

Original

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(April 1933)

UNITED STATES
DEPARTMENT OF THE INTERIOR
~~GENERAL LAND OFFICE~~

Bureau of Land Management

FIELD NOTES

BOOK 4358

of the

SURVEY

of a

Portion of the Subdivision

of

T. 6 S., R. 28 E.

Of the Gila and Salt River Meridian,

In the State of ARIZONA

EXECUTED BY

Ty White, Cadastral Engineer.

Under special instructions dated March 11, 1947, which provided
for the surveys included under Group No. 253, bearing the approval of the
Director, Bureau of Land Management
~~Commissioner of the General Land Office~~ under date of March 20, 1947
and assignment instructions dated March 14, 1947.

Survey commenced April 7, 1947

Survey completed April 14, 1947

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7.
1A

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INDEX DIAGRAM.

Township 6 South, Range 28 East.

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Subdivision of T. 6 S., R. 28 E.

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The subdivisional survey of T. 6 S., R. 28 E. was executed with a Buff light mountain solar transit No. 16724, constructed in accordance with the standard specifications of the Bureau of Land Management. The instrument was in good condition, and having been placed in satisfactory adjustment prior to the beginning of the survey, was tested and found free from appreciable error.

The directions of the subdivisional lines were determined by solar transit method. The measurements were made with a narrow steel tape, 5 chs. in length, graduated every link for the first 100 lks., and the balance at intervals of 10 lks. The tape was tested by comparison with a 1 chain standard steel tape and found correct. The measurements were made on the slope, and the vertical angle of each interval was ascertained by a clinometer in good adjustment; the horizontal equivalents only are entered in this field note record.

The data furnished with the special instructions give the geographic position of the SE. cor. of the Tp. as latitude $32^{\circ} 51.6' N.$, and longitude $109^{\circ} 25.7' W.$

April 5, 1947, at a transit point on the west side of Eighth Ave., and about 5 chs. north of Thatcher Ave., in the town of Safford, Arizona, in approximate latitude $32^{\circ} 49' N.$, and longitude $109^{\circ} 42' 04'' W.$ as determined from the State map, elevation approximately 3,000 ft., at 6h 12.2m p. m. l.m.t., I make an hour angle observation of Polaris west of the meridian for azimuth and latitude, making four observations, two each with the telescope in direct and reversed positions, observing simultaneously the vertical angle to Polaris and the horizontal angle from the east edge of a telephone pole approximately 20 chs. northeasterly, N-W to Polaris. My watch reads correct Mountain Standard Time as checked by radio time signals.

Mean watch time of observation	6h 31m 00.0s
Watch fast of l.m.t.	0h 18m 48.0s
Mean horizontal deflection angle	$7^{\circ} 19' 37.0''$
Azimuth of Polaris	$1^{\circ} 09' 24.0''$
True bearing of east edge of pole	N. $6^{\circ} 10' 00.0''$ E.
Mean observed vertical angle	$33^{\circ} 00' 26.5''$
Reduced latitude	$32^{\circ} 49' 21.7'' N.$

April 6, 1947, at half-hour intervals from 8:00 a.m. to 4:00 p.m., I make orientation tests of Buff solar transit No. 16724, including a latitude test by noon observation. The tests give a maximum error in orientation of less than $1' 30''$.

The observed magnetic declination is $14^{\circ} E.$

Beginning the subdivisional survey at the cor. of secs. 5, 6, 7, and 8, which is monumented with a malpais stone, 16x12x6 ins., firmly set, mkd. 5 grooves on S., 5 grooves on E., T 6 S on NE., and R 28 E on SE. faces and witnessed by a scattered mound of stone W. of cor.

At the corner point.

Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to bedrock, and in a mound of stone to top, with brass cap mkd.

T 6 S R 28 E
S 6 | S 5

S 7 | S 8
1947

Chains

Bury the original corner stone alongside the iron post.
Rebuild the mound of stone, 3 ft. base, 2½ ft. high, W.
of cor.

N. 0° 03' W., on the W. bdy. of sec. 5.

Over mountainous land, through scattering undergrowth.

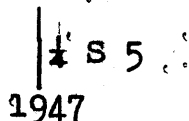
15.75 Ravine, course S. 30° W.; asc. 56 ft. over a S. slope.

21.70 Road, on top of a ridge, bears NW. and SE.; desc. 175 ft.
over a NE. slope.

34.90 Ravine, course N. 30° E.; thence along an E. slope.

40.00 Point for the ¼ sec. cor. of sec. 5.

Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the
ground, with brass cap mkd.



raise a mound of stone, 3 ft. base, 2½ ft. high, E. of
cor.

Continue along an E. slope.

42.50 Spur, slopes N. 60° E.; desc. 165 ft. over a N. slope.

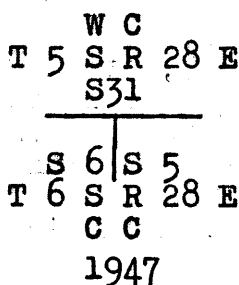
50.35 Gulch, course S. 70° E.; asc. 145 ft. over a S. slope.

57.30 Spur, slopes S. 70° E.; desc. 270 ft. over a NE. slope.

65.75 Begin steep descent into Bonito Creek Canyon.

73.40 Point for the witness closing corner of secs. 5 and 6.

Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the
ground, with brass cap mkd.



from which

A hackberry, 8 ins. diam., bears N. 85½° E., 8 lks.
dist., mkd. W C T 6 S R 28 E S 5 C C B T.

A mesquite, 16 ins. diam., bears S. 77½° W., 14 lks.
dist., mkd. W C T 6 S R 28 E S 6 C C B T.

76.80 Bonito Creek, a small stream of running water, course
S. 20° E.; asc. 60 ft. over a SW. slope.

79.44 Intersect the First Standard Parallel South.

True point for the closing cor. of secs. 5 and 6 falls on
the steep wall of Bonito Creek Canyon.

From point of intersection the standard cor. of secs.
31 and 32, T. 5 S., R. 28 E., bears N. 89° 51' E., 39.24
chs. dist., and is monumented with a malpais stone in

SUBDIVISION of T. 6 S., R. 28 E.

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Chains

place, 30x16x15 ins. above ground, mkd. and witnessed as described in the official record.

From the same point the witness standard $\frac{1}{4}$ sec. cor. of sec. 31, T. 5 S., R. 28 E., bears S. $89^{\circ} 51'$ W., 3.31 chs. dist. This cor. determined from the original bearing tree:

A mesquite, 20 ins. in diam., bears N. $12\frac{1}{2}^{\circ}$ W., 91 lks. dist., mkd. 31 B T, blaze partially overgrown, other markings not uncovered.

At the corner point

Set a malpais stone, 16x14x8 ins., 12 ins. in the ground, mkd. W C S C $\frac{1}{4}$ on N. face, from which

A new bearing tree

A mesquite, 6 ins. diam., bears N. $72\frac{1}{2}^{\circ}$ E., 38 lks. dist., mkd. W C $\frac{1}{4}$ S 31 S C B T.

Land, mountainous.

Soil, rocky and gravelly.

Timber, mesquite and hackberry along Bonito Creek; undergrowth, greasewood.

From the cor. of secs. 5, 6, 7, and 8.

EAST, on the S. bdy. of sec. 5.

Over mountainous land, through scattering undergrowth.

Ascend 14 ft. over a SW. slope.

8.75 Road, on top of a ridge, bears N. and S.; desc. 136 ft. over an E. slope.

18.40 Ravine, course S.; asc. 103 ft. over a W. slope.

25.55 Spur, slopes SE.; desc. 152 ft. over an E. slope.

40.00 Point for the $\frac{1}{4}$ sec. cor. of sec. 5.

Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground to bedrock, and in a mound of stone to top, with brass cap. mkd.

$\frac{1}{4}$ S 5

1947

Bury a malpais stone, mkd. X alongside the iron post.

Descend 362 ft. over a NE. slope into Bonito Creek Canyon.

53.00 Center of Bonito Creek, stream of clear running water, course S.; asc. 128 ft. over a W. slope.

59.25 Spur, slopes S.; desc. 51 ft. over a SE. slope.

61.40 Gulch, course S. 45° W.; asc. 106 ft. over a NW. slope.

74.30 Spur, slopes S.; desc. 25 ft. over a SE. slope.

79.25 Ravine, course S. 45° W.; asc. 25 ft. over a NW. slope.

80.00 Point for the cor. of sec. 5.

BOOK 4358 SUBDIVISION of T. 6 S., R. 28 E.

Chains Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to bedrock, and in a mound of stone to top, with brass cap mkd.

T 6 S
R 28 E
S 5

1947

Bury a malpais stone, mkd. X alongside the iron post.

Land, mountainous.

Soil, rocky and gravelly.

Timber, mesquite and sycamore along Bonito Creek; undergrowth, greasewood.

N. 0° 02' W., on the E. bdy. of sec. 5.

Over mountainous land, through scattering undergrowth.

Descend over a NW. slope.

- 1.90 Ravine, course S. 45° W.; asc. 160 ft. over a SE. slope.
14.00 Spur, slopes S. 60° W.; desc. 98 ft. over a NW. slope.
21.95 Ravine, course S. 45° W.; asc. 107 ft. over a SE. slope.
32.00 Spur, slopes S. 70° W.; desc. 28 ft. over a N. slope.
40.00 Point for the $\frac{1}{4}$ sec. cor. of sec. 5.

Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to bedrock, and in a mound of stone to top, with brass cap mkd.

$\frac{1}{4}$ S 5

1947

Bury a malpais stone mkd. X alongside the iron post.

Descend 155 ft. over a N. slope.

- 44.80 Gulch, course W. for 2 chs. to a junction with a wash, course S. 70° W. from N.; asc. 75 ft. over a SW. slope.
50.50 Point of a spur, slopes S. 70° W.; desc. 36 ft. over a NW. slope.
51.65 Gulch, course S. 70° W. for 1 ch. to a junction with a wash, course S.; asc. 252 ft. over a S. slope.
67.00 Spur, slopes S. 70° W.; asc. 23 ft. along a W. slope.
79.54 Intersect the First Standard Parallel South.

Point for the closing cor. of secs. 4 and 5.

Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to bedrock, and in a mound of stone to top, with brass cap mkd.

T 5 S R 28 E
S 32

S 5 S 4
T 6 S R 28 E

C C
1947

SUBDIVISION of T. 6 S., R. 28 E.

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Bury a malpais stone mkd. X alongside the iron post.

From point of intersection the standard cor. of secs. 32 and 33, T. 5 S., R. 28 E., bears S. $89^{\circ} 57' E.$, 38.31 chs. dist., and is monumented with a malpais stone, 14x8x8 ins. above ground, firmly set, mkd. 2 grooves on W., 4 grooves on E. and S C on N. faces, and witnessed by a scattered mound of stone N. of cor.

Rebuild the mound of stone, 4 ft. base, 4 ft. high, N. of cor.

From the same point the standard cor. of secs. 31 and 32 T. 5 S., R. 28 E., bears N. $89^{\circ} 57' W.$, 40.80 chs. dist.

Land, mountainous.

Soil, rocky and gravelly.

Timber, none; undergrowth, greasewood.

The point for the $\frac{1}{4}$ sec. cor. on the N. bdy. of sec. 5 is at the midpoint.

At the corner point

Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, with brass cap mkd.

$\frac{1}{4}$ S 5
1947

raise a mound of stone, 3 ft. base, $2\frac{1}{2}$ ft. high, S. of cor.

From this corner the standard cor. of secs. 31 and 32, T. 5 S., R. 28 E., bears N. $89^{\circ} 57' W.$, 78 lks. dist.

TEST OF SOLAR ORIENTATION

April 12, 1947, at a station in Safford, Arizona, at 9h 00m a.m. app. t., I set off $32^{\circ} 49' 30'' N.$, on the lat. arc; $8^{\circ} 33' N.$, on the dec'l. arc; and orient the instrument with the solar; the line of sight agrees with the meridian established by Polaris observation.

At 3h 00m p.m. app. t., I set off $32^{\circ} 49' 30'' N.$ on the lat. arc; $8^{\circ} 38' N.$ on the dec'l. arc; and repeat the test of the solar; the line of sight agrees with the meridian established by Polaris observation.

GENERAL DESCRIPTION

The land in section 5 is mountainous with a general elevation of approximately 4500 ft. above sea level. The soil is rocky and gravelly and is used for stock grazing. The general drainage in the northeast portion of the section is southwest and in the southwest portion it is northeast, this being toward Bonito Creek which enters the section at the northwest corner and courses through the section near the center, leaving it 13 chains east of the $\frac{1}{4}$ sec. cor. on the south boundary. Part of the water supply for the town of Safford, Arizona is furnished by this creek; the collection gallery of the water system, which is buried beneath the canyon bed, is located near

the center of the section, and the pipe line follows the bottom of the canyon southeasterly.

Mesquite, sycamore and hackberry trees grow along the creek and quite a thick growth of greasewood undergrowth is found over the entire section.

No mineral indications were observed during the progress of the survey.

14. A

UNITED STATES
DEPARTMENT OF THE INTERIOR
GENERAL LAND OFFICE

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FIELD ASSISTANTS

NAMES	CAPACITY
Edward L. Johnson	Chairman.
Oscar W. Lanford	Flagman.
James H. Stutte, Jr.	Moundsman.

CERTIFICATE OF SURVEYOR

I, Ty White, Cadastral Engineer, HEREBY CERTIFY upon honor that, in pursuance of special instructions bearing date of the 11th day of March, 1947 received from the regional cadastral engineer for Arizona, with assignment instructions dated March 14, 1947, I have surveyed a Portion of the subdivision of T. 6 S., R. 28 E.

Gila and Salt River of the 7 Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, and in the specific manner described in the foregoing field notes.

Phoenix, Arizona,
January 15, 1948.

Ty White
Cadastral Engineer.

CERTIFICATE OF APPROVAL

Bureau of Land Management, Washington, D.C.
~~OFFICE OF SUPERVISOR OF SURVEYS~~

September 27, 1948

The foregoing field notes of the survey of a Portion of the Subdivision of T. 6 S., R. 28 E.

executed by Ty White, Cadastral Engineer, under special instructions dated March 11, 1947, and assignment instructions dated March 14, 1947, having been critically examined, and the necessary corrections made prior to their certification by the engineer, the said field notes, and the survey therein described, are hereby approved.

Earl G. Harrington

~~Supervisor of Surveys,
Chief, Branch of Engineering and Construction
Assistant Chief, Division of Engineering.~~

CERTIFICATE OF TRANSCRIPT

I CERTIFY that the foregoing transcript of the field notes of the above-described surveys in _____, is a true copy of the original field notes on file in the public survey office.

~~Supervisor of Surveys~~
Chief, Branch of Engineering and Construction