

Original

4007

4-879
(April 1933)

Book A.

BOOK 4007

FIELD NOTES

OF THE SURVEY OF

a portion of the subdivisional lines, continuing the subdivision of

Township 40 North, Range 5 West,

4007

Of the Gila and Salt River Meridian,

In the State of Arizona

EXECUTED BY

Walter H. Good, U.S. Surveyor

Under special instructions dated October 15, 1932, which provided for the surveys included under Group No. 180, bearing the approval of the Commissioner of the General Land Office under date of June 17, 1933, and assignment instructions dated March 7, 1933.

Survey commenced March 26, 1933.

Survey completed March 31, 1933.

167
①

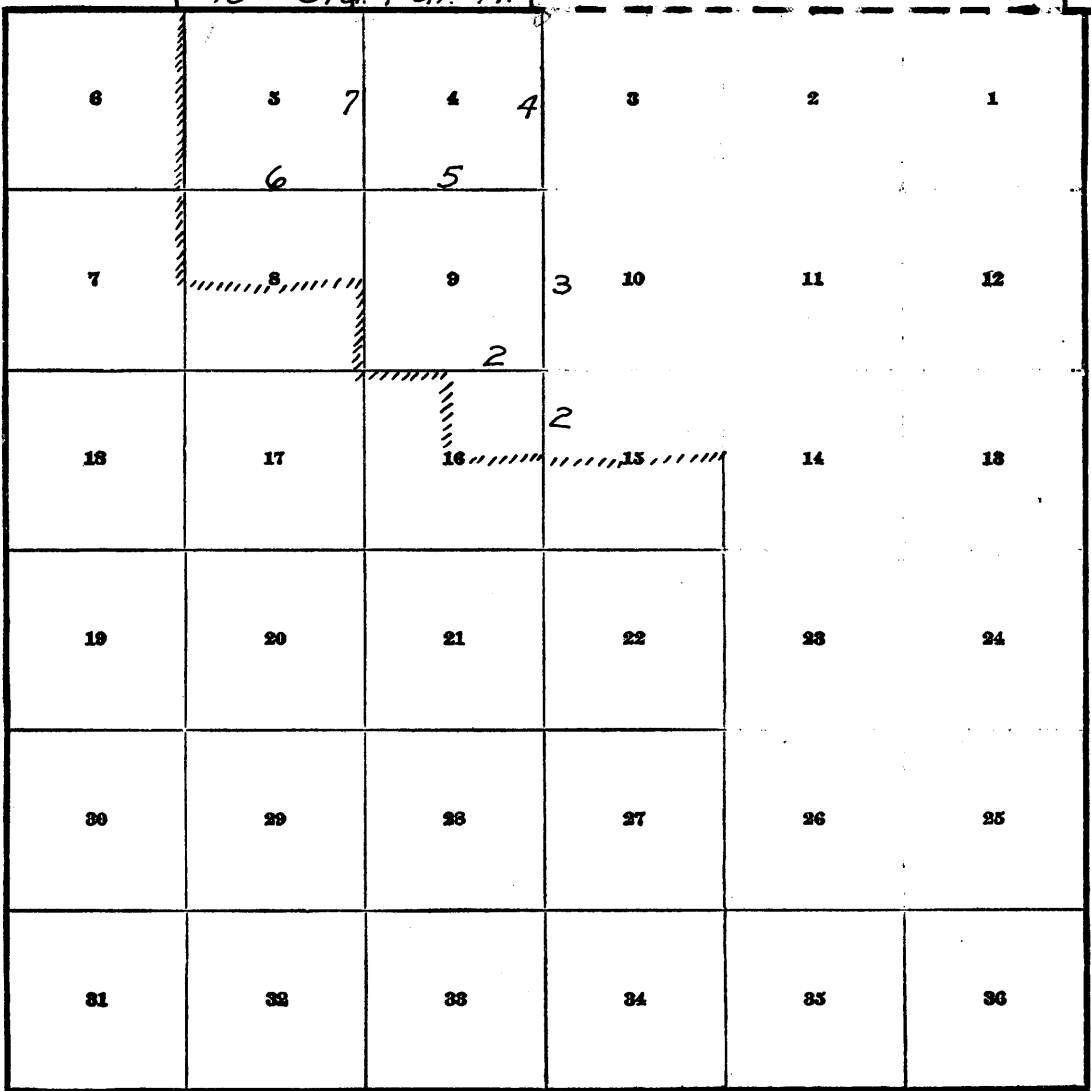
4007

1A-68

BOOK 4007

INDEX DIAGRAM.

Township 40 North, Range 5 West
10th Std. Par. N.



SURVEY OF A PORTION OF THE SUBDIVISIONS

18

T. 40 N., R. 5 W.

BOOK 400

Chains.

The survey was executed by Walter H. Good, U.S. Surveyor, with a W. & L. E. Gurley transit, Serial No. 20116, constructed in accordance with the standard specifications of the General Land Office. The horizontal circle has a diameter of $5\frac{1}{2}$ ins. with two double opposite verniers reading to $30''$ of arc; the vertical circle has a diameter of $4\frac{1}{2}$ ins. with one double vernier reading to single minutes. The instrument is equipped with the improved Smith solar attachment; radius of latitude arc; $2\frac{1}{2}$ ins. and of the declination arc; 3 ins. each with verniers reading to single minutes. The instrument was in good condition, and having been placed in satisfactory adjustment prior to beginning the survey, and tested and found free from appreciable error, was approved by the district cadastral engineer, March 7, 1933. I examine all the instrumental adjustments before making the field tests hereinafter recorded.

The direction of all lines was determined by the solar transit method. The measurements were made with a Lallie 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 Lufkin standard and found correct. The measurements were made on the slope and the vertical angle of each interval was ascertained by clinometer in good adjustment; the horizontal equivalents are entered in the field record.

The data furnished with the special instructions gives the geographic position for the SE. cor. of T. 40 N., R. 5 W., as follows: latitude $36^{\circ}48'58''$ N., and longitude $112^{\circ}47'00''$ W.

March 26, 1933; in camp near the cor. of secs. 9, 10, 15, and 16, T. 40 N., R. 5 W., at 7h 17m 42s p.m., l.m.t., or 7h 49m 03s by my watch which reads correct 105th meridian time as determined by radio, I observe Polaris at western elongation, making two sights each with the telescope in direct and reversed positions, and place a tack at the mean point on a peg driven firmly in the ground 10 chs. N. of station.

March 27; I lay off the azimuth of Polaris $1^{\circ}19'10''$ and make a meridian mark on a second peg to the east of the mean point in the line determined by the observation.

In order to verify the latitude of this station and the reading of my watch, I make a meridian observation of the sun, first setting on the lower limb and noting the transit of the west limb, then, after reversal of the instrument, setting on the upper limb and noting the transit of the east limb as follows:

Mean observed altitude	$55^{\circ} 47' 28''$
Reduced latitude	$36^{\circ} 52' 20''$
Mean watch time of observation	12h 36m 53s
Watch fast of l.m.t.	31m 21s

Every 30 min. from 7.30 to 10.30 a.m., and from 1.30 to 4.30 p.m. I make proper settings on the arcs of the solar attachment and ascertain that the resulting orientation of the instrument when compared with a meridian established by Polaris observation has a maximum error of less than $1'30''$.

I repeat the tests of the arcs daily by noon observation and verify the meridional indications at frequent intervals throughout the survey.

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T. 40 N., R. 5 W.

Chains

A portion of the subdivisional lines of T. 40 N., R. 5 W., was originally surveyed in 1914, by J. C. Thoma, U.S. Surveyor.

The following notes describe an extension of the subdivisional lines of said township.

I commence the subdivisional survey at the $\frac{1}{4}$ sec. cor. of secs. 15 and 16, which is an iron post, 1 in. diam., firmly set, mkd. and witnessed as described in the official record.

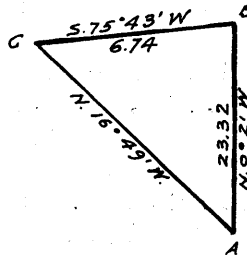
N.0°02'W., bet. secs. 15 and 16.

Over mountainous land, through scattered timber and undergrowth.

16.00

Ascend 439 ft. over rocky SW. slope. Foot of steep bluffs.

To make a triangulation over bluffs impracticable to chain, I designate the above $\frac{1}{4}$ sec. cor. point A and set a flag B, on top of bluffs, also a flag C on top of bluffs, which from point A bears N.16°49'W.; the base BC bears S.75°43'W., 6.74 chs. dist.; all bearings checked by direct reading of the solar, and all angles checked by deflection.



Dist. by triangulation
Dist. by direct meas.

23.32 chs.
16.68
40.00

18.00

Approximate dist., to top of sandstone bluff, faces SW.

28.00

Desc 234 ft. over NW slope.
Set an iron post, 3 ft. long, 2 ins diam., 12 ins. in the ground to bedrock, with a sandstone, 10x12x12 ins. mkd. X, deposited at the base, and in a mound of stone to top, for cor. of secs. 9, 10, 15, and 16, with brass cap mkd.

40.00

T 40 N R 5 W
S 9 | S 10
S 16 | S 15
1933

Land, mountainous.
Soil, rocky; 4th rate.
Timber, scattered juniper and pinyon.
Undergrowth, cacti and sage brush.

West on a random line bet. secs. 9 and 16.

40.00

Intersect the $\frac{1}{4}$ sec. cor. of secs. 9 and 16, which is an iron post, 1 in. diam., firmly set, mkd. and witnessed as described in the official record.

Thence

East, on a true line bet. secs. 9 and 16.

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T. 40 N., R. 5 W.

Chains. Over mountainous land, through scattered timber and undergrowth.
 Descend 34 ft. along fence.
 9.33 Wash, 10 lks. wide, course SW.; asc. 282 ft. over broken W. slope.
 17.50 End of fence at base of ledge, 130 ft. high.
 26.50 Ledge, 100 ft. high, bears NE. and SW.
 31.00 Same ledge, bears NW. and SE.
 39.50 Small wash, course NW.
 40.00 The cor. of secs. 9, 10, 15, and 16.
 Land, mountainous.
 Soil, rocky; 4th rate.
 Timber, scattered juniper and pinyon.
 Undergrowth, cacti and sage brush.

N.0°02'W., bet. secs. 9 and 10.

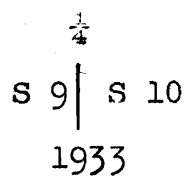
Over mountainous land, through scattered timber and undergrowth.

Ascend 106 ft. along broken W. slope.

7.00 Top of ascent; desc. 215 ft. over broken NW. slope.

30.76 Wash, 10 lks. wide, course W.; asc. 104 ft. along broken W. slope.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. with brass cap mkd.



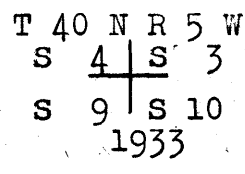
raise a mound of stone, $3\frac{1}{2}$ ft. base. $2\frac{1}{2}$ ft. high, W. of cor.

Descend 106 ft. along broken W. slope.

45.75 Wash, 10 lks. wide, course W.; small spring in same bears E. 8.00 chs. dist.; asc. 349 ft. over SW. slope.

57.26 Sid Potter's house, bears S.51°25'W.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, for cor. of secs. 3, 4, 9, and 10, with brass cap mkd.



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

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T. 40 N., R. 5 W.

Chains.

Land, mountainous.
Soil, rocky; 4th rate.
Timber, scattered juniper and pinyon.
Undergrowth cacti.

N.0°02'W., bet. secs. 3 and 4.

Over mountainous land, through scattered timber and undergrowth.

Ascend 229 ft. along broken W. slope.

13.50 Top of ascent; desc. 279 ft. over NW. slope.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. with brass cap mkd.

$\frac{1}{4}$
 S 4 | S 3
 1933

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

Descend 170 ft. over NW. slope.

51.50 Base of steep slope.

53.20 Wash, 20 lks. wide, course SW.; continue along same.

59.00 Leave wash, from NE.; asc. 64 ft. over broken SE. slope.

71.98 Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the ground to bedrock, with a sandstone, 12x12x10 ins. mkd. X, deposited at the base, and in a mound of stone to top, for witness, closing cor. of secs. 3 and 4. with brass cap mkd.

W C
 T 41 N R 5 W
S 34
 S 4 | S 3
 T 40 N R 5 W
 C C
 1933

73.84 True point for closing cor. of secs. 3 and 4, at intersection of the Tenth Standard Parallel North, falls on steep side hill.

From this point the standard witness cor. of secs. 33 and 34, T.41 N., R.5 W., bears West, 16.63 chs. dist.; set an iron post, 2 ins. diam., firmly set, mkd. and witnessed as described in the official record.

Land, mountainous.
Soil, rocky; 4th rate.
Timber, scattered juniper and pinyon.
Undergrowth, cacti and sage brush.

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T.40 N., R. 5 W.

BOOK 4007

Chains. From the witness $\frac{1}{4}$ sec. cor. of secs. 8 and 9, which is an iron post, 1 in. diam., firmly set, mkd. and witnessed as described in the official record.

N.0°03'W., bet. secs. 8 and 9. (Record bearing)

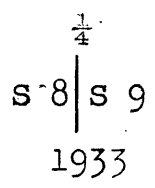
Over mountainous land, through, scattered undergrowth.

Ascend 260 ft. over SE. slope.

5.16 Top of sandstone bluff, 100 ft. high, bears NE. and SW.

Record distance,

10.00 Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to bedrock, with a sandstone, 12x10x6 ins. mkd. X, deposited at the base, and in a mound of stone to top, for $\frac{1}{4}$ sec. cor. with brass cap mkd.

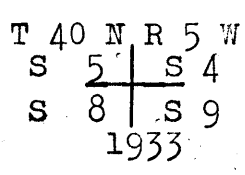


Ascend 445 ft. over SE. slope.

25.50 Top of ascent; continue over nearly level land.

49.00 Ascend 52 ft. along W. slope.

50.00 Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to bedrock, with a sandstone, 10x10x10 ins. mkd. X, deposited at the base, and in a mound of stone to top, for cor. of secs. 4, 5, 8, and 9, with brass cap mkd.



Land, mountainous.
Soil, rocky; 4th rate.
Timber, none.
Undergrowth, cacti.

East on a random line bet. secs. 4 and 9.

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

79.82 Intersect N. and S. line, 9 lks. N. of the cor. of secs. 3, 4, 9, and 10.

Thence

N.89°56'W., on a true line bet. secs. 4 and 9.

Over mountainous land, through scattered timber and undergrowth.

Descend 57 ft. over broken W. slope.

7.98 Wash, 3 lks. wide, course S.; asc. 240 ft. over SE. slope.

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T. 40 N., R. 5 W.

Chains.	
18.50	Spur, slopes S.; desc. 434 ft. over broken NW. slope.
37.50	Wash, 20 lks. wide, course SW.; asc. 55 ft. over SE. slope.
39.91	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground to bedrock, with a sandstone 8x6x4 ins. mkd. X, deposited at the base, and in a mound of stone to top, for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	$\frac{1}{4} \frac{S \ 4}{S \ 9}$ 1933
	Ascend 653 ft. over broken SE. slope.
50.00	Drain, 4 lks. wide, course SE.
63.00	Same drain, course NE.
73.89	Sid Potter's house, bears S.26°45'E.
79.30	Spur, slopes SW.; desc. 18 ft. over NW. slope.
79.82	The cor. of secs. 4,5,8, and 9.
	Land, mountainous. Soil, rocky; 4th rate. Timber, scattered juniper and pinyon. Undergrowth, cacti.
	N.89°57'W., on a random line bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.22	Intersect N. and S. line, 9 lks. N. of the cor. of secs. 5,6,7, and 8, which is an iron post, 2 ins. diam., firmly set, mkd. and witnessed as described in the official record. Thence
	N.89°59'E., on a true line bet. secs. 5 and 8.
	Over mountainous land, through scattered undergrowth.
	Ascend 64 ft. over NW. slope.
5.50	Top of ascent; continue over bench land.
17.70	Leave bench, desc. 93 ft. over SE. slope.
32.92	Wash, 12 lks. wide, course SW.; asc. 56 ft. over NW. slope.
40.11	Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground to bedrock, with a sandstone. 10x8x6 ins. mkd. X, deposited at the base, and in a mound of stone to top, for $\frac{1}{4}$ sec. cor. with brass cap mkd.
	$\frac{1}{4} \frac{S \ 5}{S \ 8}$ 1933
45.00	Ascend 533 ft. over steep NW. slope.
80.22	The cor. of secs. 4,5,8, and 9.
	Land, mountainous.

Chains. Soil, rocky; 4th rate.
Timber, none;
Undergrowth, cacti.

N.0°03'W., bet. secs. 4 and 5.

Over mountainous land, through scattered timber and undergrowth.

Ascend 295 ft. over S. slope.

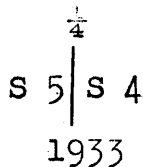
20.00 Top of sandstone ledge, bears NW. and SE.

21.00 Top of ascent; desc. 90 ft. over broken NE. slope.

29.15 Ascend over SE slope.

34.59 Sandstone butte, 30 ft. high on line. Desc. 138 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. with brass cap mkd.

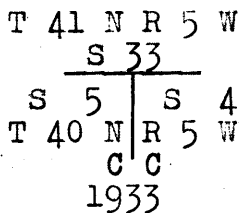


raise a mound of stone, $3\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high, W. of cor.

Descend 471 ft. over broken NE. slope.

73.65 Intersect the Tenth Standard Parallel North.

Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, for closing cor. of secs. 4 and 5, with brass cap mkd.



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

From point of intersection the stand cor. of secs. 32 and 33, T.41 N., R. 5 W., bears West, 8.82 chs. dist.; an iron post, 3 ins. diam., firmly set, marked and witnessed as described in the official record.

From the same point the standard $\frac{1}{4}$ sec. cor., S. bdy. of sec. 33, T. 41 N., R. 5 W., bears East, 31.18 chs. dist.; an iron post, 1 in. diam., firmly set, marked and witnessed as described in the official record.

Land, mountainous.
Soil, rocky; 4th rate.
Timber, scattered juniper and pinyon.
Undergrowth, cacti and sage brush.

SURVEY OF A PORTION OF THE SUBDIVISIONS

OF T. 40 N., R. 5 W.

FINAL TEST OF SOLAR ATTACHMENT.

March 31; on the meridian hereinbefore described, at 7h 30m a.m., app. t., I set off $36^{\circ}52\frac{1}{2}'$ N., on the latitude arc; $4^{\circ}10'$ N., on the decl. arc; and orient the instrument with the solar; the line of sight agrees with the meridian established by Polaris observation.

At 4h 30m p.m., app. t., I set off $36^{\circ}52\frac{1}{2}'$ N., on the latitude arc; $4^{\circ}10\frac{3}{4}'$ N., on the decl. arc; and repeat the test of the solar; the line of sight agrees with the meridian established by Polaris observation.

GENERAL DESCRIPTION.

The land embraced within secs. 4, 5, 8, 9 and 16, T. 40 N., R. 5 W., is broken and mountainous. The soil is sandy and rocky, 4th rate. Scattered juniper and pin-yon timber is found throughout these sections. The undergrowth is cacti and sage brush. The predominating interest is stock grazing as there is a fair growth of native grass over most of these sections. Sid Potter's homestead is located in the S. portion of sec. 9. No. mineral indications were observed.

CERTIFICATE OF UNITED STATES SURVEYOR

I, Walter H. Good, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the District Cadastral Engineer for Arizona bearing date of the 15th day of October, 1932, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed ~~all these parts or portions of~~ a portion of the subdivisional lines, continuing the subdivision of Township 40 North, Range 5 West.

of the Gila and Salt River 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 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 District Cadastral Engineer for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Walter H. Good
U. S. Surveyor.

APPROVAL

Boise, Idaho,
Sept. 9, 1933.

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colorado, May 22, 1934.

The foregoing field notes of the survey of the survey of a portion of the subdivisional lines, continuing the subdivision of Township 40 North, Range 5 West, of the Gila and Salt River Meridian, in the State of Arizona,

executed by Walter H. Good, U.S. Surveyor

under his special instructions dated October 15, 1932, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

[Signature]

U. S. Supervisor of Surveys.

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.

U. S. Supervisor of Surveys.