

2667

BOOK 2667

2667

142
①

4-679

BOOK "Q"

JAN 12 1914

FIELD NOTES

COMPLETION OF
OF THE SURVEY OF THE

South and West Boundaries of Tp. 14 S. Rg. 29 E.

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

John F. Heese

In the capacity of U. S. Surveyor, under instructions dated April 23rd, 1913, issued by the United States Surveyor General to govern surveys included in Group No. 18, which were approved by the Commissioner of the General Land Office, May 7th, 1913, pursuant to authority contained in the Act of Congress dated August 23rd, 1912.

Survey commenced June 2, 1913.

Survey completed June 4, 1913.

BOOK 2667

INDEX DIAGRAM.

Township 14 S, Range 29 E

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

Completion of South Bdy of Tp. 14 S. R. 29 E.

Chains. Survey commenced June 2, 1913 and executed with a W. and L.E. Gurley transit, not numbered, with solar attachment. The horizontal limb is provided with one double vernier reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was approved by the Supervising Surveyor August 28, 1912.

I examine the adjustments of the transit and find them correct, then to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At my camp which is situated near the cor. of secs. 26, 27, 34 and 35, Tp. 14 S. R. 29 E., latitude 32°10'40"N., longitude 109°34'09"W., I set off 32°10'N. on the lat. arc 22°14'N. on the decl. arc and at 5h.00m. p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stone firmly set in the ground 5 chs. N. of my station.

June 2, 1913.

June 3¹⁹¹³ At 2h.48.5m., a.m. by my watch which has correct l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

At 6h.00m., a.m. l.m.t., I lay off the azimuth of Polaris 1°22' to the west, and mark a point in the meridian thus determined by cutting a small groove in the stone set June 2nd¹⁹¹³ on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 7h.00m., a.m., l.m.t., I set off 32°10'N. on the lat. arc, 22°18'N. on the decl. arc and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. East of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively, about 0.16" E. and W. of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7h.30m. a.m. l.m.t. is N13°30'W.; the angle thus determined gives the mag. decl. 13°30'E.

At 1h.00m. p.m., l.m.t., I set off 32°09'N. on the lat. arc, 22°19'N. on the decl. arc and determine a meridian with the solar at the closing cor. of secs. 4 and 33 on the E. bdy. of Camp Bowie Military Reservation, which is a granite stone 6x8x10 ins. witnessed and marked as described by the Surveyor General.

Thence I run

East, bet. secs. 4 and 33.
Over rolling land, through dense brush.
Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 3, 4, 33 and 34, marked on brass cap, 1913;
T14S in N.
T15S in S. and
R29E in W. half;
S33 in N.W.
S34 in N.E.
S3 in S.E. and
S4 in S.W. quadrant;
Raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor.
Pits impracticable.
Land, rolling.
Soil, sand mixed with gravel and rock, coarse texture, dry, 3rd rate.
No timber.
Undergrowth, mesquite and catclaw.

18.05

Completion of S. Bdy. of Tp. 14 S. R. 29 E.

Chains	East, bet. secs. 3 and 34.
	Over rolling land, through dense brush.
7.50	Road, bears N.E. and S.W.
8.10	Wash, 20 lks. wide, course N.E.
13.15	Wash, 2.00 chs. wide, course N.E.
16.73	Road, bears N.W. and S.E.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ S34 in N. and S3 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35, marked on brass cap, ¹⁹¹³
	T14S in N.
	T15S in S. and
	R29E in W. half;
	S34 in N.W.
	S35 in N.E.
	S2 in S.E. and
	S3 in S.W. quadrant;
	Dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	Land, rolling.
	Soil, sand mixed with gravel and rock, coarse texture, dry, 3rd rate.
	No timber.
	Undergrowth, mesquite, catclaw and cactii.

	East, bet. secs. 2 and 35.
	Over rolling land, through dense brush.
10.30	Road, bears N. and S.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ S35 in N. and S2 in S. half; dig pits 18x18x12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
53.30	Wash, 20 lks. wide, course N.E.
71.70	Dim road, bears N.E. and S.W.
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36, marked on brass cap, ¹⁹¹³
	T14S in N.
	T15S in S. and
	R29E in W. half;
	S35 in N.W.
	S36 in N.E.
	S1 in S.E. and
	S2 in S.W. quadrant;
	Dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	Land, rolling.
	Soil, sand mixed with gravel and rock, coarse texture, dry, 3rd rate.
	No timber.
	Undergrowth, mesquite, catclaw and cactii.

	East, bet. secs. 1 and 36
	Over rolling land, through dense brush.
5.15	Wash, 12 lks. wide, course N.E.
21.80	Wash, 20 lks. wide, course N.E., brush becomes scattering.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ¹⁹¹³ S36 in N. and S1 in S. half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
55.50	Wash, 40 lks. wide, course N.E.
80.09	Intersect E. Bdy. of Tp. ^{14 S. R. 29 E.} at a point from which the cor. of Tps. 14 and 15 S., R. 29 & 30 E., which is an iron post previously set by me and marked ^{as described in Book 1} for the cor. of four Tps., bears S. 0° 19' E. 20.69 chs. dist.

Completion of S. Edy. of Tp. 14 S. R. 29 E.

Chains.

I change the markings on the brass cap and the for two Tps. also change pits and mound to refer to Tps 14 & 15 S. R. 29 E. only.

At point of intersection set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for closing cor. of Tps. 14 and 15 S. R. 29 E., marked on brass cap 1913

CC, E. of center.

T14S, S31, S6, T15S, R30E in E. and; and R29E in W. half;

T14S, S36 in N.W. and T15S, S1 in S.W. quadrant;

Dig pits 30x24x12 ins. crosswise on each line, N. and S. 4 ft. and W. of post 8 ft. dist., and raise a mound of earth 5 ft. base, 2 1/2 ft. high, W. of cor.

Land, rolling.

Soil, sand mixed with gravel and rock, coarse texture, dry, 3rd rate.

No timber.

Undergrowth, mesquite and catclaw.

June 3, 1913.

Completion of W. Bdy of Tp. 14 S. R. 29 E.

Chains.

June 4¹⁹¹³ At 7h.00m. a.m. l.m.t., I set off 32°11'N. on the lat. arc, 32°26'N. on the decl. arc and determine a meridian with the solar at the closing cor. of secs. 25 and 30 on the N. bdy. of Camp Bowie Military Reservation which is a granite stone 10x10x15 ins. above ground, marked and witnessed as described by Surveyor General

353.49

Thence I run North on random line along W. Bdy. of Tp. 14 S. R. 29 E. setting temp $\frac{1}{4}$ sec. cor. at 1.25 chs., thence setting temp $\frac{1}{2}$ sec. and $\frac{1}{4}$ sec. cor. at intervals of 40.00 chs. and at Intersect S. Bdy. of Tp. 13 S. R. 29 E. at a point from which the old cor. of Tps. 13 and 14 S. Rgs. 28 and 29 E., which is a redwood stake 4x4x3 ins. above ground, well set, marked as described by the Surveyor General, pits and mound still visible. I cut out marks referring to Tps. conSS., redig pits for cor. of two tps. and raise mound of earth on N., bears N. 33°30'W. 2.00 chs. dist. At point of intersection set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for closing cor. of Tps. 14 S. Rgs. 28 and 29 E., marked on brass cap, 1913; CC, S. of center. T13S, R28E, S36, R29E, S31 in N. and T14S in S. half; S6, R29E in S.E. and S1, R28E in S.W. quadrant; Dig pits 30x24x12 ins. crosswise on each line, E. and W. 4 ft. and S. of post 8 ft. dist., and raise a mound of earth 5 ft. base, 2 $\frac{1}{2}$ ft. high, S. of cor. June 4¹⁹¹³ At this cor. I set off 32°26'N. on the decl. arc and observe the sun on the meridian at noon; the resulting latitude is 32°15'N. Thence I run

32.24

South, on true line, bet. secs. 1 and 6 Over rolling land, through scattering brush. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S1 in W. and S6 in E. half; dig pits 18x18x12 ins. N. and S. of post; 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

72.24

Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap, 1913; T14S in N. half R28E, S1 in N.W. R29E, S6 in N.E. S7 in S.E. and S12 in S.W. quadrant; Dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, rolling. Soil, sandy loam over 2 ft. deep, medium texture, dry, 1st rate. No timber. Undergrowth, scattering mesquite, catclaw and sage brush.

40.00

South, bet. secs. 7 and 12 Over rolling land, through scattering brush. Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap, S12 in W. and S7 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

56:55

Road, bears N.W. and S.E.

80.00

Set an iron post 3 ft. long, 3 ins. diam., 26 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked on brass cap, 1913; T14S in N. half; R28E, S12 in N.W. R29E, S7 in N.E. S18 in S.E., and S13 in S.W. quadrant; Dig pits 18x18x12 ins. in each sec. 5 $\frac{1}{2}$ ft. dist., and

Completion of West Bdy. of Tn. 14 S. R. 29 E.

Chains.	raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, rolling. Soil, sandy loam over 2 ft. deep, medium texture, dry, 1st rate. No timber. Undergrowth, mesquite and greasewood.

	South, bet. secs. 13 and 18. Over gently rolling land, through scattering brush.
17.00	Leave scattering brush.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ⁹³¹ S13 in W. and S18 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
46.12	House bears N23°05'W.
66.54	Same house bears N3°25'W.
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap, 913; T14S in N. half; R28E, S13 in N.W. R29E, S18 in N.E. S19 in S.E. and S24 in S.W. quadrant; Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, gently rolling. Soil, sandy loam over 2 ft. deep, medium texture, dry, 1st rate. No timber. Undergrowth, mesquite.

	South, bet. secs. 19 and 24
	Over gently rolling land,
20.00	Enter scattering brush.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ⁹³¹ S24 in W. and S19 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
58.45	Wash, 18 lks. wide, course N.E. Brush becomes dense.
80.00	Set an iron post 3 ft. long, 3 ins. diam., 24 ins. in the ground for cor. of secs. 19, 24, 25, and 30, marked on brass cap, 913; T14S in N. half; R28E, S24 in N.W. R29E, S19 in N.E. S30 in S.E. and S25 in S.W. quadrant; Dig pits 18x18x12 ins. in each sec. $5\frac{1}{2}$ ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor. Land, gently rolling. Soil, sandy loam over 2 ft. deep, medium texture, dry, 1st rate. No timber. Undergrowth, catclaw and mesquite.

	South, bet. secs. 25 and 30
	Over gently rolling land, through dense brush.
30.00	Wash, 20 lks. wide, course N.E.
32.70	Leave brush.
40.00	Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap ⁹³¹ S25 in W. and S30 in E. half; dig pits 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
41.25	Intersect N. bdy. of Camp Bowie Military Reservation

Completion of West Edy. of Tp. 14 S. R. 29 E.

Chains.

at the closing cor. of secs. 25 and 30, previously described.

Land, gently rolling.

Soil, sandy loam over 2 ft. deep, medium texture, dry, 1st rate.

No timber.

Undergrowth, mesquite and catclaw.

JUNE, 4, 1913.

Boundaries of Tp. 14 S. R. 39 E.

Latitudes, departures, and closing errors.

Lines Designated.	True Bearing.	Distance.	Latitudes.		Departures.	
			N.	S.	E.	W.
		Chs.	Chs.	Chs.	Chs.	Chs.
NORTH BOUNDARY S. bdy. sec. 36 E. half SW. half S. bdy. sec. 35 E. half SW. half S. bdy. sec. 34 E. half SW. half S. bdy. sec. 33 E. half SW. half S. bdy. sec. 32 E. half SW. half S. bdy. sec. 31 E. half SW. half						
		N89°48'W	42.69	0.15	.	42.69
		S89°43'W	40.31		0.20	40.31
		S89°47'W	40.31		0.15	40.31
		S89°56'W	40.26		0.05	40.26
		N89°39'W	40.17	0.24		40.17
		S89°52'W	39.90		0.09	39.90
		N89°13'W	40.12	0.55		40.12
		S88°45'W	40.53		0.88	40.52
		S89°53'W	40.17		0.08	40.17
		S89°53'W	39.45		0.08	39.45
		S89°40'W	40.79		0.23	40.79
		N65°29'W	35.88	14.89		32.65
	West boundary	South	353.49		353.49	
N. Bdy. C.B.A.M.R	East	221.13			221.13	
E. Bdy. C.B.A.M.P	South	119.23		119.23		
South boundary	East	258.14			258.14	
East boundary	N0°19'W	459.02	459.02			2.54
Convergency						0.45
Totals			474.85	474.48	479.27	480.33
			474.48			479.27
Error in lat.			0.37			
Error in dep.						1.06

General Description.

This township is nearly all level and the soil is generally a rich sandy loam. There is no timber or water in the township.

John P. Hesse
U. S. Surveyor.

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, John F. Hesse, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the South and West Boundaries of Tp. 14 S. Rg. 29 E.

of the Gila and Salt River Base and Meridian, in the State of Arizona which are represented in the foregoing field notes as having been executed 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 executed.

Table with 4 columns: NAME, PERIOD OF SERVICE (BEGUN, ENDED), and CAPACITY. Rows include C. W. Jones (Axman), J. E. Loring (Chairman), E. C. Keeley (Chairman), J. S. Hughes (Flagman), and Frank J. McSherry (Cornerman).

Subscribed and certified to before me on the dates of the final service as shown above.

John F. Hesse, U. S. Surveyor.

155
9

BOOK 2667

FINAL OATH OF UNITED STATES SURVEYOR.

I, John F. Hesse, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Arizona, for Group 18 bearing date of the 23rd day of April, 1913, 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 those parts or portions of the South and West Boundaries of Tp. 14 S. Rg. 29 E.

of the Gila and Salt River Base and 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 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 U. S. 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.

John F. Hesse
U. S. Surveyor.

Subscribed by said John F. Hesse, and sworn to before me }
this 12th day of January, 1914



Frank Ingalls
U. S. Surveyor General of
Arizona.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, July 21, 1914

The foregoing field notes of the survey of the Completion of the Southern and West boundaries of Township No. 14 South, Range No. 29 East of the Gila and Salt River Base and Meridian Arizona

executed by John F. Hesse, U.S. Surveyor under his special instructions dated April 23rd, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank Ingalls
U. S. Surveyor General of
Arizona.

~~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.~~