

1833

BOOK 1833

FIELD NOTES

Partial
OF THE SURVEY OF THE

East boundary of Twp. 15 N. Rg. 6 E.

1833

1833

Of the Gila and Salt River Meridian,

Territory of Arizona

AS SURVEYED BY

John J. Fisher and John P. Kesse, United States Deputy Surveyors.

Under ^{their} ~~his~~ Contract No. 113, dated March 14, 1904, 189

Survey commenced May 8th 1904, 189

Survey completed May 9th 1904, 189

BOOK 1833 NAMES AND DUTIES OF ASSISTANTS.

George Cassidy

Chairman

W. E. Johnston

Chairman

P. P. Harwood

Assman

Robert W. Blaine

Playman

BOOK 1833

INDEX DIAGRAM.

Township 15 North, Range 6 East

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

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PRELIMINARY OATHS OF ASSISTANTS.

WE, George Cassidy and W. E. Johnston
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the East boundary of Twp. 15 N. Rg. 6 E.

George Cassidy, Chainman.
W. E. Johnston, Chainman.

Subscribed and sworn to before me this 7th
day of May 1904, 189



John P. Hesse
U. S. Dep. Surveyor

WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, Moundman.
_____, Moundman.

Subscribed and sworn to before me this _____
day of _____, 189



WE, J. P. P. Harwood and _____
do solemnly swear that I will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given me us, to the best of my our skill and ability, in the survey of the East boundary of Twp. 15 N. Rg. 6, E.

J. P. Harwood, Axman.
_____, Axman.

Subscribed and sworn to before me this 7th
day of May 1904, 189



John P. Hesse
U. S. Dep. Surveyor

I, Robert W. Blaine, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the East boundary of Twp. 15 N. Rg. 6 E.

Robert Blaine, Flagman.

Subscribed and sworn to before me this 7th
day of May 1904, 189



John P. Hesse
U. S. Dep. Surveyor

Chains

Survey commenced May 8, 1904 and executed with a W. and S. C. Lurley solar compass. Compass not numbered. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the vernier of the latitude arc; the vernier of the declination arc reads to thirty seconds of arc.

The instrument was examined tested on the true meridian at Phoenix found correct and was approved by the surveyor general for Arizona

I examine the adjustments of the compass 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 one mile south of the cor. of secs. 15, 16, 21 and 22 Twp. 15 N. Rg. 6 E.; latitude $34^{\circ} 41' 53''$ N. longitude $112^{\circ} 42' 39''$ W.; at $5^{\text{h}} 14.75^{\text{m}}$ a.m. by my watch, which has correct c.m.t., I observe Polaris at eastern elongation, in accordance with 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 $7^{\text{h}} 30^{\text{m}}$ a.m. c.m.t. I lay off the azimuth of Polaris $1^{\circ} 28'$ to the west, and mark the meridian thus determined, by cutting a small groove in a stone set firmly in the ground 5 chs. N. of my station.

At $8^{\text{h}} 00^{\text{m}}$ a.m. c.m.t. I set

Chains

off $34^{\circ} 42'$ N. on the lat. arc; $17^{\circ} 06'$ 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 coincides with the meridian established by the Polaris observation.

May 8: At my station I set off $17^{\circ} 08'$ N. on the decl. arc; and observe the sun on the meridian at noon; the resulting lat. is $34^{\circ} 42'$ N.

At $3^{\text{h}} 00^{\text{m}}$ p.m. l.m.t. I set off $34^{\circ} 42'$ N. on the lat. arc; $17^{\circ} 10\frac{1}{2}'$ 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 coincides with the meridian established by the Polaris observation.

The solar apparatus, by a.m. and p.m. observations defines positions for meridians which coincide with 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 $8^{\text{h}} 30^{\text{m}}$ a.m. is $N. 13^{\circ} 39' W.$; the angle thus determined gives the magnetic decl. $13^{\circ} 39' E.$

May 8, 1904

May 9: At $8^{\text{h}} 00^{\text{m}}$ a.m. l.m.t. I set off $34^{\circ} 41\frac{1}{2}'$ N. on the lat. arc; $17^{\circ} 22'$ N. on the decl. arc; and determine a

Chains	
	<p>meridian at the cor. of secs. 19 and 30 on the W. bdy. of Pp. 15 N. Rg. 7 E. which is a malpais stone 11 x 8 x 8 ins. above ground marked and witnessed as described by the surveyor general.</p> <p>Thence I run South on the East bdy. of sec. 25. Over top mountain through dense cedar timber.</p>
9.06	<p>Set a malpais stone 18 x 16 x 10 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor. to sec 25 only marked $\frac{1}{4}$ on W. face; from which a cedar 6 ins. diam. bears N. 24$\frac{1}{2}$° W. 34 lks. dist. marked $\frac{1}{4}$ S 25 BT.</p>
49.06	<p>Set a malpais stone 24 x 12 x 8 ins. 18 ins. in the ground, for cor. of secs. 25 and 36, marked with 5 notches on N. and 1 notch on S. edges; from which</p> <p>A pinon 6 ins. diam. bears N. 59$\frac{3}{4}$° W. 50 lks. dist. marked T15NR6ES25 BT.</p> <p>A cedar 12 ins. diam. bears S. 16$\frac{1}{2}$° W. 69 lks. dist. marked T15NR6ES36 BT.</p> <p>Land, mountainous. Soil, rocky; 4th rate. Timber cedar and a few pinons. Mountainous or heavily timbered land 49.06 lks.</p>
	<p>South on East bdy. of sec. 36. Over top mountain through dense cedar timber.</p>
29.25	<p>Cross wash 10 lks. wide course N. W.</p>
31.75	<p>Cross wash 10 lks. wide course N. W.</p>
40.00	<p>Set a malpais stone 18 x 12 x 8 ins. 12 ins. in the ground for $\frac{1}{4}$ sec. cor. to sec. 36 only marked $\frac{1}{4}$ on W. face; from which a cedar 10 ins. diam. bears S. 10° W. 4 lks. dist. marked $\frac{1}{4}$ S 36 BT.</p>

East boundary of Tps. 15 N. Rgs. 6 E.

Chains
90.11
OK
1

Set a malpais stone 18x14x9 ins. 12 ins. in the ground for cor. of Tps 15 N. Rgs. 6 and 7 E. marked with 6 notches on N., E. and W. edges; from which

A cedar 10 ins. diam. bears N. 11° E. 18 lks. dist. marked T15NR7ES31BT.

A cedar 8 ins. diam. bears N. 47° W. 28 lks. dist. marked T15NR6ES36BT.

Land, mountainous.
Soil, rocky; 4th rate.
Timber, cedar.
Mountainous or heavily timbered land
90.11 chs.

OK
1

From the cor. of Tps. 15 N. Rgs. 6 and 7 E., described above I run West through dense cedar timber and at 9.50 chs. the cor. of Tps. 14 N. Rgs. 6 and 7 E. an iron post, ^{7-81.} marked and witnessed as described by the surveyor general. I destroy the bearing trees in Tps. 15 N.

Land, mountainous.
Soil, rocky; 4th rate.
Timber, cedar.
Mountainous or heavily timbered land
9.50 chs.

John D. Hesse
U. S. Dep. Surveyor

Latitudes, departures and closing errors.

Line designated	True Bearing	Distance	Latitudes		Departures	
			N.	S	E.	W.
West bdy. T15N176E	N6° 01' E	9.59	9.53		1.02	
	N3° 25' W	40.70	40.63			2.42
	N0° 12' W	40.23	40.23			.14
	N0° 03' E	40.26	40.26		.08	
	N0° 03' W	39.86	39.86			.03
		40.80	40.80			
	N0° 01' W	40.83	40.83			.01
	N0° 03' W	40.82	40.82			.03
Auxiliary Base Line	S89° 31' E	79.18		.53	78.18	
	East	400.00			400.00	
East bdy. T15N176E	South	250.11		250.11		
South bdy. T15N176E	West	477.43 477.50				477.43 477.50
Convergency					.25	
Totals			250.54	250.64	480.48	480.48
Error in Lat.			250.64			480.48
			Error in dep			.47
			.48			.47

This township is rough and mountainous. The eastern portion of the township is covered with dense cedar timber. The township is well watered and the soil along the creek bottoms will produce good crops, with irrigation.

*John J. Fisher
John P. Hease
U. S. Dep. Surveyors*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

BOOK 1833

LIST OF NAMES.

A list of the names of the individuals employed by John J. Pisher and John P. Hesse, United States Deputy Surveyors to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the East boundary of Pp. 15 N. Rg. 6 E. showing the respective capacities in which they acted:

- George Cassidy, Chainman.
- W. E. Johnston, Chainman.
- _____ , Moundman.
- _____ , Moundman.
- P. P. Harwood, Axman.
- _____ , Axman.
- Robert D. Blaine, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted John J. Pisher and John P. Hesse, United States Deputy Surveyors in surveying all those parts or portions of the East boundary of Pp. 15 N. Rg. 6 E.

_____ of the Gila and Salt River meridian, Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by ~~him~~ ^{them} and under ~~his~~ ^{their} directions; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Arizona

- George Cassidy, Chainman.
- W. E. Johnston, Chainman.
- _____ , Moundman.
- _____ , Moundman.
- P. P. Harwood, Axman.
- _____ , Axman.
- Robert D. Blaine, Flagman.

Subscribed and sworn to before me this 9th day of May 1904, 189



John P. Hesse
U. S. Dep. Surveyor

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FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

We, John J. Fisher and John F. Hesse, United States Deputy Surveyors, do solemnly swear that, in pursuance of a contract received from Frank S. Ingalls United States Surveyor General for Arizona, bearing date of the 14th day of March 1904, ~~189~~ ^{we} ~~my~~ ^{our} have well, faithfully, and truly, in ~~my~~ ^{our} own proper persons, and in strict conformity with the instructions furnished by the United States Surveyor General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the East boundary of Pp. 15 N. Rg. 6 E.

of the Gila and Salt River meridian, in the Territory of Arizona, which are represented in the foregoing field notes as having been surveyed by ~~me~~ ^{us}, and under ~~my~~ ^{our} direction; and ~~I~~ ^{we} 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 United States 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; and should any fraud be detected, ~~I~~ ^{we} will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

John J. Fisher
John F. Hesse
United States Deputy Surveyors

Subscribed by said John J. Fisher and John F. Hesse, and sworn to before me }
this 28th day of May, 1904

J. M. Watts
Clerk U.S. Dist. Court



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, A. T., November 23rd 1904

The foregoing field notes of the survey of a portion of the East Bdy of T. 15, N. R. 6, E. of the Gila and Salt River Base and Meridian, in the Territory of Arizona

executed by John J. Fisher and John F. Hesse, U.S. Deputy Surveyors under his contract No. 113, dated March 14, 1904, ~~189~~, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank S. Ingalls
United States Surveyor General.

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.

United States Surveyor General.