and NE.

40.00 S. 0.84 ft from the secant,

Set a pinon post 3 ft. long 4 ins sq. 24 ins in

South boundary T. 27 N. R 26 E

Chains	
	the ground for 1/4 sec. Cor., Mkd 1/4 S 35 on N. face, and S. 2 on S. face. Dig pits 18×18×12 ins. E. and W. 3 ft. dist and raise a mound of earth 3½ ft. base, 1½ ft. high, N. of Cor. No trees within limits
57.55	Wagon road, Granada to Navajo. N. and S.
78.00	Indian trail - NW. and SE.
80.00	S. 1.44 ft. from the ~~tangent~~ Secant Set a pinon post, 3 ft. long, 4 ins sq. 24 ins. in ground, for cor. of Secs. 2. 3. 34 and 35. Marked T 27 N S 35 on NE., R 26 E S 2 on SE., T 26 N S 3 on SW. and R 26 E S 34 on NW. faces, with 2 notches on the E. edge and 4 notches on the W. edge. Dig pits, 18×18×12 ins., in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W.N. of Cor. No trees within limits
	Surface rolling, covered with thick sage brush, scattering pinon and juniper.
	Soil 2d rate
	Dense undergrowth 80.00 chains.
	N. 89° 59' W. on the secant, through sec 34.
5.92	Enter timber
40.00	S. 1.80 ft. from the secant. impossible to set deeper Set a sandstone, 24×10×3 ins., 14 ins. in the ground, for 1/4 sec. cor. mkd 1/4 on N. face. Dig pits 18×18×12 ins. E. and W. 3 ft dist and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of Cor.
	A pinon 10 ins. in dia. brs N. 43° W. 65 lks. dist. Mkd 1/4 S 34 B T
	A pinon 6 ins. in dia. brs S. 33° 40' W. 45 lks dist. mkd 1/4 S 3 B T
80.00	S. 1.92 ft., from the secant, Set a pinon post 3 ft. long, 4 ins. sq. 24 ins. in the ground, for cor. of secs. 3. 4. 33 and 34. Mkd T 27 N S 34 on NE.

Chains	
	R 26 E S 3 on S.E.,
	T 26 N S 4 on S.W. and
	R 26 E S 33 on N.W. faces, with 3 notches on E. and W. edges. Dig pits 18 × 18 × 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
	A pinon, 12 ins. in dia. brs. N. 23°5′ W. 60 lks. dist. mkd T 27 N R 26 E S 33 B T
	A pinon 12 ins. in dia. brs. S. 81°15′ W. 60 lks. dist. mkd T 26 N R 26 E S 4 B T
	A pinon, 18 ins. in dia. brs. S. 42°37′ E. 1.33 chs. dist. T 26 N R 26 E S 3 B T
	A pinon, 8 ins. in dia. brs. N. 13°25′ E. 97 lks. dist. mkd T 27 N R 26 E S 34 B T
	Surface very broken and rough, covered with thick pinon, juniper and sage brush.
	Soil 4th rate
	Dense undergrowth 80.00 chains.
	December 19th 1904.
	December ~~19th~~ 20th 1904. at 9 h. a.m. l.m.t. I set off 73° 24′ S on the decl. arc and 35° 41′ N on the lat. arc and determine a meridian with the solar
	West, on the secant, through sec 33.
11.80	Arroya, 40 lks. wide. course north
40.00	S 1.80 ft. from the secant
	Set a sandstone, 27 × 9 × 3 ins. 14 ins. (impossible to set deeper) in the ground, for ¼ sec. cor. mkd ¼ on N. face, Dig pits 18 × 18 × 12 ins E. and W. 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
	A pinon 8 ins in dia brs. N. 2°25′ E. 50 lks. dist. mkd ¼ S 33 B T
	A pinon 29 ins. in dia. brs. S. 29°45′ W. 23 lks. dist. mkd ¼ S 4 B T
80.00	S. 1.44 ft. from the secant.
	Set a sandstone 16 × 14 × 4 ins. 11 ins. in the ground, for cor. of secs. 4. 5. 32 and 33. mkd with 4 notches on the E. edge and 2 notches on the W. edge. Dig pits 18 × 18 × 12 ins. in each sec. 5½ ft. dist. and raise a mound of earth 4 ft. base 2 ft. high W. of cor.
	A pinon, 6 ins in dia. brs. N. 79°45′ E. 82 lks. dist.

South boundary T. 27 N. R. 26 E.

Chains	
	Mkd T27N R26E S33 BT A pinon, 16 ins. in dia., brs S. 27°30' E. 14 lks, dist. Mkd T26N R26E S4 BT A juniper, 24 ins. in dia. brs S. 65°35' W. 98 lks dist. Mkd T26N R26E S5 BT A pinon, 14 ins. in dia. brs. N. 65°20' W. 180 chs. dist. Mkd T27N R26E S32 BT Surface very rough and broken, covered with thick pinon and juniper Soil 4th rate Dense undergrowth 80.00 chains
	S. 89°59' W. on the secant, through sec 32.
40.00	S. 0.84 ft. from the secant, Set a sand stone, 14 × 10 × 8 ins., 12 ins. in the ground, for 1/4 sec. Cor. Mkd 1/4 on N. face, Dig pits 18×18×12 ins. E. and W. 3 ft. dist. and raise a mound of earth 3 1/2 ft. base, 1 1/2 ft. high N. of cor. A juniper, 14 ins. in dia. brs. N. 81°50' E. 3.42 chs. dist., Mkd 1/4 S32 BT A juniper, 14 ins. in dia., brs. S. 12° W. 2.93 chs. dist. Mkd 1/4 S5 BT impossible to set deeper
80.00	Set a sandstone, 24 × 10 × 3 ins., 14 ins. in the ground, for cor. of secs. 5. 6. 31 and 32. Mkd with 5 notches on the E. edge and 1 notch on the W. edge. Dig pits 18 × 18 × 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. A juniper, 20 ins. in dia. brs S. 19°20' E. 1.44 chs. dist. Mkd T26N R26E S5 BT A juniper 24 ins. in dia. brs. S. 38°30' W. 52 lks. dist. Mkd T26N R26E S6 BT A juniper, 20 ins. in dia. brs. N 52° E. 2.81 chs. dist. Mkd T27N R26E S32 BT No trees in sec 31 within limits Surface - E 1/2 rough and covered with pinon and juniper. W 1/2 rolling and open. Soil - E 1/2 4th rate, W 1/2 2nd rate Dense undergrowth 40.00 chains.

chains	
	S. 89°59' W. on the secant. S of sec 31
7.80	S. bank of Pueblo Colorado Creek, dry. course S W.
11.20	N. bank of Pueblo Colorado Creek
40.00	N. 1.08 ft. from the secant— impossible to set depos
	Set a sandstone 24 x 16 x 3 ins. 14 ins. in the ground for 1/4 sec. cor. mkd 1/4 on N. face. Dig pits 18 x 18 x 12 ins. E. and W. 3 ft. dist. and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
	No trees within limits
67.00	Foot of ridge descend.
73.00	Top of sharp ridge - S. 5° E. and N. 5° W. descend
78.96	W. 2.39 ft. from the secant, impossible to set depos
	Set a sandstone 28 x 12 x 3 ins. 16 ins. in the ground for cor. of Tps 26 and 27 N. Rs. 25 and 26 E. mkd with 6 notches on the N., E., S. and W. faces. Dig pits 24 x 24 x 12 ins. on each line, N., E. and W. 4 ft., and S. of post 8 ft. dist. and raise a mound of earth 5 ft. base, 2 1/2 ft. high, S. of Cor.
	No trees within limits
	Surface level except west 13.00 chains which is Mountainous
	Soil 1st rate

December 20th 1904.

chains	
	December 20th 1904.
	I wish to observe Polaris at Western elongation
	From table V. U. C. Dec 15th 7h 48m.5
	Reduction to Dec 20th − 19.7
	Time to add for elongation 5 55
	13 23.8
	At the corner of Tps 26 and 27 N. Rs. 25 and 26 E., which I established Dec. 20th 1904. about 1h 15m a.m. l.m.t. December 21st 1904. I commence to observe the Western progress of Polaris; when the star begins to recede I mark the maximum position in azimuth upon the ground by a tack driven in a peg set in the ground five chains north of my station.
	December 21st 1904 at 8 a.m. I lay off the azimuth of Polaris, 1°29′ to the East of the point established last night and mark the meridian thus determined by a tack driven in a wooden peg set in the ground East of the point established last night; the magnetic bearing of the true meridian is N. 14°2′ W. which gives the magnetic declination 14°2′ E.
	December 21st 1904, I begin at the corner above described and 9h. a.m. l.m.t. I set off 23°-24′ S. on the decl. arc and 35°-41′ N. on the lat. arc and determine a meridian with the solar.
	Thence I run
	North between secs. 31 and 36.
28.00	Top of sharp ridge. S. 5° E. and N. 5° W.
40.00	Set a sandstone, 22 × 12 × 3 ins. 14 ins. (impossible to set deeper) in the ground, for 1/4 sec. cor. mkd 1/4 on W. face. Dig pits 18 × 18 × 12 ins. N. and S. 3 ft. dist. and raise a mound of earth, 3 1/2 ft. base 1 1/2 ft. high, W. of cor. No trees within limits
80.00	Set a sandstone 24 × 8 × 6 ins. 16 ins., (impossible to set deeper) in the ground, for cor. of secs 30, 31, 25 and 36. Mkd with 1 notch on S. edge and 5 notches on N. edge. Dig pits 18 × 18 × 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. A juniper 24 ins. in dia. brs. S. 82°25′ E. 2.35 chs

Chains

dist. Mkd T 27 N R 26 E S 31 B T
A juniper 30 ins. in dia. brs. N. 72° 5' E. 1.98 chs
dist. Mkd T 27 N R 26 E S 30 B T
No other trees within limits
Surface rolling
Soil. S½ 4th rate N½ 2d rate

North. between secs 25 and 30.
40.00 Set a limestone 24 x 12 x 10 ins. 14 ins. in the ground (impossible to set deeper) for ¼ sec. Cor. Mkd ¼ on W. face. Dig pits 18 x 18 x 12 ins. N. and S. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of Cor.
A juniper 5 ins. in dia. brs. N. 37° E. 16 lks. dist. Mkd ¼ S 30 B T
A pinon, 6 ins. in dia. brs. N. 84° 5' W. 1.17 chs. dist. Mkd ¼ S 25 B T
45.40 Top of ridge. N. 10° E. and S. 10° W.
80.00 Set a limestone, 18 x 16 x 6 ins. 12 ins. in the ground for Cor. of secs. 24. 25. 19 and 30. Mkd with 2 notches on the S. edge, and 4 notches on the N. edge. 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.
A pinon 6 ins. in dia. brs. N. 37° 30' W. 2.07 chs. dist. Mkd T 27 N R 25 E S 24 B T
A juniper 8 ins. in dia. brs S. 54° 55' W. 62 lks. dist. Mkd T 27 N R 25 E S 25 B T
A juniper 14 ins. in dia. brs. S. 31° 50' E. 24 lks dist. Mkd T 27 N R 26 E S 30 B T
A pinon, 12 ins. in dia. brs. N. 53° 5' E. 2.20 chs dist. Mkd T 27 N R 26 E S 19 B T
Surface - S½ rolling, N½ mountainous
Soil. S½ 2d rate. N½ 4th rate
Mountainous 40.00 chains.

North, between secs 19 and 24.
40.00 Set a limestone 20 x 12 x 4 ins. 14 ins. in the ground (impossible to set deeper) for ¼ sec. Cor. Mkd ¼ on W. face.

West boundary T. 27 N. R. 26 E.

Chains	
	Dig pits 18 x 18 x 12 ins. N. and S. 3 ft. dist. and raise a mound of earth 3½ ft. base, 1½ ft. high N. of Cor.
	A pinon 8 ins. in dia. bre. N. 54° 45' E. 23 lks. dist. Mkd ¼ S 19 B T.
	A pinon, 13 ins. in dia bre. N. 19° W. 28 lks. dist. Mkd ¼ S 24 B T impossible to set deeper
80.00	Set a sandstone, 23 x 9 x 4 ins, 14 ins. in the ground, for Cor. of Sect. 18. 19. 13 and 24. Mkd with 3 notches on N. and S. edges. 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.
	A pinon, 12 ins. in dia. bre. N. 63° 50' E. 77 lks dist. Mkd T 27 N R 26 E S 18 B T
	A juniper, 16 ins in dia bre S. 44° 30' E. 48 lks dist. Mkd T 27 N R 26 E S 19 B T
	A pinon, 12 ins. in dia. bre. S. 56° 5' W. 61 lks dist. Mkd T 27 N R 25 E S 24 B T
	A pinon 12 ins. in dia. bre N. 26° W. 1.14 chs dist. Mkd T 27 N R 25 E S 13 B T
	Surface very rough. Mountainous. covered with pinon and juniper
	Soil 4th rate
	Mountainous 80.00 chains.
	December 21st 1904.

Genural discription

The land along the South boundary of T. 27 N. R. 27 E. is high, rolling, Mountainous and covered mostly with a dense growth of sage brush, and suitable only for grazing-

The above description answers for all the exterior lines of T. 27 N. R. 26 E. except the South west corner of the township which is open valley land.

Soil sandy and adobe.

Samuel E. Day
U. S. Deputy Surveyor.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS. 24

BOOK 1874

LIST OF NAMES.

A list of the names of the individuals employed by Samuel E. Day, 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 South bdy T. 27 N. R. 27 E. and the East South and West boundaries of T. 27 N. R. 26 E. G. and S. R. B. and M. showing the respective capacities in which they acted:

Samuel E Day Jr, Chainman.
William A Day, Chainman.
White Singer, Moundman.
, Moundman.
Left Hand, Axman.
, Axman.
Yellow Left Hand and Tall Man, Flagmen.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Samuel E. Day, United States Deputy Surveyor, in surveying all those parts or portions of the South boundary of T. 27 N. R. 27 E. and the East. South and West boundaries of T. 27 N. R. 26 E.

all of the Gila and Salt River Base and meridian, Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Arizona

Samuel E Day Jr, Chainman.
William A. Day, Chainman.
White Singer his X Mark, Moundman.
, Moundman.
Left Hand his + mark, Axman.
Yellow Left Hand his + mark, ~~Axman~~ Flagman
Tall Man his X Mark, Flagman.

Witnesses to all the signatures
William A. Day
Samuel E Day Jr

Subscribed and sworn to before me this 5th day of January 1905, 189

SEAL

Samuel E. Day
U. S. Deputy Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

BOOK 1874

I, Samuel E. Day, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Hugh H. Price United States Surveyor General for Arizona, bearing date of the 16th day of April 1903, 189 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the South boundary of T. 27 N. R. 27 E and the East South and West boundaries of T. 27 N. R 26 E.

all of the Gila and Salt River Base and meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Samuel E. Day
United States Deputy Surveyor.

Subscribed by said Samuel E. Day, and sworn to before me this 2nd day of Feby 1905, 189

SEAL

F. W. Meyers
Probate Clerk
McKinley Co. N. Mex.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix A.T. July 12 1906 189

The foregoing field notes of the survey of the South Bdy of T 27 N R 27 E, the North East and West Boundaries of T 27 N, R 26 E, of the Gila and Salt River Base and Meridian, in the territory of Arizona

executed by Samuel E. Day U. S. Deputy Surveyor under his contract No. 106, dated April 16, 1903, 189 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A. 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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