

# FIELD NOTES

RETRACEMENT OF  
OF THE ~~SURVEY~~ OF THE

*Part of the South Boundary and  
Part of the Subdivision Lines  
of Township 21 South, Range 7 East*

AND OF THE RESURVEY OF

*the 4th Standard Parallel South  
thru Part of Range 7 East,  
and Part of the Subdivision Lines of*

*Township 21 South, Range 7 East*

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

In the State of *Arizona*

EXECUTED BY

*Benjamin J. Kinsey, U.S. Surveyor*

*and*

*Charles E. Hunter, U.S. Transitman*

*In the capacity of U. S. Surveyors, under Special Instructions dated Sept 25, 1919, issued by the United States Surveyor General to govern surveys included in Group No. 100, Arizona, which were approved by the Commissioner of the General Land Office, October 22, 1919, and Assignment Instructions dated April 11, 1927.*

*Retracement  
and Resurvey commenced April 22, 1927.*

*Retracement  
and Resurvey completed May 5, 1927.*

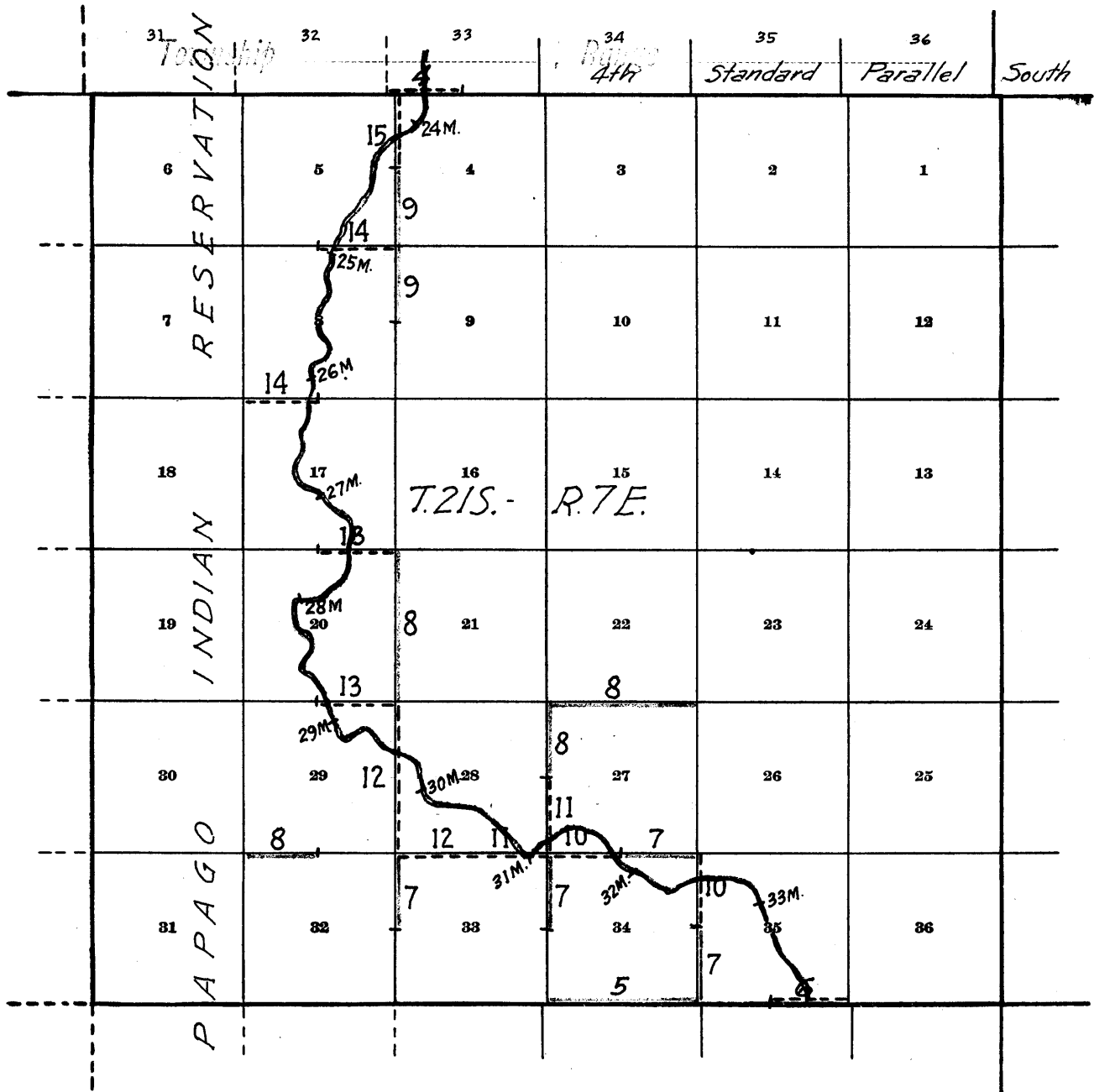
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Book "R"  
Group 100 - Arizona

BOOK 3807

INDEX DIAGRAM.

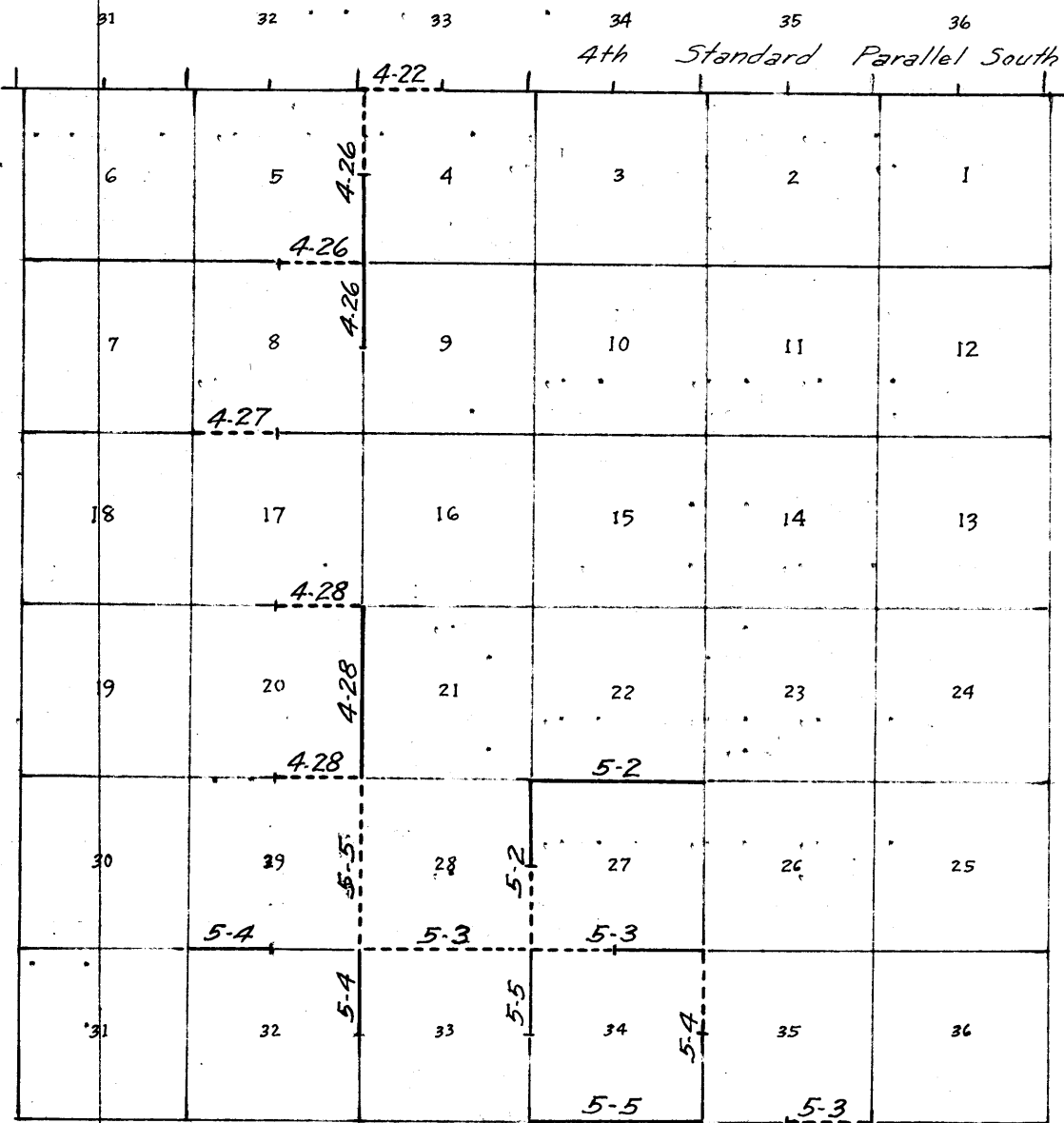


- Surveyed under this group. (Notes in Book "Q")
- Retraced under this group. Notes herein.
- Resurveyed under this group. Notes herein.
- Accepted surveys, retracements or resurveys.
- Unsurveyed.

TOWNSHIP 21 SOUTH - RANGE 7 EAST

DATE DIAGRAM

1927



— Retraced by Benjamin J. Kinsey, U.S. Surveyor on dates shown thereon.

- - - Resurveyed by Benjamin J. Kinsey U.S.S. on dates shown thereon.

— Retraced by Charles E. Hunter, U.S. Transitman on dates shown thereon.

- - - Resurveyed by Charles E. Hunter, U.S. Transitman on dates shown thereon.

— Accepted surveys, retracements or resurveys.

The surveys herein described were executed on dates shown on diagram on page 1 hereof by Benjamin J. Kinsey, U.S. Surveyor and Charles E. Hunter, U.S. Transitman, using respectively Buff Transits Nos. 9940 and 10125; the instruments are equipped with full vertical circle and Smith solar attachment; unless otherwise specified all azimuth determinations are accomplished with the solar attachments.

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PRELIMINARY FIELD TEST  
of  
Buff Transit No. 9940  
by  
Benjamin J. Kinsey, U.S. Surveyor.

April, 19, 1927, at my station in camp, near the corner secs. 23, 24, 25 and 26, T.20 S., R.7 E., G. & S.R. B. & M., latitude  $31^{\circ}40\frac{1}{2}'$  N., and longitude  $111^{\circ}36'12''$  W., examine the adjustments of the transit and find no existing errors; then to test the workings of the solar attachment by comparing its indications hourly with a true meridian established by observation upon Polaris proceed as follows:

At 9h.00m., a.m., app.t., set off  $31^{\circ}40\frac{1}{2}'$  N., on the lat. arc,  $11^{\circ}00'$  N., on the decl. arc and determine a meridian with the solar which I mark by setting a tack on line, in top of a stake driven firmly in the ground, about 5 chs. N.

At 12h.00m., app. noon, with the lat. arc unchanged, observe the sun on the meridian; the resultant reading of the decl. arc is  $11^{\circ}02'$  N., which agrees with the computed decl. of the sun.

At 3h.00m., p.m., app.t., with the lat. arc unchanged, set off  $11^{\circ}05'$  N., on the decl. arc and determine a meridian with the solar which agrees with the A.M. observation.

At 5h.51m., p.m., l.m.t., observe Polaris at western elongation, making four obsns., two each with the telescope in direct and reversed positions, and marking the mean point in the line thus determined by a tack set in a stake driven firmly in the ground about 5 chs. N.

Azimuth of Polaris at western elongation :  $1^{\circ}17'$ .

Lay off the azimuth of Polaris  $1^{\circ}17'$  to the east and find that the meridian thus determined agrees exactly with the solar meridian hereinbefore described.

As all of the obsns. taken during the usual hours of solar work agree within 1' of the true meridian, conclude that the instrument is in satisfactory adjustment.

Unless otherwise specified all measurements are made with a Lufkin steel tape 5 chs. in length, compared with a Lufkin standard and found correct.

The measurements are made on the slope, the vertical angle determined and the slope measurements properly reduced to horizontal values.

PRELIMINARY FIELD TEST  
of  
Buff transit No. 10125.  
by  
Charles E. Hunter, U.S. Transitman.

April, 19, 1927, on same meridian as described on page 2 hereof, examine the adjustments of the transit and find no existing errors; then to test the workings of the solar apparatus by comparing its indications hourly with the true meridian proceed as follows:

At 9h.00m., a.m., app.t., set off  $31^{\circ}40\frac{1}{2}'$  N., on the lat. arc,  $11^{\circ}00'$  N., on the decl. arc and determine a meridian with the solar which agrees with the true meridian.

At 12h.00m., app. noon, with lat. arc unchanged, observe the sun on the meridian; the resultant reading of the decl. arc is  $11^{\circ}02'$  N., which agrees with the computed declination of the sun.

At 3h.00m., p.m., with lat. arc unchanged, set off  $11^{\circ}05'$  N., on the decl. arc and determine a meridian with the solar which agrees with the true meridian.

As all of the obsns. taken during the usual hours of solar work agree within 1' of the true meridian, conclude that that the instrument is in satisfactory condition.

Unless otherwise specified all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Lufkin standard and found correct.

The measurements are made on the slope, the vertical angle determined and the slope measurements properly reduced to horizontal values.

Resurvey of a  
Part of the 4th. St.Par. S., in Range 7 East.

The 4th. Standard Parallel South was surveyed thru range 7 east, by L.Wolfley, U.S.D.S., in 1885; no retracements or resurveys of this line are of record.

The following notes describe a resurvey of the  $W\frac{1}{2}$  of the S.Bdy. of sec. 33, T.20 S., R.7 E., for the purpose of establishing a closing cor. thereon at the intersection with the Papago Indian Reservation Boundary.

From the std.  $\frac{1}{4}$  sec. cor. sec. 33, T.20 S., R.7 E., hereinafter described.

38.08 West, on a random line on the S.Bdy. sec. 33 ( $W\frac{1}{2}$ ).  
Intersect the closing cor. secs. 4 and 5, hereinafter described.

40.00 Intersect the std. cor. secs. 32 and 33, hereinafter described.

True course and distance of the  $W\frac{1}{2}$  of the S. Bdy. sec. 33 are therefore East, 40:00 chs.

The std. cor. secs. 32 and 33, T.20 S., R.7 E., is a slate stone 6 x 12 x 10 ins. above ground, firmly set, properly mkd. and witnessed by a md. of stone 3 ft. base 1 ft. high N. of cor. No bearing trees.

Whence,

1.92 East, on true line, on S.Bdy. sec. 33 ( $W\frac{1}{2}$ ).  
Intersect the closing cor. secs. 4 and 5, which is a granite stone 6 x 10 x 8 ins., above ground, firmly set, properly mkd. and witnessed by a md. stone S. of cor.

Continue line and measurement.

15.75 Intersect the P.I.R.Bdy. at A.P.No.5 on the last half of the 24th. mile.

At intersection set an iron post 3 ft. long, 3 ins. in diam., 6 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, supported by a md. of stone, for the closing cor. secs. 4 and 33, Ts. 20 and 21 S., R. 7 E., with brass cap mkd.

AP

T20SR7E  
S33

PIR

CC  
S4  
T21S

1927

No trees available; raise a md. of stone 3 ft. base,  $1\frac{1}{2}$  ft. high E. of cor.

16.00 Drift fence, brs. N-S.

40.00 Intersect the std.  $\frac{1}{4}$  sec. cor. sec. 33, which is a slate stone 6 x 8 x 10 ins. above ground, firmly set, properly mkd. and witnessed by a md. stone N. of cor.

Land, mountainous.

Soil, rocky 4th. rate.

Timber, oak and juniper.

Undergrowth, scruboak, catclaw and cacti.

Retracement of Part of South Bdy. of T. 21 S., R. 7 E.

chains

The entire S. bdy. of T. 21 S., R. 7 E. was surveyed in 1899 by P. Contzen, U.S.D.S., establishing all cor. monuments thereon with a common reference to areas on both sides of the line.

In 1918 J.P. Davis, U.S.S. resurveyed the N. bdrs. of secs. 1, 2, and 3 of T. 22 S., R. 7 E., reestablishing  $\frac{1}{4}$  sec. and sec. cors. alternately, at intervals of 40 chs. counting from the cor. of Ts. 21 & 22 S., Rs. 7 & 8 E. Said  $\frac{1}{4}$  sec. and sec. cors. were reestablished with reference to areas S. of line only, and the original cor. monuments were altered to refer to areas N. of line only.

No other retracement or resurvey of this Tp. bdy. is of record.

The following notes describe a retracement of the S. bdy. of sec. 34, T. 21 S., R. 7 E.

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The cor. of secs. 34 & 35 is a granite stone 12x10x4 ins. above ground, firmly set, mkd. with 2 notches on E. face and 4 notches on W. face, and witnessed by a mound of stone N. of cor. No bearing trees.

Thence,  
 West, on random line, on S. bdy. of sec. 34 (E.  $\frac{1}{2}$ )  
 38.71 Fall 7 lks. N. of  $\frac{1}{4}$  sec. cor. of sec. 34, which is a granite stone 6x6x6 ins. above ground, firmly set, mkd.  $\frac{1}{4}$  34 on N. face, and witnessed by a mound of stone N. of cor. No bearing trees.

True course & dist. of E.  $\frac{1}{2}$  of S. bdy. of sec. 34 are therefore, S. 89° 54' W., 38.71 chs.

Thence,  
 West, on random line, on S. bdy. of sec. 34 (W.  $\frac{1}{2}$ )  
 0.62 Intersect the reestablished  $\frac{1}{4}$  sec. cor. of sec. 3, T. 22 S., R. 7 E., which is an iron post, 1 in. in diam., projecting 24 ins. above ground, firmly set in ground and mound of stone, properly mkd. on brass cap, and witnessed by a mound of stone S. of cor. No bearing trees.

Continue line and measurement  
 39.42 Fall 1 lk. S. of the cor. of secs. 33 & 34, which is a granite stone 12x12x6 ins. above ground, firmly set, mkd. with 3 notches on each of E. & W. faces, and witnessed by a mound of stone N. of cor. No bearing trees.

True course & dist. of W.  $\frac{1}{2}$  of S. bdy. of sec. 34 are therefore, N. 89° 59' W., 39.42 chs., and the  $\frac{1}{4}$  sec. cor. of sec. 3 is on said line.

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## Resurvey of Part of the South Bdy. of T.21 S., R.7 E.

chains

The South bdy. of T.21 S., R.7 E., was surveyed by P. Contzen, U.S.D.S. in 1899 and the East half of the line was resurveyed by J.P. Davis, U.S.S. in 1918. No other resurvey or retracement of this Tp. bdy. is of record.

The following notes describe a resurvey of the East half of South bdy. of sec. 35.

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Retracement for Resurvey.  
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39.90 From the  $\frac{1}{4}$  sec. cor. of sec. 35, East, on random line, on S. bdy. of sec. 35 (E.  $\frac{1}{2}$ ) Fall 9 lks. S. of the cor. of secs. 35 & 36. True course & dist. of E.  $\frac{1}{4}$  of S. bdy. of sec. 35 are therefore, S.  $89^{\circ}52'W.$ , 39.90 chs.

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Resurvey.  
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The cor. of secs. 35 & 36 is a granite stone 6x6x6 ins. above ground, firmly set, mkd. with 1 notch on E. face and 5 notches on W. face, and witnessed by a mound of stone N. of cor. No bearing trees.

Thence,  
S.  $89^{\circ}52'W.$ , on true line, on S. bdy. of sec. 35 (E.  $\frac{1}{2}$ )

22.98 Over rolling and mountainous land, thru scattering undergrowth. Topographical features as per record of the resurvey by J.P. Davis in 1918. Intersect the Boundary of the Papago Indian Reservation at 5.14 chs. S.  $19^{\circ}E.$  from angle point No. 6 of the S. half of the 34th mile thereof. Establish closing cor. for the reservation bdy. at this point, as described in Book "Q" of this group.

39.90 Continue line and measurement. Intersect the  $\frac{1}{4}$  sec. cor. of sec. 35, which is a granite stone, 10x10x8 ins. above ground, firmly set, mkd.  $\frac{1}{4}$  35 on N. face, and witnessed by a mound of stone N. of cor. No bearing trees.

This cor. monument is alongside at 1 lk. East from the reestablished  $\frac{1}{4}$  sec. cor. of sec. 2, which is an iron post, 1 in. in diam., projecting 28 ins. above ground, firmly set in ground and mound of stone, properly mkd. on brass cap, and witnessed by a mound of stone S. of cor.

Land, rolling and mountainous.  
Soil, rocky, 4th rate.  
Timber, none.  
Undergrowth, scrub oak, paloverde & mesquite, catclaw and cacti.

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Retracement of Part of the Subdivision lines of T.21 S.,R.7 E.

chains

The subdivision lines of T.21 S.,R.7 E. were surveyed in 1899 by P.Contzen,U.S.D.S. and no retracement or resurvey of any part of same is of record.

The following notes describe a retracement of those subdivision lines of said tp. which are not in substantial agreement with the record of the survey, and of certain other subdivision lines required to properly close the sections traversed by the boundary of the Papago Indian Reservation.

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40.59

From the cor.of secs.34 & 35 on the S. bdy.of the Tp., hereinbefore described,  
N.0° 1'W.,on random line,bet.secs.34 & 35 (S.¼)  
Fall 4 lks. E. of original ¼ sec.cor.,which is a granite stone 8x10x6 ins.above ground,firmly set, mkd. ¼34 on W.face and 35 on E.face,and witnessed by a mound of stone W. of cor. No bearing trees.  
True course & dist. of S.¼ of line bet.secs.34 & 35 are therefore, N.0° 4'W., 40.59 chs.

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39.66

The original cor.of secs.26,27,34 & 35 is a granite stone 8x10x6 ins.above ground,firmly set,mkd.with 2 notches on E.face and 1 notch on S.face and witnessed by a mound of stone W. of cor. No bearing trees.  
Thence,  
S.89°58'W.,on random line,bet.secs.27 & 34 (E.¼)  
Fall 9 lks. S.of original ¼ sec.cor. which is a granite stone 6x10x6 ins.above ground,firmly set, mkd. ¼27 on N.face and 34 on S.face,and witnessed by a mound of stone N. of cor. No bearing trees.  
True course & dist. of E.¼ of line bet.secs.27 & 34 are therefore, N.89°54'W.,39.66 chs.

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1.00

From original true point for ¼ sec.cor.of secs.33 & 34, on N. bank of wash,course E.,  
N.0°2'W.,on random line,bet.secs.33 & 34 (N.¼)  
Intersect the original witness cor.to ¼ sec.cor.,which is a granite stone 6x8x8 ins.above ground,firmly set, mkd. WC ¼33 on W.face and 34 on E.face and witnessed by a mound of stone W. No bearing trees.

40.70

Continue line and measurement  
Fall 45 lks. E. of original cor.of secs.27,28,33 and 34 which is a granite rock in place,exposed 20x20x24 ins. above ground,firmly set,mkd.with a cross (X) on top, 1 notch on S.face and 3 notches on E.face and witnessed by a mound of stone W. No bearing trees.  
True course & dist.of N.¼ of line bet.secs.33 & 34 are therefore, N.0°40'W.,40.70 chs., and the true point for ¼ sec.cor. is witnessed at 1.00 ch.N.0°2'W.

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39.96

The original ¼ sec.cor.of secs.32 & 33 is a granite stone 8x10x8 ins.above ground,firmly set,mkd. ¼32 on W.face and 33 on E.face and witnessed by a mound of stone W. of cor. and an ironwood bearing tree properly mkd. NE. of cor.  
Thence,  
N.0° 2'W.,on random line,bet.secs.32 & 33 (N.¼)  
Fall 56 lks. E. of original cor.of secs.28,29,32 & 33, which is a granite rock in place,exposed 30x20x18 ins. above ground,mkd.with a cross (X) on top,4 notches on E. face and 1 notch on S. face,and witnessed by a mound of stone W. No bearing trees.  
True course & dist.of N.¼ of line bet.secs.32 & 33 are therefore, N.0°50'W., 39.96 chs.

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- chains.
- The original  $\frac{1}{4}$  sec. cor. of secs. 29 & 32 is a granite stone 6x8x6 ins. above ground, firmly set, mkd.  $\frac{1}{4}$ 29 on N. face and 32 on S. face, and witnessed by a mound of stone N. and one properly mkd. mesquite bearing tree NE. of cor. Thence,  
West, on random line, bet. secs. 29 & 32 ( $W.\frac{1}{2}$ )
- 40.18 Fall 127 lks. S. of original cor. of secs. 29, 30, 31 & 32, which is a granite stone 8x10x8 ins. above ground, firmly set, mkd. with 1 notch on S. face and 5 notches on E. face and witnessed by a mound of stone N. No bearing trees.  
True course & dist. of  $W.\frac{1}{2}$  of line bet. secs. 29 & 32 are therefore, N.88°11'W., 40.20 chs.
- 
- The original  $\frac{1}{4}$  sec. cor. of secs. 27 & 28 is a granite stone 12x6x6 ins. above ground, firmly set, mkd.  $\frac{1}{4}$ 28 on W. face and 27 on E. face and witnessed by a mound of stone W. of cor. and one bearing tree:  
an oak, 8 ins. diam., West 81 lks. dist., mkd.  $\frac{1}{4}$ S28 BT. Thence,  
N.0° 2'W., on random line, bet. secs. 27 & 28 ( $N.\frac{1}{2}$ )
- 39.73 Fall 5 lks. W. of original cor. of secs. 21, 22, 27 & 28, which is a granite stone 6x8x6 ins. above ground, firmly set, mkd. with 2 notches on S. face and 3 notches on E. face and witnessed by a mound of stone W. No bearing trees.  
True course & dist. of  $N.\frac{1}{2}$  of line bet. secs. 27 & 28 are therefore, N.0°2'E., 39.73 chs.
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- From original cor. of secs. 21, 22, 27 & 28,  
East, on random line, bet. secs. 22 & 27 ( $W.\frac{1}{2}$ )
- 39.86 Fall 16 lks. N. of original  $\frac{1}{4}$  sec. cor. which is a granite stone 8x6x6 ins. above ground, firmly set, mkd.  $\frac{1}{4}$ 22 on N. face and 27 on S. face, and witnessed by a mound of stone N. of cor. and one bearing tree:  
an oak, 9 ins. diam., South, 122 lks. dist., mkd.  $\frac{1}{4}$ S27 BT. True course & dist. of  $W.\frac{1}{2}$  of line bet. secs. 22 & 27 are therefore, N.89°46'W., 39.86 chs. dist.
- Thence,  
East, on random line, bet. secs. 22 & 27 ( $E.\frac{1}{2}$ )
- 39.90 Fall 16 lks. N. of original cor. of secs. 22, 23, 26 & 27, which is a granite stone 6x6x6 ins. above ground, firmly set, mkd. with 2 notches on each of E. and S. faces, and witnessed by four properly mkd. oak bearing trees, one each, NE., SE., SW. and NW. of cor.  
True course & dist. of  $E.\frac{1}{2}$  of line bet. secs. 22 & 27 are therefore, N.89°46'W., 39.90 chs.
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- From original cor. of secs. 20, 21, 28 & 29, hereinafter described,  
N.0° 2'W., on random line, bet. secs. 20 & 21 ( $S.\frac{1}{2}$ )
- 39.99 Fall 41 lks. W. of original  $\frac{1}{4}$  sec. cor. which is a granite stone 6x8x6 ins. above ground, firmly set, mkd.  $\frac{1}{4}$ 20 on W. face and 21 on E. face, and witnessed by two properly mkd. oak bearing trees, one each NE. and NW. of cor.  
True course & dist. of  $S.\frac{1}{2}$  of line bet. secs. 20 & 21 are therefore, N.0°33'E., 39.99 chs.
- Thence,  
N.0° 2'W., on random line, bet. secs. 20 & 21 ( $N.\frac{1}{2}$ )
- 39.85 Fall 3 lks. E. of original cor. of secs. 16, 17, 20 & 21, which is a granite stone 6x8x12 ins. above ground, firmly set, mkd. with 3 notches on S. face and 4 notches on E. face and witnessed by a mound of stone W. and one properly mkd. oak bearing tree SW. of cor.  
True course & dist. of  $N.\frac{1}{2}$  of line bet. secs. 20 & 21 are therefore, N.0° 5'W., 39.85 chs.
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Retracement of Part of the Subdivision lines of T.21 S.,R.7 E.

chains

The original  $\frac{1}{4}$  sec.cor.of secs.8 & 9 is a granite stone 6x12x4 ins.above ground,firmly set, mkd.  $\frac{1}{4}$ 8 on W. face and 9 on E. face,and witnessed by a mound of stone W. of cor. No bearing trees.

Thence,  
 N.0° 2'W.,on random line,bet.secs.8 & 9 (N. $\frac{1}{2}$ )

40.29 Fall 71 lks. E. of original cor.of secs.4,5,8 & 9 which is a granite boulder in place,exposed 12x4x4 ft.above ground, mkd.with a cross (X) on top, 5 notches on S. face and 4 notches on E. face, and witnessed by a mound of stone W. of cor. and two properly mkd. mesquite bearing trees,one each, NE. and SE. of cor. True course & dist. of N. $\frac{1}{2}$  of line bet.secs.8 & 9 are therefore, N. 1° 3' W., 40.30 chs.

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From original cor.of secs.4,5,8 & 9,  
 N.0° 2'W.,on random line,bet.secs.4 & 5 (S. $\frac{1}{2}$ )

40.32 Fall 6 lks. W. of original  $\frac{1}{4}$  sec.cor.,which is a granite stone 12x12x6 ins.above ground,firmly set,mkd.  $\frac{1}{4}$ 5 on W. face and 4 on E. face,and witnessed by a mound of stone W. of cor. No bearing trees. True course & dist. of S. $\frac{1}{2}$  of line bet.secs.4 & 5 are therefore, N. 0° 3' E., 40.32 chs.

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Resurvey of Part of the Subdivision lines of T.21 S., R.7 E.

chains

The following notes describe a resurvey of a part of the subdivision lines of T.21 S., R.7 E. for the purpose of establishing closing cors. thereon at all points on such lines where they are intersected by the Papago Indian Reservation Boundary.

The topographical features are omitted from these notes for the reason that the same are found to be in substantial agreement with the record of the survey of these lines.

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39.79 From original cor. of secs. 26, 27, 34 & 35, hereinbefore described,

S. 0° 1' E., on random line, bet. secs. 34 & 35 (N.  $\frac{1}{4}$ )

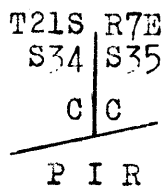
39.79 Fall 1 lk. E. of original  $\frac{1}{4}$  sec. cor., hereinbefore described,

Thence,

28.79 North, on true line, bet. secs. 34 & 35 (N.  $\frac{1}{4}$ )

Intersect the Boundary of the Papago Indian Reservation at a point 180 lks. S. 85° W., from the 32 $\frac{1}{2}$  mile monument thereon, described in Book "Q" of this group.

At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 10 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 34 & 35, with brass cap mkd.,



1927

39.79 No bearing trees available.  
Intersect original cor. of secs. 26, 27, 34 & 35.

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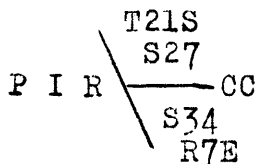
38.65 From original cor. of secs. 27, 28, 33 & 34,  
N. 89° 58' E., on random line, bet. secs. 27 & 34 (W.  $\frac{1}{4}$ )  
Fall 14 lks. N. of original  $\frac{1}{4}$  sec. cor. of secs. 27 & 34,  
hereinbefore described,

Thence,

1.74 N. 89° 50' W., on true line, bet. secs. 27 & 34 (W.  $\frac{1}{4}$ )

Intersect the Boundary of the Papago Indian Reservation at a point 37 lks. S. 24 $\frac{1}{2}$ ° E. from A.P. No. 6 of 2nd half of 32nd mile thereof, described in Book "Q" of this group.

At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 20 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 27 & 34, with brass cap mkd.,



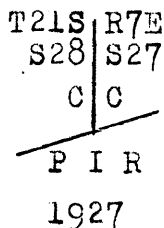
1927

38,65 No bearing trees available.  
Intersect original cor. of secs. 27, 28, 33 & 34, hereinbefore described.

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Resurvey of Part of the Subdivision lines of T.21 S., R.7 E.

chains. From original  $\frac{1}{4}$  sec. cor. of secs. 27 & 28, hereinbefore described,  
 S.  $0^{\circ}2'E.$ , on random line, bet. secs. 27 & 28 (S.  $\frac{1}{4}$ )  
 40.79 Fall 148 lks. W. of original cor. of secs. 27, 28, 33 & 34, hereinbefore described,  
 Thence,  
 N.  $2^{\circ}7'W.$ , on true line, bet. secs. 27 & 28 (S.  $\frac{1}{4}$ )  
 4.63 Intersect the Boundary of the Papago Indian Reservation at a point 6.90 chs. N.  $49\frac{3}{4}^{\circ}E.$  from A.P. No. 1 of 1st half of the 32nd mile thereof, described in Book "Q" of this group.  
 At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 4 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 27 & 28, with brass cap mkd.,



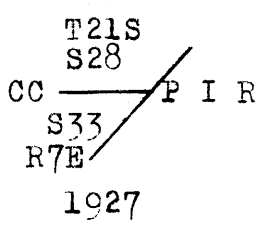
from which,  
 an oak, 8 ins. in diam., brs. N.  $12\frac{1}{2}^{\circ}E.$ , 487 lks. dist., mkd. T21S R7E S27 CC BT  
 an oak, 12 ins. in diam., brs. S.  $63\frac{1}{2}^{\circ}W.$ , 221 lks. dist., mkd., T21S R7E S28 CC BT

40.82 Intersect original  $\frac{1}{4}$  sec. cor. of secs. 27 & 28, hereinbefore described.

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40.00 From original cor. of secs. 28, 29, 32 & 33, N.  $89^{\circ}55'E.$ , on random line, bet. secs. 28 & 33.  
 Find no trace of original  $\frac{1}{4}$  sec. cor.  
 Set temp.  $\frac{1}{4}$  sec. cor. and continue line & measurement.  
 80,54 Fall 63 lks. S. of original cor. of secs. 27, 28, 33 & 34, hereinbefore described,  
 Thence,  
 S.  $89^{\circ}28'W.$ , on true line, bet. secs. 28 & 33.

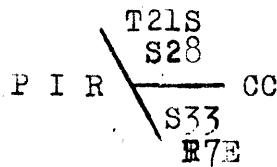
6.10 Intersect the Boundary of the Papago Indian Reservation at a point 70 lks. S.  $70\frac{1}{2}^{\circ}W.$  from A.P. No. 1 of 1st half of 32nd mile thereof, described in Book "Q" of this group.  
 At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 8 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 28 & 33, with brass cap mkd.,



No bearing trees available.

12.02 Intersect the Boundary of the Papago Indian Reservation at a point 1.27 chs. S.  $45^{\circ}E.$  from A.P. No. 10 of 2nd half of 31st mile thereof described in Book "Q" of this group.  
 At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 10 ins. in ground to bedrock, and raise a mound of stone around post, for closing cor. of secs. 28 & 33, with brass cap mkd.,

chains



1927

- from which,
- an oak, 12 ins. in diam., brs. N. 38° E., 63 lks.  
dist., mkd., T21S R7E S28 CC BT
- an oak, 10 ins. in diam., brs. S. 85° E., 190 lks.  
dist., mkd. T21S R7E S33 CC BT
- 12.22 Fence, bears NW. and SE
- 40.27 (Midpoint) Set a granite stone 8 x 10 x 18 ins., 12 ins. in the ground (no iron post available) mkd.  $\frac{1}{4}$  on N. face, for reestablished  $\frac{1}{4}$  sec. cor. of secs. 28 and 33, and raise a mound of stone, 3 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor. No bearing trees available.
- 80.54 Intersect original cor. of secs. 28, 29, 32 & 33, hereinbefore described.
- 
- 40.00 From original cor. of secs. 20, 21, 28 & 29, S. 0° 2' E., on random line, bet. secs. 28 & 29. Find no trace of original  $\frac{1}{4}$  sec. cor. Set temp.  $\frac{1}{4}$  sec. cor. and continue line & measurement.
- 81.26 Fall 61 lks. W. of original cor. of secs. 28, 29, 32 & 33, hereinbefore described, Thence N. 0° 28' W., on true line, bet. secs. 28 & 29.
- 40.63 (Midpoint) Set an iron post, 3 ft. long, 1 in. in diam., 12 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for reestablished  $\frac{1}{4}$  sec. cor. of secs. 28 & 29, with brass cap mkd.,
- S29 | S28  
1927
- No bearing trees available.
- 53.56 Intersect the Boundary of the Papago Indian Reservation at a point 3.46 chs. S. 73 $\frac{3}{4}$ ° E. from A.P. No. 2 of the 2nd half of the 30th mile thereof, described in Book "Q" of this group. At this point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 8 ins. in ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 28 & 29, with brass cap mkd.,
- T21S R7E  
S29 | S28  
C C  
P I R  
1927
- No bearing trees available.
- 53.66 Wire fence, bears E. and W.
- 81.26 Intersect original cor. of secs. 20, 21, 28 & 29, which is a granite stone in place, exposed 20x10x6 ins. above ground mkd. with a cross (X) on top, 2 notches on S. face and

Resurvey of Part of the Subdivision Lines of T.21 S., R.7 E. 13

Chains

and 4 notches on E. face and witnessed by four properly mkd. oak bearing trees, one each NE, SE, SW and NW of corner.

The original 1/4 sec. cor. of secs. 20 and 29 is a granite stone 8 x 12 x 6 ins. above ground, firmly set, mkd. 1/4 20 on N. face and 29 on S. face, witnessed by a md. of stone N. of corner. No bearing trees.

40.00 Thence, East, on random line, bet. secs. 20 and 29 (E\*). Fall 7 lks. N. of the original cor. of secs. 20, 21, 28 and 29, hereinbefore described.

38.10 Thence, N. 89° 54' W., on true line, bet. secs. 20 and 29 (E\*). Intersect the boundary of the Papago Indian Reservation at Angle Point No. 5 of the 2nd. half of the 29th. mile thereof, described in book "Q" of this Group. At this point of intersection, set an iron post 3 ft. long, 2 ins. in diam., 6 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a mound of stone around post, for closing cor. of secs. 20 and 29, with brass cap mkd.

AP 5 T21S  
PIR S20  
S29 CC  
R7E

1927

40.00 No bearing trees available. Intersect the original 1/4 sec. cor. of secs. 20 and 29.

10.02 From true point for 1/4 sec. cor. of secs. 17 and 20. S. 89° 56' E., on random line, bet. secs. 17 and 20 (E\*). Intersect the original witness cor. to 1/4 sec. cor. which is a granite stone 12 x 6 x 6 ins. above ground, firmly set, mkd. WC 1/4 17 on N. and 20 on S. faces, witnessed by a md. of stone N. of cor. and one properly mkd. oak bearing tree SW of corner.

40.06 Continue line and measurement. Fall 20 lks. N. of original cor. of secs. 16, 17, 20 and 21, hereinbefore described.

26.50 Thence, N. 89° 39' W., on true line, bet. secs. 17 and 20. (E\*). Intersect the boundary of the Papago Indian Reservation at the 27 1/2 mile monument thereon, described in book "Q" of this group. This half mile reservation Bdy. monument becomes identical in position with the closing cor. of secs. 17 and 20, therefore alter the markings on the brass cap to read

27 1/2 M T21S  
PIR S17 CC  
S20  
R7E

1927

and raise a md. of stone 3 ft. base, 2 ft. high E. of cor.

30.04 A point 5 lks. S. of witness cor. to 1/4 sec. cor. of secs. 17 and 20 hereinbefore described.

40.06 The true point for 1/4 sec. cor. of secs. 17 and 20 in bottom of gulch, course NW.

14 Resurvey of Part of the Subdivision Lines of T.21 S., R.7 E.

Chains

The original cor. of secs. 7, 8, 17 and 18 is a granite stone 6 x 6 x 6 ins. above ground, firmly set, mkd. with 5 notches on E. and 4 notches on S. faces, witnessed by a md. of stone W. of cor. and one properly mkd. mesquite bearing tree SE of cor.

Thence,

East, on random line, bet. secs. 8 and 17 (W $\frac{1}{2}$ .)

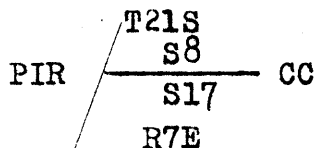
40.00 Fall 7 lks. N. of the original  $\frac{1}{4}$  sec. cor. of secs. 8 and 17, which is a granite stone 6 x 10 x 6 ins. above ground, firmly set, mkd.  $\frac{1}{8}$  on N. and 17 on S. faces, witnessed by two pits one each E, and W. and md. earth N. of cor. No bearing trees.

Thence,

N. 89° 54' W., on true line, bet. secs. 8 and 17 (W $\frac{1}{2}$ .)

2.30 Intersect the Boundary of the Papago Indian Reservation at a point 6.65 chs. S. 26° W., from A.P. No. 2 of 1st. half of the 27th. mile thereof, described in book "Q" of this group.

At this point of intersection set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for the closing cor. of secs. 8 and 17, with brass cap mkd.



1927

No bearing trees available.

40.00 Intersect the original cor. of secs. 7, 8, 17 and 18.

The original  $\frac{1}{4}$  sec. cor. of secs. 5 and 8 is a granite stone in place, exposed 24 x 18 x 18 ins. above ground, mkd. with a cross (X) on top,  $\frac{1}{5}$  on N. and 8 on S. faces, witnessed by a md. of stone N. of cor. No bearing trees.

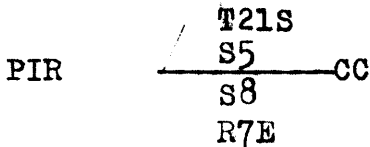
39.76 Thence, S. 89° 58' E., on random line, bet. secs. 5 and 8 (E $\frac{1}{2}$ ). Intersect the original cor. of secs. 4, 5, 8 and 9, hereinbefore described.

Thence,

N. 89° 58' W., on true line, bet. secs. 5 and 8 (E $\frac{1}{2}$ .)

32.04 Intersect the Boundary of the Papago Indian Reservation at a point 79 lks. S. 71 $\frac{1}{2}$ ° W. from A.P. No. 9 of the 2nd. half of the 25th. mile thereof, described in book "Q" of this Group.

At this point of intersection set an iron post 3 ft. long, 2 ins. in diam., 10 ins. in the ground to bedrock, deposit a stone mkd. with a cross (X) at base of post, and raise a md. of stone around post, for closing cor. of secs. 5 and 8, mkd. on brass cap



1927

No bearing trees available.

39.76 Intersect the original  $\frac{1}{4}$  sec. cor. of secs. 5 and 8.

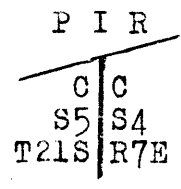
From the closing cor. of secs. 4 and 5 on the 4th. Standard Parallel S., hereinbefore described.

37.53 S. 0° 2' E., on random line, bet. secs. 4 and 5 (N $\frac{1}{2}$ .) Fall 1 lk. W. of the original  $\frac{1}{4}$  sec. cor. of secs. 4 and 5.



Resurvey of Part of the Subdivision lines of T.21 S.,R.7 E.

chains hereinbefore described,  
 Thence,  
 N.6° 3' W., on true line, bet. secs. 4 & 5 (N.7)  
 13.91 Intersect the Boundary of the Papago Indian Reservation  
 at a point 6 lks. S. 64½° W. from A.P. No. 2 of 1st half  
 of the 25th mile thereof, described in Book "Q" of  
 this group.  
 At this point of intersection, set an iron post, 3 ft.  
 long, 2 ins. in diam., 6 ins. in ground to bedrock,  
 deposit a stone mkd. with a cross (X) at base of post  
 and raise a mound of stone around post, for closing  
 cor. of secs. 4 & 5, with brass cap mkd.,



1927  
 No bearing trees available.

37.53 Intersect the closing cor. of secs. 4 & 5 on the 4th Std.  
 Parallel S., hereinbefore described.

FINAL FIELD TEST

of

Buff Transit No. 9940

by

Benjamin J. Kinsey, U.S. Surveyor.

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 At camp near cor. of secs. 22, 23, 26 and 27, T. 21 S.,  
 R. 7 E., G. & S. R. Base & Meridian, Arizona, latitude 31°  
 35' N., longitude 111° 36½' W., examine the adjustments of  
 Buff Transit No. 9940 and find no errors, then, to test  
 the workings of the solar apparatus by comparing its  
 indications from observations made during a.m. and p.m.  
 hours, with a meridian established by Polaris observation,  
 proceed as follows:

April 26, 1927; at above station, at 5h. 23m. a.m., l.m.t.,  
 observe Polaris at eastern elongation, making four  
 observations, two each with the telescope in direct  
 and reversed positions, and mark the mean point in the  
 line thus determined, by a tack in a stake driven  
 firmly in the ground about 5 chs. N.

Azimuth of Polaris at eastern elongation = 1° 16' 40"

Lay off the azimuth of Polaris 1° 16½' to the west and  
 mark the meridian thus determined by a tack in a stake  
 driven firmly in the ground about 5 chs. N.

May 6, 1927; at 9h. 00m., a.m., app. t., set of 31° 35' N. on  
 the lat. arc, 16° 23½' N., on the decl. arc, and determine  
 a meridian with the solar, which agrees with the true  
 meridian.

At 12h. 00m. app. noon, with the lat. arc unchanged, observe  
 the sun on the meridian, and obtain a reading of 16°  
 25½' N. on the decl. arc, which agrees with the computed  
 declination of the sun.

At 3h. 00m. p.m. app. t., with the lat. arc unchanged, set  
 off 16° 28' N. on the decl. arc, and determine a meridian  
 with the solar, which agrees with the true meridian.

As all of the observations taken during the usual hours of solar work agree within 1' with the true meridian, conclude that the adjustment of the instrument has been satisfactorily maintained throughout the surveys described in the foregoing notes.

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FINAL FIELD TEST

of

Buff Transit No. 10125

by

Charles E. Hunter, U.S. Transitman.

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May 6, 1927, at camp near cor. of secs. 22, 23, 26 & 27, T. 21 S., R. 7 E., G. & S. R. Base & Meridian, Arizona, latitude  $31^{\circ}35'N.$ , longitude  $111^{\circ}36\frac{1}{2}'W.$ , examine the adjustments of the instrument and find no errors, then, to test the solar apparatus by comparing its indications from observations made during a.m. and p.m. hours with the meridian established at this point April 26, 1927 by Benjamin J. Kinsey, U.S.S. as hereinbefore described, proceed as follows:

May 6, 1927; at 9h. 00m., a.m., app. t., set off  $31^{\circ}35'N.$  on the lat. arc,  $16^{\circ}23\frac{1}{2}'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At 3h. 00m., p.m., app. t., with the lat arc unchanged, set off  $16^{\circ}28'N.$  on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

AS all of the observations taken during the usual hours of solar work come within 1' of the true meridian, conclude that the adjustment of the instrument has been satisfactorily maintained throughout the surveys described in the foregoing notes.

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CERTIFICATE OF U. S. TRANSITMAN

I, Charles E. Hunter U.S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 100, Arizona

bearing date of the 25th day of September, 1919, 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

the Subdivision Lines and South Bdy.

and resurveyed all those parts or portions of

the Subdivision Lines and South Bdy. of

Township 21 South, Range 7 East of the Gila and Salt

River Base and Meridian, in the State of Arizona, which are represented in 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 retracement

and resurvey 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 100, 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.

Place: Phoenix, Arizona.

Charles E. Hunter  
U.S. Transitman

Date: April 23, 1928.

~~APPROVAL.~~

~~OFFICE OF THE UNITED STATES SURVEYOR GENERAL,~~

~~19~~

~~The foregoing field notes of the survey of~~

~~executed by~~

~~under his special instructions dated~~, ~~10~~, ~~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 3807

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Benjamin J. Kinsey, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 100, Arizona bearing date of the 25th day of September, 1919, 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 the Subdivision Lines and ~~resurveyed~~ all those parts or portions of the 4th Standard Parallel S., in Range 7 East and Subdivision Lines of Township 21 South, Range 7 East of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in 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 ~~retracement~~ ~~and resurvey~~ 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 100 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~~.

Place: Phoenix, Arizona.

Date: April 2, 1928.

Benjamin J. Kinsey  
U. S. Surveyor.

APPROVAL.

OFFICE OF THE U. S. SUPERVISOR OF SURVEYS,

Denver, Colo., April 27, 1928.

The foregoing field notes of the ~~retracement~~ of

Part of the Subdivision Lines and Part of South Bdy.

and of the ~~resurvey~~ of

the 4th Standard Parallel South thru Part of Range 7 East

Part of the Subdivision Lines, and Part of South Bdy. of

Township 21 South, Range 7 East

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

executed by Benjamin J. Kinsey, U.S. Surveyor and Charles E. Hunter, U.S. Transitman

under ~~his~~ special instructions dated September 25, 1919 for Group 100 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.

Martha Simon  
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.~~