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Book "E"

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BOOK 3585

FIELD NOTES

OF THE SURVEY OF THE

Part of the Subdivision lines of

TOWNSHIP 3 SOUTH, RANGE 25 EAST,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Benjamin J. Kinsey,

U. S. Transitman,

In the capacity of U. S. Surveyor, under Special Instructions dated August 24, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 111, Arizona, which were approved by the Commissioner of the General Land Office, December 18, 1920, and Assignment Instructions dated November 17, 1920.

Survey commenced February 10, 1921

Survey completed February 10, 1921.

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Group 111 - - Arizona.

INDEX DIAGRAM.

Township 3 South. Range 25 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

Lines surveyed under this group.

Accepted surveys.

Unsurveyed.

BOOK 3585

1A

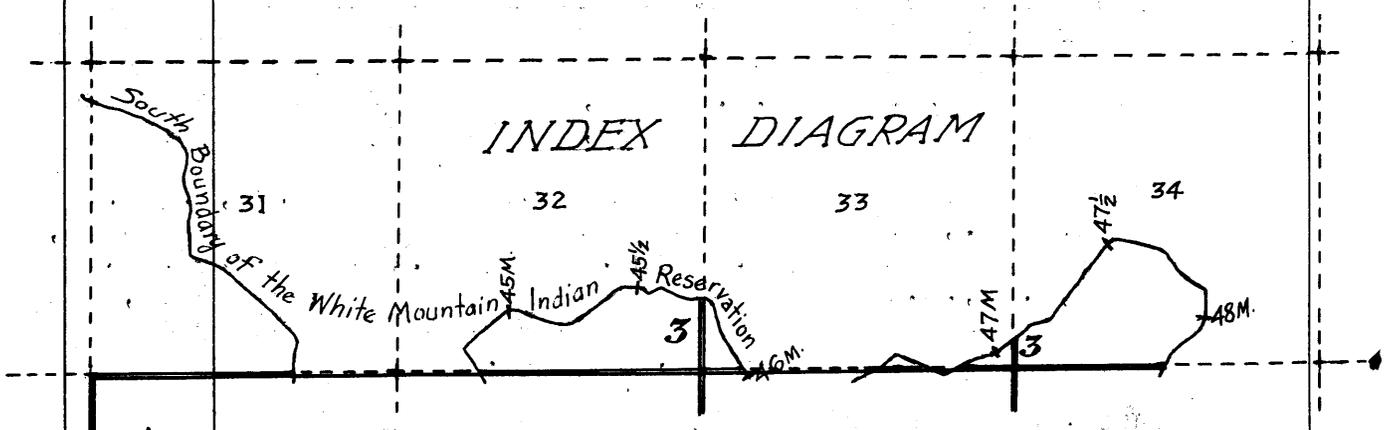
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Book "E"

Group 111 - - Arizona.

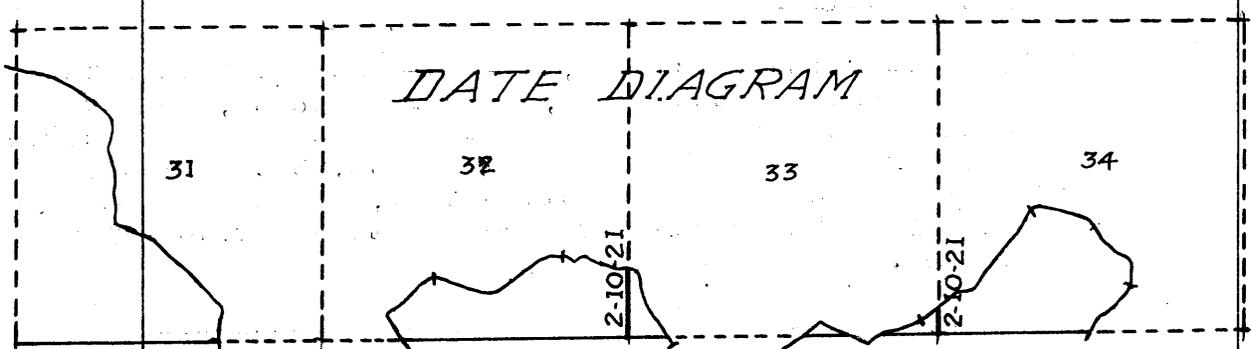
Township 3 South, Range 25 East.

INDEX DIAGRAM



- Lines surveyed under Group No. 111
- Accepted surveys
- - - Unsurveyed

DATE DIAGRAM



For dates of survey of this line see book "C"

Solid black lines on above diagram indicate surveys executed by Benjamin J. Kinsey, U.S. Transitman, on dates shown thereon.

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Surveys hereinafter described, executed by Benjamin J. Kinsey, U. S. Transitman, on dates shown on page 1 hereof, using Young and Sons light mountain transit No. 8477. The instrument is equipped with full vertical circle and the Smith solar attachment. Unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

I examine the adjustment of the transit and correct all errors; 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:

January 31, 1921: At camp, near center of sec. 20, T. 4 S., R. 25 E., Gila and Salt River Base and Meridian, Arizona, in latitude $33^{\circ}4'N.$; long. $109^{\circ}48'W.$, at 10 h. 45.8m., p.m. l.m.t., I observe Polaris at western elongation, and mark a point in the line thus determined by a tack driven in a stake, 5 chs. N.

Azimuth of Polaris at western elongation = $1^{\circ}19'32''$.

February 1, 1921. At 8h. 0m., a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}19\frac{1}{2}'$ to the east, and mark the true meridian thus determined by a tack in a stake firmly set in the ground, 5 chs. N.

At 9h. 0m. a.m., l.m.t., I set off $33^{\circ}4'N.$ on the lat. arc; $17^{\circ}5'S.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, I observe the sun on the meridian; the resulting decl. is $17^{\circ}3\frac{1}{2}'S.$, which agrees with the computed decl. of the sun.

At 3h. 0m. p.m., l.m.t., with the lat. arc unchanged, I set off $17^{\circ}1'S.$ on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1'30''$ of the true meridian, I conclude that the adjustment of the instrument is satisfactory.

Unless otherwise specified, all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Chesterman standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined with clinometer, and the slope measurements properly reduced to true horizontal distances.

4 Part of Subdivision lines of Township 3 South, Range 25 East.

Chains.

Land, mountainous.
Soil, rocky, 4th rate.
Timber, none.
Undergrowth, dense scrub oak, catclaw and cacti.

Boundaries of that part of secs. 33 and 34, outside the
W. M. I. R.

Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	55.09				55.09
W.M.I.R. Bdy.,	Various	Various	31.38	31.64	63.87	8.70
Convergency,					0.00	
Totals,			31.38	31.64	63.87	63.79
				31.38	63.79	
				0.26		
					0.08	

Boundaries of that part of sec. 33 outside the W.M.I.R.

Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	10.87				10.87
W.M.I.R. Bdy.,	Various,	Various	2.35	2.35	10.87	
Convergency,					0.00	
Totals,			2.35	2.35	10.87	10.87
				2.35		10.87
				0.00		
						0.00

Survey of part of the Subdivision lines of T.3 S., R.25 E. (3)

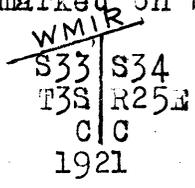
Chains.

6.32

From the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of the Tp., described in Book "C,"
 N. 0° 2' W., bet. secs. 33 and 34.
 Over mountainous land, thru. dense undergrowth.
 Ascend 190 ft., over SW. and S. slopes, to
 Main ridge of the Gila Mountains, brs. NE. and SW.
 Intersect the South boundary of the White Mountain Indian Reservation, 6.68 chs. N. 53 1/2° E. from the 47 mile mon. thereon, which is an iron post, 3 ins. in diam., projecting 10 ins. above ground, firmly set, properly marked on brass cap, witnessed by a mound of stone, NW. of post, and one properly marked bearing tree as follows:

A cedar limb, N. 58 1/2° W., 25 lks. dist.

At the point of intersection,
 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock supported by a mound of stone, for closing cor. of secs. 33 and 34, marked on brass cap,



and raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor..

Land, mountainous.
 Soil, rocky, 4th rate.
 Timber, none.
 Undergrowth, dense scrub oak, catclaw and cacti.

13.66
17.00

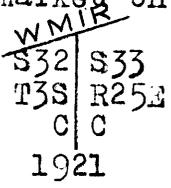
From the cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the Tp., described in Book "C,"
 N. 0° 2' W., bet. secs. 32 and 33.
 Over mountainous land, thru. dense undergrowth.
 Ascend 85 ft.
 Barb wire fence, brs. NW. and SE.
 Main ridge of the Gila Mountains, brs. NW. and SE.
 Intersect the South bdy. of the White Mountain Indian Reservation, at a point on traverse from the 45 1/2 mile mon. thereon as follows:

- S 33° E., 2.20 chs.
- N. 82 1/2° E., 4.20 chs.
- S. 77° E., 6.30 chs.
- S. 75 1/2° E., 4.40 chs.

The 45 1/2 mile mon. is an iron post, 1 in. in diam., projecting 32 ins. above ground, firmly set in ground and mound of stone, properly marked on brass cap, and witnessed by a mound of stone, N. of post, and one properly marked bearing tree:

A cedar limb, N. 19 1/2° W., 76 lks. dist.

At the point of intersection,
 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock, supported by a mound of stone, for closing cor. of secs. 32 and 33, marked on brass cap,



and raise mound of stone, 3 ft. base, 2 ft. high, S. of cor.

Boundaries of that part of secs. 32 and 33, outside the
W. M. I. R.

Latitudes, departures and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	West,	68.10				68.10
W.M.I.R. Bdy.,	Various,	Various	24.50	24.46	71.35	3.16
Convergency,					0.00	
<u>Totals.</u>			24.50	24.46	71.35	71.26
			24.46		71.26	
<u>Error in latitude,</u>			0.04			
<u>Error in departure,</u>					0.09	

The continued satisfactory adjustment of the solar apparatus during the survey of this township is indicated from field tests as described in Book "F."

GENERAL DESCRIPTION.

The portion of T.3 S., R.25 E., surveyed under instructions for Group No. 111 includes all the land in secs. 32, 33 and 34 lying outside the White Mountain Indian Reservation. The southwestern part of sec. 31 lies outside the Reservation, but is unsurveyed. The remainder of the township is all within the Reservation. The surface is mountainous, sloping southerly from the Reservation boundary, which follows the main ridge of the Gila Mountains, thru. secs. 31, 32, 33 and 34. The soil is rocky, 4th rate. There is a very scattering growth of pine and cedar timber in some parts, tho. the most of the land is devoid of timber. The undergrowth consists of scrub oak, catclaw and cacti, which is dense in all parts. There is no permanent running water, and no evidence of valuable mineral deposits. There are no settlers, and the only improvement is a fence following the Reservation boundary.

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FIELD ASSISTANTS. to

Benjamin J. Kinsey, U.S. Transitman.

NAMES.	CAPACITY.
John B. McClung.	1st chainman.
Sterling Everett.	2nd chainman.
John Boggs.	cornerman.
John L. Berry.	axman.
William L. Baldwin.	flagman.
Howard P. Morris.	flagman.

CERTIFICATE OF UNITED STATES TRANSITMAN.

I, Benjamin J. Kinsey, U.S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 111, Arizona, bearing date of the 24th day of August, 1920, 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 Subdivisions lines of

TOWNSHIP 4 SOUTH, RANGE 25 EAST,

of the Gila and Salt River Base & Meridian, in the State of Arizona, and by diagram on page 1 hereof 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 U. S. Surveyor General, for Group 111, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place: Phoenix, Arizona
Date: May 17-1923

Benjamin J. Kinsey
U. S. Transitman

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, JUN 7, 1923.

The foregoing field notes of the survey of Part of the Subdivision lines of

TOWNSHIP 3 SOUTH, RANGE 26 EAST,

of the Gila and Salt River Base and Meridian, in the State of Arizona,

executed by Benjamin J. Kinsey, U.S. Transitman, under his special instructions dated August 24, 1920, for Group 111, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank D. Frost
U. S. 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.