

3523

203

orig
Camp ①

4-679

Book "G"

BOOK 3523

FIELD NOTES

OF THE RETRACEMENT OF

part of the Arizona-Utah State Boundary (12th, 14th, 15th and 16th miles.)

AND OF THE SURVEY OF

the East boundary, and

Subdivision lines of

Fractional Township 42 North, Range 14 West,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Joseph P. Davis, U. S. Cadastral Engineer,

and Claude F. Warner, U. S. Transitman,

In the capacity of U. S. Surveyor, under Special Instructions dated September 29, 1920, issued by the United States Surveyor General to govern surveys included in Group No. 112, Arizona, which were approved by the Commissioner of the General Land Office, November 10, 1920, and Assignment Instructions dated December 15, 1920

Retracement & Survey commenced March 7, 1921

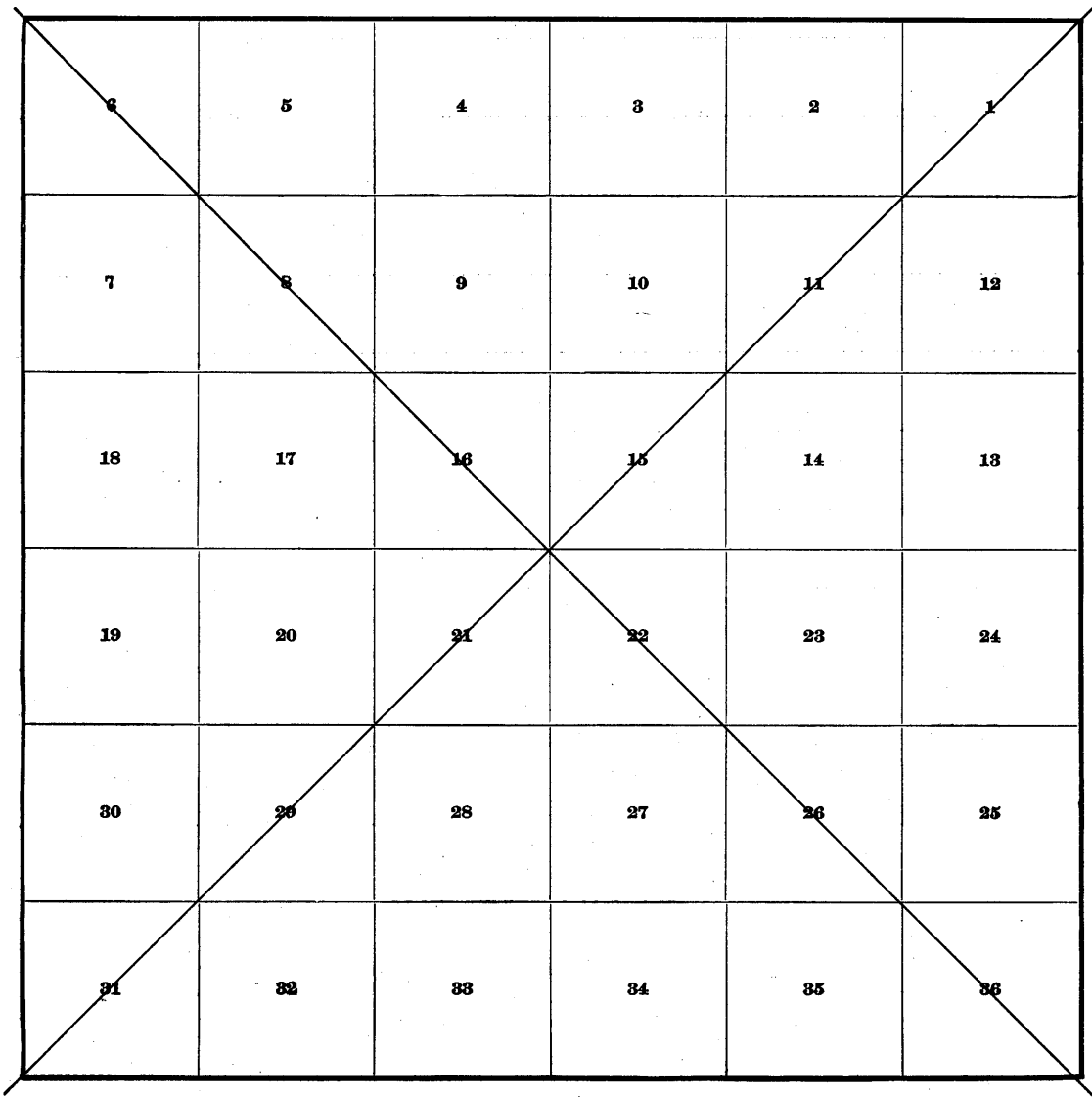
Retracement & Survey completed April 29, 1921

3523

3523

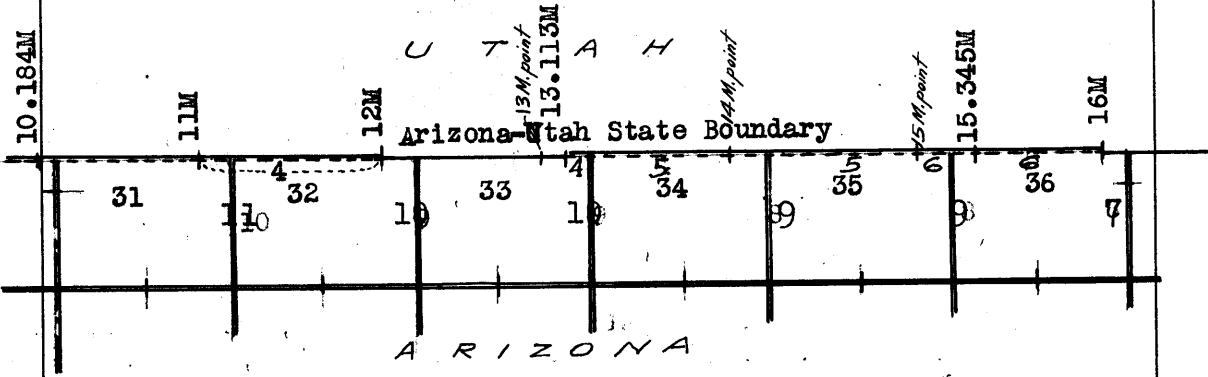
~~INDEX DIAGRAM.~~

Township _____, *Range* _____



Book "G"
Index Diagram

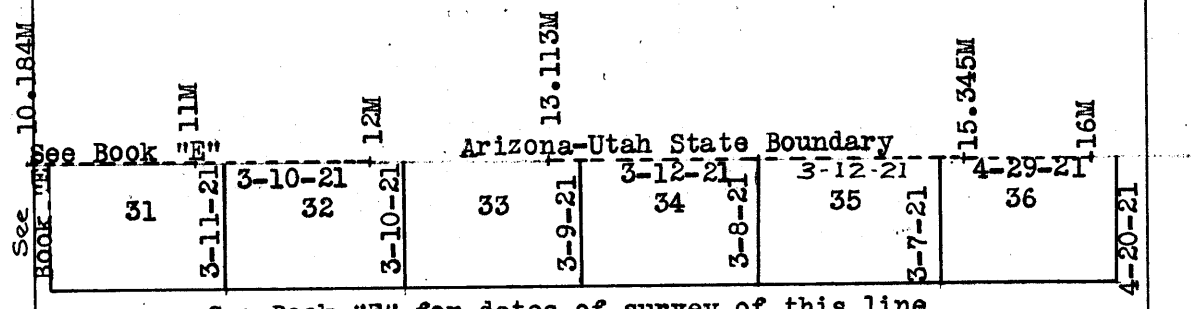
Fractional Township 42 North, Range 14 West



- Lines retraced under this Group
- - - - - Lines resurveyed under this Group
- ===== Lines surveyed under this Group
- _____ Accepted surveys.

Date Diagram

Fractional Township 42 North, Range 14 West,



On the above diagram:-
Black lines indicate surveys, dotted black lines indicate retracements, and dot and dash black lines indicate resurveys, executed by Joseph P. Davis, U. S. Cadastral Engineer, and red lines indicate surveys, and dotted red lines indicate retracements, executed by Claude F. Warner, U. S. Transitman, all on dates shown thereon.

Retracements and surveys hereinafter described executed by J. P. Davis, U. S. Cadastral Engineer and C. F. Warner, U. S. Transitman, on dates shown on diagram on page 1 hereof, using respectively Buff light mountain transit No. 10125 and Young and Sons light mountain transit No. 8532. For description of instruments and certificate of approval, see Book "A".

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

Field Test of Instrument No. 8532.

Examine the adjustments of the transit and correct all errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris at elongation, proceed as follows:

March 5, 1921. At camp in sec. 8, T. 41 N., R. 14 W., G. and S. R. B. and M., lat. $36^{\circ}58'N.$, long. $113^{\circ}50\frac{1}{2}'W.$, at 8 hrs. 35.1 m. p.m., l.m.t., observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined by a tack in a stake, firmly driven in the ground, 5 chs. N. of station.

March 6, 1921, At 8 hrs. 0 m., a.m., l.m.t., lay off the azimuth of Polaris, $1^{\circ}23\frac{1}{2}'$ to the east, and mark the true meridian thus determined by a tack in a stake, firmly driven in the ground, 5 chs. N. of station.

At 9 hrs. 0 m., a.m., l.m.t., set off $36^{\circ}58'N.$ on the lat. arc; $5^{\circ}40'S.$ on the decl. arc; and determine a meridian with the solar, which agrees with the true meridian.

At apparent noon, with the lat. arc unchanged, observe the sun on the meridian; the resulting decl. is $5^{\circ}37\frac{1}{2}'S.$, which is the computed decl. of the sun.

At 3 hrs. 0 m., p.m., l.m.t., with the lat. arc unchanged, set off $5^{\circ}34'S.$ on the decl. arc and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1'30''$ of the true meridian, conclude that the adjustments of the solar are satisfactory.

Field Test of Instrument No. 10125.

Examine the adjustments of the transit and correct all errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris at elongation, proceed as follows:

April 17, 1921. At camp in sec. 2, T. 41 N., R. 13 W., G. and S. R. B. and M., lat. $36^{\circ}59'N.$, long. $113^{\circ}40\frac{1}{2}'W.$, at 5 hrs. 55.3 m. a.m., l.m.t., observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined by a tack driven in a stake, firmly set in the ground, 5 chs. N. of station.

At 8 hrs. 0 m., a.m., l.m.t., lay off the azimuth of Polaris, $1^{\circ}24'$ to the west, and mark the true meridian thus determined by a tack in a stake, firmly driven in the ground, 5 chs. N. of station.

At 9h.0m. a.m., l.m.t., set off $36^{\circ} 59' N.$ on the lat.arc; $10^{\circ} 27\frac{1}{2}' N.$ 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 decl. is $10^{\circ} 30' N.$, which is the computed decl. of the sun.

At 3h.0m. p.m., l.m.t., with the lat.arc unchanged, set off $10^{\circ} 33' N.$ on the decl.arc, and determine a meridian with the solar, which agrees with the true meridian.

As all of the solar observations during the usual hours of solar work come within $1' 30''$ of the true meridian, conclude that the adjustments of the solar are satisfactory.

NO. 12520

Retracement of part of the Arizona-Utah State Boundary Line,
4 (12th, 14th, 15th and 16 miles).

chains.

That part of the Arizona-Utah State Boundary Line, forming the North boundary of fract. T. 42 N., R. 14 W. was surveyed in March and April, 1901, by Howard B. Carpenter, U.S. Surveyor and Astronomer, and no retracement or resurvey of this part of said boundary is of record, except a retracement of the 11th mile, executed in November, 1912, by Thomas B. Matthews, U.S.S. The 11th mile was again retraced March 11th, 1921, by Claude F. Warner, U.S. Transitman, as described in Book "E" of this group.

The following notes describe a retracement of the 12th, 14th, 15th & 16th miles of the State boundary.

The 12th mile monument is a limestone, 30x10x8 ins., firmly set in a mound of stone, marked "UTAH" on N. face, "37 NL" on E. face, "ARIZ." on S. face, and "12M" on W. face, and witnessed by a mound of stone, E. of monument, No bearing trees.

Thence,

West, on random line, on 12th mile.

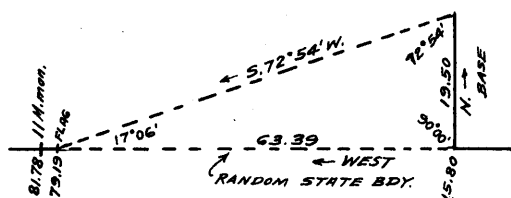
Over mountainous land, thru. scattering undergrowth.

Descend 140 ft., over NW. slope.

10.80 Draw, course SE. Asc. 72 ft., over slide rock on E. slope.

15.80 Ridge, brs. NE and SW. Descend over very steep NW. slope.

Chaining being impracticable, triangulate as described as follows; and as shown on the diagram hereon:



Measure a base, North 19.50 chs.

Set flag ahead on random line, beyond the steep broken slopes.

From N. end of base, flag hrs. S. 72° 54' W.

Included angles are 72° 54', 90° 00' and 17° 06', the sum of which is 180° 00'.

Triangulated dist. on random line is obtained by Tang. 72° 54' x Base, or $3.25055 \times 19.50 = 63.39$ chs., which added to 15.80 chs. gives 79.19 chs. W. from 12th mile mon. for the position of the flag.

79.19 Flag point of above described triangulation, on NW. slope, about 600 ft. below 15.80 ch. point.

81.78 Intersect the 11th mile monument, which is a limestone, 12x10x10 ins. above ground, firmly set, marked "UTAH" on N. face, "37 NL" on E. face, "ARIZ." on S. face and "11M" on W. face, and witnessed by a mound of stone, E. of monument. No bearing trees.

Land, broken and mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sage brush.

True course and dist. on State bdy. bet. the 12th and 11th mile monuments thereon, are therefore, West, 81.78 chs.

The 13th mile point falling on face of cliff was not monumented in the survey of the State bdy., but was witnessed at a point 9.08 chs. E. therefrom, by a monument designated in the record as the 13.113 mile monument.

This is a granite stone, 12x10x10 ins. above ground, firmly set, marked "UTAH" on N. face, "37NL" on E. face, "ARIZ." on S. face, and "13.113M" on W. face, and witnessed by a mound of stone E. of cor. No bearing trees.

Thence,

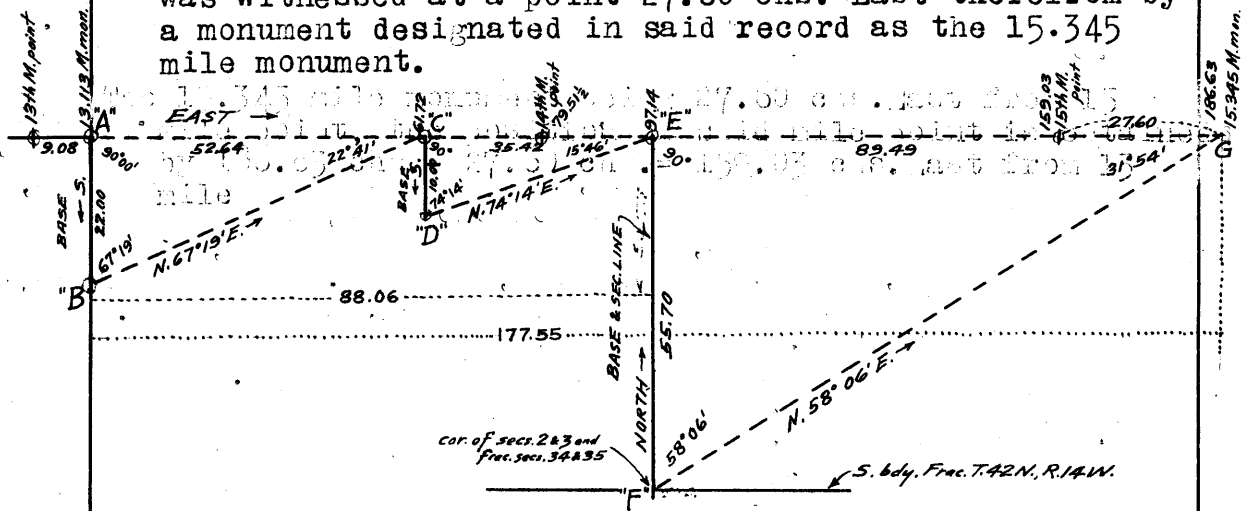
East, on a random line, on 14th and 15th miles.

Retracement of part of the Arizona-Utah State Boundary Line, (12th, 14th, 15th and 16th miles).

Chains.

Over mountainous land, thru. scattering undergrowth, Measuring from 13th mile point, 9.08 chs. W. of the 13.113 mile monument.

The surface in the 14th and 15th miles is extremely rough and broken, and chaining of same would be impracticable; therefore, make a series of triangulations between the 13.113 mile monument and the 15.345 mile monument, as described as follows, and as shown on the diagram hereon. The 14th mile point was neither monumented or witnessed according to the record of the State Boundary survey, and the 15th mile point was inaccessible, and was witnessed at a point 27.60 chs. East therefrom by a monument designated in said record as the 15.345 mile monument.



From 13.113 mile mon. indicated on diagram at "A," measure a Base, South 22.00 chs. to point "B."

Set flag ahead on random line at point "C."

Bearing of "BC" = N.67° 19' E.

Included angles of triangle "ABC" are 90°00', 67°19', and 22°41', the sum of which is 180°00'.

Distance from "A" to "C" is obtained by tang. 67°19' x Base "AB" or 2.39253 x 22.00 = 52.64 chs., which added to 9.08 chs. gives 61.72 chs. East from 13 mile point for flag point "C."

61.72 Flag point "C" of triangle "ABC" from which, Measure a Base, South, 10.00 chs. to point "D."

Set flag ahead on random line at point "E."

Bearing of "DE" = N.74°14'E.

Included angles of triangle "CDE" are 90°00', 74°14', and 15°46', the sum of which is 180° 00'.

Distance from "C" to "E" is obtained by tang. 74°14' x Base "CD" or 3.54179 x 10.00 = 35.42 chs., which added to 61.72 chs. gives 97.14 chs. East from 13 mile point for flag point "E."

79.51 (Proportional measurement) Point for 14th Mile monument inaccessible.

97.14 (88.06 chs. E. from 13.113 mile mon.) Flag point "E" of triangle "CDE" which is set on random State Boundary at 55.70 chs. North from cor. of secs. 2 and 3, and frac. secs. 34 and 35 on S. bdy. of frac. T.42 N., R.14 W., indicated on diagram at "F."

Set flag ahead on random line at 15.345 mile mon. indicated on diagram at point "G."

Bearing of "FG" = N.58°00'E.

Included angles of triangle "EFG" are 90°00', 58°06' and 31°54', the sum of which is 180°00'.

Dist. from "E" to "G" is obtained by tang. 58°00' x Base "EF" or 1.60657 x 55.70 = 89.49 chs., which added to 97.14 chs. gives 180.63 chs. East from 13 mile point or 177.55 chs. East from 13.113 mile monument for position of flag point "G" at the 15.345 mile monument.

The 15,345 mile monument being 27.60 chs. East from 15 mile point, the position of said mile point is obtained by 180.63 chs. - 27.60 chs. = 159.03 chs. East from 13 mile point.

The true course and dist. for each of the 14th and 15th

Retracement of part of the Arizona-Utah State Boundary Line
(12th, 14th, 15th and 16th miles).

6

Chains.

159.03 miles are therefore, East, 79.51½ chs.
Point for 15th mile monument inaccessible.
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sage brush.

27.60 From 15th mile point, which is inaccessible,
East on random line, on 16th mile.
Over mountainous land, thru. scattering undergrowth.
Measurement by triangulation hereinbefore described.
(Record dist.) Intersect flag point "G" of triangle "BFG"
shown on diagram in connection with retracement of
14th and 15th miles, hereinbefore described. This
point is at the witness monument to 15th mile point,
designated in record, as the 15.345 mile monument,
which is a limestone 36x10x6 ins., firmly set in a
mound of stone, marked "UTAH" on N. face, "37NL" on E.
face, "ARIZ." on S. face, and "15.345M" on W. face, and
witnessed by a mound of stone E. of monument. No bear-
ing trees.

Continue line and measurement by chaining.

Ascend 170 ft.

45.60 Descend 80 ft.

58.60 Ascend 25 ft.

73.60 Descend 135 ft. to

87.57 (59.97 chs. E. of 15.345 mile mon.) Intersect the 16th
mile monument, which is a limestone, 11x10x7 ins. above
ground, firmly set, marked "UTAH" on N. face, "37NL" on
E. face, "ARIZ." on S. face, and "16M" on W. face, and
witnessed by a mound of stone E. of monument.

No bearing trees.

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sagebrush.

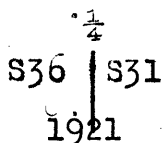
True course and dist. of the 16th mile are therefore, East,
87.57 chs.

True course and dist. between the 15.345 mile monument
and the 16th mile monument are therefore, East, 59.97
chs.

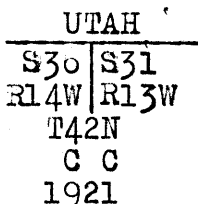
Survey of East bdy. of fracl. Township 42 North, Range 14 West. 7

Chains.

- From the cor. of Ts. 41 N., Rs. 13 and 14 W., and fracl. Ts. 42 N., Rs. 13 and 14 W., described in Book "F," North, bet. fracl. secs. 31 and 36.
- Over very mountainous land, thru. scattering undergrowth. Ascend 1400 ft. over cliffs. Measurement of 27.01 chs. computed from traverse thru. fracl. sec. 31, fracl. T. 42 N., R. 13 W., as described in Book "H."
- 26.62 Rim of cliff, brs. N. 60° W. and S. 60° E. Descend 40 ft.
- 27.01 End of traverse. Continue line and measurement, by chaining.
- 33.00 Head of draw, course N. 75° E. Asc. 15 ft.
- 36.00 Descend 25 ft. to
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 8 ins. in the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



- Descend 45 ft.
- 47.00 Draw, course E. Ascend 90 ft. to
- 55.78 Intersect the Arizona-Utah State Boundary Line, 10.75 chs. E. of the 10th mile monument hereinbefore described.
- At the point of intersection, set an iron post, 3 ft. long, 3 ins. in diam., 7 ins. in the ground, with marked stone, for closing cor. of fracl. Ts. 42 N., Rs. 13 and 14 W.; and raise a mound of stone around post, with brass cap, marked



Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sage brush.

8.

Boundaries of Fracl. Township 42 North, Range 14 West.
 Latitudes, departures, and closing errors.

Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	N. 89° 59' W.	479.46	.14			479.46
West boundary,	North,	55.50	55.50			
North boundary, (Ariz.-Utah State Line,)	East,	479.67			479.67	
East boundary,	South,	55.78		55.78		
Convergency,					.06	
Totals,			55.64	55.78	479.73	479.46
				55.64	479.46	
			<u>Error in latitude,</u>		0.14	
			<u>Error in departure,</u>		0.27	

Survey of Subdivision lines of fracl. Township 42 North, Range 14 West. 9

Chains.

From the cor. of secs. 1 and 2, and fracl. secs. 35 and 36,
 on the S. bdy. of the Tp., described in Book "F,"
 North, on true line, bet. fracl. secs. 35 and 36.
 Over mountainous land, thru. scattering undergrowth.
 Ascend 640 ft., over SW. slope, to $\frac{1}{4}$ sec. cor.
 1.50 Wash, 50 lks. wide, course S. 45° W.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 0 ins. in
 the ground, with marked stone, for $\frac{1}{4}$ sec. cor., and
 raise a mound of stone around post, with brass cap,
 marked,

$\frac{1}{4}$
 S35 | S36
 1921

55.81 Ascend 330 ft., along W. slope, to
 Intersect Arizona-Utah State Boundary Line, 9.33 chs. W. of
 the 15.345 mile monument, hereinbefore described, and
 0.18.27 chs. E. of 15th mile point, which is not monu-
 mented.
 At the point of intersection, set an iron post, 3 ft.
 long, 2 ins. in diam., on bed rock, with marked stone
 for closing cor. of fracl. secs. 35 and 36, and raise a
 mound of stone around post, with brass cap, marked

UTAH
 S35 | S36
 T42N | R14W
 C C
 1921

Land, mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, sagebrush.

From the cor. of secs. 2 and 3, and fracl. secs. 34 and 35,
 on the S. bdy. of Tp., described in Book "F,"
 North, on true line, bet. fracl. secs. 34 and 35.
 Over rolling land, thru. scattering undergrowth.
 Ascend 11 ft.
 1.40 Point of short spur, slopes E. Descend 60 ft., over NE. slope.
 10.00 Foot of descent, brs. NW and SE. Thence over level land.
 20.10 Center of wash, 1 ch. wide, course S. 60° E. Leave level,
 and enter mountainous land. Ascend 110 ft.
 30.00 Point of spur, slopes E. Descend 20 ft.
 37.30 Ascend 30 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock,
 with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound
 of stone around post, with brass cap, marked

$\frac{1}{4}$
 S34 | S35
 1921

Ascend 20 ft.
 43.70 Point of spur, slopes S. 70° E. Descend 30 ft.
 48.70 Ascend 125 ft., over steep S. slope, to
 55.10 Set an iron post, 3 ft. long, 2 ins. in diam., on bed rock,
 with marked stone, for witness cor. to closing cor. of
 fracl. secs. 34 and 35, and raise a mound of stone around
 post, with brass cap, marked

UTAH
 S34 | S35
 T42N | R14W
 WC | CC
 1921

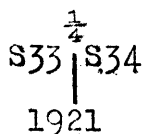
10. Subdivision lines of fracl. Township 42 North, Range 14 West.

Chains.

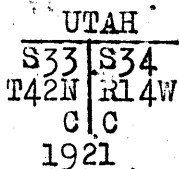
55.70 Intersect the Arizona-Utah State Bdy., 88.06 chs. E. of the 13.113 mile mon., hereinbefore described, and 17.62½ chs. E. of the 14th mile point, which is neither monumented or witnessed.
 This point of intersection falls on slide rock on face of small cliff, where closing cor. cannot be monumented in suitable manner; therefore, witness cor. to closing cor. is established at 0.00 chs. S. as hereinbefore described. This sec. line is the base of a triangulation used in measurement on state bdy., as hereinbefore described.
 Land, rolling, level and mountainous.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, greasewood and sagebrush.

 From the cor. of secs. 3 and 4, and fracl. secs. 33 and 34, on the S. bdy. of the Tp., described in Book "F," North, on true line, bet. fracl. secs. 33 and 34. Over mountainous land, thru. scattering undergrowth. Ascend 95 ft.

3.00 Point of spur, slopes E. Descend 120 ft.
 10.00 Foot of descent, brs. SE. and W. Thence over level land.
 23.10 Center of wash, 125 lks. wide, course S. 30° E.
 31.90 Leave level and enter mountainous land. Asc. 70 ft. to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for ¼ sec. cor., and raise a mound of stone around post, with brass cap, marked



Ascend 175 ft. to
 55.73 Intersect the Arizona-Utah State Boundary Line, 8.18 chs. E. of the 13.113 mile mon., hereinbefore described, and 17.26 chs. E. of the 13th mile point, which is not monumented.
 At the point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., on bedrock, with marked stone, for closing cor. of fracl. secs. 33 and 34, and raise a mound of stone around post, with brass cap, marked



Land, mountainous and level.
 Soil, rocky, 4th rate.
 No timber.
 Undergrowth, yucca, sagebrush and cactus.

 From the true point for cor. of secs. 4 and 5, and fracl. secs. 32 and 33, on the S. bdy. of the Tp. witnessed 0.30 chs. N. 89° 59' W., as described in Book "F," North, on true line, bet. fracl. secs. 32 and 33. Over mountainous land, thru. scattering undergrowth. Ascend 200 ft., over steep S. slope.

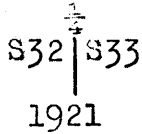
13.97 Top of cliff, brs. SE. and W., facing S. at top of ridge, with same bearing.
 Descend 75 ft., over N. slope.
 27.00 Wash, 50 lks. wide, course S. 70° E. Ascend 50 ft. over SW. slope.

Subdivision lines of fracl. Township 42 North, Range 14 West.

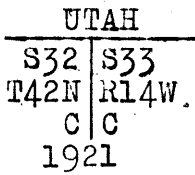
11

Chains.
33.85
40.00

Descend 35 ft. to
Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



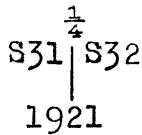
55.60 Ascend 185 ft., over SE. slope, to
Intersect the Arizona-Utah State Boundary Line, 17.28 chs. E. of the 12th Mile mon., hereinbefore described.
At the point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., on bed rock, with marked stone, for closing cor. of fracl. secs. 32 and 33, and raise a mound of stone around post, with brass cap, marked



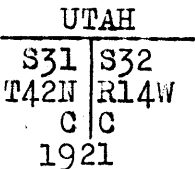
Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, sagebrush and cactus.

From the cor. of secs. 5 and 6, and fracl. secs. 31 and 32, on the S. bdy. of the Tp., described in Book "F," North, on true line, bet. fracl. secs. 31 and 32. Over mountainous land, thru. scattering undergrowth. Ascend 92 ft., over SW. slope.

8.40 Descend 45 ft.
15.20 Ascend 295 ft.
30.90 Top of ridge, brs. N. 45° W. and S. 45° E. Descend 255 ft., over NE. slope, to
40.00 Set an iron post, 3 ft. long, 1 in. in diam., on bed rock, with marked stone, for $\frac{1}{4}$ sec. cor., and raise a mound of stone around post, with brass cap, marked



41.60 Ascend 20 ft.
Top of same ridge, brs. NE. and SW. Descend 345 ft., over NW. slope, to
55.61 Intersect the Arizona-Utah State Boundary Line, 18.88 chs. E. of the 11th Mile Monument, described in Book "E." At the point of intersection, set an iron post, 3 ft. long, 2 ins. in diam., on bedrock, with marked stone, for closing cor. of fracl. secs. 31 and 32, and raise a mound of stone around post, with brass cap, marked



Land, mountainous.
Soil, rocky, 4th rate.
No timber.
Undergrowth, yucca, sagebrush and cactus.

12 Subdivision lines of fractl. Township 42 North, Range 14 West.

Chains.

The continued satisfactory adjustment of solar transits Nos. 8532 and 10125 during the survey of this fractional township is indicated from field tests as described in Books "H" and "J" respectively.

GENERAL DESCRIPTION.

This fractional township consists of rough, mountainous, rocky, 4th rate land, draining to the south. Beaver Dam mountain is in the W. half of sec. 31. There are no roads or settlers in the township, nor is any of this land of any value for agricultural purposes. A sparse growth of yucca, sagebrush and cactus is found over the township.

There is no permanent running water, and no evidence of valuable mineral.

CERTIFICATE OF UNITED STATES TRANSITMAN

14

I, Claude F. Warner, U. S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 112, Arizona, bearing date of the 29th day of September, 1920, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, retraced surveyed, all those parts or portions of the Arizona-Utah State Boundary, and surveyed all those parts or portions of the Subdivision lines of

Fractional Township 42 North, Range 14 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. Surveyor General, for Group 112, Arizona,

and in the specific manner described in the field notes, and that the foregoing are the original field notes of retracement and such survey.

Place Helena, Mont
Date Jan 19, 1922

Claude F Warner
U. S. Transitman

APPROVAL

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

191

The foregoing field notes of the survey of

executed by under his special instructions dated 191, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General

I certify that the foregoing transcript of the field notes of the above described surveys in, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General

BOOK 3523

CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER.

I, Joseph P. Davis, U. S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General for Group 112, Arizona,

bearing date of the 29th day of September, 1920, I have well, faithfully, and truly

in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, retraced surveyed all those parts or portions of the Arizona-Utah

State Boundary, and surveyed all those parts or portions of the East boundary of

Fractional Township 42 North, Range 14 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. Surveyor General, for Group 112, Arizona,

and in the specific manner described in the field notes, and that the foregoing are the original field notes of retracement and such survey.

Place Boies, Idaho

Date January 16, 1922

Joseph P. Davis U. S. Cadastral Engineer

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz., January 25, 1922

The foregoing field notes of the survey of retracement of part of the Arizona-Utah State Boundary (12th, 14th, 15th and 16th miles) and of the survey of the East boundary, and Subdivision lines of

Fractional Township 42 North, Range 14 West,

of the Gila and Salt River Base and Meridian,

in the State of Arizona,

executed by Joseph P. Davis, U.S. Cadastral Engineer, and Claude F. Warner, U.S. Transitman, under his special instructions dated September 29, 1920 for Group 112, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, retracements and the surveys they describe, are hereby approved.

Claude F. Warner 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