

4541

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BOOK 4541

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

4541

FIELD NOTES

of the

Survey of the North Three Miles of the West Boundary

and

The West Two Miles of the North Boundary

of

T. 29 N., R. 18 W.

Of the Gila and Salt River Meridian,

In the State of Arizona

EXECUTED BY

Donald E. Harding, Cadastral Surveyor

Under special instructions dated March 15, 1957, which provided
for the surveys included under Group No. 314, approved March 15, 1957
and assignment instructions dated March 15, 1957

Survey commenced March 22, 1957

Survey completed March 25, 1957

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BOOK 4541

INDEX DIAGRAM

Township 29 North, Range 18 West

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T. 29 N., R. 18 W.

Chains

The south boundary (Seventh Standard Parallel North), east boundary, and portions of the north and west boundaries, and subdivisional lines of this township were surveyed by Lange and Walters in 1916.

The following field notes describe the survey of the north three miles of the west boundary and west two miles of the north boundary.

This survey was requested by the Bureau of Land Management State Supervisor, State of Arizona, to accommodate mineral leases in the Lake Mead National Recreation Area. They will also benefit the mineral activity and range administration outside the Recreation Area. An interpretation of the indeterminate portion of the boundary of the Recreational Area, which is presently described as being six miles from the Colorado River, will be facilitated and is urgently needed.

The survey was executed with a W. and L. E. Gurley transit, serial No. 541332, constructed in accordance with the standard instrumental specifications of the Bureau of Land Management. The instrument was in good condition and in satisfactory adjustment and prior to the beginning of the survey was tested and found free from appreciable error.

The directions of the lines were determined by Polaris observation and checked by direct solar observation as the survey progressed. The measurements were made with Chicago steel tapes, 8 chains in length, graduated to tenths of a link for the first ten links, and every link for the balance of the first 100 links and the remainder at intervals of 10 links. The tapes were tested by comparison with a 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.

March 22, 1957, at the corner of secs. 13, 18, 19, and 24, Ts. 29 N., Rs. 18 and 19 W., G. & S. R. Meridian, Arizona, in latitude $35^{\circ} 53' 40''$ N., longitude $114^{\circ} 15' 49''$ W., I make an observation of Polaris at western elongation, making four observations, two each with the telescope in direct and reversed positions, reading horizontal angle from a nail in a stake approximately 10 chains north, west to Polaris.

Mean horizontal deflection angle	$1^{\circ} 01' 00''$
Azimuth of Polaris	$1^{\circ} 09' 09''$
Bearing of reference point	N. $0^{\circ} 08' 09''$ W.

The geographic position of the northwest corner of this township is latitude $35^{\circ} 56' 17''$ N., longitude $114^{\circ} 15' 49''$ W. The mean magnetic declination is 15° E.

Survey of the North Three Miles of the West Boundary
T. 29 N., R. 18 W.

From the corner of secs. 13, 18, 19, and 24, which is monumented with a 2 in. iron post, set, marked and witnessed as described in the official record.

North, bet. secs. 13 and 18.

Across E. slope of spur, through scattered Joshua trees, cacti, and sparse grass.

Survey of the North Three Miles of the West Boundary
Ts. 29 N., Rs. 18 and 19 W.

Chains	
7.30	Spur, slopes NE.; desc. 130 ft. over NW. slope.
12.00	Wash, 10 lks. wide, 4 ft. deep, drains NE.; thence along SE. slope of spur.
17.00	Spur, slopes NE.; desc. 130 ft. over N. slope.
24.30	Wash, 40 lks. wide, 6 ft. deep, drains N. 60° W.; asc. 95 ft. over S. slope.
30.20	Knoll on ridge, bearing N, 20° W. and SE.; desc. 50 ft. over E. slope.
40.00	Point for the ½ sec. cor. of secs. 13 and 18. Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground, and in a mound of stone, 4 ft. base to top, with brass cap marked <div style="text-align: center;"> <p>T29N R19W R18W ½ S13 S18 1957</p> </div>
	Desc. 380 ft. over steep N. slope.
66.40	Slope changes to gentle N. slope; desc. 40 ft. to corner.
80.00	Point for the cor. of secs. 7, 12, 13, and 18. Set an iron post, 3 ft. long, 2 ins. diam., 18 ins. in the ground, and in a mound of stone, 3½ ft. base to top, with brass cap marked <div style="text-align: center;"> <p>T29N R19W R18W S12 S7 S13 S18 1957</p> </div>
	Land, mountainous. Soil, rocky gravelly sand. Timber, none. Undergrowth, Joshua trees, cacti, and sparse grass.
	North, bet. secs. 7 and 12. Desc. 40 ft. over gentle N. slope, through scattered Joshua trees, cacti, and sparse grass.
14.20	Wash, 50 lks. wide, 2 ft. deep, drains N. 20° E.; asc. 55 ft. over SE. slope.
25.60	Top of ascent; desc. 50 ft. over rolling small spurs, sloping NE.
40.00	Point for the ½ sec. cor. of secs. 7 and 12. Set an iron post, 3 ft. long, 2 ins. diam., 15 ins. in the ground, and in a mound of stone, 3 ft. base to top, with brass cap marked <div style="text-align: center;"> <p>T29N R19W R18W ½ S12 S7 1957</p> </div>

Survey of the North Three Miles of the West Boundary
Ts. 29 N., Rs. 18 and 19 W.

Chains

Asc. 40 ft. over SW. slope.

48.50 Spur, slopes NW.; desc. 55 ft. over NE. slope.

55.50 Wash, drains NW.; asc. 30 ft. over SW. slope.

61.10 Low ridge, bears N. 15° W. and S. 15° E.; desc. 70 ft. over NE. slope.

80.00 Point for the cor. of secs. 1, 6, 7, and 12.

Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, and in a mound of stone, 3½ ft. base to top, with brass cap marked

T29N
R19W R18W
S1 | S6
S12 | S7
1957

Land, mountainous.

Soil, rocky gravelly sand.

Timber, none.

Undergrowth, Joshua trees, cacti, and sparse grass.

North, bet. secs. 1 and 6.

Asc. 55 ft. over SE. slope, through scattered Joshua trees, cacti, and sparse grass.

6.50 Spur, slopes NE.; desc. 230 ft. over NW. slope.

26.00 Wash, 20 lks. wide, 4 ft. deep, drains N. 75° E.; desc. 45 ft. over gentle N. slope.

40.00 Point for the ¼ sec. cor. of secs. 1 and 6.

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, and in a mound of stone, 3½ ft. base to top, with brass cap marked

T29N
R19W R18W
¼
S1 | S6
1957

Desc. 60 ft. over gentle N. slope.

58.25 S. edge of wash; also bladed road, bears NW. and SE.

61.00 Main channel wash, 1 ch. wide, 6 ft. deep, drains NW.; asc. 55 ft. over SW. slope.

74.50 Rocky gorge, 2 chs. wide, 50 ft. deep, drains N. 70° W.; asc. 45 ft. to corner.

80.80 Point for the cor. of Ts. 29 and 30 N., Rs. 18 and 19 W., which point is due West in latitude of the corner of secs. 4, 5, 32, and 33, Ts. 29 and 30 N., R. 18 W., as set by Lange and Walters in 1916.

Survey of the North Three Miles of the West Boundary
Ts. 29 N., Rs. 18 and 19 W.

Chains	
	<p>Set an iron post, 3 ft. long, 3 ins. diam., 14 ins. in the ground, and in a mound of stone, 4 ft. base to top, with brass cap marked</p> <p style="text-align: center;">T30N R19W R18W <u>S36 S31</u> S1 S6 T29N 1957</p> <p>Land, mountainous to high and rolling, Soil, rocky and gravelly sand. Timber, none. Undergrowth, scattered Joshua trees, cacti, and sparse grass.</p>
<p>Survey of the West Two Miles of the North Boundary T. 29 N., R. 18 W.</p>	
	<p>From the cor. of secs. 4, 5, 32, and 33, which is monumented with a 2 ins. iron post, set, marked and witnessed as described in the official record.</p> <p>West, bet secs. 5 and 32.</p> <p>Over mountainous land, through scattered Joshua trees, cacti, and sparse grass; desc. 145 ft. over SW. slope.</p>
9.90	Wash, 10 lks. wide, 3 ft. deep, drains N. 30° W.; asc. 150 ft. over E. slope.
14.00	Spur, slopes N.; desc. 165 ft. over broken N. slope.
29.40	Spur, slopes NW.; desc. 40 ft. over SW. slope.
32.00	Wash, 10 lks. wide, 2 ft. deep, drains N. 30° W.; asc. 90 ft. over NNE. slope.
39.40	Spur, slopes N.
40.00	Point for the ¼ sec. cor. of secs. 5 and 32.
	<p>Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, and in a mound of stone, 4½ ft. base to top, with brass cap marked</p> <p style="text-align: center;">T30N R18W ¼ <u>S 32</u> S 5 T29N 1957</p> <p>Along N. slope.</p>
44.00	Ridge, bears N. 65° W. and S. 65° E.; desc. 275 ft. over steep WSW. slope.
61.70	Wash, 10 lks. wide, 4 ft. deep, drains N. 60° W.; asc. 110 ft. over NE. slope.
70.70	Spur, slopes N. 70° W.; desc. 170 ft. over W. slope.
80.00	Point for the cor. of secs. 5, 6, 31, and 32.

Survey of the West Two Miles of the North Boundary
T. 29 N., R. 18 W.

Chains

Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground,
and in a mound of stone, 4 ft. base to top, with brass cap marked

T30N R18W
S31 | S32
S6 | S5
T29N
1957

Land, mountainous.
Soil, rocky and gravelly.
Timber, none.
Undergrowth, scattered Joshua trees, cacti, and sparse grass.

West, bet. secs. 6 and 31.

Desc. 145 ft. over broken general N. slope.

38.50 Spur, slopes N.; desc. 20 ft. over NW. slope.

40.00 Point for the $\frac{1}{4}$ sec. cor. of secs. 6 and 31.

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground,
and in a mound of stone, 4 ft. base to top, with brass cap marked

T30N R18W
 $\frac{1}{4}$ S 31
S 6
T29N
1957

Asc. 30 ft. over NE. slope.

46.40 Spur, slopes NW.; desc. 50 ft. over SW. slope.

53.70 Small wash, drains NW.; desc. 60 ft. over N. slope.

62.90 Spur, slopes N. 70° W.; desc. 60 ft. over W. slope.

79.72 The cor. of Ts. 29 and 30 N., Rs. 18 and 19 W.

Land, mountainous.
Soil, rocky and gravelly.
Timber, none.
Undergrowth, scattered Joshua trees, cacti, and sparse grass.

General Description

The portion of T. 29 N., R. 18 W., surveyed is rolling ridges to high and mountainous. The soil is a mixture of rocks, gravel, and sand with very sparse vegetation, consisting of scattered Joshua trees, cacti, and very very sparse grass. There is no permanent water in the area and grazing is very poor. One bladed road enters the north half of sec. 6 and continues in a southeasterly direction.

CERTIFICATE OF CADASTRAL ENGINEER

I, Donald E. Harding, HEREBY CERTIFY upon honor that, in
pursuance of special instructions bearing date of the 15th day of March, 1957
I have surveyed the north three miles of the west boundary and the west two miles of
north boundary of T. 29 N., R. 18 W.,

of the Gila & 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
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.

Salt Lake City, Utah
May 13, 1957

Donald E. Harding
Donald E. Harding
Cadastral Surveyor

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT,
Washington, D. C., DEC 26 1957, 19

The foregoing field notes of the survey of the north three miles of the west boundary
and the west two miles of the north boundary of T. 29 N., R. 18 W., Gila and Salt
River Meridian, Arizona

executed by Donald E. Harding
having been critically examined and found correct, are hereby approved.

Earl G. Harrington
Cadastral Engineering Staff Officer.

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.

Cadastral Engineering Staff Officer.