

3260

Book "A."

4-679

Accepted G.L.O. letter "E"
Feb. 4, 1920.

BOOK 3260

FIELD NOTES

of the RETRACEMENT of a

Portion of West boundary of Township 25 North, Range 11 East,

and SURVEY of the

6th Standard Parallel North, thru portion of Range 11 East, and

meanders of left bank of Little Colorado River thru T. 25 N., R. 11 E.

Portion of Subdivision lines of Township 25 North, Range 11 East.

Of the Gila and Salt River Base and Meridian,

In the State of Arizona.

EXECUTED BY

Theodore O. Johnston, U. S. Surveyor,

and

Philip L. Inch, U. S. Transitman,

~~In the capacity of U. S. Surveyor~~, under instructions dated January 4, 1916,

issued by the United States Surveyor General to govern surveys included in
Group No. 66, which were approved by the Commissioner of the General Land

Office, January 17, 1916.

Retracement
and Survey commenced Feb. 18, 1916.

Retracement
and Survey completed " 19, 1916.

Executed under Assignment
Instructions dated Feb. 3, 1916.

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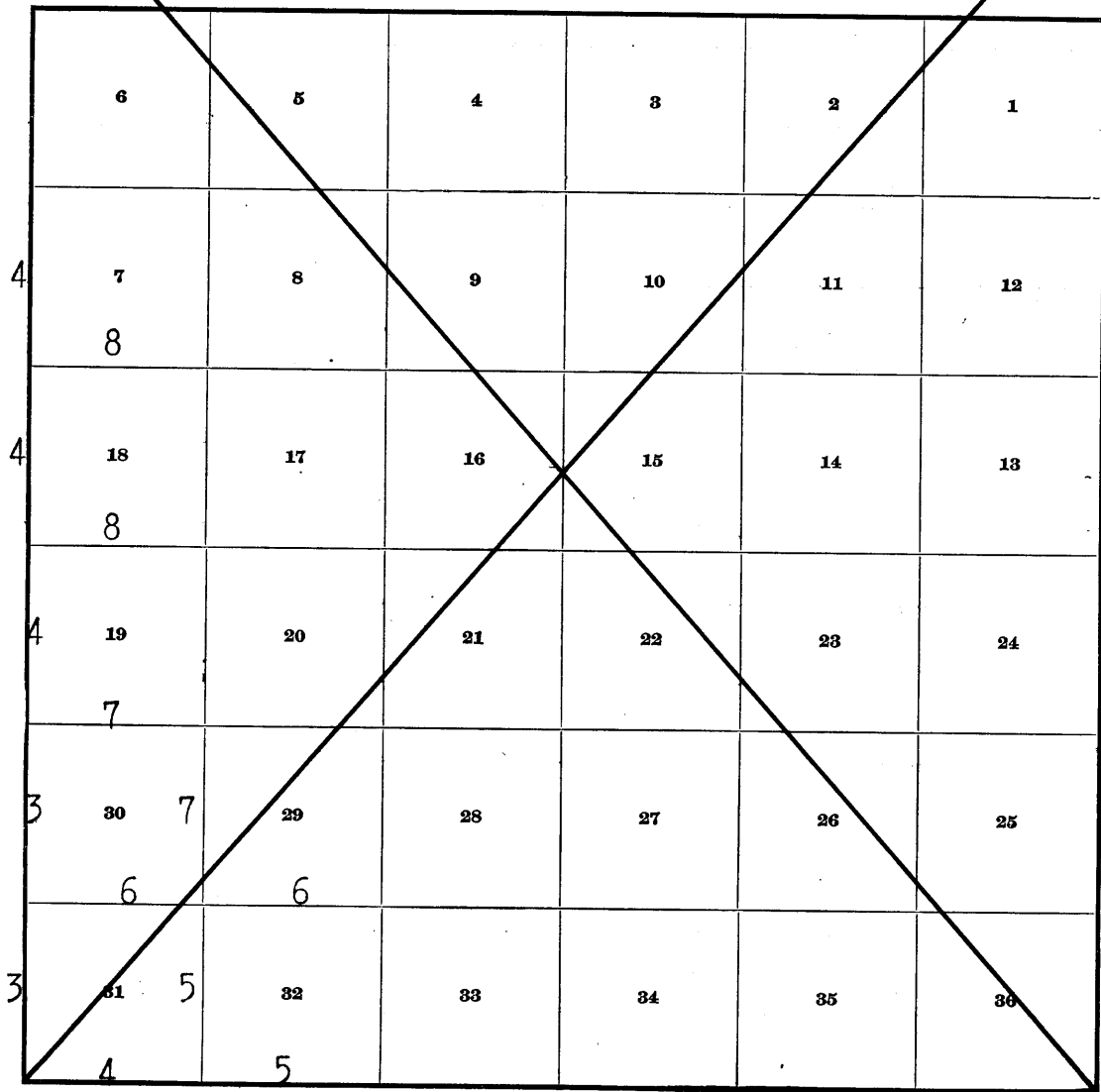
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Book "A"
Group 66---Arizona.

SEE SPECIAL INDEX DIAGRAM.

INDEX DIAGRAM.

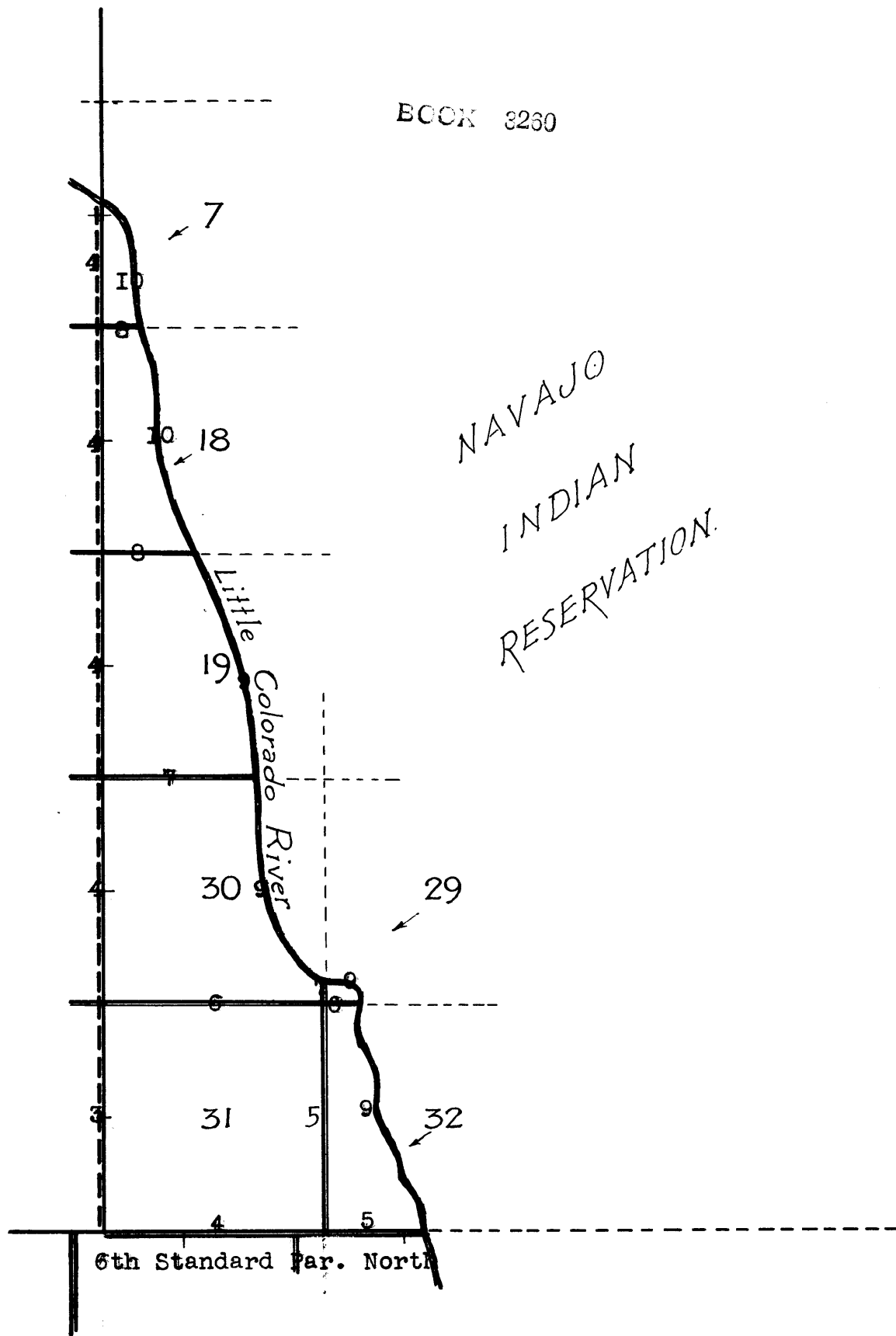
Township 25 North, Range 11 East.



3260

T. 25 N., R. II E.

Index Diagram.



- Lines surveyed under this Group.
- - - - -** " retraced " " "
- =====
=====
=====** Lines run under current Group 68.
- Accepted surveys.
- - - - -** Unsurveyed.

Retracement of Portion of W. Bdy., T. 25 N., R. 11 E.,
Survey of 6th St. Par. N., Through Portion of R. 11 E.,
and Subdivision of Portion of T. 25 N., R. 11 E.

Chains

Work executed by Theo. O. Johnston, U. S. Surveyor, using Buff Solar Transit No. 9939; and Philip L. Inch, U. S. Transitman, using Young and Sons' light mountain transit No. 8496, with Smith Solar attachment.

Dates of survey shown on diagram, on page 12 hereof.

Both instruments have horizontal circles, equipped with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs. The instruments were approved by the assistant supervisor of surveys for Arizona and California, subject to satisfactory field tests, on Feb. 3, 1916.

All lines were originated by deflection from a meridian determined by observation of Polaris at elongation, a record of which follows herein, projected by means of transit lines, with carefully measured angles.

The adjustments of the instruments were examined and the level and collimation errors corrected.

Polaris Observation, by Theo. O. Johnston, U.S.S.

Feb. 15, 1916.

At camp in sec. 5, T. 24 N., R. 11 E., in lat. 35°30' N., long. 111°14'15"W., at 9h 47m p.m., l.m.t., observe Polaris at western elongation, in accordance with instructions in the Manual, and mark a point in the line thus determined by a tack driven in a wooden stake firmly set in the ground 5 chs. N. of instrument.

Feb. 16, 1916.

At 7h 30m, a.m., turn off the azimuth of Polaris 1°24' to the E., and mark the meridian thus determined by a tack driven in a stake firmly set in the ground E. of the point established last night.

Retracement of Portion of W. Bdy., T. 25 N., R. 11 E.

From original std. cor. of Tps. 25 N., R. 10 and 11 E., on the 6th Std. Par. N. which is a stone, firmly set, marked and witnessed as described by the surveyor general;

North, on a true line, bet. secs. 31 and 36.

40.02 Intersect the old $\frac{1}{4}$ sec. cor., a stone, firmly set, marked and witnessed as described by the surveyor general.

Thence N. 0°15' E., bet. secs. 31 and 36 (N. $\frac{1}{2}$)

40.06 Intersect the old cor. of secs. 25, 30, 31 and 36; a stone, firmly set, marked and witnessed as described by the surveyor general.

North, bet. secs. 25 and 30,

40.10 Intersect the old $\frac{1}{4}$ sec. cor.; a sandstone, 4x4x3 ins. above ground, marked and witnessed as described by the surveyor general.

Retracement of Portion of W. Bdy., T. 25 N., R. 11 E.

Chains

40.06 Thence N.0°15'E., bet. secs. 25 and 30, (N. 1/4) sec. cor., intersect the old cor. of secs. 19, 24, 25 and 30, a sandstone rock, 8x4x3 ins. above ground, marked and witnessed as described by the surveyor general.

39.65 North, bet. secs. 19 and 24. Intersect old witness cor. to 1/4 sec. cor., a malpais stone, 8x6x8 ins. above ground, marked and witnessed as described by the surveyor general.

40.00 True point for 1/4 sec. cor.

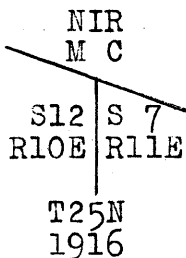
40.08 Thence N.0°15'E., bet. secs. 19 and 24 (N. 1/4) sec. cor., intersect the old cor. of secs. 13, 18, 19 and 24, a sandstone rock, 8x6x6 ins. above ground, marked and witnessed as described by the surveyor general.

40.00 North, bet. secs. 13 and 18. Intersect the old 1/4 sec. cor. a malpais stone, 8x8x6 ins. above ground, marked and witnessed as described by the surveyor general.

40.02 Thence N.0°15'E., bet. secs. 13 and 18 (N. 1/4) sec. cor., intersect the old cor. of secs. 7, 12, 13 and 18, a sandstone rock, 6x4x4 ins. above ground, marked and witnessed as described by the surveyor general.

40.00 N.0°08'E., bet. secs. 7 and 12. Intersect the old 1/4 sec. cor., a stone, firmly set, marked and witnessed as described by the surveyor general.

13.20 Thence, North, bet. secs. 7 and 12 (N. 1/4) sec. cor., the left bank of Little Colorado River, brs. NW. and SE. Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for meander cor. of fracl. secs. 7 and 12, with brass cap, marked



and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, S. of cor. Owing to the high water in the river at this time, and the cor. of secs. 1, 6, 7 and 12 not being visible, it is impracticable to retrace the north half, bet. secs. 7 & 12.

Survey of 6th Std. Par. N. thru part of R. 11 E.

From the standard cor. of Tps. 25 N., Rs. 10 and 11 E., hereinbefore described;

East, on the tangent, S. of sec. 31, over rolling land.

39.00 Top of butte. Ancient stone ruins;

40.00 N., 1/4 link from the tangent, Set an iron post, 3 ft. long, 1 in. diam., in a mound of stone, (impracticable to set post in the ground) for standard 1/4 sec. cor., with brass cap, marked

Chains

SC
~~1/4~~S31

1916

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,
 N. of cor.

42.00 Road bears N.20°W. and S.20°E.

45.00 Wash, course NW.

78.90 Top of plateau bears NW. and SE.

80.00 N. 1 link from the tangent

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in a
 mound of stone, (impracticable to set post in the ground)
 for standard cor. of sec. 31 and frac. sec. 32, marked with
 brass cap,

S C
 T25N | R11E
~~S31~~ | ~~S32~~

1916

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,
 N. of cor.

Land, rolling.

Soil, rocky volcanic ash; 4th rate.

No timber.

East, on the tangent, S. of frac. sec. 32.

~~Over rolling~~ mountainous land,

24.60 Desc. over low cliff, on NE. slope.

35.50 Top of cliff 50 ft. high, bearing N. and S. Desc. to
 Little Colorado River.

36.29 The left bank of Little Colorado River, brs. NW and SE.
 N., 2 lks. from the tangent.

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the
 ground, for meander cor. of frac. sec. 32, with brass
 cap, marked

T25N
 R11E
~~S32~~ MC NIR

1916

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high,
 W. of cor.

Land, rolling and mountainous.

Soil, rocky and sandy volcanic ash; 4th rate.

No timber.

Survey
of Subdivision of Portion of T. 25 N., R. 11 E.

From the standard cor. of secs. 31 & frac. sec. 32, on S. bdy.
 of Tp., (6th St. Par. N.), hereinbefore described;

N. 0° 09' E., (parallel to mean bearing of W. bdy. of Tp.).
 bet. sec. 31 and frac. sec. 32,

~~Over rolling~~ and mountainous land,

36.00 Ridge bears NW. and SE.

40.00 Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the
 ground, for 1/4 sec. cor., with brass cap, marked

Chains

$\frac{1}{4}$
 S31 | S32

1916

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.

Wash, course E.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of sec. 31, and fracl. secs. 29, 30 and 32, with brass cap, marked

T25N	R11E
S30	S29.
S31	S32

1916

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 and mountainous.

Soil, rocky and sandy; 4th rate.

No timber.

12.00

East, on a true line, bet. fracl. secs. 29 and 32, over rolling and mountainous land, descending on NE. slope.

The left bank of Little Colorado River, brs. NW. and SE.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for meander cor. of fracl. secs. 29 and 32, with brass cap, marked

T25N	MC NIR
S29	
S32	
R11E	

1916

dig a pit, 36x36x12 ins., 8 ft. W. of post; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling and mountainous.

Soil, rocky and sandy volcanic ash; 4th rate.

No timber.

40.00

From cor. of sec. 31 and fracl. secs. 29, 30, and 32,

West, on a random line, bet. sec. 31 and fracl. sec. 30.

79.96

Set temp. $\frac{1}{4}$ sec. cor.

Intersect W. bdy. of Tp. 14 lks. S. of old cor. of secs. 25, 30, 31 and 36, hereinbefore described.

35.00

Thence S. $89^{\circ}54'$ E., on a true line, bet. sec. 31 and fracl. sec. 30, over broken, rolling and mountainous land, /30.

39.98

Wash, course NE.

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap, marked

S30
$\frac{1}{4}$
S31
1916

and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

44.50

Ridge bears N. and S.

50.00

Wash, course NE.

57.00

Ridge bears NW. and SE.

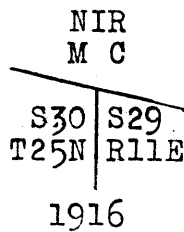
Subdivision of Portion of T. 25 N., R. 11 E.

Chains

70.00 Wash, course N.
 74.00 Ridge bears NW. and SE.
 79.96 The cor. of sec. 31, and ~~fracl. secs~~ 29, 30, and 32.

Land, broken, rolling and mountainous.
 Soil, rocky and sandy volcanic ash; 4th rate.
 No timber.

8.42 N.0°09'E., bet. fracl. secs. 29 and 30,
 over sandy river bottom.
 The left bank of Little Colorado River, brs. NW. and SE.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
 ground, for meander cor. of fracl. secs. 29 and 30,
 with brass cap, marked



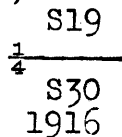
and raise a mound of stone, 2 ft. base, 1½ ft. high,
 S. of cor.

Land, broken sandy river bottom.
 Soil, sand and volcanic ash; 4th rate.
 No timber.

From old cor. of secs. 19, 24, 25 and 30 on W. bdy. of Tp., hereinbefore described;

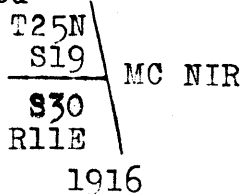
S.89°54'E., on a true line, bet. fracl. secs. 19 and 30.
 over rolling and mountainous land, through scattering under-
 growth.

38.00 Draw, course N.
 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the
 ground, for ¼ sec. cor., with brass cap, marked



and raise a mound of stone, 2 ft. base, 1½ ft. high,
 N. of cor.

55.70 The left bank of Little Colorado River, brs. N. and S.
 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the
 ground, for meander cor. of fracl. secs. 19 and 30,
 with brass cap, marked



and raise a mound of stone, 2 ft. base, 1½ ft. high,
 W. of cor.

Land, rolling and mountainous.
 Soil, rocky volcanic ash; 4th rate.
 No timber.
 Undergrowth, rabbit brush and soap weed.

Subdivision of Portion of T. 25 N., R. 11 E.

Chains

From old cor. of secs. 13, 18, 19 and 24, on W. bdy. of Tp., hereinbefore described;

S. 89° 54' E., on a true line, bet. fracl. secs. 18 and 19, over rolling mountainous land, through scattering undergrowth.

4.00 Wash, course NW.

10.00 Wash, course N.

34.10 The left bank of Little Colorado River, brs. NW. and SE. Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for meander cor. of fracl. secs. 18 and 19, with brass cap, marked

T25N	
S18	MC NIR
S19	
R11E	

1916

and raise a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.

Land, rolling and mountainous.
Soil, rocky volcanic ash; 4th rate.
No timber.
Undergrowth, rabbit brush and soap weed.

From old cor. of secs. 7, 12, 13 and 18, on W. bdy. of Tp., hereinbefore described;

S. 89° 54' E., on a true line, bet. fracl. secs. 7 and 18, over level land.

13.20 The left bank of Little Colorado River, brs. N. and S. Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for meander cor. of fracl. secs. 7 and 18, with brass cap, marked

T25N	
S7	MC NIR
S18	
R11E	

1916

dig a pit, 36x36x12 ins., 8 ft. W. of post, and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, level.
Soil, sandy and gravelly.
Timber, one tree.

Meanders, T. 25 N., R. 11 E.

Meanders of the left bank of Little Colorado River, down stream.

From the meander cor. of fracl. sec. 32, on S. bdy. of Tp., (6th St. Par. N.), hereinbefore described;

Thence with meanders in fracl. sec. 32. over sandy bank of river, along foot of cliff 50 ft. high.

N. 12 1/2° W.	7.60	chs.	
N. 16 1/2° W.	19.80	"	
N. 27 1/4° W.	6.00	"	
N. 22 3/4° W.	9.10	"	
N. 21 1/2° W.	10.20	"	
N. 8 1/4° W.	14.10	"	
N. 19° W.	3.20	"	
N. 8 1/2° W.	3.60	"	
N. 13 1/4° W.	3.70	"	
N. 19 1/4° W.	3.60	"	
N. 28 3/4° W.	2.90	"	to meander cor. of fracl. secs. 29 and 32, hereinbefore described.

Land, mountainous.
Soil, sandy and rocky; 4th rate.
No timber.

Thence in fracl. sec. 29. over rolling land, along sandy river bank.

N. 38 1/4° W.	2.10	chs.	
N. 47 1/2° W.	4.40	"	
N. 59° W.	4.20	"	
N. 67 1/2° W.	4.20	"	to meander cor. of fracl. secs. 29 and 30, hereinbefore described.

Land, rolling.
Soil, sandy; 4th rate.
No timber.

Thence in fracl. sec. 30. Over rolling and mountainous land, along sandy bank of river.

N. 59° W.	15.70	chs.	
N. 40° W.	11.00	"	
N. 27° W.	8.40	"	along ft. of cliff 40 ft. high.
N. 13° W.	6.80	"	Leave cliff. Thence along 8 ft. bank.
N. 2° W.	16.00	"	
N. 5 1/2° E.	17.50	"	
N. 3 1/2° E.	7.90	"	To meander cor. of fracl. secs. 19 and 30, hereinbefore described.

Land, rolling and mountainous.
Soil, sandy and rocky; 4th rate.
No timber.

Thence in fracl. sec. 19. over rolling land, along bank 6 ft. high.

Meanders of the left bank of Little Colorado River,
down stream.

N. 8 3/4° E.	9.20	chs.	
N. 0 1/2° W.	15.00	"	
N. 17° W.	20.20	"	
N. 22° W.	20.70	"	
N. 26 3/4° W.	10.50	"	
N. 30 1/2° W.	9.20	"	to meander cor. of fracl. secs. 18 and 19, hereinbefore described.

Land, rolling.

Soil, sandy and rocky; 4th rate.
No timber.

Thence in fracl. sec. 18.
over rolling land, along sandy bank 6 ft. high.

N. 30° W.	8.00	chs.	
N. 34 1/2° W.	13.30	"	
N. 24 1/2° W.	12.40	"	
N. 14 1/2° W.	13.70	"	
North	11.50	"	
N. 4° W.	2.20	"	
N. 0 3/4° W.	6.60	"	
N. 1 1/2° W.	15.40	"	
North	1.90	"	to meander cor. of fracl. secs. 7 and 18, hereinbefore described.

Land, rolling.

Soil, sandy and rocky; 4th rate.
Timber, one tree at meander cor. No others.

Thence in fracl. sec. 7.
over level land, along bank 6 ft. high.

N. 5 1/2° W.	19.40	chs.	A few scattered cottonwood trees along this course.
N. 20 3/4° W.	17.60	"	
N. 33 3/4° W.	9.10	"	To meander cor. of fracl. secs. 7 and 12, on W. bdy. of Tp., hereinbefore described.

Land, level.

Soil, sandy and rocky; 4th rate.
Timber, cottonwood.

Boundaries of that part of T. 25 N., R. 11 E.

-situated outside the Navajo Indian Reservation.
Latitudes, Departures, and Closing Errors.

Line designated	True Course	Dist. chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
South Boundary (6th St. Par. N.)	West	116.29				116.29
West Boundary	North	40.02	40.02			
	N.0°15'E.	40.06	40.06		.18	
	North	40.10	40.10			
	N.0°15'E.	40.06	40.06		.18	
	North	40.00	40.00			
	N.0°15'E.	40.08	40.08		.18	
	North	40.00	40.00			
	N.0°15'E.	40.02	40.02		.18	
Meanders-Left bank of Little Colo. River.	N.0°08'E.	40.00	40.00		.09	
	North	3.20	3.20			
Meanders-Left bank of Little Colo. River.	Various	Various		363.27	119.81	3.56
Convergency					.04	
Totals,			363.54	363.27	120.62	119.85
			363.27		119.85	
Error in latitude,			0.27			
Error in departure,					0.77	

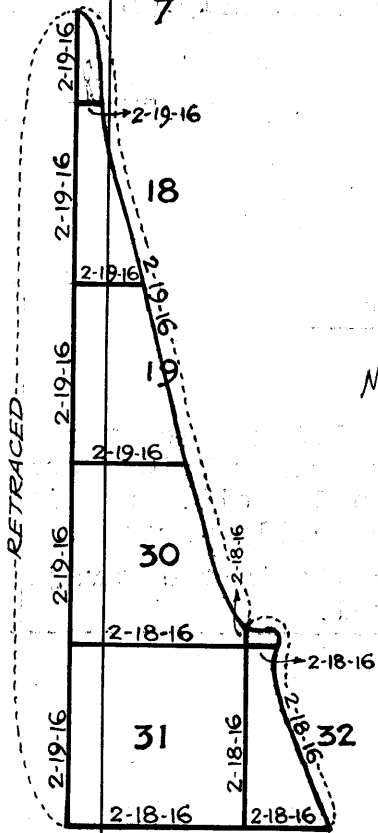
General Description.

The portion of T. 25 N., R. 11 E. lying W. of the Little Colorado River consists of broken rolling mountainous land, with very rocky and sandy soil, and little or no vegetation. The land is practically worthless.

The portion east of the river is within the Navajo Indian Reservation, and is unsurveyed.

T. 25 N., R. II E.

Date Diagram.



NAVAJO INDIAN RESERVATION

6th Std. Par. N.

Lines run by Surveyor Theo. O. Johnston on dates above shown.

Lines run by Transitman Philip L. Inch on dates above shown.

BOOK 3260

4-680

FIELD ASSISTANTS. to

Philip L. Inch, U. S. Transitman,

NAMES.	CAPACITY.
Ernest C. Johnston,	1st chairman,
H.E. Longmaid	2nd chairman,
Neil O'Connell,	Flagman,
- Chas. E. Rubi,	Axman,
Gregario C. Gonzales,	Moundman.

CERTIFICATE OF UNITED STATES ~~SURVEYOR~~

I, Philip L. Inch, U.S. ~~Surveyor~~ ^{Transitman}, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 66, Arizona, No. 65 bearing date of the 4th day of January, 1916, 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~~ ^{retraced} all those parts or portions of the West boundary and surveyed all these parts or portions of the Subdivision lines of

TOWNSHIP 25 NORTH, RANGE 11 EAST,

of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 12 hereof the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of retracement and 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 66, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~survey~~ retracement and survey.

Philip L. Inch
~~U.S. Surveyor~~
U.S. Transitman

APPROVAL

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

, 191

The foregoing field notes of the survey of

executed by

under his special instructions dated , 191 , 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. 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.

U. S. Surveyor General.

BOOK 3260 16

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Theodore O. Johnston, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 66, Arizona, bearing date of the 4th day of January, 1916, 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 6th Standard Parallel in Range II East and the meander lines and the Subdivision lines within

TOWNSHIP 25 NORTH, RANGE 11 EAST,

of the Gila and Salt

River Base & Meridian, in the State of Arizona, which are represented in and by diagram on page 12 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 66, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Theodore O. Johnston U. S. Surveyor.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, FEB. 8, 1919

The foregoing field notes of the retracement of Portion of West boundary of T. 25 N., R. II E.

and survey of 6th Std. Par. North thru part of Range II East, and meanders of left bank of Little Colorado River and portion of subdivision lines within

TOWNSHIP 25 NORTH, RANGE 11 EAST,

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

executed by Theo. O. Johnston, U.S. Surveyor, and Philip L. Inch, U.S. Transitman under special instructions dated Jan. 4, 1916, for Gp. 66, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracement & surveys they describe, are hereby approved.

Frank R. 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.