

3777

Book "A"
4-679

BOOK 3777

FIELD NOTES

OF THE RETRACEMENT OF

Part of the 53rd mile of the UTAH-ARIZONA State Boundary

AND OF THE SURVEY OF

The West Boundary and Subdivision lines of

FRACTIONAL TOWNSHIP 42 NORTH, RANGE 8 WEST

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Benjamin J. Kinsey, U.S. Surveyor

In the capacity of U. S. Surveyor, under Special Instructions dated Oct. 13, 1925,
District Cadastral Engineer
issued by the United States to govern surveys included in Group
No. 137, Arizona, which were approved by the Commissioner of the General Land
Office, Oct. 23, 1925, and Assignment Instructions dated April 16, 1926.

Retracement & Survey commenced May 1, 1926.

Retracement & Survey completed May 3, 1926.

3777

3777

INDEX DIAGRAM.

Township _____, Range _____

6	5	4	3	2	1
7	8	9	10	11	12
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31	32	33	34	35	36

BOOK 3777

Book "A"

Group 137--Arizona

Fractional Township 42 North, Range 8 West, G. & S.R. B. & M.

INDEX and DATE DIAGRAMS.

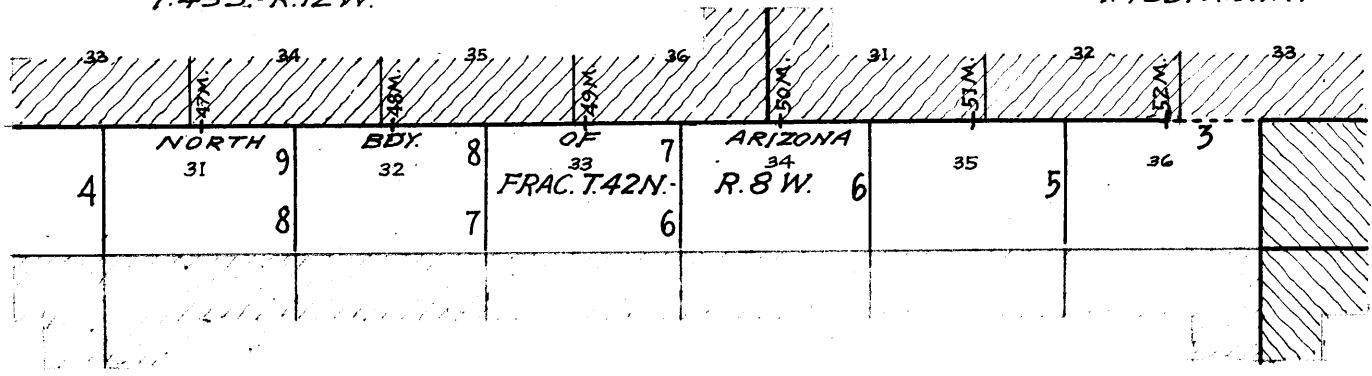
IA

INDEX-DIAGRAM

UTAH

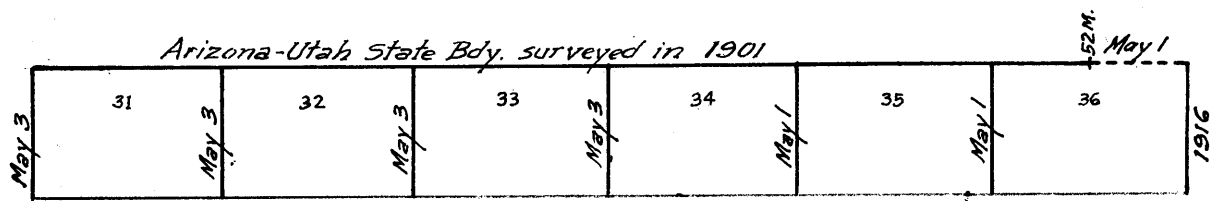
T.43S.-R.12W.

T.43S.-R.11W.



- Surveyed under this group.
- - - - - Retraced under this group.
- Accepted surveys.
- Surveyed under Current Group No. 131.
- ////// Arizona areas surveyed as per accepted plats on file.
- ////// Arizona areas surveyed under Current Group No. 131.
- ////// Utah areas surveyed as per accepted plats on file.

DATE-DIAGRAM
- 1926 -



Surveyed in January 1925 - Gp. 131.

- Surveyed by Benj. J. Kinsey, U.S.S. on dates shown thereon.
- - - - - Retraced by Benj. J. Kinsey U.S.S. on dates shown thereon.
- Accepted surveys.
- Surveyed under Current Group No. 131.

Retracement and surveys hereinafter described were executed on dates shown on diagram on page 1 hereof, by Benjamin J. Kinsey, U.S. Surveyor, using Buff and Buff Light Mountain transit No. 9940. The instrument is equipped with a full vertical circle and improved Smith solar attachment. Its horizontal limb is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. Unless otherwise specified, all azimuth determinations are accomplished with the solar attachment.

April 27, 1926; Examine the adjustment 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 a meridian established by observation on Polaris, proceed as follows:

At station in sec. 2, T. 41 N., R. 8 W., G. & S. R. B. & M., Ariz., approx. latitude $36^{\circ}58\frac{1}{2}'$ N., approx. longitude $113^{\circ}8\frac{1}{2}'$ W., at 5h.18m. p.m., l.m.t., observe Polaris at Western 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. North.

Azimuth of Polaris at Western Elongation = $1^{\circ}21'10''$.

Lay off the azimuth of Polaris $1^{\circ}21'$ to the East, and mark the meridian thus determined by a tack in a stake driven firmly in the ground about 5 chs. North.

April 28, 1926; at 9h.00m., a.m., app. t., set off $36^{\circ}58\frac{1}{2}'$ N. on the lat. arc, $14^{\circ}4'$ N. on the decl. arc, and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting reading of the decl. arc is $14^{\circ}6\frac{1}{2}'$ N., which agrees with the computed decl. of the sun.

At 3h.00m., p.m., app. t., with the lat. arc unchanged, set off $14^{\circ}9'$ N. on the decl. arc, and determine a meridian with the solar, which agrees within 1' with the true meridian.

As all of the observations made during the usual hours of solar work agree within $1\frac{1}{2}'$ with the true meridian, conclude that the adjustments of the instrument are satisfactory.

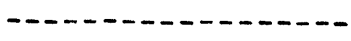
Unless otherwise specified all measurements are made with a Lufkin steel tape, 5 chs. in length, compared with a Lufkin Standard steel tape, 1 ch. in length, and found correct. The measurements are made on the slope, vertical angles determined with a clinometer, and the slope measurements properly reduced to true horizontal distances for entry in the field notes.

Retracement of Part of the 53rd Mile of the UTAH* ARIZONA State Boundary.

3

chains

The Utah-Arizona State Boundary was surveyed in 1901 by Howard B. Carpenter, U.S. Surveyor & Astronomer. The following notes describe a retracement of a portion of the 53rd mile of said boundary. No retracement or resurvey of this part of the line is on file in the Arizona records.



The 52nd mile mon. is a sandstone, 10x6x14 ins. above ground, firmly set, marked UTAH on N. face, ARIZ on S. face, 37NL on E. face, and 52M on W. face, and is witnessed by four properly marked bearing trees, one each, NE., SE., SW. and NW. of mon.

Thence,

N. 89° 56' E., on random line, for distance only, toward flag visible on 53rd mile mon.

Over rolling land, thru scattering timber & undergrowth. Dry gulch, course N.

1.00

5.47

Intersect the C.C. of secs. 32 & 33, T. 43S., R. 11 W., S. 1 B. & M., Utah, which is a 2 in. iron post, projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by a mound of stone N. No bearing trees.

Continue line and measurement.

25.00

Top of cliff, 150 ft. high, bearing N. & S., facing E. Enter mountainous land. Descend.

30.00

Leave timber.

33.95

Intersect true point for C.C. of Frac. Ts. 42 N., Rs. 7 & 8 W., G. & S. R. B. & M., Ariz., determined from the W.C. thereto 2.85 chs. S., which is an iron post, 3 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap and witnessed by a mound of stone S. No bearing trees.

True course and dist. of this part of the 53rd mile of Utah-Ariz. State Bdy. are therefore, N. 89° 56' E., 33.95 chs.

Land, rolling and mountainous. Soil, rocky, 4th rate. Timber, scrub cedar and pinon. Undergrowth, sagebrush and cactus.



Survey of the West Boundary of
Fractional Township 42 North, Range 8 West

chains

The cor. of Ts. 41 N., Rs. 8 & 9 W., and Frac. Ts. 42 N., Rs. 8 & 9 W., established in Jan. 1925 under Group No. 131, Ariz. is an iron post, 3 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap and witnessed by four pits, one each NE., SE., SW. & NW. of cor. No bearing trees.
Rule Glazier's house bears N. 81° E., about 25 chs. dist.

2.20
6.50
37.40
40.00

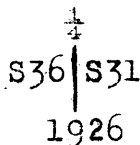
From above described Tp. cor., North, on true line, bet. frac. secs. 31 & 36. Over gently rolling land, thru scattering undergrowth. Ascend gradually over S. slope.

Road, bears E. and W.

Irrigation ditch, 5 lks. wide, course E.

Road, bears NW. and SE.

Set an iron post, 3 ft. long, 1 in. in diam., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap



Dig pits, 18x18x12 ins., one each, N. & S. of post, 3 ft. dist.

Continue over gently rolling land and gradual ascent of S. slope.

51.15

Intersect Utah-Ariz. State Bdy. at a point 34.48 chs.

East of the 46 mile mon. thereon, which is an iron pipe, 2 1/2 ins. in diam., firmly set, marked on brass cap,

UTAH

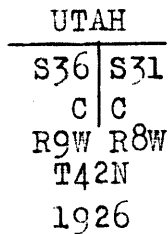
46M

ARIZ.

and witnessed by four pits, one each, E., W., N. & S. of mon. 6 ft. dist.

At point of intersection,

set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in ground, for closing cor. of Frac. Ts. 42 N., Rs. 8 & 9 W., marked on brass cap,



Dig pits, 18x18x12 ins., one each, E., W., & S. of post, 3 ft. dist.

Land, gently rolling.

Soil, sandy, 3rd rate.

Timber, none.

Undergrowth, sagebrush, broomweed and cactus.

Survey of Subdivision Lines of Fractional Township 42 North, Range 8 West

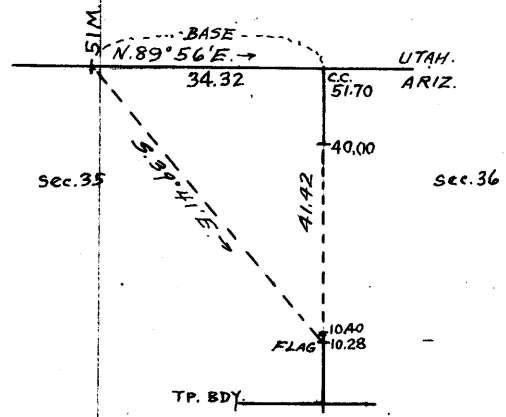
chains

The cor. of secs. 1, 2, 35 & 36 on S. bdy. of Tp., established in 1925 under Group 131, Ariz., is an iron post, 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap, and witnessed by four properly marked cedar bearing trees, one each, NE., SE., SW. & NW. of cor.

Thence, N. 0° 1' W., on true line, bet. frac. secs. 35 & 36. Over rolling mesa land, thru heavy timber and scattering undergrowth.

10.28
10.40

Triangulation point. Set flag. Continue chaining to rim of mesa and top of vertical bluff, 250 ft. high, bearing NE. & SW., facing NW. Discontinue chaining and triangulate measurement to end of line as described as follows and as shown on the accompanying diagram;



From 51 mile mon. on State Bdy., measure a base N. 89° 56' E. on 52nd mile of said bdy. 34.32 chs. to a point N. 0° 1' W. from flag at 10.28 ch. station on sec. line. From 51 m. mon. flag brs. S. 39° 41' E. From E. end of base the vertical angle to flag is +10°

By chaining	10.28 chs.
By triangulation	<u>41.42</u> "
Length of sec. line	51.70 "
Return chaining	<u>11.70</u> "
To 1/4 sec. cor.	40.00 "

40.00

From rim of mesa, descend 295 ft. to Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in ground, for 1/4 sec. cor., marked on brass cap,

1/4
S35 | S36
1926

- from which
- A pinon, 6 ins. diam., brs. S. 89° E., 9 lks. dist., marked 1/4 S36 BT
- A pinon, 8 ins. diam., brs. S. 70° W., 110 lks. dist., marked 1/4 S35 BT

Continue line and measurement by chaining. Descend 160 ft. to

51.70

Triangulation point. Intersect the Utah-Ariz. State Bdy. at a point 34.32 chs. N. 89° 56' E. from the 51 mile mon. thereon which is a sandstone, 14x12x20 ins. exposed from a mound of stone in which it is firmly set. Stone is marked Utah on N. face, ARIZ on S. face, 37NL on E. face, and 51M on W. face, and witnessed by pits, one each, E., W., N. & S. of mon. 6 ft. dist.

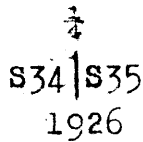
At point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in ground, for closing cor. of secs. 35 & 36, marked on brass cap,

UTAH
S35 | S36
C | C
T42N | R8W
1926

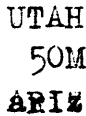
No bearing trees available. Raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor. C.C. of secs. 31 & 32, T. 43S., R. 11 W., Utah, brs. S. 89° 56' W., 28.85 chs. dist. Land, rolling and mountainous. Soil, rocky, 4th rate. Timber, cedar and pinon. Undergrowth, sagebrush and cactus.

Survey of Subdivision Lines of
Fractional Township 42 North, Range 8 West.

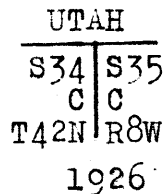
chains The cor. of secs. 2, 3, 34 & 35, on S. bdy. of Tp., established in 1925 under Group 131, Ariz., is an iron post, 2 ins. in diam., projecting 6 ins. above ground, firmly set, properly marked on brass cap, and witnessed by a mound of stone W. of cor.. No bearing trees.
Thence,
N. 0° 1' W., on true line, bet. frac. secs. 34 & 35.
Over rolling land, thru scattering undergrowth.
Descend 85 ft. over broken NW. slope.
9.10 Dry wash, 10 lks. wide, course NW.
 Asc. 50 ft. over SW. slope.
14.50 Spur, slopes NW. Desc. 74 ft. over NE. slope.
20.00 Thence over gently rolling land, sloping N.
24.40 Head of dry wash, course NE.
29.50 Spur, slopes NE. Desc. gradually over NW. slope to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



49.10 Raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
51.53 Descend gradually over N. slope.
 Dry wash, 10 lks. wide, course NW.
 Intersect the Utah-Ariz. State Bdy. at a point 34.58 chs. N. 89° 56' E. from the 50 mile mon. thereon, which is an iron pipe, 2 $\frac{1}{4}$ ins. in diam., projecting 2 ft. above ground, firmly set, marked on brass cap



and witnessed by pits, one each, E., W., N. & S. of mon. 6 ft. dist. No bearing trees.
At point of intersection,
set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in ground, for closing cor. of frac. secs. 34 & 35, marked on brass cap,



Dig pits, 18x18x12 ins., one each, E., W., & S. of post, 3 ft. dist.

Land, rolling, broken and gently rolling.
Soil, gravelly and rocky, 3rd and 4th rate.
Timber, none.
Undergrowth, sagebrush and cactus.

5.00 The cor. of secs. 3, 4, 33 & 34 on S. bdy. of Tp., established in 1925 under Group 131, Ariz., is an iron post, 2 ins. in diam., projecting 12 ins. above ground, firmly set, properly marked on brass cap and witnessed by a mound of stone W. of cor. No bearing trees.
Thence,
N. 0° 2' W., on true line, bet. frac. secs. 33 & 34.
Over gently rolling land, thru scattering undergrowth.
Descend gradually over NW. slope.
16.00 Dry wash, (shallow) 5 chs. wide, course NW.
40.00 Dry wash, 20 lks. wide, course W.
 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

Survey of Subdivision of
Fractional Township 42 North, Range 8 West

Chains

$\frac{1}{4}$
S33|S34
1926

51.44 Dig pits, 18 x 18 x 12 ins., one each N. and S. of post, 3 ft. dist.
Intersect the UTAH-ARIZONA State Boundary at a point 34.49 chs. N. 89° 56' E. from the 49 mile mon., which is an iron pipe, 2 1/4 ins. diam., projecting 12 ins. above ground, firmly set, marked in raised letters: UTAH on N. and ARIZ on S. sides and 49M stamped in center of brass cap on top of brass cap on top, with dim evidence of original witness pits, N., S., E. and W. of pipe, 6 ft. dist.

At point of intersection,
Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for closing cor. of fractional secs. 33 and 34, marked on brass cap

UTAH
S33|S34
T42NR8W
CC
1926

Dig pits, 18 x 18 x 12 ins., one each S., E. and W. of post, 3 ft. dist.,
Cor. stands under fence, which brs. E. and W.

Land: gently rolling.
Soil: sandy loam, 2nd and 3rd rate.
Timber: none.
Undergrowth: sage, broomweed, cactus.

The cor. of secs. 4, 5, 32 and 33, on the S. bdy. of the Tp., which was established in 1925 by William E. Hiester, U.S. Surveyor under Arizona Group No. 131, cor. is an iron post, 2 ins. in diam., projecting 10 ins. above ground, firmly set, properly marked on brass cap, witnessed by a mound of stone, W.

Thence,
N. 0° 03' W., on true line, bet. secs. 32 and 33.
Over gently rolling land; through scattering undergrowth.
Desc. gentle NW. slope.
15.40 Dry wash, 15 lks. wide, course NW.
Asc. gentle S. slope.
31.20 Spur, slopes W.
Desc. gentle N. slope.
40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap

$\frac{1}{4}$
S32|S33
1926

44.40 Dig pits, 18 x 18 x 12 ins., one each N. and S. of post, 3 ft. dist.
Road, brs. E. and W.
51.31 Intersect the UTAH-ARIZONA State Boundary at a point 34.46 chs. N. 89° 58' E. from the 48 mile mon. which is an iron pipe, 2 1/4 ins. diam., projecting 3 ft. above ground, firmly set, marked in raised letters: UTAH on N. and ARIZ on S. sides and stamped 48M in center of brass cap on top, witnessed by pits, N., S., E. and W. of pipe, 6 ft. dist.
At point of intersection,

Survey of Subdivision of
Fractional Township 42 North, Range 8 WEST

Chains

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of fractional secs. 32 and 33, marked on brass cap

UTAH
S32|S33
CC
T42NR8W
1926

Dig pits, 18 x 18 x 12 ins., one each S., E. and W. of post, 3 ft. dist.

Land: gently rolling.
Soil: sandy, 3rd rate.
Timber: none.
Undergrowth: sage, cactus.

The cor. of secs. 5, 6, 31 and 32, on the S. bdy. of the Tp., which was established in 1925 by William E. Hiester, U.S. Surveyor under Arizona Group No. 131, is an iron post, 2 ins. in diam., projecting 10 ins. above ground, firmly set, properly marked on brass cap, witnessed by 4 pits, one in each sec., 3 ft. dist. Thence,

- N.0°03'W., on true line, bet. fractional secs. 31 and 32. Over gently rolling land; through scattering undergrowth. Desc. gentle NW. slope.
- 3.30 Dry wash, 15 lks. wide, course W.
Asc. gentle S. slope.
- 7.00 Road, brs. E. and W.
- 10.85 Low spur, slopes W.
Desc. gentle N. slope.
- 18.60 Dry wash, 10 lks. wide, 1 ft. deep, course W.
Asc. gentle S. slope.
- 22.00 Low spur, slopes W.
Desc. gentle N. slope.
- 28.00 S. bank of Short Creek, 15 ft. high, brs. E. and W.
- 28.30 Short Creek, 25 lks. wide, 8 ft. deep, course W.
- 29.50 N. bank of Short Creek, 15 ft. high, brs. E. and W.
- 38.10 Fence, brs. SW. and NE. 6 chs. to turn to N.30°W.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

$\frac{1}{4}$
S31|S32
1926

Dig pits, 18 x 18 x 12 ins., one each N. and S. of post, 3 ft. dist.

Leave bottom land; asc. gentle S. slope.

- 51.29 Intersect the UTAH-ARIZONA State Boundary at a point 34.73 chs. N.89°58'E. from the 47 mile mon., which is an iron pipe, 2 1/2 ins. diam., projecting 18 ins. above ground, firmly set, marked in raised letters: UTAH on N. and ARIZ on S. sides, and stamped 47M in center of brass cap on top, with dim evidence of original witness pits N., S., E. and W. of pipe, 6 ft. dist.

At point of intersection,

Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for closing cor. of fractional secs. 31 and 32, marked on brass cap

UTAH
S31|S32
CC
T42NR8W
1926

Survey of subdivision of
Fractional Township 42 North, Range 8 West

Chains

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

Land: gently rolling.

Soil: sandy, 3rd rate.

Timber: none.

Undergrowth: sage, broomweed, cactus.

Boundaries of Fractional Township 42 North, Range 8 West

Latitudes, departures and closing errors.

Line designated	True bearing	Dist- ance	Latitudes		Departures		
			N.	S.	E.	W.	
South Boundary	N. 89° 59' W.	480.21	.14			480.21	
West Boundary	North	51.15	51.15				
N. Bdy. State Bdy.	East	45.52			45.52		
	N. 89° 58' E.	160.00	.09		160.00		
	N. 89° 56' E.	273.95	.32		273.95		
East Boundary	South	51.97		51.97			
Convergency					.06		
Totals			51.70	51.97	479.53	480.21	
				51.70		479.53	
<u>Error in latitude</u>				0.27			
<u>Error in departure</u>						0.68	

The continued satisfactory adjustment of the instrument used in the execution of the foregoing surveys is indicated from field tests described in book "B".

GENERAL DESCRIPTION

Land: is rolling plateau with sandstone outcroppings.

Soil: is mostly sandy and rocky, some loam, 2nd to 4th rates.

Timber: is to be found only on the high mesa in sec. 36 and in part of sec. 35. The varieties are scrub cedar and pinon; some petrified.

Undergrowth: sage predominates, with some broomweed and cacti.

Mineral: none observed.

Water: No permanent water. Short Creek flows intermittently.

Settlement: G.W. Ronan has built a cabin and small earth reservoir in extreme NE. cor. of sec. 35. Rule Glazier has built a small house and fences and is building a reservoir in sec. 31, T. 42 N., R. 8 W.

Roads: Some poor roads in West part. The Hurricane Highway crosses sec. 35 Southerly to Fredonia.

4-680

FIELD ASSISTANTS.
TO

Benjamin J. Kinsey, U.S. Surveyor

NAMES.	CAPACITY.
Earl Endicott	1st. chairman
Owen Wright	2nd. chairman
Elliot Pierson	Flagman
Bert Wells	Axman
Earl Childers	Moundsman

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. District Cadastral Engineer for Group 137, Arizona, bearing date of the 13th day of October, 1925, 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 UTAH-ARIZONA State Boundary, and surveyed all those parts or portions of the West Boundary and Subdivision lines of

Fractional Township 42 North, Range 8 West

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 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. District Cadastral Engineer for Group 137, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such retracement and survey.

Place Phoenix, Arizona

Benjamin J. Kinsey U. S. Surveyor.

Date July, 23, 1927

APPROVAL.

OFFICE OF THE UNITED STATES Supervisor of Surveys

Denver, Colorado, July 29, 1927.

The foregoing field notes of the retracement of part of the 53rd mile of the UTAH-ARIZONA State Boundary and of the survey of the West Boundary and Subdivision lines of

FRACTIONAL TOWNSHIP 42 NORTH, RANGE 8 WEST

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

executed by Benjamin J. Kinsey, U.S. Surveyor

under his special instructions dated Oct. 13, 1925, for Group 137, Arizona, 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. 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.