Original 4091

151
1

4—679

Book B BOOK 4091

FIELD NOTES

OF THE SURVEY OF

4091

a portion of the West boundary

and

a portion of the subdivisional lines,

continuing the subdivision of

Township 8 South, Range 3 East,

Of the Gila and Salt River *Meridian,*

In the State of Arizona

EXECUTED BY

Francis E. Joy, U. S. Cadastral Engineer.

In the capacity of U. S. Surveyor, *under Special Instructions dated* November 15, *19* 33, *issued by the District Cadastral Engineer to govern surveys included in Group No.* 195, *which were approved by the Commissioner of the General Land Office,* March 9, *19* 34, *and Assignment Instructions dated* December 1, *19*33.

4091

Survey commenced January 15, *1934.*

Survey completed January 20, *1934.*

6—151

152

1A

BOOK 4091

INDEX DIAGRAM.

Township 8 South, Range 3 East

6	5	4	3	2	1
7	8	9	10	11	12
18 5	17	16	15	14	13
4 19	20	21	22	23	24
3 30	29	28	27	26	25
2 31	32	33	34	35	36

U. S. GOVERNMENT PRINTING OFFICE 6—151

A PORTION OF THE WEST BOUNDARY OF T. 8 S., R. 3 E.

Chains

The survey of a portion of the west boundary of T. 8 S., R. 3 E. and the line between sections 18 and 19, T. 8 S., R. 3 E., was executed with a Buff & Buff light mountain transit, Serial No. 16723, constructed in accordance with the standard specifications of the General Land Office. The horizontal circle has a diameter of 4½ inches with two double opposite verniers reading to single minutes, the vertical circle has a diameter of 4 inches, with one double vernier reading to single minutes. The instrument is equipped with the improved Smith solar attachment; radius of the latitude arc 2½ inches, and of the declination arc 3½ inches, 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 on December 1,1933. I examine all the instrumental adjustments before making the field tests hereinafter recorded.

The directions of all lines were determined by the solar transit method. The measurements were made with a Lallie steel tape, 5 chains in length, graduated every link for the first 100 links, and the remainder at intervals of ten links. The tape was tested by comparison with a Keuffel & Esser standard 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 are entered in the field note record.

The data furnished with the special instructions gives the geographic position of the SW. cor. of T. 8 S., R. 3 E. as follows: latitude 32°40'49" N., and longitude 112°06'04" W.

January 15,1934, at camp near the cor. of secs. 1, 6, 7 and 12 on the W. bdy. of T. 9 S., R. 2 E., at 5h 21m p.m., l.m.t., or 5h 50m p.m. by my watch, which reads correct 105th meridian time as determined from a Western Union clock, I make an hour angle observation on Polaris, east of the meridian, for latitude and azimuth, three each with the telescope in direct and reversed positions, reading the vertical angle, and reading the horizontal deflection angle from a giant cactus on ridge about 4 miles distant, in the direction N-W to Polaris.

Mean horizontal angle, cactus to Polaris	19°38'00"
Azimuth of Polaris	12°39"E.
True bearing to cactus	N.19°50'39"E.
Mean observed vertical angle	33°43'00"
Reduced latitude	32°39'49"N.

January 16,1934, every hour from 8 to 11 a.m. and from 1 to 4 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 the meridian established by Polaris observation, has a maximum error of less than 1½'.

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

U. S. GOVERNMENT PRINTING OFFICE: 1934 6—8155

A PORTION OF THE WEST BOUNDARY OF T. 8 S., R. 3 E.

Chains	
	The S.bdy. of T. 8 S., R. 3 E., was surveyed by W.K.Kierulff, U.S.Transitman, and a portion of the subdivisions of T. 8 S., R. 3 E., were surveyed by W.H. Thorn, U.S.Cadastral Engineer and W.K.Kierulff, U.S. Transitman, in 1915. No further surveys of these lines are of official record.
	Beginning at the true point for cor. of Tps. 8 and 9 S., Rs. 2 and 3 E.
	North, bet. secs. 31 and 36.
.50	The witness cor. to cor. of Tps. 8 and 9 S., Rs. 2 and 3 E., which is an iron post, 3 ins. diam., 8 ins. above ground, firmly set, marked and witnessed as described in the official record.
	Thence over rough and broken land, through scattering timber and undergrowth.
9.90	Wash, 20 lks.wide, course SE.
19.30	Wash, 30 lks. wide, course SE., ascend broken SW. slope 100 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground to bedrock, with a granite rock, 8 x6 x 5 ins., mkd. X, deposited at the base, and in a mound of stone to top, for ¼ sec. cor., with brass cap mkd. ¼ S 36 | S 31 1934 No suitable accessory.
	Ascend 20 ft. over SW. slope.
42.40	Top of ascent on W. slope of hill, the top of which bears E. 2.00 chs. dist. Descend N. slope 110 ft.
57.30	Wash, 10 lks. wide, course SE.
69.20	Wash, 10 lks. wide, course S.60°E., ascend 30 ft. over S. slope.
76.60	Top of hill, bears NW. and SE., descend 30 ft. over N. slope to
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 25, 30, 31 and 36, with brass cap mkd. T 8 S R 2 E | R 3 E S 25 | S 30 S 36 | S 31 1934 from which A palo verde, 8 ins. diam., bears N. 52° 30' E., 49 lks. dist., mkd. T 8 S R 3 E S 30 B T. A catclaw, 6 ins. diam., bears S. 49° 00'E., 74 lks. dist., mkd. T 8 S R 3 E S 31 B T. A palo verde, 6 ins. diam., bears S.39° 30'W., 87 lks.

U. S. GOVERNMENT PRINTING OFFICE: 1921 6—8155

A PORTION OF THE WEST BOUNDARY OF T. 8 S., R. 3 E.

4091

Chains	
	dist., mkd. T 8 S R 2 E S 36 B T.
	A palo verde, 8 ins. diam., bears N. 41° 00' W., 83 lks. dist., mkd. T 8 S R 2 E S 25 B T.
	Land, rolling and broken. Soil, gravelly and stony, 3rd rate. Timber, palo verde and mesquite; undergrowth, greasewood, catclaw and cacti.
	North, bet. secs. 25 and 30.
	Ascend 55 ft. over S. slope, through scattering timber and undergrowth.
5.80	Top of knoll, thence over choppy land, general W. slope.
18.00	Small spur, slopes SW., descend 20 ft. over NW. slope.
32.50	Gulch, course N. 70° E.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground to bedrock, with a granite rock, 10 x 7 x 5 ins., mkd. X, deposited at the base, and in a mound of stone to top, for ¼ sec. cor., with brass cap mkd. ¼ S 25 | S 30 1934 No suitable accessory.
43.50	Wash, 10 lks. wide, course S. 10° E.; ascend 100 ft. over SW. slope.
52.60	Thence along E. slope of hill. Top bears W., 4.00 chs. dist.
60.70	Ridge, bears E. and W.; descend 35 ft. over N. slope.
64.00	Gulch, 15 ft. deep, course E., thence along bottom of ravine, from N. 15° W.
70.65	Thence over rolling land.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground to bedrock, with a granite rock, 6 x 4 x 3 ins., mkd. X, deposited at the base, and in a mound of stone to top, for cor. of secs. 19, 24, 25 and 30, with brass cap mkd. T 8 S R 2E | R 3E S 24 | S 19 S 25 | S 30 1934 No suitable accessory.
	Land, rolling and broken. Soil, gravelly and stony; 4th rate. Timber, palo verde; undergrowth, greasewood, catclaw and cacti.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

A PORTION OF THE WEST BOUNDARY OF T. 8 S., R. 3 E.

Chains	
	North, bet. secs. 19 and 24.
	Over rolling and broken land through undergrowth.
1.00	Top of small knoll, thence descend 70 ft. along a spur, sloping N. 10° E.
6.00	Leave spur, thence over choppy land.
18.80	Gulch, 12 ft. deep, course N. 10°E.
19.30	Gulch, 12 ft. deep, course NE.
21.00	Wash, 30 lks. wide, 20 ft. deep, course E.
26.60	Wash, 20 lks. wide, course N. 70° E.
35.50	Wash, 20 lks. wide, course E.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground to bedrock, with a malpais rock, 6 x 4 x 3 ins., mkd. X, deposited at base, and in a mound of stone to top, for ¼ sec. cor., with brass cap mkd. ¼ S 24 | S 19 1934
	Thence along E. slope of small hill.
45.00	Top of hill, bears W. about 4 chs. dist.
61.50	Low ridge, bears N. 70°E., and W., enter scattering timber.
75.60	Low ridge, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, with brass cap mkd. T 8 S R 2 E | R 3 E S 13 | S 18 S 24 | S 19 1934
	from which
	An iron wood, 10 ins. diam., bears S. 22° 30' E., 83 lks. dist., mkd. T 8 S R 3 E S 19 B T.
	A palo verde, 12 ins. diam., bears S. 36° 30' W., 106 lks. dist., mkd. T 8 S R 2 E S 24 B T.
	No other trees available; raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Land, rolling and broken. Soil, gravelly and rocky; 4th rate. Timber, palo verde and ironwood; undergrowth, greasewood, cacti and catclaw.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

A PORTION OF THE SUBDIVISION OF T. 8 S., R. 3 E. 4091

Chains	
	Beginning at the cor. of secs. 17, 18, 19 and 20, T. 8 S., R. 3 E.,
	West, on a random line bet. secs. 18 and 19.
40.00	Set temp. ¼ sec. cor.
78.94	A point 6 lks. N. of the cor. of secs. 13, 18, 19 and 24, on the W. bdy. of the Tp., hereinbefore described.
	Thence
	N. 89°57'E., on true line bet. secs. 18 and 19.
	Over nearly level land, along the S. side of a wash, through scattering timber and undergrowth.
5.00	Enter shallow wash, 80 lks. wide, course E., from N. 80° W.
17.00	Wash spreads into numerous shallow channels, general course E.
38.70	Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for witness ¼ sec. cor., with brass cap mkd. W C ¼ S 18 S 19 1934 from which
	A palo verde, 10 ins. diam., bears N. 54°30'E., 67 lks. dist., mkd. W C ¼ S 18 B T.
	A palo verde, 8 ins. diam., bears S. 40°00'W., 11 lks. dist., mkd. W C ¼ S 19 B T.
38.94	The true point for ¼ sec.cor.falls in wash.
39.50	Middle of main channel of wash, 50 lks. wide, course N. 70° E., leave wash.
44.00	Ascend 20 ft. over W. slope.
47.70	Top of knoll, descend 50 ft. over E. slope.
54.00	Foot of descent, thence over gently rolling land.
72.80	Bend of same wash, course NE., from NW.
78.60	Wash, 20 lks. wide, course NE. for 1.00 ch., thence SE.
78.94	The cor. of secs. 17,18, 19 and 20, which is an iron post, 2 ins. diam., 8 ins. above ground, firmly set, marked and witnessed as described in the official record.
	Land, rolling. Soil, gravelly, 3rd rate. Timber, palo verde and mesquite; undergrowth, greasewood, cacti and catclaw.

U. S. GOVERNMENT PRINTING OFFICE: 1931 . 6—8155

A PORTION OF THE SUBDIVISION OF T. 8 S., R. 3 E.

Chains

For final test of the solar attachment see final test recorded in the field notes for a portion of the subdivisions of T. 8 S., R. 2 E., of this group.

January 20, 1934.

GENERAL DESCRIPTION.

The land over which the lines follow and herein described, are rolling and choppy with a very poor soil of no agricultural value at the present time.

Scattering palo verde, ironwood and mesquite is noted, but is of poor value except for fuel.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

4091

4—680
(August, 1926)

FIELD ASSISTANTS.

NAMES.	CAPACITY.
Albert Heath	Chainman.
Jack Sheley	Chainman.
W. H. Sheldon	Flagman.
Arthur A. Kidd	Moundman.
Otho Thornton	Axman.

6—2764

160

8

BOOK 4091

CERTIFICATE OF UNITED STATES SURVEYOR

I, Francis E. Joy, U.S. Cadastral Engineer, 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 November, 1933, 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 a portion of the West boundary and a portion of the subdivisional lines, continuing the subdivision of Township 8 South, Range 3 East,

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.

Glendale, California,
November 6, 1934.

Francis E. Joy
U.S. Cadastral Engineer.

APPROVAL

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colorado, June 24, 1935.

The foregoing field notes of the survey of a portion of the West boundary and a portion of the subdivisional lines, continuing the subdivision of Township 8 South, Range 3 East, of the Gila and Salt River Meridian, in the State of Arizona,

executed by Francis E. Joy, U.S. Cadastral Engineer,

under his special instructions dated November 15, 1933, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

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 .....~~

~~*U. S. Supervisor of Surveys.*~~

U. S. GOVERNMENT PRINTING OFFICE: 1927 6—2764