ORIGINAL 107

Book "F" 4120

4—679
(April 1933)

BOOK 4120

FIELD NOTES

4120

OF THE RETRACEMENT OF

PART OF
ARIZONA-NEW MEXICO STATE BOUNDARY and the

2nd STANDARD PARALLEL NORTH THRU PART OF FRAC. RANGE 31 EAST

AND OF THE RESURVEY OF

PART OF THE SUBDIVISION LINES OF

FRAC. TOWNSHIP 8 NORTH, RANGE 31 EAST

Of the Gila and Salt River Base and *Meridian,*

In the State of ARIZONA

EXECUTED BY

Roger F. Wilson, U.S.Surveyor

Under supplemental *special instructions dated* December 16, *19* 35, *which provided for the surveys included under Group No.* 192, Arizona *bearing the approval of the Commissioner of the General Land Office under date of* January 9, 1936 *and assignment instructions dated* August 17, *19* 36

4120

Retracement and Re- *Survey commenced* October 1, *19* 36

Retracement and Re- *Survey completed* October 10, *19* 36

U. S. GOVERNMENT PRINTING OFFICE 6—151

INDEX DIAGRAM.

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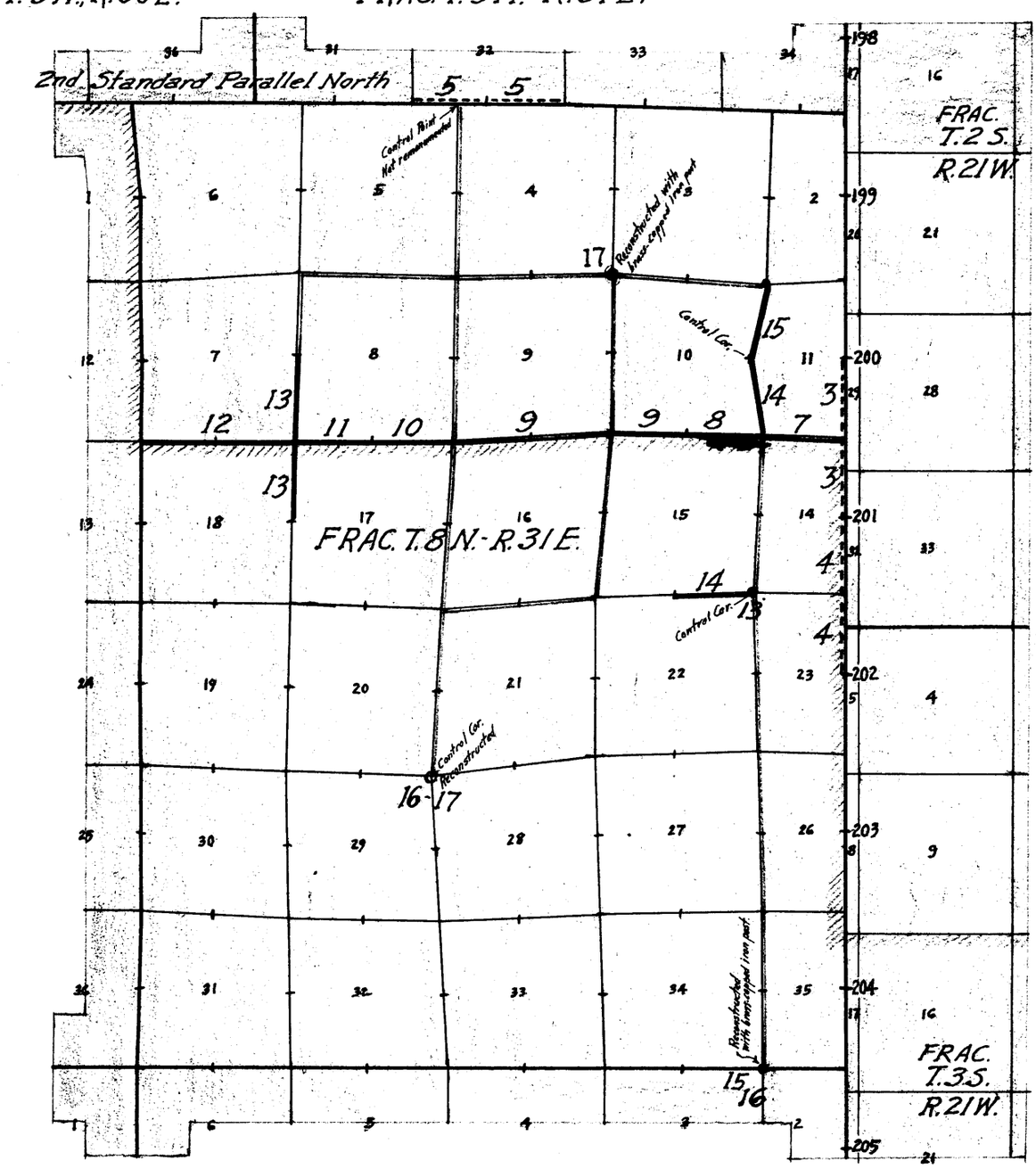
BOOK 4120



_____ Accepted surveys.

- - - - - - - - - - Retraced under this group (Notes transcribed herein.)

_____ Resurveyed under this group (Notes transcribed herein.)

Boundary of Apache National Forest.

Areas surveyed (Ariz. & New Mex.) as per accepted plats on file.

_____ Incomplete Retracement (Notes not transcribed.)
Original corner monuments missing.

The retracements and resurveys herein described were executed with an A.E.Leitz solar transit, Serial No. 6166, by Roger F. Wilson, U. S. Surveyor. The instrument is equipped with improved Smith solar attachment and otherwise conforms to the standard specifications of the General Land Office. The instrument was examined and tested by the District Cadastral Engineer for California and Arizona and was approved September 28, 1936, conditional upon satisfactory results of field tests.

PRELIMINARY FIELD TESTS OF INSTRUMENT

October 2, 1936, in camp at approx. center of sec. 8, Frac. T. 8 N., R. 31 E., G. and S.R. Meridian, Arizona, in Latitude 34° 05' N. and Longitude 109° 06' W., determined from data accompanying the instructions for Group No. 192, examine the instrument and find no appreciable errors, then test the indications of the solar apparatus by comparison with the meridian established this day by Polaris observation as follows:

Watch checked in Springerville, Arizona, at noon, October 1, 1936. Make an hour angle observation on Polaris E. of the meridian, turning left from a lone tree on W. point of mesa, about 6 miles dist., accumulating the angle of 4 readings, 2 direct and 2 reverse.

Mean watch time, P.M.	$6^h\ 20^m$
Watch fast of L.M.T.	16.4^m
Accumulated angle, reference point to Polaris	86° 15'
Mean angle	21° 33' 45"
Azimuth of Polaris	1° 12' 54" E.
Bearing of reference point	N. 22° 46' 39" E.
Mean observed altitude	33° 52'
Reduced latitude	34° 05' 07" N.

Then turn 22° 46½' left from reference point and establish meridian by driving a tack in a stake firmly set in ground about 8.00 chs. N.

October 3, 1936, at 8h 00m a.m. app.t., set off 34° 05' N. on the latitude arc; 4° 01½' S. on the decl. arc, and determine a meridian with the solar which agrees within 1' with the true meridian.

At app. noon, with the latitude arc unchanged, observe the sun on the meridian; the resulting reading of the declination arc is 4° 06' S., which agrees with the computed declination of the sun.

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At 4h 00m p.m., app.t., with the latitude arc unchanged, set off 4° 09' E. on the declination arc and determine a meridian with the solar which agrees within 1' with the true meridian.

As all of the solar observations made during the usual hours of solar work come within 1' 30" of the true meridian, conclude that the instrument is in satisfactory adjustment on this date.

All measurements were made with a Lallie steel tape, 5 chs. in length, graduated every link for the first 100 lks. and the balance at intervals of 10 lks. The tape was tested by comparison with a Lufkin standard and found correct. The measurements are made on the slope; the vertical angle of each interval determined with a clinometer in good adjustment and the horizontal equivalents entered in the field note record.

U. S. GOVERNMENT PRINTING OFFICE: 1931 6—8155

4—673 b

RETRACEMENT: PART OF ARIZONA- NEW MEXICO STATE BOUNDARY
(201st and 202nd mile)

BOOK 4120

(3.)

Chains	
	The Arizona-New Mexico state boundary was surveyed in 1875, by Chandler Robbins, U.S.Astronomer, establishing mile monuments at 80.00 ch. intervals, numbered consecutively from N. to S. The following notes describe a retracement of the portion of said state bdy. between the 200 and 202 mile mons. No previous retracement or resurvey of these two miles is of record.
	The 200 mile mon: which is a sandstone, 8x8x6 ins. above ground, firmly set, mkd. ARIZ on W. face, NM on E. face, and 200 on N. face. Markings on S. face, illegible.
	Thence
	South on random line, on the 201st mile of state bdy.
	Over open nearly level land, draining NW. thru scattering undergrowth.
12.35	Center of Morrison Creek, about 200 lks. wide, 15 ft. deep, containing a stream of running water 3 lks. wide, 6 ins. deep, course N. 60° W.
16.26	A point 1 lk. W., of the west ¼ sec. cor. of sec. 29, Frac. T. 2 S., R. 21 W., New Mexico, which is an iron post, 1 in. diam., projecting 12 ins. above ground, firmly set, mkd. on brass cap ARIZ | ¼ S29 1921
23.08	Center of Morrison Creek (dry), 90 lks. wide, 15 ft. banks, course N. 60° E.
40.84	(Record dist.) Diligent search in this vicinity fails to reveal any trace of the closing cor. of secs. 11 and 14, Frac. T. 8 N., R. 31 E., G. & S.R.B.& M., Arizona. Set temporary closing cor.
42.82	U.S.Forest boundary fence, brs. E. and W. Fence cor. brs. W. 50 lks. dist., from which fencing extends E. and S.
45.65	Leave nearly level and enter rolling land. Asc. 50 ft. over NW. slope.
55.70	Ascend slightly over W. slope.
56.27	A point 6 lks. W. of the closing cor. of secs. 29 and 32, Frac. T. 2 S., R. 21 W., New Mexico, which is an iron post, 2 ins. diam., projecting 12 ins. above ground, firmly set, mkd. on brass cap ARIZ | T2S R21W S29 C / S32 C 1921
56.30	Fence (3 strand barbed wire) brs. E. and W.
58.13	Desc. 23 ft. over SW. slope.
65.71	Draw, course W., asc. 40 ft. over NW. slope of hill.
74.13	Desc. 46 ft. over SW. slope to
77.63	Road, brs. NW. and SE. at foot of hill.

U. S. GOVERNMENT PRINTING OFFICE: 1921 6—8155

RETRACEMENT: PART OF ARIZONA- NEW MEXICO STATE BOUNDARY
(201st and 202nd miles)

Chains	
	Leave rolling and enter nearly level land.
78.73	Wash, 15 lks. wide, 6 ft. deep, course S. 80° E.
80.13	Fall 9 lks. W., of the 201 mile mon., which is a broken lava stone, 14x14x6 ins. above ground, bottom half firmly set, mkd. ARIZ on W. face, NW on E. face, 201 on N. face and 321M on S. face. Pits N. and S. 5 ft. dist.
	True course and dist. of the 201st mile of state bdy. are therefore, N. 0° 04' W., 80.13 chs.
	Land, nearly level and rolling. Soil, rocky, 2nd and 3rd rates. Timber, none. Undergrowth, greasewood and sagebrush.
	South on random line, on the 202nd mile of state bdy.
	Over gently rolling open meadow land.
	Along road bearing N. and S. U.S.Forest Service bdy. fence along W. side of road.
16.17	A point 1 lk. west of the West ¼ sec. cor. of sec. 32, Frac. T. 2 S., R. 21 W., New Mexico, which is an iron post, 1 in. diam., projecting 12 ins. above ground, firmly set, mkd. on brass cap ¼ ARIZ | S32 1921
56.15	A point 6 lks. west of the closing cor. of Frac. Ts. 2 and 3 S., R. 21 W., New Mexico, which is an iron post, 3 ins. diam., projecting 12 ins. above ground mkd. on brass cap T2S R21W ARIZ S32 C S5 C T3S 1921
80.28	Fall 9 lks. West of the 202nd mile mon., which is a sandstone, 12x10x8 ins. above ground, firmly set, mkd. ARIZ on W. face, NM on E. face and 202 on N. face.
	True course and dist. of the 202nd mile of state bdy. are therefore, N. 0° 04' W., 80.28 chs.
	Land, gently rolling. Soil, rocky, 2nd and 3rd rates. Timber, none Undergrowth, none.

U. S. GOVERNMENT PRINTING OFFICE 1922 6—8155

RETRACEMENT: 2nd STANDARD PARALLEL NORTH, THRU PART OF R. 31 E.
(S. bdy. sec. 32, Frac. T. 9 N., R. 31 E.)

BOOK 5 4120

Chains	
	The 2nd Standard Parallel North thru fractional Range 31 East, was surveyed in 1882, by A.P.Johnson, U.S.D.S., due E. to intersection with the Arizona-New Mexico state bdy. No retracement or resurvey of any part of this line is of record. The following notes describe a retracement of the S. bdy. of sec. 32, Frac. T. 9 N., R. 31 E.
	The standard cor. of secs. 31 and 32, T. 9 N., R. 31 E. is an unmarked lava stone, 12x8x6 ins. above ground, firmly set, in a mound of stone. No accessories.
	Thence,
	East on random line, on S. bdy. of sec. 32 (W.½)
	Over open gently rolling land, draining N.
9.83	Road, (old Salt Lake Trail) brs. NE. and SW.
17.83	Draw, course N.
26.07	(Record dist.) Diligent search in this vicinity fails to reveal any trace of the closing cor. of secs. 4 and 5, Frac. T. 8 N., R. 31 E. Set temp. closing cor.
36.90	Road brs. N. 30° W., and S. 30° E.
37.13	Fall 77 lks. S. of the standard ¼ cor., which is a wash boulder, 12x8x5 ins., loosely set, mkd. ¼ SC on top. Reset this stone 6 ins. in the ground and establish bearing trees as follows: A juniper, 10 ins. diam., brs. N. 67° W., 860 lks. dist., mkd. SC BT. A pinyon, 16 ins. diam., brs. S. 30½° E., 700 lks. dist., mkd. SC BT.
	True course and dist. of W.½ of S. bdy. of sec. 32 are therefore, N. 88° 49' E., 37.14 chs. and the proportional point for the closing cor. is at 24.20 chs. N. 88° 49' E., from the std. cor. of secs. 31 and 32. Move the temp. closing cor. of secs. 4 and 5 to said proportional point on the Parallel.
	Thence,
	East, on random line. in S. bdy. of sec. 32 (E.½)
	Over open gently rolling land. Asc. 60 ft. over N. and NW. slopes to sec. cor.
10.90	Enter scattering scrub timber, brs. N. and S.
40.50	Fall 31 lks. S. of the standard cor. of secs. 32 and 33, which is a wash boulder 8x8x6 ins. loosely set, mkd. CS on N. face, 4 notches on E. face, and 2 notches on W. face. Reset this stone 6 ins. in the ground and establish bearing trees as follows: A juniper, 16 ins. diam., brs. N. 59° E., 106 lks. dist., mkd. T9N R31E S33 SC BT. A juniper fork, 8 ins. diam., brs. N. 40½° W., 262 lks. dist., mkd. T9N R31E S32 SC BT. A juniper fork, 8 ins. diam., brs. S. 44¼° W., 99 lks. dist., mkd. SC BT.

U. S. GOVERNMENT PRINTING OFFICE: 1941 6—8155

4—673 b

RETRACEMENT: 2nd STANDARD PARALLEL N., thru PART OF R. 31 E.
(S. bdy. sec. 32, Frac. T. 9 N., R. 31 E.)

BOOK 4120

6.

Chains	
	True course and dist. , of E. $\frac{1}{2}$ of S. bdy. of sec. 32, are therefore, N. 89° 33' E., 40.50 chs.
	Land, gently rolling.
	Soil, gravelly and rocky, 2nd and 3rd rates.
	Timber, juniper and pinyon.
	Undergrowth, none.

U. S. GOVERNMENT PRINTING OFFICE: 1952 6—84156

4—673b

RESURVEY: PART OF SUBDIVISION LINES OF FRAC. T. 8 N., R. 31 E.

BOOK 412(

7.

Chains	
	The subdivision lines of Fractional T. 8 N., R. 31 E., were surveyed in 1883, by A.E.Shoemaker, U.S.D.S. No retracement or resurvey of any part of the subdivision lines of this township is of record. The following notes describe a dependent resurvey of the 4th latitudinal subdivisional line thru the Tp., reconstructing all existing cors. with regulation brass-capped iron posts and reestablishing all missing cors. at proportional intervals between existing cors. This line forms part of the North bdy. of the Apache National Forest. The field notes herein also describe a resurvey of the S. ½ of the line between secs. 7 and 8, and N. ½ of line between secs. 17 and 18, the E. ½ of line between secs. 15 and 22, and the line between secs. 10 and 11, all of this Tp.
	At proportional point on the 201st mile of the Arizona-New Mexico state bdy., which is 39.22 chs., N. 0° 04' W. from the 201 mile monument, and 40.91 chs. S. 0° 04' E., from the 200 mile monument, thereon, reestablish the closing cor. of Frac. secs. 11 and 14, Frac. T. 8 N., R. 31 E., G. & S.R.B.& M., Arizona, as follows:
	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for closing cor. of Frac. secs. 11 and 14, with brass cap mkd.
	T8N | NEW C S11 | MEX C S14 | ICO R31E | 1936
	raise a mound of stone, 2 ft. base, 1 ft. high, W. of cor.
	Thence,
	N. 87° 54' W., on true line, bet. frac. secs. 11 and 14.
	Over nearly level open land, draining NW.
5.97	Fence (3 strand barbed wire fence) brs. N. and S. Fence cor. brs. N. about 2.00 chs. dist., from which fences extend S. 70° W. and S. Another fence cor. brs. S. about 2.00 chs. dist. from which fences extend N. and E. and an old line of fence posts extends S.
15.27	Fence, (4 strand barbed wire) brs. S. 70° W., and N. 70° E.
16.40	Wash, 25 lks. wide, 15 ft. deep, course NE.
21.60	Morrison Creek (dry) 40 lks. wide, 15 ft. banks, course NE. Enter scattering timber.
38.40	(Proportional point in departure bet. closing cor. of secs 11 and 14 to the east and cor. of secs. 9, 10, 15 and 16 to the west, and in latitude bet. the ¼ sec. cor. of secs. 10 and 11 to the north and the cor. of secs. 14, 15, 22 and 23 to the south).
	Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, for cor. of secs. 10, 11, 14 and 15, with brass cap mkd.

U. S. GOVERNMENT PRINTING OFFICE: 1921 6—8155

4—673 b

BOOK 4120

RESURVEY: PART OF SUBDIVISION LINES OF FRAC. T. 8 N., R. 31 E.

8

Chains

T8N	R31E
S10	S11
S15	S14

1936

from which

A pinyon, 12 ins. diam., brs. N. 86¾° E., 527 lks. dist. mkd. T8N R31E S11 BT.

A pinyon fork, 12 ins. diam., brs. S. 49° E., 193 lks. dist., mkd. T8N R31E S14 BT.

A pinyon, 12 ins. diam., brs. S. 49° 50' W., 706 lks. dist., mkd. T8N R31E S15 BT.

A juniper, 6 ins. diam., brs. N. 62° 08' W., 469 lks. dist., mkd. T8N R31E S10 BT.

U. S. Forest Service bdy. fence, bearing E. and W., brs. S. 2.83 chs. dist.

Land, nearly level.
Soil, gravelly, over light loam, 2nd and 3rd rates.
Timber, pinyon, and juniper.
Undergrowth, scrub pinyon and juniper, greasewood and bunchgrass.

N. 88° 13' W., on true line, bet. secs. 10 and 15.

Over gently rolling land, thru scattering timber and undergrowth.

Asc. 54 ft. over SE. slope to ¼ sec. cor.

8.63 Fence (3 strand barbed wire) brs. E. and W.

18.20 Road, brs. N. 80° E. and S. 80° W.

29.50 Same road, brs. N. 70° W. and S. 70° E.

34.31 Road, brs. N. to highway, and S. to H-V ranch.

38.79 (Mid point) Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, for ¼ sec. cor. with brass cap mkd.

¼ S 10 / S 15

1936

from which

A pinyon, 12 ins. diam., brs. N. 29° E., 120 lks. dist. mkd. ¼ S10 BT.

A pinyon, 10 ins. diam., brs. S. 1¼° W., 156 lks. dist. mkd. ¼ S15 BT.

No trace of original ¼ sec. cor. can be found in this vicinity.

U. S. Forest Service bdy. fence bearing E. and W., brs. S. 3.54 chs. dist.

Continue over gently rolling land, thru scattering timber and undergrowth. Asc. 23 ft. over SE. slope to

U. S. GOVERNMENT PRINTING OFFICE: 1951 6—8155

Chains	
43.74	Foot of steep slope, bears NE. and SW. Leave gently rolling land and timber and enter mountainous land. Asc. 218 ft. over SE. slope to
54.22	Rim of mesa brs. NE. and SW. Leave mountainous and enter gently rolling land on mesa.
	Asc. 110 ft. over NE. slope to
77.58	Intersect original cor. of secs. 9, 10, 15 and 16, which is a lava stone, 15x10x8 ins. above ground, firmly set, mkd. with 4 notches on S. face and a cross (X) on top. No accessories. Reconstruct this cor. monument as follows: remove the stone and at original cor. point, set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, with the old stone set alongside, for cor. of secs. 9, 10, 15 and 16; with brass cap mkd. T8N | R31E S9 | S10 S16 | S15 1936 raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	U.S.Forest Service bdy. fence, bearing E. and W. brs. S. 2.50 chs. dist.
	Land, gently rolling and mountainous. Soil, gravelly, over light loam, 2nd and 3rd rates, except in the mountainous land where it is rocky 4th rate. Timber, pinyon and juniper. Undergrowth, scrub pinyon and juniper, greasewood and bunchgrass.
	S. 85° 35' W., on true line, bet. secs. 9 and 16.
	Over open nearly level grassy land on mesa.
36.40	U.S.Forest Service bdy. fence, brs. E. and W.
40.30	(Midpoint) Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground to bed rock, with a stone 6x4x3 ins. mkd. with a cross (X) deposited at base, and in a mound of stone to top, for ¼ sec. cor. with brass cap mkd. ¼ S 9 / S 16 1936
	U.S.Forest Service bdy. fence, brs. N. 26 lks. dist.
	No trace of original ¼ sec. cor. can be found in this vicinity.
	Continue over nearly level, open, grassy land, on mesa.
65.50	Thence over gently rolling land, descending 40 ft. over SW. slope thru very scattering timber and undergrowth.
80.60	(Proportional point in departure bet. cor. of secs. 9, 10,

Chains	
	15 and 16 to the E., and cor. of secs. 7, 8, 17 and 18 to the W. and in latitude bet. proportional point for closing cor. of secs. 4 and 5 to the N. and the cor. of secs. 20, 21, 28 and 29 to the S.) Set an iron post, 3 ft. long, 2 ins. diam., 16 ins. in the ground, to bed rock, with a stone 4x4x3 ins. mkd. with a cross (X) deposited at base, and in a mound of stone to top, for cor. of secs. 8, 9, 16 and 17, with brass cap mkd. T8N | R31E S8 | S9 S17 | S16 1936 from which
	A pinyon, 9 ins. diam., brs. S. 88¾° W., 616 lks. dist., mkd. T8N R31E S17 BT.
	A juniper, 12 ins. diam., brs. N. 87¼° W., 630 lks. dist., mkd. T8N R31E S8 BT.
	U.S.Forest Service bdy. fence, brs. N. 2.10 chs. dist.
	Land, nearly level and gently rolling. Soil, gravelly, over light loam, 2nd and 3rd rates. Timber, pinyon and juniper in W. 15 chs. only. Undergrowth, greasewood in W. 15 chs. only, bunch grass elsewhere.
	N. 88° 57' W., on true line, bet. secs. 8 and 17.
	Over gently rolling land, on mesa, thru scattering timber and undergrowth.
	Desc. 50 ft. over SW. slope.
6.88	Draw, course N. 80° W. Desc. slightly along N. slope to
8.20	Point of rocky rim of mesa, brs. S. 80° E. and S. 80° W. turning to S. at about 1.00 ch. SW. From this point, H.R.Bennett's House brs. N. 45½° W. Leave gently rolling land and mesa, and enter mountainous land, desc. 250 ft. over steep NW. slope.
16.83	Fence (6 strand barbed wire) brs. N. 70° W. and S. 70° E.
17.49	Same draw, course S. 70° W., leave mountainous and enter rolling land, desc. 140 ft. over SW. slope.
38.50	Wash, 15 lks. wide, 6 ft. deep, course N., asc. 15 ft. over E. slope to ¼ sec. cor.
39.88	H.R.Bennett's house, brs. North.
39.91	(Midpoint) Set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, for ¼ sec. cor. with brass cap mkd. ¼ S 8 S 17 1936 from which

Chains	
	A juniper, 4 ins. diam., brs. S. 21½° E., 104 lks. dist., mkd. BT only.
	A juniper, 8 ins. diam., brs. N. 18° W., 183 lks. dist., mkd. ¼ S8 BT.
	U.S.Forest Service bdy. fence, bearing E. and W., brs. N. 1.09 chs. dist.
	No trace of original ¼ sec. cor. can be found in this vicinity.
	Thence over gently rolling land. Asc. 40 ft. over E. slope.
44.20	Road, brs. N. 20° E. and S. 20° W.
53.35	Fence (4 strand barbed wire) brs. N. and S. Fence cor. from which fencing extends E., W. and S., brs. N. 1.50 chs. dist.
57.45	Low ridge, brs. N. 20° E. and S. 20° W., desc. 70 ft. over W. slope.
73.71	Draw, course N. 20° W. Enter nearly level land; asc. slightly, over E. slope to sec. cor.
78.86	Road, brs. NW. and SE., turns N. at 50 lks. NW. of this point.
79.82	Intersect the original cor. of secs. 7, 8, 17 and 18, which is a juniper stake, 18 ins. long, 2 ins. square, loosely set in ground, mkd. S18 on one side, other markings illegible. No accessories. Reconstruct this cor. monument as follows: remove the stake and at original cor. point, set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with a stone 6x6x3 ins. marked with a cross (X) deposited at base, and the old wood stake reset alongside, for cor. of secs. 7, 8, 17 and 18, with brass cap mkd.

T8N | R31E	
S7	S8
S18	S17

1936.

from which

A pinyon, 8 ins. diam., brs. S. 40° W., 327 lks. dist. mkd. T8N R31E S18 BT.

A pinyon, 14 ins. diam., brs. N. 64° W., 444 lks. dist. mkd. T8N R31E S7 BT.

No other bearing trees available.

U.S.Forest Service bdy. fence, bearing E. and W. is over this sec. cor.

Land, gently rolling, mountainous and nearly level.
Soil, gravelly, over light loam, 2nd and 3rd rates.
Timber, pinyon and juniper.
Undergrowth, scrub pinyon and juniper, and bunchgrass.

Chains	
	From the cor. of secs. 7, 12, 13 and 18 on the west bdy. of the Tp. which is an iron post, 2 ins. diam., projecting 12 ins. above ground, firmly set, mkd. on brass cap and witnessed as described in the official record. Fence cor. from which fencing extends N., E., S. and W. brs. N. 1.36 chs. dist.
	Thence from sec. cor., ...
	N. 88° 54' E., on true line, bet. secs. 7 and 18.
	Over nearly level, open, grassy land, desc. 47 ft. over NE. slope to ¼ sec. cor.
6.00	Enter timber, brs. N. and S. 20° W.
16.34	Leave timber, brs. N. 30° E. and S. 30° W.
18.49	Road, brs. N. 30° E. and S. 30° W.
32.00	Enter very scattering timber, brs. NE. and SW.
38.74	(Proportional dist.) Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor. with brass cap mkd. ¼ S 7 / S 18 1936 from which
	A pinyon, 24 ins. diam., brs. N. 21½° W., 41 lks. dist., mkd. ¼ S7 BT.
	A pinyon, 14 ins. diam., brs. S. 85½° W., 215 lks. dist., mkd. ¼ S18. BT.
	U. S. Forest Service bdy. fence bearing E. and W., brs. N. 1.18 chs. dist.
	No trace of original ¼ sec. cor. can be found in this vicinity.
	Continue over nearly level grassy land, thru very scattering timber.
	Desc. 26 ft. over NE. slope.
70.05	Draw, course N. 16° E., asc. 6 ft. over NW. slope.
74.75	Low spur, slopes N. 10° W., desc. 8 ft. over E. slope to
78.32	Intersect the cor. of secs. 7, 8, 17 and 18.
	Land, nearly level. Soil, gravelly over light loam, 2nd and 3rd rates. Timber, pinyon and juniper. Undergrowth, scrub pinyon and juniper, and bunch grass.
	The original ¼ sec. cor. of secs. 17 and 18, is a juniper post, 3 ins. square, projecting 2 ft. above ground, firmly set, markings illegible. No accessories.
	A juniper fork, 6 ins. diam., brs. N. 19½° E., 230 lks. dist. mkd. ¼ S17 BT.
	A juniper fork, 8 ins. diam., brs. S. 23° W., 224 lks. dist. mkd. ¼ S18 BT.

U. S. GOVERNMENT PRINTING OFFICE: 1949 6—8155

Chains	
	Thence,
	N. 0° 54' E., on true line, bet. secs. 17 and 18 (N.½)
	Over nearly level land and gently rolling land, thru scattering timber and undergrowth. Descend 45 ft. to sec. cor. over E. slope.
39.28	Road, brs. E. and W. Leave timber and undergrowth and enter open grassy land.
39.98	Intersect the cor. of secs. 7, 8, 17 and 18, hereinbefore described.
	Land, nearly level and rolling. Soil, gravelly, over light loam, 2nd and 3rd rates. Timber, pinyon and juniper. Undergrowth, scrub pinyon and juniper, and bunch grass.
	From the cor. of secs. 7, 8, 17 and 18, hereinbefore described,
	N. 0° 27' E., on true line, bet. secs. 7 and 8 (S.½)
	Over nearly level, open grassy land. Desc. 10 ft. over NE. slope to
8.10	Draw, course N. 70° W.; asc. 48 ft. over SE. and E. slopes to ¼ sec. cor.
18.00	Road, brs. NW. and SE.
39.92	Intersect the original ¼ sec. cor., which is a stub of an old wood post, 2 ins. square, upper part mkd. ¼ is broken off and lying on the ground alongside. No accessories.
	Land, nearly level. Soil, gravelly, over light loam, 2nd and 3rd rates. Timber, none. Undergrowth, bunch grass.
	The original cor. of secs. 14, 15, 22 and 23, is a lava stone, 15x12x10 ins. firmly set in a small mound of stone, mkd. with 2 notches on E. face and 3 notches on S. face. No accessories.
	Reconstruct this cor. monument as follows: remove the stone and mound of stone, and at original corner point, set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, with the old marked stone reset alongside, for cor. of secs. 14, 15, 22 and 23, with brass cap mkd.

T8N | R31E	
S15	S14
S22	S23

1936

from which

A juniper, 8 ins. diam., brs. N. 19¼° E., 474 lks. dist., mkd. T8N R31E S14 BT.

No other bearing trees available.

Chains	
	This cor. is the south control point used for the re-establishment, by double proportion, of the missing cor. of secs. 10, 11, 14 and 15. Said reestablished cor., hereinbefore described, bears N. 3° 15' E., 80.35 chs. dist.
	Thence, from cor. of secs. 14, 15, 22 and 23.
	S. 89° 16' W., on true line, bet. secs. 15 and 22 (E.½)
	Over nearly level open grassy land.
22.00	Morrison Creek, (dry), 25 lks. wide, 10 ft. deep, course NE.
38.80	Enter scattering timber, brs. NE. and SW.
40.39	Intersect the original ¼ sec. cor., which is a sandstone, 10x6x10 ins. mkd. ¼ on N. face, firmly set, in a small mound of stone, from which
	A juniper, 16 ins. diam., brs. S. 42½° E., 186 lks. dist., mkd. with three notches on NW. face.
	A pinyon, 20 ins. diam., brs. N. 20½° W., 495 lks. dist., mkd. with three notches on SE. face.
	Road bearing N. and S. brs. W., about 3.00 chs. dist.
	Land, nearly level. Soil, gravelly over light loam, 2nd and 3rd rates. Timber, pinyon and juniper where noted. No timber elsewhere. Undergrowth, bunch grass.
	From the reestablished cor. of secs. 10, 11, 14 and 15, hereinbefore described.
	N. 8° 15' W., on true line, bet. secs. 10 and 11 (S.½)
	Over nearly level, open grassy land.
9.05	Road, brs. NE. and SW. Enter scattering timber and undergrowth, bears NE. and SW.
40.52	Intersect the original ¼ sec. cor., which is a lava stone, 10x9x8 ins., above ground, firmly set, and mkd. ¼ on W. face. No accessories. Reconstruct this cor. monument as follows: alongside the old stone, set an iron post, 3 ft. long, 1 in. diam., 24 ins. in the ground, for ¼ sec. cor. with brass cap mkd.
	¼ S10 | S11 1936
	from which
	Juniper, 10 ins. diam., brs. S. 84½° E., 237 lks. dist. mkd. ¼ S11 BT.
	Juniper, 6 ins. diam., brs. S. 45° W., 175 lks. dist. mkd. ¼ S10 BT.
	Fence, bearing N. and S., brs. W. 3.01 chs. dist.

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Chains	
	Thence,
	N. 13° 30' E., on true line, bet. secs. 10 and 11 (N.½)
	Over nearly level land, thru scattering timber and undergrowth.
6.18	Dim road, brs. E. and W.
20.68	Leave nearly level and enter gently rolling land. Asc. 63 ft. over SW. slope.
30.50	Low ridge, brs. N. 30° E. and S. 30° E., desc. 76 ft. over NW. slope to
38.03	Intersect the original cor. of secs. 2, 3, 10 and 11, which is an unmarked lava stone, 12x8x6 ins. firmly set, in a mound of stone, from which
	A pinyon, 8 ins. diam., brs. S. 80° W., 4 lks. dist., mkd. T8N R31E S10. This tree is not described in the official record as an accessory to this corner.
	Reconstruct this cor. monument as follows: alongside the old stone, set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 2, 3, 10 and 11, with brass cap mkd.

T8N | R31E
S3	S2
S10	S11

1936

and in addition to the bearing tree just described, establish four bearing trees as follows:

A juniper, 5 ins. diam., brs. N. 35½° E., 51 lks. dist., mkd. T8N R31E S2 BT.

A juniper, 6 ins. diam., brs. S. 54° E., 60 lks. dist. mkd. BT only.

A juniper, 10 ins. diam., brs. S. 59° W., 33 lks. dist., mkd. T8N R31E S10 BT.

A juniper, 10 ins. diam., brs. N. 77° W., 15 lks. dist., mkd. T8N R31E S3 BT.

Land, nearly level and gently rolling.
Soil, gravelly, over light loam, 2nd and 3rd rates.
Timber, juniper and pinyon.
Undergrowth, scrub juniper and pinyon, and bunch grass.

RECONSTRUCTION OF CONTROL CORNERS.

The original corner of secs. 2, 3, 34 and 35, Frac. Ts. 7 and 8 N., R. 31 E., is a wood post, 3 ins. square, 22 ins. long, illegibly mkd. on each of two sides, firmly set in a mound of stone alongside fence cor. from which fences extend N. 30° W. and S. 24° E., and witnessed by the original bearing tree, a pinyon, 10 ins. diam., S. 5° E., 114 lks. dist., mkd. T7N R31E S2 BT.

Reconstruct this corner monument as follows:

Chains

remove the mound of stone, and in center of its position, set an iron post, 3 ft. long, 2 ins. diam., 27 ins. in the ground, with old wood post reset alongside, and raise a mound of stone around post to top, for cor. of secs. 2, 3, 34 and 35, with brass cap mkd.

T8N | R31E	
S34	S35
S3	S2

T7N

1936

and in addition to the original bearing tree establish three new bearing trees:

A pinyon, 8 ins. diam., brs. N. 25½° E., 353 lks. dist., mkd. T8N R31E S35 BT.

A pinyon, 10 ins. diam., brs. S. 10° W., 123 lks. dist., mkd. T7N R31E S3 BT.

A juniper, 6 ins. diam., brs. N. 64° W., 390 lks. dist., mkd. T8N R31E S34 BT.

U. S. Forest Service bdy. post No. 75, established in 1902, which is an iron post, 3 ins. diam., projecting 24 ins. above ground, firmly set, and mkd. on brass cap as described in the official record, bears S. 70¼° E., 257 lks. dist. This monument does not at the present time serve to mark a point in a National Forest Bdy.

The above described sec. cor. was reconstructed as the south control point for the reestablishment, by double proportion, of the missing cor. of secs. 10, 11, 14 and 15, but later the original cor. of secs. 14, 15, 22 and 23 was found, reconstructed with regulation brass-capped iron post as hereinbefore described, and was used for said south control instead of the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., from which it bears N. 0° 50' W., 242.43 chs. dist.

The original cor. of secs. 20, 21, 28 and 29 is a sandstone 14x14x8 ins. marked with 2 notches on S. face and 4 notches on N. face, firmly set in a mound of stone, and witnessed by the original bearing tree:

A juniper, 12 ins. diam., S. 54½° W., 100 lks. dist., mkd. T8N R31E S29 BT.

Reconstruct this cor. monument as follows:
remove the mound of stone, and in center of its position set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, with the marked stone reset alongside, and raise a mound of stone around post to top, for cor. of secs. 20, 21, 28 and 29, with brass cap mkd.

T8N | R31E	
S20	S21
S29	S28

1936

and in addition to the original bearing tree establish three new bearing trees:

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Chains

A juniper fork, 6 ins. diam., brs. N. 24° E., 526 lks. dist., mkd. T8N R31E S21 BT.

A juniper, 14 ins. diam., brs. S. 78¼° E., 142 lks. dist., mkd. T8N R31E S28 BT.

A juniper, 14 ins. diam., brs. N. 70° W., 330 lks. dist., mkd. T8N R31E S20 BT.

The reestablished cor. of secs. 8, 9, 16 and 17, hereinbefore described, bears N. 3° 37' E., 168.94 chs. dist., and the above described cor. of secs. 20, 21, 28 and 29, was reconstructed as the south control point for the reestablishment, by double proportion, of the missing cor. of secs. 8, 9, 16 and 17. The north control point is the proportional point for the closing cor. of secs. 4 and 5, on the W. ½ of S. bdy. of sec. 32 (2nd Std. Par. N.) Frac. T. 9 N., R. 31 E., 24.20 chs. N. 88° 49' E. from the std. cor. of secs. 31 and 32. This point bears N. 0° 34' E., 170.06 chs. dist. from the reestablished cor. of secs. 8, 9, 16 and 17, and said north control point was not remonumented.

The original cor. of secs. 3, 4, 9 and 10, is an unmarked stub of a wood post, 4 ins. square, in a small mound of earth, witnessed by faint traces of pits in each sec., and the original bearing tree:

A pinyon, 12 ins. diam., S. 38¼° W., 25 lks. dist., mkd. T8N R31E S9 BT.

Reconstruct this cor. monument as follows:
remove the mound of earth, and alongside old wood post stub, set an iron post, 3 ft. long, 2 ins. diam., 30 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, with brass cap mkd.

T8N	R31E
S4	S3
S9	S10

1936

and in addition to the original bearing tree establish three new bearing trees:

A juniper, 24 ins. diam., brs. N. 89½° E., 187 lks. dist., mkd. T8N R31E S3 BT.

A pinyon, 8 ins. diam., brs. S. 50½° E., 35 lks. dist. mkd. T8N R31E S10 BT.

A juniper fork, 10 ins. diam., brs. N. 75¼° W., 314 lks. dist., mkd. T8N R31E S4 BT.

This corner monument was reconstructed as north control corner for reestablishment of the cor. of secs. 9, 10, 15 and 16, then believed to be missing, but after the above described reconstruction the original cor. of secs. 9, 10, 15 and 16 was found and reconstructed as hereinbefore described, and the cor. of secs. 3, 4, 9 and 10 then lost its designation as a control cor.

The above described cor. bears N. 0° 3' W., 79.80 chs. dist. from the cor. of secs. 9, 10, 15 and 16.

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FINAL TEST OF INSTRUMENT

October 10, 1936

At camp near center of sec. 8, Frac. T. 8 N., R. 31 E., G. & S.R.B.& M., Arizona, on the meridian established there by Polaris observation at the beginning of resurvey, in said township, as hereinbefore described, make final test of the Lietz transit No. 6166 as follows:

At 7h 00m., a.m., app.t., set off 34° 05' N. on the latitude arc, 6° 39½' S. on the declination arc; and determine a meridian with the solar, which agrees within 1' with the true meridian.

At app. noon, with the latitude arc unchanged, observe the sun on the meridian, and obtain a reading of 6° 47' S. on the declination arc which agrees with the computed declination of the sun.

At 3h 00m., p.m., app.t., with the latitude arc unchanged, set off 6° 49½' S. on the declination arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations made during the usual hours of solar work come within 1' 30" of the true meridian, conclude that the instrument is in satisfactory adjustment on this date and has been in that condition throughout the resurveys described in the foregoing field notes.

GENERAL DESCRIPTION

This fractional township adjoining the East boundary of the State of Arizona, near the head of the Little Colorado River drainage basin, has an average elevation of about 7500 feet above sea level. The principal topographical feature is a large mesa, about 4 miles long, with an average width of about 1¼ miles, bearing N. and S. in the center of the township. This mesa rises abruptly about 250 feet above the general level of the surrounding land, and the steep rocky sides of this mesa constitutes the only mountainous surface in this township. The top of the mesa and nearly all parts of the township below has a gently rolling and nearly level surface. The entire township drains northerly into Coyote Creek in the adjoining township to the north, a tributary of the Little Colorado River. The principal water course is Morrison Creek, course northerly thru the township to the east of the mesa, and draining the east half of the township. The west half of the township to the west of the mesa is drained by several washes with general northerly courses.

The soil of the greater part of the township is gravelly, over a light loam, 2nd and 3rd rates. The soil on the sides of the mesa, and in the southwestern part of the township, is rocky, 4th rate.

The timber consists of juniper and pinyon, and is prevalent over most of the township in a scattering growth, though many large areas in various parts are entirely devoid of any timber.

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The undergrowth is scattering and consists of greasewood, scrub pinyon and juniper.

Many large areas are clear of timber and undergrowth, and in these portions of the township a good growth of bunch grass is prevalent, furnishing fair grazing.

The only settler is H.R.Bennett, in section 8 with improvements consisting of house, well, fences, and cultivated land.

The U. S. Forest Service has built a fence along the north bdy. of the Apache National Forest, which extends thru the township on the fourth latitudinal subdivision line north from the S. bdy., along part of the State Bdy., and along the north two miles of the West bdy. of the Tp. There are several fenced tracts in the eastern and southeastern parts of the Tp., and some cultivated land in the southeastern part. There is a reservoir in the east half of sec. 34, known as Coyote Reservoir.

A road crosses the southern part of the township easterly and westerly, joining in sec. 34 a road extending thru the eastern part, from the SE. cor. to the N. bdy. of sec. 4, thence northerly to junction with U.S.Highway No. 60, bearing E. and W. about 2 miles N. from the N. bdy. of this Tp. Several other roads in fair condition traverse the sections of the N. half of the Tp. west of the mesa. There are no roads on the mesa.

There are no surface indications of valuable mineral deposits.

Springerville, Arizona, is about 10 miles westerly from the NW. cor., and the town of Nutrioso, Arizona, is about 8 miles southwesterly from the SW. cor. of the Tp. Both of these towns are postoffices, neither one is located on a railroad, but both are served by stages, being located on U.S. and State highway.

The south four tiers of sections are within the Apache National Forest.

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BOOK 4120

4—680
(August, 1926)

FIELD ASSISTANTS.

To

Roger F. Wilson U. S. Surveyor

NAMES.	CAPACITY.
William J. Martin	Principal Assistant
Walter Wright	Chainman
A. C. Terry	Flagman
Clark Blevins	Cornerman
James D. Kappen	Axman
Ellis W. Murphy	Axman

6—3744

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(7)

BOOK 4120

CERTIFICATE OF UNITED STATES SURVEYOR

I, Roger F. Wilson, U. S. Surveyor, hereby certify upon honor that, in pursuance of supplemental special instructions received from the District Cadastral Engineer for Arizona bearing date of the 16th day of December, 1935, 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, ~~retraced~~ all those parts or portions of Arizona--New Mexico State Boundary and the 2nd Standard Parallel North in Frac. Range 31 East and resurveyed all those parts or portions of the Subdivision Lines of Frac. Township 8 North, Range 31 East 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 that all the corners of said retracement and resurvey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the supplemental special written instructions of the District Cadastral Engineer for Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such retracement and resurvey.

Phoenix, Arizona
April 29, 1937

Roger F. Wilson
U. S. Surveyor.

APPROVAL

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colo., October 2, 1937

The foregoing field notes of the retracement of Arizona-New Mexico State Boundary and the 2nd Standard Parallel North thru part of Frac. Range 31 East and of the resurvey of part of the Subdivision Lines of Frac. Township 8 North, Range 31 East of the Gila and Salt River Base and Meridian in the State of Arizona executed by Roger F. Wilson, U. S. Surveyor under supplemental special instructions dated December 16, 1935 for Gp.192, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the retracements and resurveys they describe, are hereby approved.

Marion R. Johnson
U. S. Supervisor of Surveys.

~~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. Supervisor of Surveys.~~

U. S. GOVERNMENT PRINTING OFFICE: 1927 6—2764