

*Orig*

Book "H"

4-679

BOOK 3556

# FIELD NOTES

OF THE SURVEY OF THE

North Boundary and

Subdivision lines

of

Township 27 North Range 13 West

(In the Hualpai Indian Reservation)

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Dupree R. Averill, U.S. Surveyor and

Glenn F. Sawyer, U.S. Transitman

In the capacity of U. S. Surveyor S., under Special Instructions dated February 26, 1920,  
issued by the United States Surveyor General to govern surveys included in Group  
No. 109-Arizona, which were approved by the Commissioner of the General Land  
Office, March 10, 1920, and Assignment Instructions dated April 19, 1921.

Survey commenced April 25, 1921

Survey completed May 18, 1921

3556

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Book "H"

BOOK 3556

Group 109 - Arizona.

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==== Lines surveyed under this group.

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DATE DIAGRAM

Book "H"

Group 109, Arizona

Township 27 North Range 13 West

For dates of survey of this line, see Book "B" of Group 110.

	5-14-21	5-14-21	5-14-21	5-5-21	5-15-21	5-15-21
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30	4-25-21	4-25-21	4-26-21	5-2-21	5-10-21	5-11-21
31	4-25-21	4-25-21	4-30-21	4-30-21	5-8-21	5-9-21
32				4-30-21		5-9-21
33						
34						
35						
36						

For dates of survey of this line, see Book "F" of this Group.

For dates of survey of this line, see Book "D" of this Group.

Red lines indicate surveys by Dupree R. Averill, U.S. Surveyor, on dates shown thereon.

Blue lines indicate surveys by Glenn F. Sawyer, U.S. Transitman, on dates shown thereon.

Surveys hereinafter described executed by Dupree R. Averill, U. S. Surveyor, and Glenn F. Sawyer, U. S. Transitman, on dates shown on diagram on page 1 hereof, using respectively Buff solar transit No. 9223 and Young and Sons' light mountain transit No. 8389. For description of instruments and certificate of approval, see Book "B".

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.

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

Apr. 23, 1921: at our camp, near the NE. cor. of sec. 30, T. 27 N., R. 13 W., G. and S. R. B. and M., lat.  $35^{\circ}42'N.$ , long.  $113^{\circ}42'W.$ ; at 5 hrs. 30.8 m., a.m., l.m.t., we observe Polaris at eastern 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, 10 chs. N. of our station.

At 8 hrs. 0 m., a.m., l.m.t., we lay off the azimuth of Polaris,  $1^{\circ}22\frac{1}{2}'$  to the west, and mark the meridian thus determined by a tack in a stake, firmly driven in the ground, 10 chs. N. of our station.

At 9 hrs. 0 m., a.m., l.m.t., we set off  $35^{\circ}42'N.$  on the lat. arcs;  $12^{\circ}31'N.$  on the decl. arcs; and determine a meridian with each solar, which agrees with the true meridian.

At apparent noon, with the lat. arcs unchanged, we observe the sun on the meridian with each solar; the resulting decl. with each solar is  $12^{\circ}33'N.$ , which is the computed decl. of the sun.

At 3 hrs. 0 m., p.m., l.m.t., with the lat. arcs unchanged, we set off  $12^{\circ}36'N.$  on the decl. arcs; and determine a meridian with each 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, we conclude that the adjustments of the solar are satisfactory.

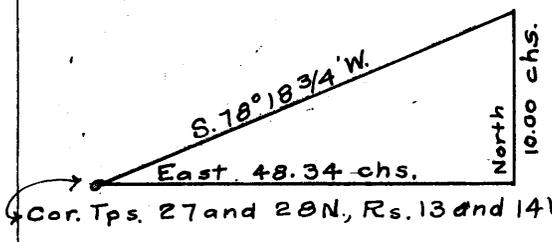
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Survey of the North Boundary  
of T. 27 N., R. 13 W.

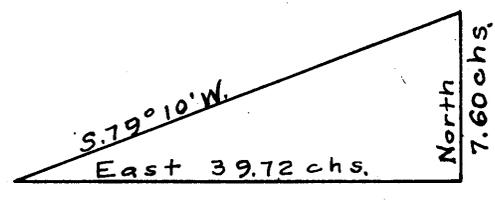
Chains.

From the cor. of Ts. 27 and 28 N., Rs. 13 and 14 W., which is an iron post, 3 ins. diam., set in a mound of stone, as described in the field notes of current Group 110, East on a random line, along the N. bdy. of T. 27 N., R. 13 W.

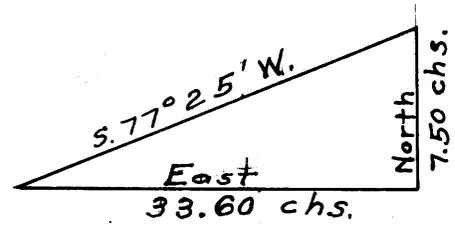
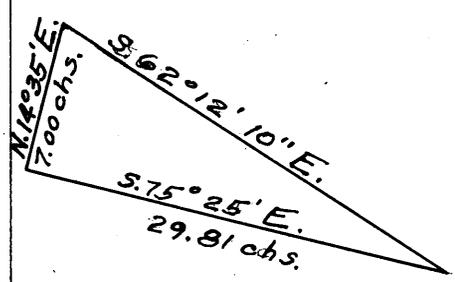
As it is impossible to chain from this cor., I triangulate as follows; set a flag ahead on line, from which I measure a base North 10.00 chs., from the N. end of which, flag at the township cor. brs. S.78°18' W. The three angles of the triangle are therefore 11°41', 78°18' and 90°, the sum of which is 180°. The distance triangulated is given by  $\tan. 78^{\circ}18' \times 10 = 4.83413 \times 10.00 = 48.34$  chs.



48.34 Set temp. witness cor. to  $\frac{1}{4}$  sec. cor. of secs. 6 and 31. Thence continue East on a random line, setting temp. cor. of secs. 5, 6, 31 and 32 at 78.40 chs., and temp.  $\frac{1}{4}$  sec. and sec. cors. at intervals of 40.00 chs. thereafter to 188.96 Impracticable to chain from this point. Set temp.  $\frac{1}{4}$  sec. cor. of secs. 4 and 33. Set a flag ahead on line, from which I measure a base North 7.60 chs., from the N. end of which, flag at the 183.96 ch. point brs. S.79°10' W. The three angles of the triangle are therefore 10°50', 79°10' and 90°, the sum of which is 180°. The distance triangulated is given by  $\tan. 79^{\circ}10' \times 7.60 = 5.22566 \times 7.60 = 39.72$  chs., which added to 183.96 chs., gives



223.68 Thence continue East on a random line, setting temp. cors. at proper intervals.  
311.48 Impossible to chain from this point. Set temp. witness cor. to cor. of secs. 2, 3, 34 and 35. Set a flag ahead on a bearing S.75°25' E. Then from the 311.48 ch. point, measure a base N.14°35' E., 7.00 chs., from the N. end of which, the first flag brs. S.62°12'10" E. The three angles of the triangle are therefore 90°, 76°47'10", and 13°12'50", the sum of which is 180°. The distance triangulated is given by  $\tan. 76^{\circ}47'10" \times 7.00 = 4.25851 \times 7.00 = 29.81$  chs. The lat. and dep. of this line are South 7.51 chs. and East 28.85 chs. From this flag point, I set a flag ahead due East, from which I measure a base North 7.50 chs. From the North end of this base, the next flag West brs. S.77°25' W. The three angles of the triangle are 90°, 12°35', and 77°25', the sum of which is 180°. The distance on the east line is given by  $\tan. 77^{\circ}25' \times 7.50 = 4.47986 \times 7.50 = 33.60$  chs. Measure North 0.01 ch. to a point on the random Tp. line. Dist. to point is 311.48 + 28.85 + 33.60



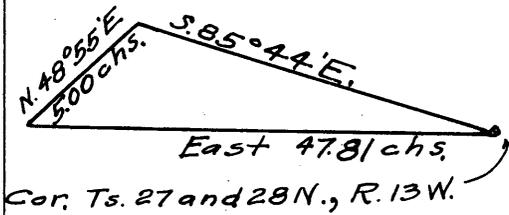
0.01 ch. to a point on the random Tp. line. Dist. to point is 311.48 + 28.85 + 33.60

Survey of the North Boundary  
of T. 27 N., R. 13 W.

Chains.

373.93  
358.40  
398.40

= 373.93-chs.  
Thence chain West 15.53 chs. to  
Set temp.  $\frac{1}{4}$  sec. cor. of secs. 2 and 35.  
Thence continue East on a random line, along the N. bdy. of  
of Tp. to  
Set temp. cor. of secs. 1, 2, 35 and 36. Impossible to  
chain or triangulate from here, because of a succession  
of cliffs.  
I go to a point on the N. bdy. near the position for the  
 $\frac{1}{4}$  sec. cor. of secs. 1 and 36, and due West of the cor.



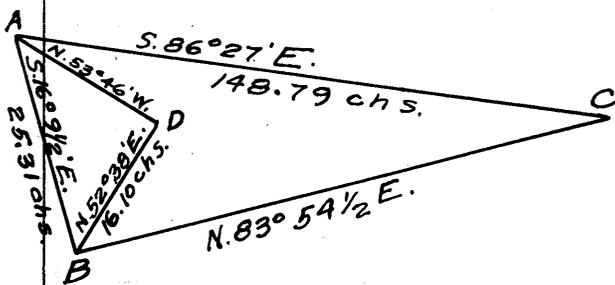
of Ts. 27 and 28 N., R. 13 W., the point for which  
is determined as herein-  
after, described. Measure  
a base N. 48° 55' E. 5.00 chs.  
--impracticable to secure  
longer base--from the N.  
end of which, flag at the  
cor. of Ts. 27 and 28 N.,  
R. 13 W. brs. S. 85° 44' E.  
The three angles of the  
triangle are therefore  
4° 16', 41° 5' and 134° 39',  
the sum of which is 180°.

The distance triangulated is given by the sine propor-  
tion;

$$\frac{X}{5.00} = \frac{\sin. 134^{\circ} 39'}{\sin. 4^{\circ} 16'}$$

log. 5.00	=	0.698970
log. sin. 134° 39'	=	9.852122
		<u>0.551092</u>
log. sin. 4° 16'	=	8.871565
log. X	=	<u>1.679527</u>
X	=	47.81 chs.,

Thence East  
7.81 chs. by chaining, and set temp.  $\frac{1}{4}$  sec. cor. of  
secs. 1 and 36.  
In order to determine the length of the N. bdy. of T.  
27 N., R. 13 W., I return to the 311.48 chs. point,  
and triangulate as follows: From this point, "A", a  
flag set 18.36 chs. West  
and 0.18 chs. North of the  
cor. of Ts. 27 and 28 N.,  
R. 12 W. brs. S. 86° 27' E.



In order to determine the  
distance to this flag, "A",  
set a flag "B", far enough  
away to serve as a base, on  
a bearing S. 16° 9  $\frac{1}{2}$ ' E., from  
which the flag "C", set  
18.36 chs. W. of the E.  
bdy. brs. N. 83° 54  $\frac{1}{2}$ ' E. To  
determine the length A-B,  
from "B" measure a base  
N. 52° 38' E. 16.10 chs., from

the end of which, "D", flag "A" brs. N. 53° 46' W. The  
three angles of the auxiliary triangle are 73° 36',  
68° 47  $\frac{1}{2}$ ', and 37° 36  $\frac{1}{2}$ ', the sum of which is 180°. The  
length A-B is found from the sine proportion:

$$\frac{A-B}{16.10} = \frac{\sin. 73^{\circ} 36'}{\sin. 37^{\circ} 36 \frac{1}{2}'}$$

log. 16.10	=	1.206826
log. sin. 37° 36 $\frac{1}{2}$ '	=	9.785515
		<u>1.421311</u>
log. sin. 73° 36'	=	9.981961
log. A-B	=	<u>1.403272</u>
A-B	=	25.31

Survey of the North Boundary  
of T. 27 N., R. 13 W.

Chains.

The three angles of the main triangle are  $9^{\circ}38\frac{1}{2}'$ ,  $100^{\circ}4'$  and  $70^{\circ}17\frac{1}{2}'$ , the sum of which is  $180^{\circ}$ . The length A-C is found from the sine proportion:

$$\frac{X}{25.31} = \frac{\sin. 100^{\circ}4'}{\sin. 9^{\circ}38\frac{1}{2}'}$$

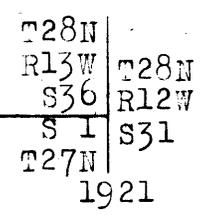
log. 25.31	=	1.403292
log. sin. $9^{\circ}38\frac{1}{2}'$	=	9.223977
log. sin. $100^{\circ}4'$	=	1.179315
log. A-C	=	9.993262
A-C	=	2.172577

148.79 chs. The easting and southing of this line are 148.50 chs. and 9.21 chs., which gives the length and falling of the N. bdy.:

478.34

Intersect W. bdy. of T. 28 N., R. 12 W., 9.39 chs. N. of the cor. of Ts. 27 and 28 N., R. 12 W.

At the point of intersection, Set an iron post, 3 ft. long, 3 ins. diam., 20 ins. in the ground, with marked (M) stone, for cor. of Ts. 27 and 28 N., R. 13 W.; and raise a mound of stone around post, with brass cap marked



Thence

West on a true line, bet. secs. 1 and 36. Over mountainous land, through scattering undergrowth, distance by triangulation, topography approximate. Desc. W. slope, 250 ft.

12.00

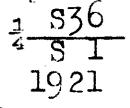
E. rim of canyon, brs. N.25°E. and S.25°W. Desc. perpendicular cliff, 900 ft. high.

26.00

Center of box canyon, course SW. Asc. 900 ft.

40.00

W. rim of canyon. Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, with marked (X) stone, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked



Thence by chaining to

47.81

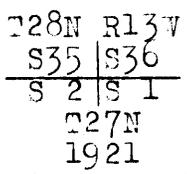
Spur, slopes SW. Thence by triangulation, as hereinbefore described, descending 70 ft.

55.00

E. rim of Spencer Canyon, brs. N.20°W. and S.20°E. Continue descent into canyon.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., on surface rock, with cross (X) at exact cor. point; and raise a mound of stone around post, with brass cap marked



Raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, SW. of cor., on top of flat rock.

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

West on a true line, bet. secs. 2 and 35. Over broken mountainous land, through scattering undergrowth.

Survey of the North Boundary  
of T. 27 N., R. 13 W.

Chains.	<p>Desc. 300 ft.</p> <p>20.00 East bank of wash, 30 ft. high, brs. NW. and SE., in Spencer Canyon, course NW.</p> <p>25.00 West bank of wash, brs. NW. and SE. Asc. 370 ft.</p> <p>40.00 Set an iron post, 3 ft. long, 1 in. diam., 20 ins. in the ground, with marked (X) stone, for <math>\frac{1}{4}</math> sec. cor.; and raise a mound of stone around post, with brass cap marked</p> $\begin{array}{r} \frac{1}{4} \text{ S } 35 \\ \hline \text{S } 2 \\ 1921 \end{array}$ <p>Thence by triangulation, as hereinbefore described. Line runs along edge of cliffs, where chaining is impossible.</p> <p>80.00 The true point for cor. of secs. 2, 3, 34 and 35 falls over edge of cliff, bearing NE. and SW.</p> <p>Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, sagebrush.</p>
6.86	<p>West on a true line, bet. secs. 3 and 34. Over mountainous land, through scattering undergrowth, distance by triangulation.</p> <p>Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, with marked (X) stone, for witness cor. to cor. of secs. 2, 3, 34 and 35; and raise a mound of stone around post, with brass cap marked</p> $\begin{array}{r} \text{T28N R13W} \\ \text{WC } \frac{\text{S34}   \text{S35}}{\text{S } 3   \text{S } 2} \\ \text{T27N} \\ 1921 \end{array}$ <p>Thence by chaining, ascending 35 ft.</p>
13.38 40.00	<p>Spur, slopes NE. Desc. 260 ft.</p> <p>Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with marked (X) stone, for <math>\frac{1}{2}</math> sec. cor.; and raise a mound of stone around post, with brass cap marked</p> $\begin{array}{r} \frac{1}{4} \text{ S } 34 \\ \hline \text{S } 3 \\ 1921 \end{array}$
46.00 62.80 65.10 72.60 80.00	<p>Continue descent, 20 ft.</p> <p>Draw, course NE. Asc. 175 ft.</p> <p>Spur, slopes N. Desc. 20 ft.</p> <p>Draw, course N. Asc. 40 ft.</p> <p>Spur, slopes NE. Desc. 25 ft.</p> <p>Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground, for cor. of secs. 3, 4, 33 and 34, marked on brass cap</p> $\begin{array}{r} \text{T28N R13W} \\ \frac{\text{S33}   \text{S34}}{\text{S } 4   \text{S } 3} \\ \text{T27N} \\ 1921 \end{array}$ <p>And raise a mound of stone, 2 ft. base, <math>1\frac{1}{2}</math> ft. high, W. of cor.</p> <p>Land, mountainous. Soil, sandy, gravelly and rocky, 3rd and 4th rates. No timber. Undergrowth, sagebrush, scrub oak and cactus. Fair grass.</p>
13.40 14.66 24.90 33.00 40.00	<p>West on a true line, bet. secs 4 and 33. Over heavily rolling land, through dense undergrowth. Asc. 30 ft.</p> <p>Spur, slopes NE. Desc. 40 ft.</p> <p>From this point, distance by triangulation.</p> <p>24.90 East rim of canyon, brs. NE. and SW. Desc. 350 ft.</p> <p>33.00 (Approx.) Center of wash, 1 ch. wide, course NE. Asc. 350 ft.</p> <p>40.00 The true point for <math>\frac{1}{4}</math> sec. cor. comes on wall of canyon.</p>

Survey of the North Boundary  
of T. 27 N., R. 13 W.

58567

Chains  
49.38

West rim of canyon, Set an iron post, 3 ft. long, 1 in. diam., with marked (x) stone, for witness cor. to  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

$\frac{1}{4}$   $\frac{S\ 33}{S\ 4}$  WC  
1921

80.00

Thence over level land, dist by chaining.  
Set an iron post, 3 ft. long, 2 ins. diam., 8 ins. in the ground, with marked (x) stone, for cor. of secs. 4, 5, 32 and 33; and raise a mound of stone around post, with brass cap marked

T28N | R13W  
S32 | S33  
S 5 | S 4  
T27N  
1921

Land, mountainous, heavily rolling and level.  
Soil, sandy and gravelly, 2nd and 4th rates.  
Timber, very scattering cedar.  
Undergrowth, sagebrush, scrub oak and cactus.  
Good growth of grass.

-----  
West on a true line, bet. secs. 5 and 32.  
Over rolling land, through scattering timber and undergrowth.

11.00

Desc. 25 ft.  
Draw, course N. Asc. 30 ft.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor., and raise a mound of stone around post, with brass cap marked

$\frac{1}{4}$   $\frac{S\ 32}{S\ 5}$   
1921

49.00

Continue descent, 20 ft.  
Draw, course N. Asc. 30 ft.

65.00

Spur, slopes NE. Desc. 35 ft.

75.50

Draw, course NE. Asc. 30 ft.

80.00

Set an iron post, 3 ft. long, 2 ins. diam., 12 ins. in the ground, in a mound of stone with marked (x) stone for cor. of secs. 5, 6, 31 and 32, marked on brass cap

T28N | R13W  
S31 | S32  
S 6 | S 5  
T27N  
1921

From which

- A cedar, 8 ins. diam., brs. N. 53 $\frac{1}{2}$ ° E.,  
190 lks. dist., marked T28N R13W S32 BT.
- A cedar, 10 ins. diam., brs. S. 26° E.,  
106 lks. dist., marked T27N R13W S5 BT.
- A cedar, 8 ins. diam., brs. S. 42° W.,  
145 lks. dist., marked T27N R13W S6 BT.

No other trees within limits.  
Land rolling.  
Soil, sandy, 2nd rate.  
Timber, scattering cedar.  
Undergrowth, sagebrush, greasewood and cactus  
Good grass.

Survey of the North Boundary  
of T. 27 N., R. 13 W.

Chains	West on a true line, bet. secs, 6 and 31. Over rolling land, through scattering timber and dense undergrowth. Asc. 45 ft.
15.00	Spur, slopes NE. Desc. 40 ft.
30.00	Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, with marked (x) stone, for witness cor. to $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked
	$\text{WC } \frac{1}{4} \quad \frac{\text{S } 31}{\text{S } 6}$ 1921
	Thence by triangulation, as hereinbefore described. Topography approximate. Desc. 1300 ft.
40.00	True point for $\frac{1}{4}$ sec. cor. of secs. 6 and 31 is inaccessible.
67.10	Trail, brs. N. to Meriwhitica Farm and S. to Peach Springs.
78.34	The cor. of TS. 27 and 28 N., RS. 13 and 14 W. Land, rolling and mountainous. Soil, sandy and rocky; 2nd and 4th rates. Timber, scattering cedar. Undergrowth, sagebrush, greasewood and cactus. Good grass on E. half mile; remainder none.

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Boundaries of T. 27 N., R. 13 W.  
 Latitudes, departures and closing errors.

Line designated.	True bearing.	Dist. chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
South Boundary	West.	479.25				479.25
West Boundary	North.	482.48	482.48			
North Boundary	East.	478.34			478.34	
East Boundary	South.	481.63		481.63		
Convergency.					.52	
Totals			482.48	481.63	478.86	479.25
			481.63			478.86
Error in latitude			.85			
Error in departure						.39

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains.

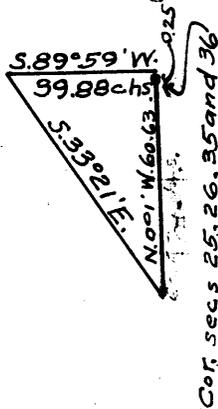
The West Boundary of this township is monumented with two sets of iron posts, both of which were established by F. R. Ihrie, U. S. Transitman, under current Group 110. These are the cors. hereinafter described as closed upon.

From the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of Tp., described in Book "D",  
N.0°1'W. bet. secs. 35 and 36.

Over mountainous land, through scattering undergrowth.  
Desc. 160 ft.

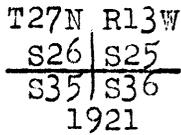
19.70 Rim of canyon, brs. NE. and SW.

19.62 Set flag for triangulation point. I go to a point ahead on line, from which I measure a base S.89°59'W. 39.88 chs., from the W. end of which, flag brs. S.33°21'E. The three angles of the triangle are 56°40', 90° and 33°20', the sum of which is 180°. The distance triangulated is given by  $\tan. 56°40' \times 39.88 = 1.52043 \times 39.88 = 60.63$  chs., which added to 19.62 chs., gives

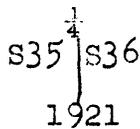


80.25 Thence S.0°1'E. 0.25 chs. to

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the ground, with marked stone, for cor. of secs. 25, 26, 35 and 36; and raise a mound of stone around post, with brass cap marked



40.00 From this cor., I measure S.0°1'E. 40.00 chs. to Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, with marked stone, for 1/4 sec. cor.; and raise a mound of stone around post, with brass cap marked



Thence  
N.0°1'W. bet. secs. 35 and 36.  
Desc.

43.70 Head of draw, course SW. Asc. 60 ft.

46.70 Spur, slopes NW. Desc. 265 ft.

67.50 Draw, course NE. Asc. 60 ft.

78.50 Low spur, slopes E. Desc. 20 ft.

80.00 The cor. of secs. 25, 26, 35 and 36.

Land, mountainous.

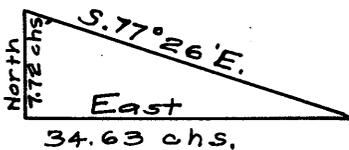
Soil, rocky, 4th rate.

Timber, none.

Undergrowth, cat claw, sagebrush and cactus.

34.84 East on a random line, bet. secs. 25 and 36.

From this point, I triangulate as follows: set a flag ahead on line. From the 34.84 ch. point, measure a base North 7.72 chs., from the N. end of which, flag brs. S.77°26'E. The three angles of the triangle are therefore 12°34', 90° and 77°26', the sum of which is 180°. The distance triangu-



Survey of the Subdivision  
of T. 27 N., R. 13 W..

K 5586

Chains  
 69.47 lated is given by  $\tan. 77^{\circ}26' \times 7.72 = 4.48600 \times 7.72 = 34.63$   
 chs., which added to 34.84 chs., gives  
 79.86 Continue East on a random line, bet. secs. 25 and 36.  
 Fall 28 lks. N. of the cor. of secs. 25 and 36, on the E. bdy.  
 of Tp., described in "F".  
 Thence N. 89° 48' W. on a true line, bet. secs. 25 and 36.  
 Over mountainous land, through scattering undergrowth.  
 Desc. 45 ft.  
 10.39 Rim of cliffs, 400 ft. high, brs. N. and S.  
 Thence by triangulation, across canyon at about 25.00 chs.  
 course NW., descending 700 ft.  
 39.93 Set an iron post, 3 ft. long, 1 in. diam., on bed rock,  
 with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and raise a mound  
 of stone around post, with brass cap marked

$$\frac{1}{4} \frac{S 25}{S 36}$$

1921

Thence by chaining, ascending 100 ft.  
 45.05 Spur, slopes N. Desc. 55 ft.  
 52.85 Head of draw, course N. Asc. 100 ft.  
 57.65 Spur, slopes N. 20° W. Desc. 220 ft.  
 72.95 Draw, course NW. Asc. 175 ft.  
 79.86 The cor. of secs. 25, 26, 35 and 36.  
 Land, mountainous.  
 Soil, rocky, 3rd and 4th rates.  
 No timber.  
 Undergrowth, black brush, cat claw, mescal and cactus.

N. 0° 1' W. bet. secs. 25 and 26.  
 Over mountainous land, through scattering undergrowth.  
 Desc. 105 ft.

5.65 Triangulate across box canyon as follows: set a flag ahead  
 on line, and from the 5.65  
 ch. point, measure a base  
 N. 64° 48' W. 3.42 chs., from  
 the W. end of which, flag  
 brs. N. 25° 12' E. The three  
 angles of the triangle are  
 therefore 64° 48', 90° and  
 25° 12', the sum of which is  
 180°. The distance tri-  
 angulated is given by  
 $3.42 \div \cos. 64^{\circ}48' =$   
 $3.42 \div .42578 = 8.03 \text{ chs.},$   
 which added to 5.65 chs.,  
 gives 13.68 chs.. The approx-  
 imate topography is as fol-  
 lows:



6.00 Box canyon, course NW.  
 10.00 Same canyon, course NE.  
 13.68 Triangulation point. Thence by chaining.  
 13.85 Rim of bluff, 100 ft. high, brs. NE. and SW. Continue.  
 ascent.  
 17.00 Spur, slopes NE. Desc. 380 ft.  
 28.20 Wash, course NW. Asc. 45 ft.  
 35.50 Spur, slopes NW. Desc. 130 ft.  
 40.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock,  
 with marked (x) stone, for  $\frac{1}{4}$  sec. cor., and raise a  
 mound of stone around post, with brass cap marked

$$\frac{1}{4} \frac{S 26}{S 25}$$

1921

40.20 Wash, course W. Asc. 160 ft.  
 47.40 Spur, slopes W. Desc. 380 ft.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains  
60.00  
71.00  
72.50  
77.00  
80.00

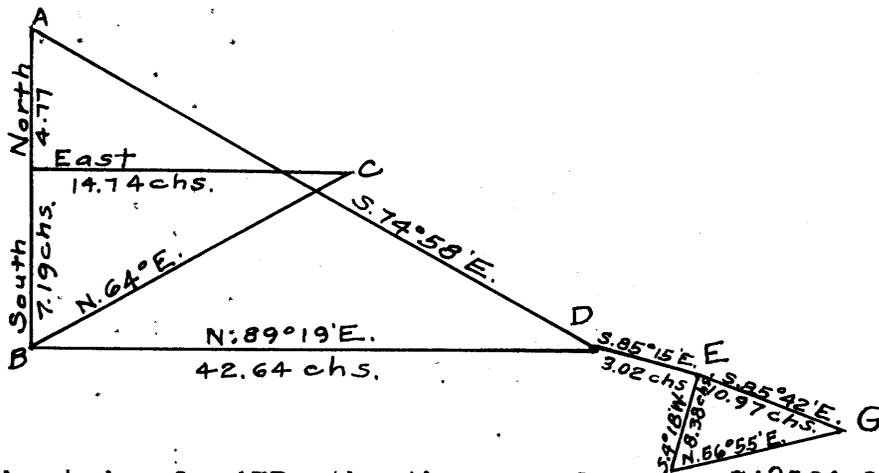
Enter wash, course N., from SE.  
Enter Spencer canyon, wash 1.50 chs. wide, course NE.  
Leave wash; asc. 40 ft.  
Spur, slopes E. Desc.  
Set an iron post, 3 ft. long, 2. ins. diam., on bed rock, with marked (x) stone, for cor. of secs. 23, 24, 25 and 26; and raise a mound of stone around post, with brass cap marked

T27N | R13W  
S23 | S24  
S26 | S25  
1921

Land, mountainous.  
Soil, rocky, 4th rate.  
No timber.  
Undergrowth, willow in canyon; cat claw, palo christi, black brush and cactus on slopes.

-----  
The line bet. secs. 24 and 25. can not be surveyed along the section line, either by direct measurement or by triangulation, because of the very mountainous nature of the country. A traverse line is run, therefore, by means of direct measurement and triangulation, from which the true course of the mile is computed and the  $\frac{1}{4}$  sec. cor. is then run in from the west.

23.35 From the cor. of secs. 23, 24, 25 and 26. East on a random line, bet. secs. 24 and 25. From this point, I set a flag "C" ahead on line, a flag "A" North 4.77 chs.; and a flag "B" South 7.19 chs.. From flag "B", flag "C" brs. N.64°E. Also from "B", set a flag, "D", on a bearing N.89°19'E. From "A", flag, at "D" brs. S.74°58'E.



In the triangle ABD, the three angles are 74°58', 15°43' and 89°19', the sum of which is 180°. The length of the line BD is found from the sine proportion;

$$\frac{X}{11.96} = \frac{\sin. 74^{\circ}58'}{\sin. 15^{\circ}43'}$$

log. 11.96	=	1.077731
log. sin. 74°58'	=	9.984876
		1.062607
log. sin. 15°43'	=	9.432778
log. X	=	1.629829
X	=	42.64 chs.

The latitude and departure of this line are N.0.51 chs. and E.42.64 chs. From "D", measure 3.02 chs. on a bearing S.85°15'E., to point "E", this line having a latitude of 0.25 chs. and a departure of 3.01 chs. From "E", flag "G" at the cor. of secs. 19 and 30, on the E. bdy. of Tp. brs. S.85°42'E. To determine the distance from "E" to "G", measure a base from "E", S.4°18'W., 8.38 chs., from the S. end of

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains

which, flag at "G" brs. N. 56° 55' E. The three angles of this triangle are 52° 37', 90° and 37° 23', the sum of which is 180°. The distance EG is given by  $\tan. 52° 37' \times 8.38 = 1.30873 \times 8.38 = 10.97$  chs., the latitude and departure of which are respectively S. .82 chs. and East 10.94 chs. The length of the mile is the sum of 23.35 chs., 42.64 chs., 3.01 chs. and 10.94 chs., which gives 79.94 chs. The south latitudes are 7.19 chs., .25 chs. and .82 chs., the sum of which is 8.26 chs. The north latitudes are 7.76 chs. and 0.51 chs., the sum of which is 8.27 chs. The bearing bet. opposite sec. cors. is therefore West and the distance is 79.94 chs.

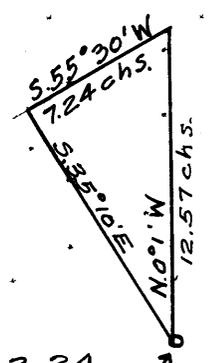
The distance from the 23.35 ch. point to flag "C" is computed from the triangle whose angles are 64°, 90° and 26°, the sum of which is 180°. The distance is found from  $\tan. 64° \times 7.19 = 2.05030 \times 7.19 = 14.74$  chs., which added to 23.35 chs., gives

- 38.09 Thence East to
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor. From the cor. of secs. 24 and 25 on the E. bdy. of Tp., West on true line bet. secs. 24 and 25, over mountainous land, through scattering undergrowth, dist by triangulation and traverse, as hereinbefore described.
- 39.97 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

$\frac{1}{4}$  S 24  
S 25  
1921

- 41.85 Thence by chaining
- 41.85 Thence by triangulation as hereinbefore described.
- Desc. 20 ft.
- 46.75 Small stream of water, 2 lks. wide, 1 in. deep, course N. 30° W. Asc. 170 ft.
- 56.59 Continue ascent, distance by chaining.
- 58.54 Spur, slopes NW. Desc. 320 ft.
- 60.35 Bluff, brs. N. and S., 20 ft. high. Continue descent.
- 71.95 Center of wash, 4.20 chs. wide, course N., in Spencer Canyon. Asc. 145 ft.
- 79.94 The cor. of secs. 23, 24, 25 and 26.  
Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, cottonwood.  
Undergrowth, sagebrush, cat claw and cactus.

N. 0° 1' W. bet. secs. 23 and 24.  
Over mountainous land, through scattering undergrowth. Impassable cliffs N. and W. of cor. make chaining impossible. Set a flag ahead on line, from which I measure a base S. 55° 30' W. 7.24 chs. -- impracticable to secure longer base -- from the W. end of which, flag at the cor. of secs. 23, 24, 25 and 26 brs. S. 35° 10' E. The three angles of the triangle are therefore 35° 9', 89° 20' and 55° 31', the sum of which is 180°. The distance triangulated is found from the sine proportion:



Cor. secs. 23, 24,  
25 and 26.

$$\frac{X}{7.24} = \frac{\sin. 89° 20'}{\sin. 35° 9'}$$

log. 7.24	=	.859739	
log. sin. 89° 20'	=	9.999971	
		.859710	
log. sin. 35° 9'	=	9.760211	
log. X	=	1.099499	X = 12.57 chs.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains	
12.57	Point, on cliffs, 465 ft. above sec. cor. Continue ascent 115 ft., distance by chaining.
24.20	Spur, slopes E., Desc. 155 ft.
31.20	Draw, course NE. Asc. 150 ft.
40.00	Set an iron post, 3 ft. long, in in. diam., on bed rock, with cross (x) at exact cor. point, for $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked
	$\frac{1}{4}$ S23   S24 1921
40.20	Spur, slopes E. Desc. 150 ft.
47.70	Draw, course E. Asc. 165 ft.
57.60	Spur, slopes E. Desc. 600 ft.
78.60	Wash, 1 ch. wide, in bottom of canyon, course E.
80.00	On N. side of canyon, set an iron post, 3 ft. long, 2 ins. diam., on bed rock, with marked (x) stone, for cor. of secs. 13, 14, 23 and 24; and raise a mound of stone around post, with brass cap marked
	T27N   R13W S14   S13 S23   S24 1921
	Land, <del>broken</del> and rolling mountainous Soil, rocky, 4th rate. No timber. Undergrowth, sagebrush, black brush, ocotillo, cat claw and cactus.
40.00	East on a random line, bet. secs. 13 and 24. Set temp. $\frac{1}{4}$ sec. cor.
80.06	Fall 7 lks. N. of cor., of secs. 13 and 24, on the E. bdy. of Tp. described in Book "F". Thence N. 89° 57' W. on a true line, bet. secs. 13 and 24 Over rolling and broken mountainous land, through scattering undergrowth. Desc. 60 ft.
2.30	Thence across bottom of Spencer Canyon, course NE,
9.90	Center of wash, 3.50 chs. wide, in bottom of canyon, course NE.
13.40	Leave canyon; asc. 390 ft.
40.03	Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with marked (x) stone, for $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked
	$\frac{1}{4}$ S 13 S 24 1921
	Continue ascent 110 ft.
46.90	Spur, slopes N. 40° E. Desc. 175 ft.
56.80	Draw, course N. Asc. 185 ft.
62.70	Cliffs, 100 ft. high, br. NW. and SE. Continue ascent.
63.00	Spur, slopes N. Desc. 140 ft.
63.30	Cliffs, 130 ft. high, br. NE. and SW. Continue descent.
69.20	Wash, course N. 60° E. Asc. 120 ft.
73.30	Spur, slopes SE. Desc. 70 ft.
80.06	The cor. of secs. 13, 14, 23 and 24. Land, rolling and broken mountainous. Soil, rocky, 4th rate. Timber, none. Undergrowth, sagebrush, black brush, ocotillo, palo christi and cat claw.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains.

N.0°1'W. bet. secs. 13 and 14.

Over broken mountainous land, through scattering undergrowth.

Asc. 355 ft.

14.50 Spur, slopes E. Desc. 280 ft.

29.20 Wash, course SE. Asc. 230 ft.

40.00 Foot of cliffs, 30 ft. high. Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (X) at exact cor. point, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked
$$\begin{array}{c} \frac{1}{4} \\ | \\ S14 | S13 \end{array}$$

1921

Asc. 525 ft.

58.70 Foot of cliffs, 1000 ft. high, br. NE. and SW. Impossible to continue on sec. line.

58.18 Run traverse line from here as follows:

N.48 $\frac{1}{2}$ °E. 5.00 chs.N.46 $\frac{1}{2}$ °E. 4.00 "

N.15°W. 3.25 "

N.45°E. 5.08 "

N.46 $\frac{1}{4}$ °W. 12.94 "

West .05 "

North .08 "

to a point 80.00 chs. N.0°1'W. of the cor. of secs. 13, 14, 23 and 24, where I

80.00 Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, with cross (X) at exact cor. point, for cor. of secs. 11, 12, 13 and 14; and raise a mound of stone around post, with brass cap marked

T27N R13W

S11 | S12

S14 | S13

1921

Land, mountainous.

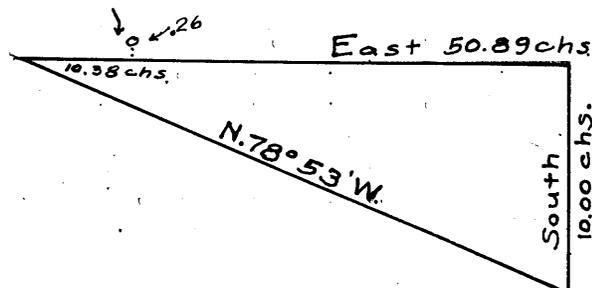
Soil, rocky, 4th rate.

Timber, none.

Undergrowth, sagebrush.

Impossible to measure East bet. secs. 12 and 13 from the cor. of secs. 11, 12, 13 and 14. During the survey of the second range of secs., I set a flag by traverse 10.38 chs. West and .26 chs. South of the cor. of secs. 11, 12, 13 and 14. Locate a point due East of this flag, near the point for  $\frac{1}{4}$  sec. cor. of secs. 12 and 13, from which I measure a base South 10.00 chs.,--impracticable to secure longer base--from the S. end of which, flag brs. N.78°53'W. The three angles of the triangle are

Cor. secs. 11, 12, 13 and 14.



therefore 78°53', 11°7' and 90°, the sum of which is 180°. The distance triangulated is given by tan. 78°53'

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains.

X 10.00 = 5.08921 X 10.00 = 50.89 chs., or 40.51 chs.  
East of the cor. of secs. 11, 12, 13 and 14. Thence  
North 0.26 to cor.

40.51 Set temp. witness cor. to  $\frac{1}{4}$  sec. cor.  
Continue East on a random line, bet. secs. 12 and 13.  
79.98 Intersect the true point for cor. of secs. 12 and 13, on  
the E. bdy. of Tp., witnessed 2.24 chs. North as de-  
scribed in Book "F".

Thence  
West on a true line, bet. secs. 12 and 13.  
Over mountainous land, through scattering undergrowth.  
Across wash, 200 lks. wide, in bottom of Spencer Canyon,  
course N. Asc. 112 ft.

19.40 Cliff, 70 ft. high, brs. NE. and SW. Asc. 90 ft.

30.10 Spur, slopes NE. Desc. 15 ft.

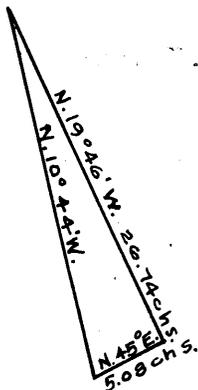
35.10 Wash, course NE. Asc. 60 ft.

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

$\frac{1}{4}$  S12  
 $\frac{1}{4}$  S13  
1921

79.98 Continue ascent, dist by triangulation  
The cor. of secs. 11, 12, 13 and 14.  
Land, mountainous.  
Soil, rocky, 4th rate.  
No timber.  
Undergrowth, sagebrush, ocotillo and cactus.

Impossible to measure north from the cor. of secs. 11, 12,  
13 and 14. I return to the station at the end of the  
course N.15°W. 3.25 chs., as described in the traverse  
of mile bet. secs. 13 and 14. From this station, set a  
flag ahead on the bearing. N.10°44'W. To determine  
the distance to this flag,  
from traverse station, at  
end of course N.45°E. 5.08  
chs., flag brs. N.19°46'W.  
The three angles of the tri-  
angle are 9°2', 115° 14'  
and 55°44', the sum of which  
is 180°. The distance tri-  
angulated on course N.19°46'W  
is found from the sine pro-  
portion:



$$\frac{X}{5.08} = \frac{\sin. 55^{\circ}44'}{\sin. 9^{\circ}2'}$$

log. 5.08 = .705864  
log. sin. 55°44' = 9.917204  
0.623068  
log. sin. 9°2' = 9.195925  
log. X = 1.427143  
26.74

16.13 Thence West 0.36 chs., to a point 16.13 chs. N.0°1'W. of  
the cor. of secs. 11, 12, 13 and 14.  
Rim of canyon, brs. NE. and SW. Thence N.0°1'W. bet.  
secs. 11 and 12.

40.00 Over broken land, through heavy undergrowth.  
Set an iron post, 3 ft. long, 1 in. diam., on bed rock,  
with cross (X) at exact cor. point, for  $\frac{1}{4}$  sec. cor.; and  
raise a mound of stone around post, with brass cap  
marked

$\frac{1}{4}$   
S11 | S12  
1921

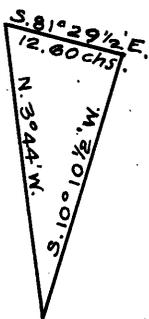
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3556

17

Chains

42.20 Canyon, 200 ft. deep, course NE.  
45.00 Cliff, 80 ft. high, brs. E. and W. Continue ascent.  
52.00 Spur, slopes E. Desc. 90 ft.  
56.50 Draw, course E. Asc. 30 ft.  
59.00 Low ridge, brs. E. and SW. Desc.  
64.50 Rim of canyon, brs. E. and W., 1600 ft. high.  
64.43 Set flag for triangulation. Also set a flag ahead on a bearing N.3044'W., from which I measure a base S.81°29½'E., 12.60 chains from the E. end of which, flag at the 64.43 ch. point brs. S.10°10½'W. The three angles of the triangle are therefore 130°54½', 77°45½' and 88°20', the sum of which is 180°. The distance triangulated on the course N.3044'W. is given by the sine proportion:



$$\frac{X}{12.60} = \frac{\sin. 88^{\circ}20'}{\sin. 130^{\circ}54\frac{1}{2}'}$$

log.	12.60	=	1.100371
log.sin.	88°20'	=	9.999816
			1.100187
log.sin.	130°54½'	=	9.380879
log. X		=	1.719308
	X	=	52.40 chs.

The latitude and departure of this line are therefore respectively 52.29 chs. N. and 3.41 chs. W. Thence East 3.40 chs. to a point 36.72 chs. N. 0°1'W. of the true point for cor. of secs. 1, 2, 11 and 12. Thence S. 0°1'E., 31.79 chs., and West 0.01 chs., to a point 4.93 chs., N. 0°10'W. of the true point for cor. of secs. 1, 2, 11 and 12, where I

Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, on ledge of cliff, 8 ft. high, against same cliff, with cross (x) on face of cliff at top of post, for witness cor. to cor. of secs. 1, 2, 11 and 12; and raise a mound of stone around post, with brass cap marked

T27N | R13W  
S 2 | S 1  
S11 | S12  
1921  
W C

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

To survey the line bet. secs. 1 and 12, I traverse as follows;

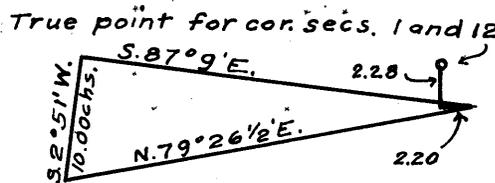
From a point 5.10 chs. N. 0°10'W. of the true point for cor. of secs. 1, 2, 11 and 12.

East 5.01 chs.  
S. 45°E. 7.21 " to a point 10.10  
chs. East of the true point for cor. of secs. 1, 2, 11

Survey of the Subdivision of  
T.27 N., R. 13 W.

Chains  
40.00

and 12. Thence East on a random line, bet. secs. 1 and 12. From this point, a flag at the witness cor. of secs. 1 and 12, on the E. bdy. of Tp., set 2.28 chs. South and 2.20 chs. East of the true point for cor. of secs. 1 and 12, brs. S.87°09'E. To determine the distance to this flag,



from the 40.00 ch. point, measure a base S.2°51'W. 10.00 chs. from the S. end of which. flag brs. N.79°26½'E. The three angles of the triangle are therefore 76°35½', 90° and 13°24½', the sum of which is 180°. The distance triangulated is given by  $\tan.76°35½' \times 10.00 = 4.19485 \times 10.00 = 41.95$  chs. the latitude and departure of which are respectively 2.09 chs. S. and 41.90 chs. E. The total easting to the flag is therefore 81.90 chs., making the total for the mile, 79.70 chs., and the falling, referred to the true point, is 19 lks. S.

79.70

Fall 19 lks. S. of the true point for cor. of secs. 1 and 12, on the E. bdy. of Tp., witnessed 3.17 chs. S.43°59'E. as described in Book "F".

Thence S.89°52'W. on a true line, bet. secs. 1 and 12. Over mountainous land, through scattering undergrowth. Desc. 1700 ft., over broken cliffs, distance by triangulation.

39.85

Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the ground, with marked (x) stone, for ¼ sec. cor.; and raise a mound of stone around post, with brass cap marked

¼ S 1  
S 12  
1921.

40.10

Desc. 25 ft. dist. by chaining.

42.70

Enter wash in Spencer Canyon, course NW.

69.60

Leave wash, course NW. Asc. 700. ft.

79.70

Thence by traverse, as hereinbefore described.

The true point for cor. of secs. 1, 2, 11 and 12. (Inaccessible.)

Land, mountainous.

Soil, rocky, 4th rate.

No timber.

Undergrowth, sagebrush, catclaw and cactus

To determine the course and distance of the line bet. secs. 1 and 2, begin at the 36.72 ch. point, N.0°1'W. of the true point for cor. of secs. 1, 2, 11 and 12, determined as described in the field notes of the mile bet. secs. 11 and 12.

36.72

N.0°1'W. on a random line, bet. secs. 1 and 2.

40.00

Set temp. ¼ sec. cor.

81.80

Fall 21 lks. E. of the cor. of secs. 1, 2, 35 and 36, on the N. bdy. of Tp., hereinbefore described.

Thence S.0°10'E. on a true line, bet. secs. 1 and 2.

Over broken mountainous land, through scattering undergrowth

Asc.

3.80

Spur, slopes W. Desc. 565 ft.

27.80

North, or right bank of wash in Spencer Canyon, course NW.

31.80

Left bank of wash, course NW. Asc.

41.80

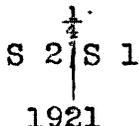
Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the

Survey of the Subdivision  
of T. 27 N., R. 13 W.

3856

Chains

ground, with marked (x) stone, for 1/4 sec.cor.; and raise a mound of stone around post, with brass cap marked



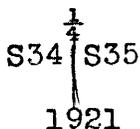
Continue ascent, 750 ft.

- 71.40 Top of cliff, 150 ft. high, brs. NW. and SE.
  - 76.87 The witness cor. to cor. of secs. 1, 2, 11 and 12, 4.93 chs. N.0°10'W. of the true point for cor.
  - 81.80 The true point for cor. of secs. 1, 2, 11 and 12, inaccessible.
- Land, mountainous.  
Soil, rocky, 4th rate.  
No timber.  
Undergrowth, sagebrush, cat claw and cactus.

From the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of Tp., described in Book "D", precipitous walls of Spencer Canyon prevent measurement on sec. line. Run traverse as follows:

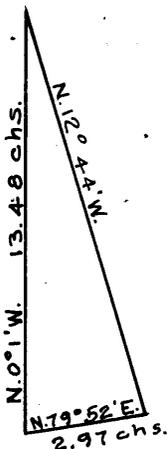
N.40°E.	2.32
N.25°W.	7.04
North	6.30
N.64°E.	2.88
North	.50
N.13°W.	4.38
N.14°W.	.55

- 21.04 To a point on sec. line, 21.04 chs. N.0°1'W. of the cor. of secs. 2, 3, 34 and 35.
- Thence N.0°1'W. bet. secs. 34 and 35.
- Over mountainous land, through scattering undergrowth. Asc. 245 ft., over SW. slope.
- 35.10 Spur, slopes SW. Desc. 175 ft., over NW. slope.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for 1/4 sec.cor.; and raise a mound of stone around post, with brass cap marked



Continue descent, 240 ft.

- 48.30 Wash in Spencer Canyon, course NE. Asc. 355 ft.
- 66.22 Spur, slopes NE. Impracticable to chain from here. Set a flag ahead on line. From the 66.22 ch. point, measure a base N.79°52'E. 2.97 chs.--impracticable to secure longer base--from the E. end of which, flag brs. N.12°44'W. The three angles of the triangle are therefore 12°43', 87°24' and 79°53', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{2.97} = \frac{\sin. 87^{\circ}24'}{\sin. 12^{\circ}43'}$$

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains	log. 2.97	=	0.472756
	log. sin. 87°24'	=	9.999553
			.472309
	log. sin. 12°43'	=	9.342679
	log. X	=	1.129630
	X	=	13.48 chs., which

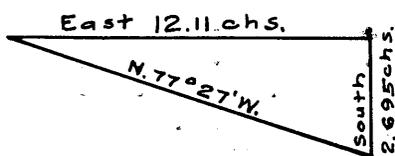
79.70 Triangulation point. Continue along line, dist. by chaining.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, with marked (x) stone, for cor. of secs. 26, 27, 34 and 35; and raise a mound of stone around post, with brass cap marked.

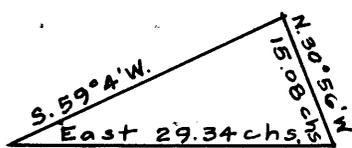
T27N	R13W
S27	S26
S34	S35
1921	

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

1.02 East on a random line, bet. secs. 26 and 35. Rim rock. Impossible to chain from here. Set a flag ahead on line, from which I measure a base South 2.695 chs.--impracticable to secure longer base-- from the S. end of which, flag at the 1.02 ch. point brs. N. 77°27' W. The three angles of the triangle are therefore 77°27', 12°33' and 90°, the sum of which is 180°. The distance triangulated is given by tan. 77°27' x 2.695 = 4.49215 x 2.695 = 12.11 chs., which added to 1.02 chs., gives



13.13 Impracticable to chain from this point. Set a flag ahead on line, from which I measure a base N. 30°56' W. 15.08 chs., from the N. end of which, flag at the 1.02 ch. point brs. S. 59°4' W. The three angles of the triangle are therefore 59°4', 30°56' and 90°, the sum of which is 180°. The distance triangulated is given by the sine proportion:

$$\frac{15.08}{\cos. 59^{\circ}4'} = \frac{15.08}{.51404} = 29.34 \text{ chs., which added to 1.02}$$


30.36 Thence continue East on a random line, bet. secs. 26 and 35.

40.00 Set temp. 1/4 sec. cor.

79.86 Intersect N. and S. line, 23 lks. N. of the cor. of secs. 25, 26, 35 and 36.

Thence N. 89°50' W. on a true line, bet. secs. 26 and 35. Over mountainous land, through scattering undergrowth. Asc.

0.65 Spur, slopes NE. Desc. 30 ft.

Survey of the Subdivision  
of T. 27 N., R. 13. W.

3556

Chains  
9.65  
17.80  
31.35  
39.93

Draw, course NE. Asc. 125 ft.  
Spur, slopes NE. Desc. 165 ft.  
Draw, course N. Asc. 105 ft.  
Spur, slopes N. Set an iron post, 3 ft. long, 1 in diam.  
on bed rock, with cross (x) at exact cor. point, for  $\frac{1}{4}$   
sec. cor.; and raise a mound of stone around post, with  
brass cap marked

$\frac{1}{4}$  S 26  
S 35  
1921

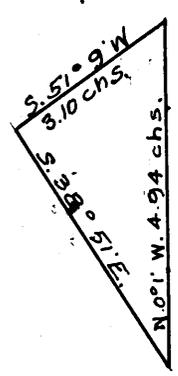
Desc.

49.50 Thence by triangulation.  
64.60 Center of wash in Spencer Canyon, course NW. Asc.  
78.84 Rim rock, 200 ft. high, brs. NE. and SW. Thence by chaining.  
79.86 The cor. of secs. 26, 27, 34 and 35.  
Land, mountainous.  
Soil, rocky, 3rd and 4th rates.  
Timber, none.  
Undergrowth, willow, cat claw and cactus.

N. 0° 1' W. bet. secs. 26 and 27.  
Over mountainous land, through scattering undergrowth.  
Asc. 55 ft.

3.10  
7.40

Desc.  
Top of cliff, 250 ft. high, brs. E. and W. Triangulate as  
follows: Set a flag ahead on  
line, from which I measure a  
base S. 51° 09' W. 3.10 chs., from  
the W. end of which, flag brs.  
S. 38° 51' E. The three angles of  
the triangle are therefore  
51° 10', 38° 50' and 90°, the sum  
of which is 180°. The distance  
triangulated is given by



$$\frac{3.10}{\cos. 51° 10'} = \frac{3.10}{.62706} =$$

4.94 chs., which added to 7.40  
chs., gives

12.34  
16.50  
21.80  
27.90  
36.10  
40.00

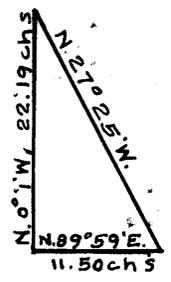
Asc. 75 ft., distance by chaining.  
Spur, slopes NE. Desc. 75 ft.  
Draw, course NE. Asc. 100 ft.  
Spur, slopes NE. Desc. 20 ft.  
Draw, course E. Asc. 120 ft.  
Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the  
ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and  
raise a mound of stone around post, with brass cap marked

$\frac{1}{4}$   
S 27 | S 26  
1921

Continue ascent, 180 ft.

43.00  
54.48

Spur, slopes NE. Desc. 25 ft.  
Impracticable to chain from this point. Set a flag ahead  
on line, and from the 54.48 ch.  
point, measure a base N. 89° 59' E.  
11.50 chs., from the E. end of  
which, flag brs. N. 27° 25' W. The  
three angles of the triangle are  
therefore 90°, 27° 24' and 62° 36',  
the sum of which is 180°. The  
distance triangulated is given  
by  $\tan. 62° 36' \times 11.50 = 1.9292$   
x



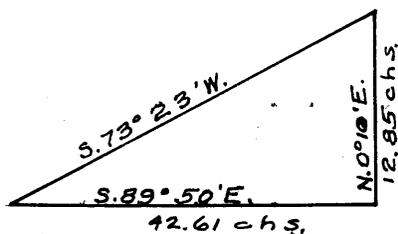
Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains 11.50 = 22.19 chs., which added to 54.48 chs., gives 76.67 chs. The approximate topography is as follows:  
63.00 Wash, course E., 220 ft. below triangulation pt.  
68.00 Foot of cliffs, brs. E. and W.  
76.67 Triangulation point, 500 ft. above wash.  
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground, with marked (x) stone, for cor. of secs. 22, 23, 26 and 27; and raise a mound of stone around post, with barss cap marked

T27N | R13W  
S22 | S23  
S27 | S26  
1921

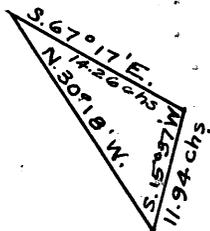
Land, broken mountainous.  
Soil, rocky, 4th rate.  
No timber.  
Undergrowth, black brush, cat claw and cactus.

3.16 S. 89°50'E. on a random line, bet. secs. 23 and 26. Impossible to chain from this point. Offset S. 0.16 chs., and set a flag ahead on offset random line, S. 89°50'E., from which measure a base N. 0°10'E. 12.85 chs., from the N. end of which, W. end of offset line brs. S 73°23'W. The three angles of the triangle are therefore 90°, 16°47' and 73°13', the sum of which is 180°. The distance triangulated is given by tan. 73°13' x 12.85 = 3.31565 x 12.85 = 42.61 chs., which added to 3.16 chs., gives



45.77 Offset N. 0.16 chs. and set temp. witness cor. to 1/4 sec. cor. Thence continue S. 89°50'E. on a random line, bet. secs. 23 and 26.

49.47 Impossible to continue on random sec. line from this point. Run traverse S. 75°E., 4.16 chs. From this point, set a flag ahead on a bearing S. 67°17'E., from which measure a base S. 15°37'W. 11.94 chs., from S. end of which, flag at end of course S. 75°E. 4.16 chs. brs. N. 30°18'W. The three angles of the triangle are 45°55', 36°59' and 97°6', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{11.94} = \frac{\sin. 45^{\circ}55'}{\sin. 36^{\circ}59'}$$

log.	11.94	=	1.077004
log. sin.	45°55'	=	9.856323
		=	<u>0.933327</u>
log. sin.	36°59'	=	9.779295
log. X		=	<u>1.154032</u>
	X	=	14.26 chs. From

this point, run traverse

S. 76 1/2° E. 13.78 chs.  
North 10.09 "  
West .19 "

to the cor. of secs. 23, 24, 25 and 26.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

3556  
23

Chains By computation, the course and distance of this mile are therefore S.89°57'W., 79.84 chs. Thence S.89°57'W. on a true line, bet. secs. 23 and 26. Over mountainous land, through scattering undergrowth. Asc. over cliffs, 200 ft., high, br. NW. and SW., distance by triangulation and traverse, as hereinbefore described

33.05 Spur, slopes SE. Desc. 280 ft.  
30.37 Thence by chaining  
36.55 Cliff, brs. N. 15°E. and S. 15°W., 20 ft. high.  
38.00 Cliff, brs. N. 15°E. and S. 15°W., 100 ft. high.  
39.92 Set an iron post, 3 ft. long, 1 in. diam., with marked (x) stone, for 1/4 sec. cor.; and raise a mound of stone around post, with brass cap marked

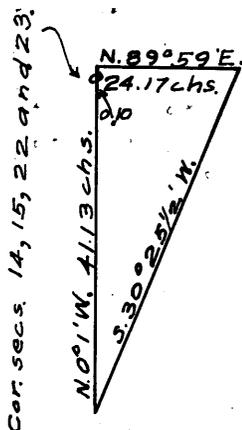
1/4 S 23  
1/4 S 26  
1921

Cor. stands on N. edge of gulch, course S. 20°W. Thence by triangulation  
41.90 (Approx) Cliff, brs. N. 15°E. and S. 15°W., 150 ft. high. Asc. 1040 ft. to top of cliffs,  
79.84 The cor. of secs. 22, 23, 26 and 27. Land, mountainous. Soil, rocky, 4th rate. Timber, none. Undergrowth, sagebrush, cat claw and cactus.

N. 0°01'W., bet. secs. 22 and 23. Over broken land, through scattering undergrowth. Asc. 90 ft.  
7.75 Spur, slopes NE. Desc. 170 ft.  
21.50 Draw, course NW. Thence along W. slope.  
32.10 Spur, slopes NW. Desc. 30 ft.  
38.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point in a mound of stone, for 1/4 sec. cor., marked on brass cap

W C  
1/4 S 22 | S 23  
1921

38.97 From which a pinyon 8" diam., brs. N. 74°E., 44 lks. dist marked WC 1/4 S. 23 BT. No other trees within limits. Rim of mesa, cliffs 1000 ft. high; brs. W. and NE. Impossible to chain from this point. Set a flag ahead on line, near the position for cor. of secs. 14, 15, 22 and 23, from which I measure a base N. 89°59'E. 24.17 chs. From E. end of base, flag brs. S. 30°25 1/2'W. The three angles of the triangle are 59°33 1/2', 30°26 1/2', and 90°, the sum of which is 180°. The distance triangulated is given by  $\tan. 59^{\circ}33\frac{1}{2}' \times 24.17 = 1.70162 \times 24.17 = 41.13$  chs., which added to 38.97 chs., gives 80.10 chs. Thence S. 0°01'E. 0.10 chs. to



80.00 Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, with marked (x) stone, for cor. of secs. 14, 15, 22 and 23; and raise a mound of stone around post, with brass cap marked

T27N | R13W  
S15 | S14  
S22 | S23  
1921

Chains

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

40.00 N.89°57'E. on a random line, bet. secs. 14 and 23.  
Set temp.  $\frac{1}{4}$  sec. cor.  
80.18 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 13, 14, 23 and 24.

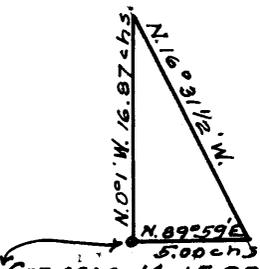
Thence S.89°56'W. on a true line, bet. secs. 14 and 23;  
Over broken mountainous land, through scattering undergrowth.  
Asc. along bottom of canyon, general course E.  
15.00 Leave bottom of canyon, course E., from SW. Asc. 205 ft.  
22.30 Spur, slopes SE. Desc. 85 ft.  
40.09 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

$$\frac{1}{4} \frac{S 14}{S 23} \\ 1921$$

Asc. 125 ft.  
52.50 Center of bottom of canyon, course SE., Asc. 330 ft. along S. bank.

80.18 The cor. of secs. 14, 15, 22 and 23.  
Land, broken mountainous.  
Soil, rocky, 4th rate.  
Timber, none.  
Undergrowth, cat claw, sagebrush and cactus.

N.0°01'W. bet. secs. 14 and 15.  
Over mountainous land, through scattering undergrowth.  
Impossible to chain from this point. Set a flag ahead on line, and from the cor. of secs. 14, 15, 22 and 23, measure a base N. 89°59'E. 5.00 chs., from the E. end of which, the flag brs. N.16°31 $\frac{1}{2}$ 'W. The three angles of the triangle are therefore 73°29 $\frac{1}{2}$ ', 90° and 16°30 $\frac{1}{2}$ ', the sum of which is 180°. The distance triangulated is given by tan.



$$73029\frac{1}{2}' \times 5.00 = 3.37414 \times 5.00 = 16.87 \text{ chs.}$$

16.87 Rim of canyon, walls 1000 ft. high, brs. E. and W. Continue measurement, distance by chaining. Asc. 175 ft.  
32.40 Spur, slopes E. Desc. 30 ft.  
39.70 Head of draw, course SE. Asc.  
40.00 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, with marked (x) stone for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

$$\frac{1}{4} \\ S15 \quad S14 \\ 1921$$

Continue ascent, 25 ft.  
46.00 Spur, slopes E. Desc. 20 ft.  
59.60 Draw, course SE. Asc. 65 ft.  
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 6 ins. in the ground, with marked (x) stone, for cor. of secs. 10, 11, 14 and 15, and raise a mound of stone around post, with brass cap marked

Survey of the Subdivision  
of T. 27 N., R. 13 W.

3556

Chains	T27N R13W S10   S11 S15   S14 1921										
	<p>Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, black brush, sagebrush, mescal, cactus and palo christi.</p> <hr style="border-top: 1px dashed black;"/>										
40.00	East on a random line, bet. secs. 11 and 14.										
69.58	Set temp. $\frac{1}{4}$ sec. cor. Impracticable to chain from this point. Run traverse as follows:										
	<table style="border: none;"> <tr><td>N.43°W.</td><td style="text-align: right;">2.99 chs.</td></tr> <tr><td>N.21°W..</td><td style="text-align: right;">7.82 "</td></tr> <tr><td>North</td><td style="text-align: right;">7.55 "</td></tr> <tr><td>East</td><td style="text-align: right;">15.22 "</td></tr> <tr><td>South</td><td style="text-align: right;">.86 "</td></tr> </table>	N.43°W.	2.99 chs.	N.21°W..	7.82 "	North	7.55 "	East	15.22 "	South	.86 "
N.43°W.	2.99 chs.										
N.21°W..	7.82 "										
North	7.55 "										
East	15.22 "										
South	.86 "										
	To a flag set 16.13 chs. N.0°1'W. of the cor. of secs. 11, 12, 13 and 14, as described in the field notes of mile bet. secs. 11 and 12. Computation of this traverse gives the length 79.96 chs. and the falling 5 lks. S.										
79.96	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 11, 12, 13 and 14. Thence S.89°58'W. on a true line, bet. secs. 11 and 14. Over mountainous land, through scattering undergrowth. Asc. 700 ft. over broken cliffs, distance by traverse triangulation.										
10.35	Rim of canyon, brs. N. and S. Continue ascent.										
12.55	Spur, slopes SE. Desc. 85 ft.										
23.05	Draw, course SE. Asc. 40 ft.										
31.45	Spur, slopes SE. Desc. 30 ft.										
39.98	Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for $\frac{1}{4}$ sec. cor; and raise a mound of stone around post, with brass cap marked										
	$\frac{1}{4}$ $\frac{S\ 11}{S\ 14}$ 1921										
46.15	Asc. 65 ft.										
54.95	Ridge, brs. NE. and SW. Desc. 80 ft.										
71.55	Draw, course NW. Asc. 25 ft.										
79.96	Spur, slopes NW. Desc. 65 ft.										
	The cor. of secs. 10, 11, 14 and 15. Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, black brush, sagebrush, mescal, cactus and palo christi. <hr style="border-top: 1px dashed black;"/>										
	N.0°01'W. bet. secs. 10 and 11. Over rolling land, through dense undergrowth. Asc. 25 ft.										
10.00	Spur, slopes NW. Desc. 110 ft.										
20.90	Head of draw, course E. Asc. 115 ft.										
33.40	Spur, slopes SE. Desc. 40 ft.										
39.30	Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with marked (x) stone, for witness cor. to $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked.										

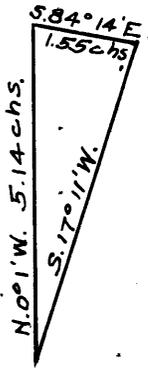
Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains

W C  
S10 | S11

1921

40.00 The true point for  $\frac{1}{4}$  sec. cor. comes on rocky ledge, where it cannot be permanently established.  
Continue descent, 295 ft.  
64.50 Gulch, course NW. Asc. 95 ft.  
68.48 Rim of canyon, brs. E. and W. Impossible to chain from this point. Set a flag ahead on line, and from flag, measure a base S.84°14'E. 1.55 chs.--impracticable to secure longer base--from the E. end of which, flag at the 68.48 ch. point brs. S.17°11'W.



The three angles of the triangle are therefore 17°12', 84°13' and 78°35', the sum of which is 180°. The distance triangulated is given by the sine proportion:

$$\frac{X}{1.55} = \frac{\sin.78^{\circ}35'}{\sin.17^{\circ}12'}$$

$$\begin{aligned} \log. 1.55 &= 0.190332 \\ \log. \sin. 17^{\circ}12' &= 9.470863 \\ \log. \sin. 78^{\circ}35' &= 9.991321 \\ \log. X &= 0.710790 \\ X &= 5.14 \text{ chs.} \end{aligned}$$

which added to 68.48

73.62 chs., gives  
Continue N.0°1'W., distance by chaining.  
76.60 Rim of cliffs, brs. NE. and W. Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, with cross (x) at exact cor. point, for witness cor. to cor. of secs. 2, 3, 10 and 11, and raise a mound of stone around post, with brass cap marked

W C  
T27N | R13W  
S 3 | S 2  
S10 | S11  
1921

80.00 The true point for cor. of secs. 2, 3, 10 and 11 falls on side of cliff, where it cannot be established. Land, mountainous. Soil, rocky, 4th rate. No timber. Undergrowth, black brush, ocotillo, mescal and cactus.

-----  
From the true point for cor. of secs. 2, 3, 10 and 11, N.89°58'E. on a random line, bet. secs. 2 and 11. Set temp.  $\frac{1}{4}$  sec. cor.  
40.00 Impracticable to continue on random line from this point  
65.71 Run traverse as follows:  
N.70°E . 14.92 chs.  
South . 21 chs.  
To a point 5.10 chs. N.0°10'W. of the true point for cor. of secs. 1, 2, 11 and 12, witnessed 4.93 chs. N.0°10'W. as hereinbefore described. The computed traverse corresponds to a length of 79.74 chs. and a falling of 21 lks. N.  
79.74 Intersect N. and S. line, 21 lks. N. of the true point for cor. of secs. 1, 2, 11 and 12. Thence N. 89°53'W. on a true line, bet. secs. 2 and 11. Over mountainous land, through scattering undergrowth. Desc.

Survey of the Subdivision of  
T. 27 N., R. 13 W.

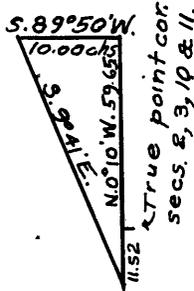
Chains

Distance by traverse, as hereinbefore described.  
 14.03 Thence by direct measurement.  
 27.00 Draw, course NE. Asc. 550 ft., over E. slope.  
 38.00 Cliff, 100 ft., high, brs. NE. and SW. Continue ascent.  
 39.87 Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the  
 ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and  
 raise a mound of stone around post, with brass cap  
 marked

$\frac{1}{4}$  S 2  
 S 11  
 1921

Continue ascent, over cliffs.  
 79.74 The true point for cor. of secs. 2, 3, 10 and 11.  
 Land, mountainous.  
 Soil, rocky, 4th rate.  
 No timber.  
 Undergrowth, black brush, ocotillo, mescal and cactus.

-----  
 In order to determine the course and distance on the sec.  
 line bet. secs. 2 and 3, set a flag ahead on a bearing  
 of N.0°10'W. from the 68.48 ch. pt. between secs. 10 and  
 11, from which measure a base S. 89°50'W., 10.00 chs.,



from the W. end of which,  
 flag at the 68.48 ch. point  
 bet. secs. 10 and 11 brs. S.  
 9041'E. The three angles  
 of the triangle are therefore  
 90°31', 80°29' and 90°, the  
 sum of which is 180°. The  
 distance triangulated is  
 given by  $\tan. 80°29' \times 10.00 =$   
 $5.96510 \times 10.00 = 59.65$  chs.,

which added to 68.48 chs., gives 128.13 chs., or 48.13  
 chs. from the true point for cor. of secs. 2, 3, 10 and  
 11. Thence East 0.03 chs., to a point on random sec.  
 line, 48.13 chs. N.0°10'W. of the true point for cor. of  
 secs. 2, 3, 10 and 11.

48.13 Set temp. witness cor. to  $\frac{1}{4}$  sec. cor., and continue N.0°10'W.  
 on a random line, bet. secs. 2 and 3.

62.10 At this point, offset  
 West 14.00 chs., and continue  
 N.0°10'W. on offset line through sec. 3.

82.07 Intersect N. bdy. of Tp., 13.90 chs. West of the true point  
 for cor. of secs. 2, 3, 34 and 35, which is witnessed  
 6.86 chs. West as hereinbefore described.

From a point 14.00 chs. West of the true point for cor. of  
 secs. 2, 3, 34 and 35.

S.0°14'E. on a true line, on offset through sec. 3.  
 Over mountainous land, through scattering undergrowth.  
 Desc. 90 ft.

18.55 Canyon, course N.65°E. Asc.

19.97 Thence East 14.00 chs. to true line. Regain true line at  
 rim of canyon, brs. NE. and W. Thence  
 S.0°14'E. on a true line, bet. secs. 2 and 3.  
 Asc. 40 ft.

31.00 Spur, slopes N.70°E. Desc. 40 ft.

34.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock,  
 with cross (x) at exact cor. point, for witness cor. to  
 $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post,  
 with brass cap marked

$\frac{1}{4}$   
 S 3 | S 2  
 W | C  
 1921

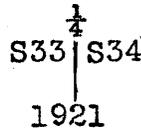
37.00 Rim of canyon, brs. N.70°E. and S.70°W.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

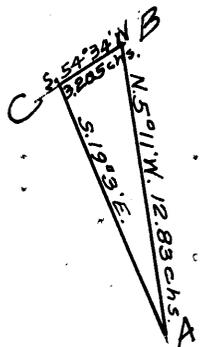
Chains  
42.07 Thence by triangulation, as hereinbefore described.  
The true point for  $\frac{1}{4}$  sec. cor., falls over edge of canyon  
in inaccessible point.  
82.07 The true point for cor. of secs. 2, 3, 10 and 11.  
Land, mountainous.  
Soil, rocky, 4th rate.  
Timber, none.  
Undergrowth, sagebrush, cat claw, mescal, black brush  
and cactus.

-----  
From the cor. of secs. 3, 4, 33 and 34, on the S. bdy. of  
Tp., described in Book "D",  
N. 0° 02' W. bet. secs. 33 and 34.

Over broken land, through scattering undergrowth.  
6.50 Wash, course E.  
26.70 Wash, 43 ft. deep, course E. Asc. 50 ft.  
40.00 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the  
ground, on bed rock, with marked stone, for  $\frac{1}{4}$  sec.  
cor.; and raise a mound of stone around post, with  
brass cap marked



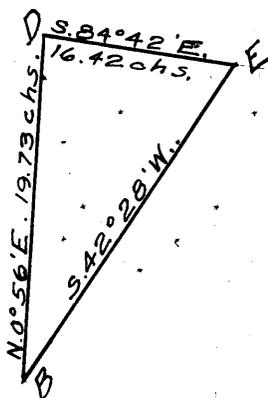
48.77 Edge of cliff, brs. NE. and SW. Impracticable to chain  
from this point, "A". Set  
a flag, "B", ahead on a  
bearing N. 5° 11' W. From "B"  
measure a base 3.205 chs.  
S. 54° 34' W. to flag "C", from  
which flag "A" brs. S. 19° 03' E.  
The three angles of the tri-  
angle ABC are therefore 130°  
52', 106° 23' and 59° 45',  
the sum of which is 180°.  
The distance AB is found  
from the sine proportion:



$$\frac{X}{3.205} = \frac{\sin 106^{\circ} 23'}{\sin 130^{\circ} 52'}$$

log. 3.205	=	0.505828
log. sin. 130° 52'	=	9.379601
		1.126227
log. sin. 106° 23'	=	9.981998
log. X	=	1.108225
X	=	12.83

From "B", set a flag ahead near the point for cor. of secs.  
27, 28, 33 and 34, on a  
bearing N. 0° 56' E. From this  
flag, "D", measure a base  
S. 84° 42' E. 16.42 to flag  
"E", from which "B" brs.  
S. 42° 28' W. The three an-  
gles of the triangle are  
therefore 85° 38', 52° 50'  
and 41° 32', the sum of  
which is 180°. The distance  
ED is found from the sine  
proportion:



$$\frac{X}{16.42} = \frac{\sin 52^{\circ} 50'}{\sin 41^{\circ} 32'}$$

log. 16.42	=	1.215373
log. sin. 41° 32'	=	9.821550
		1.393823
log. sin. 52° 50'	=	9.901394
log. X	=	1.295217
X	=	19.73

Survey of the Subdivision  
of T. 27 N., R. 13 W.

2556

Chains

From "D",

S. 28° E. 1.47 chs.  
North 0.02 "  
East 0.13

80.00

To a point 80.00 chs. N.002'W. of the cor. of secs. 3, 4, 33 and 34, where I  
Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground, on bed rock, with marked (x) stone, for cor. of secs. 27, 28, 33 and 34; and raise a mound of stone around post, with brass cap marked

T27N R13W  
S28 S27  
S33 S34  
1921

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

40.00

East on a random line, bet. secs. 27 and 34.

80.20

Set temp.  $\frac{1}{4}$  sec. cor.  
Intersect N. and S. line, 21 lks. S. of the cor. of secs. 26, 27, 34 and 35.

10.00

Thence S.89°51'W. on a true line, bet. secs. 27 and 34. Over broken land, through scattering undergrowth.

14.90

Along N. edge of box canyon, course E. Desc. 230 ft.

17.80

Cliff, 125 ft. high, brs. NW. and SE. Continue descent.

27.70

Bend in wash, course SE., from SW. Asc. 65 ft.

30.20

Spur, slopes S. Desc.

34.70

Same wash, course SE.

40.10

South bank of wash, brs. SE. and SW.

Wash, course NE, Asc.

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

$\frac{1}{4}$  S 27  
S 34  
1921

40.50

Desc.

53.50

Wash, course S.65°E.

58.50

Same wash, course N.65°E. Asc.

65.20

Bluff, 60 ft. high-N. bank of wash. Desc.

80.20

Center of same wash, 1 ch. wide, course S.80°E. Asc. along N. slope.

The cor. of secs. 27, 28, 33 and 34.

Land, broken.

Soil, rocky, 3rd and 4th rate.

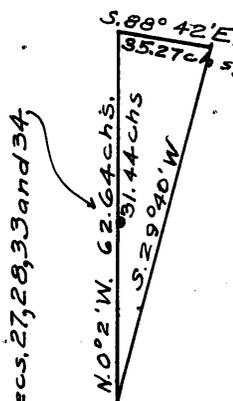
Timber, none.

Undergrowth, palo christi, willow, scrub oak and cactus.

N.002'W. bet. secs. 27 and 28.

Over mountainous land, through scattering undergrowth. In order to determine the distance to top of cliffs, set

a flag ahead on line, on a bearing N.002'W., from which I measure a base S.88°42'E. 35.27 chs., from the E. end of which, flag at 48.80 ch. point bet. secs. 33 and 34 brs. S.29°40'W. The three angles of the triangle are therefore 29°42', 88°40' and 61°38', the sum of which is 180°.



Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains The distance triangulated is given by the sine proportion:

$$\frac{X}{35.27} = \frac{\sin. 61038'}{\sin. 29042'}$$

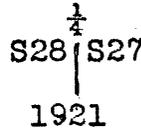
log. 35.27	=	1.547405
log.sin. 29042'	=	9.695007
		<u>1.852398</u>
log.sin. 61038'	=	9.944446
log. X	=	1.796844
X	=	62.64 chs.,

which added to 48.80 chs., gives 111.44 chs., or  
31.44 chs. N.002'W. of the cor. of secs. 27, 28, 33 and 34.

31.44 Thence N.002'W. bet. secs. 27 and 28, distance by chaining. Enter scattering timber.

32.00 Ridge, brs. NW. and SE. Desc. 115 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the ground, in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap



From which

A cedar, 10 ins. diam., brs. N.430E.,  
472 lks. dist., marked  $\frac{1}{4}$ S27 BT.

A cedar, 12 ins. diam., brs. N. 450W.,  
75 lks. dist., marked  $\frac{1}{4}$ S28 BT.

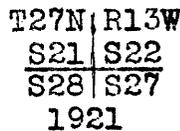
40.30 Gulch, course SW. Asc. 85 ft.

56.80 Low ridge, brs. E. and W. Desc. 30 ft.

69.80 Draw, course NE. Asc. 25 ft.

74.00 Spur, slopes NE. Desc.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, marked on brass cap



From which

A cedar, 10 ins. diam., brs. N.520E.,  
328 lks. dist., marked T27N R13W S22 BT.

A cedar, 14 ins. diam., brs. S.30E.,  
113 lks. dist., marked T27N R13W S27 BT.

A cedar, 9 ins. diam., brs. S.58 $\frac{1}{2}$ 0W.,  
145 lks. dist., marked T27N R13W S28 BT.

A cedar, 12 ins. diam., brs. N.80 $\frac{1}{4}$ 0W.,  
201 lks. dist., marked T27N R13W S21 BT.

Land, mountainous and broken.

Soil, rocky, 4th rate in canyon; gravelly and rocky, 3rd rate on bench.

Timber, cedar.

Undergrowth, black brush, cactus, sagebrush, palo christi.

N.89051'E. on a random line, bet. secs. 22 and 27.

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

80.02 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 22, 23, 26 and 27.

Thence S.89053'W. on a true line, bet. secs. 22 and 27.

Over broken land, through scattering timber and undergrowth.

Desc. 30 ft.

17.10 Draw, course S. Asc. 95 ft.

27:30 Spur, slopes NE. Desc.

40.01 Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

Survey of the Subdivision  
of T. 27 N., R. 13 W.

3456

Chains

$\frac{1}{4}$  S 22  
 $\frac{1}{4}$  S 27  
1921

54.10 Continue descent, 180 ft.  
80.02 Draw, course NE. Asc. 70 ft.  
The cor. of secs. 21, 22, 27 and 28.  
Land, broken.  
Soil, rocky, 3rd and 4th rates.  
Timber, scattering cedar.  
Undergrowth, black brush, sagebrush, and cactus.

N.0°02'W. bet. secs. 21 and 22.  
Over rolling land through scattering timber and dense  
undergrowth.

16.70 Desc. 55 ft.  
23.10 Draw, 30 lks. wide, course NE. Asc. 20 ft.  
25.00 Spur, slopes E. Desc. 90 ft.  
40.00 Draw, 20 lks. wide, course NE. Asc. 40 ft.  
Set an iron post, 3 ft. long, 1 in. diam., 14 ins. in the  
ground, in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on  
brass cap

$\frac{1}{4}$   
S21 | S22  
1921

From which

A cedar, 12 ins. diam., brs. N. 68 $\frac{1}{2}$ °E.,  
180 lks. dist., marked  $\frac{1}{4}$ S22 BT.

A cedar, 14 ins. diam., brs. S. 28°W.,  
144 lks. dist., marked  $\frac{1}{4}$ S21 BT.

Asc. 30 ft.

45.20 Ridge, brs. E. and W. Desc. 50 ft.  
60.15 Head of draw, course E. Asc. 35 ft.  
65.00 Spur, slopes E. Desc. 30 ft.  
68.24 Draw, 90 lks. wide, course NE. Asc. 65 ft.  
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 20 ins. in the  
ground, in a mound of stone with marked (x) stone for cor.  
of secs. 15, 16, 21 and 22, marked on brass cap

T27N | R13W  
S16 | S15  
S21 | S22

From which

1921

A cedar, 14 ins. diam., brs. N. 58 $\frac{1}{2}$ °E.,  
88 lks. dist., marked T27N R13W S15 BT.

A cedar, 10 ins. diam., brs. S. 51°E.,  
86 lks. dist., marked T27N R13W S22 BT.

A cedar, 8 ins. diam., brs. N. 82 $\frac{3}{4}$ °W.,  
288 lks. dist., marked T27N R13W S16 BT.

No other trees within limits.

Land, rolling.

Soil, sandy, gravelly loam, 2nd and 3rd rates.

Timber, scattering cedar.

Undergrowth, dense sagebrush and cactus.

Sparse grass.

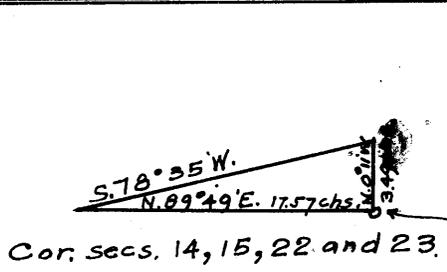
N.89°53'E. on a random line, bet. secs. 15 and 22

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

62.65 Impracticable to chain from this point. From this point  
flag at the cor. of secs. 14, 15, 22 and 23 brs. N. 89°  
49'E. From the cor. of secs. 14, 15, 22 and 23, measure  
a base N. 0°11'W. 3.49 chs. -- impracticable to secure  
longer base -- from the N. end of which, flag at the 62.65

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains



Point brs. S. 78° 35' W. The three angles of the triangle are therefore 90°, 110° 14' and 78° 46', the sum of which is 180°. The distance triangulated is given by  $\tan. 78° 46' \times 3.49 = 5.03499 \times 3.49 = 17.57$  chs., which added to 62.65 chs., gives, on projected random,

- 80.22 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 14, 15, 22 and 23. Thence S. 89° 52' W. on a true line, bet. secs. 15 and 22. Over mountainous land, through scattering timber and undergrowth. Asc. 610 ft., distance by triangulation.
- 17.57 Rim of canyon, brs. N. and S. Thence by chaining, ascending 150 ft.
- 40.11 Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with marked (x) stone, for  $\frac{1}{4}$  sec. cor., and raise a mound of stone around post, with brass cap marked

$\frac{1}{4}$  S 15  
S 22  
1921

- 80.22 Continue ascent, 50 ft., over gentle E. slope. The cor. of secs. 15, 16, 21 and 22. Land, mountainous and gently rolling. Soil, sandy and gravelly, 3rd and 4th rates. Timber, scattering cedar. Undergrowth, sagebrush, scrub oak and cactus. Sparse grass.

N. 00° 2' W. bet. secs. 15 and 16. Over heavily rolling land, through scattering timber and undergrowth.

- Asc. 15 ft.
- 2.00 Spur, slopes SE. Desc. 15 ft.
- 5.10 Draw, course SE. Asc. 50 ft.
- 23.00 Spur, slopes E. Desc. 25 ft.
- 24.90 Draw, course SE. Asc. 10 ft.
- 36.00 Spur, slopes E. Desc. 15 ft.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the ground, in a mound of stone, for  $\frac{1}{4}$  sec. cor.; marked on brass cap

$\frac{1}{4}$   
S16 | S15  
1921

From which  
A cedar, 24 ins. diam., brs. N. 53° E., 125 lks. dist., marked  $\frac{1}{4}$  S15 BT.  
A cedar, 10 ins. diam., brs. S. 74° W., 100 lks. dist. marked  $\frac{1}{4}$  S16 BT.

- Continue descent.
- 41.00 Draw, course E. Asc. 25 ft.
- 45.00 Spur, slopes E. Desc. 45 ft.
- 49.90 Draw, course SE. Asc. 195 ft.
- 72.00 Ridge, brs. E. and W. Desc.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 9, 10, 15 and 16, marked on brass cap

T27N | R13W  
S 9 | S10  
S16 | S15  
1921

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

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains

Land, rolling.  
Soil, sandy, gravelly loam, 2nd and 3rd rates.  
Timber, dogwood.  
Undergrowth, sagebrush and cactus.  
Fair growth of grass.

-----  
N.89°52'E.on a random line, bet. secs. 10 and 15.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
80.26 Intersect N. and S. line, 7 lks.S.of the cor. of secs.  
10, 11, 14 and 15.  
Thence S.89°49'W.on a true line, bet. secs. 10 and 15.  
Over broken land, through short heavy undergrowth.  
Desc. 50 ft.  
15.45 Draw, course NE. Asc. 205 ft.  
40.13 Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the  
ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and  
raise a mound of stone around post, with brass cap  
marked

$\frac{1}{4}$  S 10  
S 15  
1921

Asc. 30 ft.  
43.55 Spur, slopes NE. Desc. 165 ft.  
70.35 Head of draw, course NE. Asc. 90 ft.  
80.26 The cor. of secs. 9, 10, 15 and 16.  
Land, broken.  
Soil, rocky, limestone formation; 4th rate.  
No timber.  
Undergrowth, black brush, sagebrush, mescal, palo christi  
and dogwood.

-----  
N.0°2'W.bet.secs.9 and 10.

Over heavily rolling land, through scattering timber and  
dense undergrowth.  
Asc. 15 ft.  
3.20 Ridge, brs. E. and W. Desc. 180 ft.  
8.30 Head of draw, course E. Asc.  
16.90 Spur, slopes E. Desc.  
29.80 Draw, course NE. Asc. 30 ft.  
32.40 Spur, slopes E. Desc. 55 ft.  
40.00 Set an iron post, 3 ft. long, 1 in. diam., on bed rock  
with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and raise a  
mound of stone around post, with brass cap marked

$\frac{1}{4}$   
S 9 | S10  
1921

Continue descent, 105 ft.  
59.60 Draw, course E. Asc. 45 ft.  
64.80 Spur, slopes E. Desc. 55 ft.  
68.10 Gulch, course NW.  
70.50 Gulch, course NE. Asc. 215 ft.  
76.10 Ridge, brs. N.70°E. and S. 70°W. Desc.  
80.00 Set an iron post, 3 ft. long, 2 ins. diam., 26 ins. in the  
ground, for cor.of secs.3,4,9 and 10, marked on brass  
cap

T27N | R13W  
S 4 | S 3  
S 9 | S10  
1921

And raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high,  
W. of cor.  
Land, heavily rolling.  
Soil, sandy and gravelly, 3rd and 4th rates.  
Timber, cedar and dogwood.  
Undergrowth, sagebrush and cactus.  
Sparse grass.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

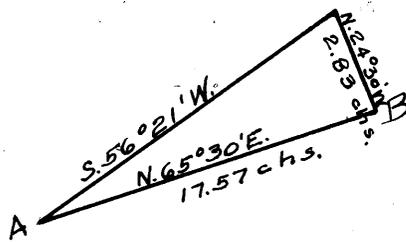
Chains

Owing to the very rugged and mountainous nature of the country, it is necessary to determine the course and distance of the mile bet. secs. 3 and 10 by traverse and triangulation, after which the  $\frac{1}{4}$  sec. cor. bet. secs. 3 and 10 is located by triangulation and traverse from the West.

East on a random line, bet. secs. 3 and 10.

29.62

Impossible to continue measurement on random line. From



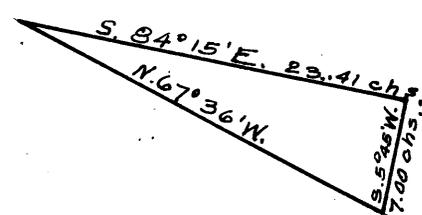
this point, "A", set flag "B" ahead on a bearing N. 65° 30' E. From "B" measure a base N. 24° 30' W. 2.83 chs. impracticable to secure longer base--from the N. end of which, flag "A" brs. S. 56° 21' W. The three angles of the triangle are 90° 9', 80° 51' and 90°, the sum of which is 180°. The distance triangulated is given by  $\tan. 80° 51' \times 2.83 = 6.20851 \times 2.83 = 17.57$  chs. From "B" run

traverse as follows:  
S. 53° 30' W. 6.76 chs.  
S. 1° 15' W. 3.27 chs.  
West 0.11 chs.

to a point on random line, 40.00 chs. East of the cor. of secs. 3, 4, 9 and 10, where I

40.00

Set temp.  $\frac{1}{4}$  sec. cor. I return to the 29.62 ch. point, and triangulate as follows: Set a flag ahead on a



bearing S. 84° 15' E., from the E. end of which, measure a base S. 50° 45' W. 7.00 chs., whence flag at the 29.62 ch. point brs. N. 67° 36' W. The three angles of the triangle are therefore 73° 21', 16° 39' and 90°, the sum of which is 180°. The distance triangulated is given by  $\tan. 73° 21' \times 7.00 = 3.34377 \times 7.00 = 23.41$  chs. From this point I run traverse as follows:

S. 65° E. 16.40 chs.  
S. 80° 12' E. 12.63 chs.

to a flag point on line bet. secs. 10 and 11, 68.64 chs. N. 0° 01' W. of the cor. of secs. 10, 11, 14 and 15. The length and falling of the line bet. secs. 3 and 10 computed from this traverse are, on projected random.

80.22

Intersect N. and S. line, 6 lks. N. of the cor. of secs. 2, 3, 10 and 11.

Thence N. 89° 57' W. on a true line, bet. secs. 3 and 10. Over mountainous land, through scattering timber and dense undergrowth, distance by triangulation and traverse, as hereinbefore described.

40.11

Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked

Survey of the Subdivision  
of T.27 N., R.13 W.

8056

Chains		
	$\frac{1}{4} \frac{S\ 3}{S10}$ 1921	
	Asc.	
50.60	Spur, slopes NE. Thence by chaining, descending 185 ft.	
57.20	Canyon, course NE. Asc. 250 ft.	
64.10	Spur, slopes E. Desc. 25 ft.	
80.22	The cor. of secs. 3, 4, 9 and 10. Land, mountainous and rolling. Soil, rocky, 4th rate. Timber, cedar. Undergrowth, sagebrush and cactus. Sparse grass.	
-----		
	N.0015'W. on a random line, bet. secs. 3 and 4.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.	
82.08	Fall 30 lks. W. of the cor., of secs. 3, 4, 33 and 34, on the N.bdy. of Tp., hereinbefore described. Thence S.002'E. on a true line bet. secs. 3 and 4. Over rolling land, through scattering timber and under- growth. Across mesa.	
17.00	Rim of mesa, brs. E. and W. Desc. 185 ft.	
37.10	Draw, course NE. Asc. 35 ft.	
42.08	Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap	
	$\frac{1}{4} \frac{S\ 4}{S\ 3}$ 1921	
	From which:	
	A cedar, 20 ins. diam., brs. S. 190 E., 96 lks. dist., marked $\frac{1}{4}$ S3 BT.	
	A cedar, 10 ins. diam., brs. S. 53 $\frac{1}{2}$ W., 121 lks. dist., marked $\frac{1}{4}$ S4 BT.	
	Continue ascent, 10 ft.	
43.60	Rim of mesa, E. and W. Thence across mesa.	
57.10	Rim of mesa, brs. E. and W. Desc. 50 ft.	
70.70	Draw, course E. Asc. 35 ft.	
82.08	The cor. of secs. 3, 4, 9 and 10. Land, rolling. Soil, sandy and gravelly, 2nd and 3rd rates. Timber, cedar. Undergrowth, sagebrush and cactus. Fair grass.	
-----		
	From the cor. of secs. 4, 5, 32 and 33, on the S.bdy. of Tp., described in Book "D", N.003'W. bet. secs. 32 and 33. Over heavily rolling land, through scattering timber and heavy undergrowth. Asc. 240 ft.	
9.80	Draw, course SE. Continue ascent.	
40.00	Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap	
	$\frac{1}{4} \frac{S32}{S33}$ 1921	

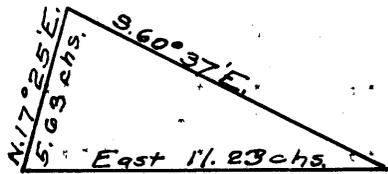
Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains      And raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.  
Continue ascent.  
43.00      Ridge brs. E. and W. Desc. 40 ft.  
66.00      Rim of canyon, brs. NE. and SW. Desc. 150 ft.  
70.30      Wash in canyon, 60 lks. wide, course NE. Asc. 130 ft.  
74.00      Rim of canyon, brs. NE. and SW. Continue ascent, 20 ft.  
80.00      Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, with marked (x) stone for cor. of secs. 28, 29, 32 and 33, and raise a mound of stone around post, with brass cap marked

T27N R13W  
S29 | S28  
S32 | S33  
1921

Land, rolling.  
Soil, sandy formation, rocky, 3rd and 4th rate.  
Timber, scattering cedar and dogwood.  
Undergrowth, black brush and cactus.  
Fair grass.

15.00      East on a random line, bet. secs. 28 and 33.  
Impossible to chain from this point. Set a flag ahead on line, and from the 15.00 ch. point, measure a base N. 17° 25' E. 5.63 chs. -- impracticable to secure longer base -- from the N. end of which, flag brs. S. 60° 37' E. The three angles of the triangle are therefore 72° 35', 78° 02' and 29° 23', the sum of which is 180°. The distance triangulated is given by the sine proportion:



$$\frac{X}{5.63} = \frac{\sin 7802'}{\sin 29023'}$$

$$= \frac{.750508}{.490458}$$

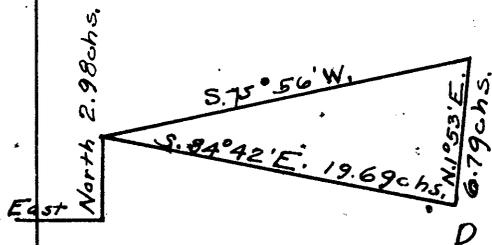
$$= \frac{0.740966}{.490458}$$

$$= \frac{9.690772}{.490458}$$

$$= 1.050194$$

11.23 chs.,

26.23      which added to 15.00 chs., gives  
40.00      Continue East on a random line, bet. secs. 28 and 33.  
59.95      Set temp. ¼ sec. cor.  
Impossible to chain from this point to the East. Offset



North 2.98 chs., from which, flag at point "D" described in the field notes of the mile bet. secs. 33 and 34 brs. S. 84° 42' E. From "D", measure a base N. 1° 53' E. 6.79 chs., from the N. end of which, flag on offset line 2.98 chs. N. brs. S. 75° 56' W. The three angles of the triangle are therefore 19° 22', 74° 03' and 86° 35', the sum of which is 180°. The distance triangulated on the bearing S. 84° 42' E. is computed from the sine proportion:

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of T. 27 N., R. 13 W.

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37

Chains

$$\frac{X}{6.79} = \frac{\sin. 7403'}{\sin. 19022'}$$

$$\log. 6.79 = 0.831870$$

$$\log. \sin. 7403' = 9.982950$$

$$\log. \sin. 19022' = 9.520631$$

$$\log. X = 1.294189$$

$$X = 19.69$$

From this point, I traverse as follows:

S.28°E. 1.47 chs.  
North 0.02 chs.  
East 0.13 chs.

To the cor. of secs. 27, 28, 33 and 34. The computation of this triangulation and traverse gives the length and falling of the random.

- 80.38 Intersect N. and S. line; 12 lks. N. of the cor. of secs. 27, 28, 33 and 34. Thence N.89°55'W. on a true line, bet. secs. 28 and 33. Over mountainous land, through scattering timber and undergrowth
- Asc. 850 ft., distance by triangulation.
- 20.43 Rim of canyon, cliffs 500 ft. high, br. NW. and SE. Desc. dist. by chaining.
- 38.40 Head of wash, course NW. Continue gradual descent.
- 40.19 Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in a mound of stone, with marked (x) stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$  S 28  
S 33  
1921

From which

A pinyon, 14 ins. diam., brs. N. 41 $\frac{1}{2}$ °W.,  
560 lks. dist., marked  $\frac{1}{4}$ S28 BT.  
No other trees within limits.

- 54.15 Desc. 200 ft., distance by triangulation.
- 61.40 (Approx.) Wash, in canyon, 40 lks. wide, course NE. Asc. 200 ft.
- 65.38 Rim of canyon, brs. NE. and SW. Continue over broken land, dist. by chaining.
- 80.38 The cor. of secs. 27, 28, 33 and 34. Land, mountainous. Soil, rocky, 4th rate. Timber, scattering cedar. Undergrowth, sagebrush, catclaw and cactus.

N.003'W. bet. secs. 28 and 29.  
Over rolling land, through scattering timber and dense undergrowth.

Asc. 30 ft.

- 21.88 Spur, slopes NE. Desc. 25 ft.
- 28.18 Draw, course NE. Asc. 20 ft.
- 32.05 Spur, slopes E. Desc. 20 ft.
- 38.94 Draw, course SE. Asc.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$   
S29 | S28  
1921

From which

A cedar, 6 ins. diam., brs. N. 84 $\frac{1}{2}$ °E.,  
82 lks. dist., marked  $\frac{1}{4}$ S28 BT.  
A cedar, 18 ins. diam., brs. N. 58°W.,  
10 lks. dist., marked  $\frac{1}{4}$ S29 BT.

Asc. 155 ft.

- 66.16 Spur, slopes E. Desc. 85 ft.
- 78.00 Draw, course NE. Continue descent.

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of T. 27 N., R. 13 W.

## Chains

80.00	<p>Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the ground, in a mound of stone, for cor. of secs. 20, 21, 28 and 29, marked on brass cap</p> <p style="text-align: center;"> <math display="block">\begin{array}{c} T27N   R13W \\ \hline S20   S21 \\ \hline S29   S28 \\ 1921 \end{array}</math> </p> <p>From which</p> <p>A cedar, 20 ins. diam., brs. N. 45°E., 244 lks. dist., marked T27N R13W S21 BT.</p> <p>A cedar, 8 ins. diam., brs. S. 40½°E., 48 lks. dist., marked T27N R13W S28 BT.</p> <p>A cedar, 18 ins. diam., brs. S. 86½°W., 300 lks. dist., marked T27N R13W S29 BT.</p> <p>A cedar, 10 ins. diam., brs. N. 80°W., 141 lks. dist., marked T27N R13W S20 BT.</p> <p>Land, rolling. Soil, sandy and gravelly, 3rd and 4th rates. Timber, cedar and dogwood. Undergrowth, black brush, sagebrush and cactus. Good grass.</p> <hr style="border-top: 1px dashed black;"/>
40.00	<p>S. 89°55'E. on a random line, bet. secs. 21 and 28. Set temp. ¼ sec. cor.</p>
79.90	<p>Intersect N. and S. line, 35 lks. S. of the cor. of secs. 21, 22, 27 and 28. Thence S. 89°50'W. on a true line, bet. secs. 21 and 28. Over rolling land, through scattering timber and undergrowth. Desc. 15 ft.</p>
26.90	Draw, course NE. Asc. 35 ft.
30.90	Spur, slopes N. Desc.
33.20	Draw, course N. Asc.
36.90	Spur, slopes NE. Desc.
39.95	<p>Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone for ¼ sec. cor., marked on brass cap</p> <p style="text-align: center;"> <math display="block">\frac{1}{4} \begin{array}{c} S 21 \\ \hline S 28 \\ 1921 \end{array}</math> </p> <p>From which</p> <p>A cedar, 10 ins. diam., brs. N. 45½°W., 55 lks. dist., marked ¼S21 BT.</p> <p>A cedar, 6 ins. diam., brs. S. 27°E., 142 lks. dist., marked ¼S28 B.T.</p> <p>Continue descent, 60 ft.</p>
48.70	Draw, course NE. Asc.
69.90	Spur, slopes N. Desc.
74.90	Draw, course NE. Asc.
79.90	<p>The cor. of secs. 20, 21, 28 and 29. Land, rolling. Soil, rocky and gravelly, 3rd rate. Timber, cedar. Undergrowth, black brush, sagebrush and cactus.</p> <hr style="border-top: 1px dashed black;"/>
12.00	<p>N. 0°3'W. bet. secs. 20 and 21. Over heavily rolling land, through scattering timber and dense undergrowth. Asc. 165 ft.</p>
36.30	Draw, course SE. Continue ascent.
40.00	Spur, slopes S. 70°E. Desc. 40 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the

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of T. 27 N., R. 13 W.

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<p>Chains</p> <p>47.20</p> <p>61.64</p> <p>79.00</p> <p>80.00</p>	<p>ground, in a mound of stone, for <math>\frac{1}{4}</math> sec.cor., marked on brass cap</p> <p style="text-align: center;"> <math>\frac{1}{4}</math>  S20   S21  1921 </p> <p>From which</p> <p style="padding-left: 40px;">A cedar, 14 ins. diam., brs. N. <math>20\frac{1}{2}^{\circ}</math>E., 119 lks. dist., marked <math>\frac{1}{4}</math>S21 BT.</p> <p style="padding-left: 40px;">A cedar, 10 ins. diam., brs. N. <math>60^{\circ}</math>W., 98 lks. dist., marked <math>\frac{1}{4}</math>S20 BT.</p> <p>Continue descent, 80 ft.</p> <p>Draw, 10 lks. wide, course NE. Asc. 145 ft.</p> <p>Spur, slopes E. Desc. 105 ft.</p> <p>Draw, course NE. Asc. 20 ft.</p> <p>Set an iron post, 3 ft. long, 2 ins. diam., 10 ins. in the ground, in a mound of stone, with marked (x) stone for cor. of secs. 16, 17, 20 and 21, marked on brass cap</p>
	<p style="text-align: center;"> T27N   R13W  S17   S16  S20   S21  1921 </p> <p>From which</p> <p style="padding-left: 40px;">A cedar, 14 ins. diam., brs. N. <math>25\frac{1}{2}^{\circ}</math>E., 147 lks. dist., marked T27N R13W S16 BT.</p> <p style="padding-left: 40px;">A cedar, 12 ins. diam., brs. S. <math>55^{\circ}</math>E., 359 lks. dist., marked T27N R13W S21 BT.</p> <p>No other trees within limits. Raise a mound of of stone, 2 ft. base, <math>1\frac{1}{2}</math> ft. high, W. of cor.</p> <p>Land, heavily rolling.</p> <p>Soil, sandy and gravelly, 3rd and 4th rates.</p> <p>Timber, scattering cedar and dogwood.</p> <p>Undergrowth, sagebrush and cactus.</p> <p>Good grass.</p>
<p>40.00</p> <p>79.82</p>	<p>N. <math>89^{\circ}50'</math>E. on a random line, bet. secs. 16 and 21.</p> <p>Set temp. <math>\frac{1}{4}</math> sec. cor.</p> <p>Intersect N. and S. line, 7 lks. S. of the cor. of secs. 15, 16, 21 and 22.</p> <p>Thence S. <math>89^{\circ}47'</math>W. on a true line, bet. secs. 16 and 21.</p> <p>Over heavily rolling land, through scattering timber and dense undergrowth.</p>
<p>39.91</p> <p>79.82</p>	<p>Asc. 50 ft., over gentle E. slope.</p> <p>Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, in a mound of stone, for <math>\frac{1}{4}</math> sec.cor., marked on brass cap</p> <p style="text-align: center;"> <math>\frac{1}{4}</math> <math>\frac{S 16}{S 21}</math>  1921 </p> <p>From which</p> <p style="padding-left: 40px;">A cedar, 10 ins. diam., brs. N. <math>73\frac{1}{2}^{\circ}</math>W., 25 lks. dist., marked <math>\frac{1}{4}</math>S16 BT.</p> <p style="padding-left: 40px;">A cedar, 14 ins. diam., brs. S. <math>39\frac{3}{4}^{\circ}</math>E., 162 lks. dist., marked <math>\frac{1}{4}</math>S21 BT.</p> <p>Continue gentle ascent, 40 ft.</p> <p>The cor. of secs. 16, 17, 20 and 21.</p> <p>Land, rolling.</p> <p>Soil, sandy, lime formation; 3rd rate.</p> <p>Timber, scattering cedar and dogwood.</p> <p>Undergrowth, sagebrush and cactus.</p> <p>Good grass.</p>

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of T. 27 N., R. 13 W.

40

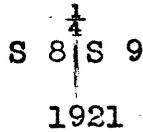
Chains	N.003'W. bet. secs. 16 and 17. Over heavily rolling land, through scattering timber and dense undergrowth. Desc. 1.50 Draw, course E. Asc. S. slope, 300 ft. 40.00 Ridge, brs. E. and W. Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for $\frac{1}{4}$ sec. cor.; raise a mound of stone around post, with brass cap marked.
	$\begin{array}{c} \frac{1}{4} \\ \hline S17 \quad S16 \\ \hline 1921 \end{array}$
80.00	Desc. 140 ft. over N. slope. Set an iron post, 3 ft. long, 2 ins. diam., 4 ins. in the ground, with marked (x) stone, for cor. of secs. 8, 9, 16 and 17; and raise a mound of stone around post, with brass cap marked
	$\begin{array}{c} T27N, R13W \\ \hline S 8 \quad S 9 \\ \hline S17 \quad S16 \\ \hline 1921 \end{array}$
	Land, heavily rolling. Soil, sandy and gravelly, 2nd and 4th rates. Timber, scattering dogwood. Undergrowth, sagebrush and cactus. Good grass.
40.00	N.89°47'E. on a random line, bet. secs. 9 and 16. Set temp. $\frac{1}{4}$ sec. cor.
79.74	Intersect N. and S. line, 16 lks. N. of the cor. of secs. 9, 10, 15 and 16. Thence S.89°54'W. on a true line, bet. secs. 9 and 16, over broken land, through scattering timber and dense undergrowth.
14.85	Asc. 75 ft. Spur, slopes NE., from W. Continue ascent on spur.
19.85	Desc.
34.75	Head of draw, course NW. Asc.
39.87	Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, with marked (x) stone, for $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked
	$\frac{1}{4} \quad \frac{S 9}{S 16} \\ \hline 1921$
42.35	Continue ascent, 15 ft. Spur, slopes N. Desc. 90 ft.
54.95	Draw, course N. Asc. 120 ft.
69.75	Spur, slopes N. Desc. 55 ft.
79.74	The cor. of secs. 8, 9, 16 and 17. Land, heavily rolling and broken. Soil, rocky, 3rd rate. Timber, cedar. Undergrowth, black brush, sagebrush and cactus.
31.00	N.0°3'W. bet. secs. 8 and 9. Over heavily rolling land, through scattering timber and dense undergrowth. Desc. 205 ft. Draw, 30 lks. wide, course NE. Asc. 40 ft.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

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Chains  
36.00  
40.00

Spur, slopes E. Desc. 15 ft.  
Set an iron post, 3 ft. long, 1 in. diam., 4 ins. in the ground, in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on brass cap



From which

A cedar, 24 ins. diam., brs. S. 66° E.,  
151 lks. dist., marked  $\frac{1}{4}$ S9 BT.

A cedar, 6 ins. diam., brs. S. 22 $\frac{1}{4}$ ° W.,  
66 lks. dist., marked  $\frac{1}{4}$ S8 BT.

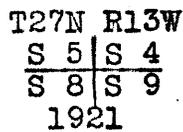
Continue descent, 45 ft.

45.85  
71.64  
80.00

Draw, 20 lks. wide, course SE. Asc. 100 ft.

Ridge, brs. E. and W. Desc. 70 ft., over N. slope.

Set an iron post, 3 ft. long, 2 ins. diam., on bed rock, with cross (x) at exact cor. point, for cor. of secs. 4, 5, 8 and 9; and raise a mound of stone around post, with brass cap marked



Land, heavily rolling.

Soil, sandy, gravelly and rocky, 2nd and 4th rate.

Timber, cedar and dogwood.

Undergrowth, sagebrush and cactus.

Good grass.

40.00  
79.74

N.89°54'E. on a random line, bet. secs. 4 and 9.

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

Intersect N. and S. line, 19 lks. S. of the cor. of secs. 3, 4, 9 and 10.

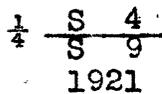
Thence S.89°46'W. on a true line, bet. secs. 4 and 9.

Over rolling land, through dense undergrowth and scattering timber.

Asc. 50 ft.

39.87

Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor.; and raise a mound of stone around post, with brass cap marked



Continue ascent, 95 ft.

66.00  
79.74

Spur, slopes N. Desc. 70 ft.

The cor. of secs. 4, 5, 8 and 9.

Land, rolling.

Soil, gravelly and rocky, 4th rate.

Timber, scattering cedar and dogwood.

Undergrowth, dense sagebrush and cactus.

Fair grass.

40.00  
82.46

N.0°03'W. on a random line, bet. secs. 4 and 5.

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

Fall 19 lks. E. of the cor. of secs. 4, 5, 32 and 33, on the N. bdy. of Tp., hereinbefore described.

Thence S.0°11'E. on a true line, bet. secs. 4 and 5.

Over heavily rolling land, through scattering timber and undergrowth.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains	Desc. 85 ft.
25.45	North rim of canyon, brs. NW. and SE. Desc. 200 ft.
34.65	Bottom of canyon, course SE. Asc.
36.50	Desc.
40.65	Bottom of same canyon, course SW. Asc. 70 ft.
42.46	Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with marked (x) stone, for $\frac{1}{4}$ sec. cor.; and raise a mound of stone around post, with brass cap marked
	$\frac{1}{4}$ S 5   S 4 1921
	Continue ascent.
43.45	Spur, slopes W. Desc. 70 ft.
47.20	Bottom of same canyon, course E. Asc. 200 ft.
49.40	South rim of canyon, brs. E. and W. Continue ascent.
52.45	Spur, slopes E. Desc. 60 ft.
62.60	Draw, 60 lks. wide, course NE. Asc. 95 ft.
82.46	The cor. of secs. 4, 5, 8 and 9. Land, heavily rolling. Soil, sandy and rocky, 2nd and 4th rate. Timber, scattering cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass in spots.
	-----
	From the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of Tp., described in Book "D", N. 003' W. bet. secs. 31 and 32. Over rolling land, through heavy timber and dense undergrowth. Desc. 40 ft.
16.67	Draw, course NE. Continue descent, 70 ft.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in a mound of stone, for $\frac{1}{4}$ sec. cor., marked on brass cap
	$\frac{1}{4}$ S31   S32 1921
	From which A cedar, 12 ins. diam., brs. N. 31 $\frac{1}{2}$ ° E., 87 lks. dist., marked $\frac{1}{4}$ S32 BT. A cedar, 14 ins. diam., brs. N. 78 $\frac{1}{2}$ ° W., 63 lks. dist., marked $\frac{1}{4}$ S31 BT.
	Continue descent, 85 ft.
45.20	Wash, 60 lks. wide, course NE. Thence over gently rolling land.
67.40	Wash, 90 lks. wide, course E. Asc. 65 ft.
80.00	Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 29, 30, 31 and 32, marked on brass cap
	T27N   R13W S30   S29 S31   S32 1921
	From which A cedar, 12 ins. diam., brs. N. 67° E., 128 lks. dist., marked T27N R13W S29 BT. A cedar, 14 ins. diam., brs. S. 63 $\frac{1}{4}$ ° E., 168 lks. dist., marked T27N R13W S32 BT. A cedar, 20 ins. diam., brs. S. 56 $\frac{1}{2}$ ° W., 115 lks. dist., marked T27N R13W S31 BT. A cedar, 8 ins. diam., brs. N. 14° W., 85 lks. dist., marked T27N R13W S30 BT.
	Land, rolling and gently rolling.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

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Chains	Soil, sandy, 3rd rate. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass.
	-----
	East on a random line, bet. secs. 29 and 32.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line, 21 lks. N. of the cor. of secs. 28, 29, 32 and 33.
	Thence N. 89°51' W. on a true line, bet. secs. 29 and 32. Over rolling land, through medium timber and undergrowth. Asc. gradually.
25.15	Spur, slopes S. Desc.
33.20	Box canyon, 130 lks. wide, 100 ft. deep, course S.
40.00	Set an iron post, 3 ft. long, 1 in. diam., 30 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	$\frac{1}{4} \begin{array}{l} \text{S } 29 \\ \text{S } 32 \\ 1921 \end{array}$
	From which
	A cedar, 12 ins. diam., brs. North 98 lks. dist., marked $\frac{1}{4}$ S29 BT.
	A cedar, 10 ins. diam., brs. S. 8 $\frac{1}{4}$ °W., 78 lks. dist., marked $\frac{1}{4}$ S32 BT.
59.00	Gulch, 70 ft. deep, course SE.
62.40	Wash, 50 lks. wide, course S.
75.40	Wash in draw, 30 lks. wide, course SE.
80.00	The cor. of secs. 29, 30, 31 and 32. Land, rolling. Soil, sandy and rocky, 2nd to 4th rates. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass.
	-----
	West on a random line, bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.28	Fall 17 lks. S. of the cor. of secs. 30 and 31, on the W. bdy. of Tp., which is a 2 in. post, 6 ins. project- ing above ground properly marked, witnessed by two bearing trees as described in the field notes of current Group No. 110.
	Thence S. 89°53' E. on a true line, bet. secs. 30 and 31. Over rolling land, through scattering timber and dense undergrowth.
	Desc.
3.10	Draw, course SE. Continue descent, 50 ft.
25.60	Road, brs. SW. to Milkweed Spring and NE. to Meriwhitica Farm.
39.38	Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	$\frac{1}{4} \begin{array}{l} \text{S } 30 \\ \text{S } 31 \\ 1921 \end{array}$
	From which
	A cedar, 12 ins. diam., brs. N. 41 $\frac{1}{4}$ °W., 58 lks. dist., marked $\frac{1}{4}$ S30 BT.
	A cedar, 10 ins. diam., brs. S. 24 $\frac{3}{4}$ °E., 71 lks. dist., marked $\frac{1}{4}$ S31 BT.
	Continue descent, 35 ft.
76.20	Wash, 30 lks. wide, course SE. Continue descent, 45 ft.

Survey of the Subdivisions  
of T. 27 N., R. 13 W.

Chains  
79.28

The cor. of secs. 29, 30, 31 and 32.  
Land, rolling.  
Soil, sandy and gravelly, 2nd and 4th rates.  
Timber, cedar.  
Undergrowth, sagebrush and cactus.  
Good grass.

N.003'W. bet. secs. 29 and 30.  
Over rolling land, through heavy timber and dense undergrowth.

25.00  
28.70  
40.00

Asc. 120 ft.  
Spur, slopes SE. Desc. 25 ft.  
Draw, course SE. Asc. 30 ft.  
Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$   
S30 | S29  
1921

From which

- A cedar, 20 ins. diam., brs. N. 73 $\frac{1}{2}$ °E.,  
71 lks. dist., marked  $\frac{1}{4}$ S29 BT.
- A cedar, 22 ins. diam., brs. N. 57°W.,  
122 lks. dist., marked  $\frac{1}{4}$ S30 BT.

60.00  
70.20  
80.00

Continue ascent.  
Spur, slopes SE. Desc. 85 ft.  
Draw, course SE. Asc. 35 ft.  
Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked on brass cap

T27N | R13W  
S19 | S20  
S30 | S29  
1921

From which

- A cedar, 10 ins. diam., brs. N. 59 $\frac{1}{2}$ °E.,  
133 lks. dist., marked T27N R13W S20 BT.
- A cedar, 14 ins. diam., brs. S. 64 $\frac{1}{2}$ °E.,  
151 lks. dist., marked T27 N., R. 13 W. S29 BT.
- A cedar, 10 ins. diam., brs. S. 64 $\frac{1}{2}$ °W.,  
72 lks. dist., marked T27N R13W S30 BT.
- A cedar, 15 ins. diam., brs. N. 56°W.,  
244 lks. dist., marked T27N R13W S19 BT.

Land, rolling.  
Soil, sandy, 2nd rate.  
Timber, cedar.  
Undergrowth, sagebrush and cactus.  
Good grass.

40.00  
79.70

S.89°51'E. on a random line, bet. secs. 20 and 29.  
Set temp.  $\frac{1}{4}$  sec. cor.  
Intersect N. and S. line, 21 lks. S. of the cor. of secs. 20, 21, 28 and 29.

Thence West on a true line, bet. secs. 20 and 29.  
Over rolling land, through scattering timber and dense undergrowth.

14.87  
39.85

Asc. 120 ft.  
Spur, slopes NE. Continue gentle ascent.  
Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$ S 20  
S 29  
1921

Survey of the Subdivision  
of T. 27 N., R. 13 W.

3556

Chains

From which

A cedar, 3 ins. diam., brs. N.81°E.,  
70 lks. dist., marked BT.

A cedar, 22 ins. diam., brs. S. 21°E.,  
350 lks. dist., marked  $\frac{1}{4}$ S29 BT.

Asc. 175 ft.

67.35 Ridge brs. N.25°W. and S.25°E. Desc. 135 ft.

79.70 The cor. of secs. 19, 20, 29 and 30.

Land, rolling.

Soil, sandy and rocky, 2nd to 4th rate.

Timber, cedar and dogwood.

Undergrowth, sagebrush and cactus.

Good grass.

40.00

79.30

N.89°53'W. on a random line, bet. secs. 19 and 30.

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

Fall 2 lks. N. of the cor. of secs. 19 and 30, on the W.  
bdy. of Tp., which is an iron post, 2 ins. diam., set  
in a mound of stone, properly marked, witnessed by  
two bearing trees, as described in the field notes  
of current Group No. 110.

Thence S.89°54'E., on a true line, bet. secs. 19 and 30.  
Over rolling land, through medium timber and dense under-  
growth.

Desc. 160 ft.

39.30

Set an iron post, 3 ft. long, 1 in. diam., 6 ins. in the  
ground in a mound of stone for  $\frac{1}{4}$  sec. cor., marked on  
brass cap

$\frac{1}{4}$   $\frac{S 19}{S 30}$   
1921

From which

A cedar, 8 ins. diam., brs. N. 31 $\frac{1}{2}$ °E.,  
147 lks. dist., marked  $\frac{1}{4}$ S19 BT.

A cedar, 4 ins. diam., brs. S.19 $\frac{1}{2}$ °W.,  
95 lks. dist., marked  $\frac{1}{4}$ S30 BT.

Continue descent, 65 ft.

52.45 Wash, 30 lks. wide, course SE. Asc. 25 ft.

64.30 Spur, slopes SE. Desc. 60 ft.

65.65 Road, brs. SE. to Milkweed Spring and NW. to Meriwhitica Farm

79.30 The cor. of secs. 19, 20, 29 and 30.

Land, rolling.

Soil, sandy and gravelly, 3rd and 4th rates.

Timber, cedar.

Undergrowth, sagebrush and cactus.

N.0°3'W. bet. secs. 19 and 20.

Over heavily rolling land, through scattering timber and  
dense undergrowth.

Asc. 315 ft.

26.38 Ridge, brs. W. and SE. Desc. 70 ft.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the  
ground, in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on  
brass cap.

$\frac{1}{4}$   
S19 S20  
1921

From which

A dogwood, 9 ins. diam., brs. S.69°E.,  
16 lks. dist., marked  $\frac{1}{4}$ S20 BT.

A dogwood, 12 ins. diam., brs. S.13°W.,  
94 lks. dist., marked  $\frac{1}{4}$ S19 BT.

Continue descent, 30 ft.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains 43.48 80.00	<p>Draw, course SE, Asc. 300 ft. Set an iron post, 3 ft. long 2 ins. diam., 8 ins. in the ground, with marked (x) stone, for cor. of secs. 17, 18, 19 and 20, and raise a mound of stone around post, with brass cap marked</p> <p style="text-align: center;">T27N   R13W S18   S17 S19   S20 1921</p> <p>Land, heavily rolling. Soil, sandy and gravelly, 3rd and 4th rates. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Fair grass.</p>
40.00 79.78 32.50 37.80 39.89	<p>East on a random line, bet. secs. 17 and 20. Set temp. <math>\frac{1}{4}</math> sec. cor. Intersect N. and S. line, 7 lks. S. of the cor. of secs. 16, 17, 20 and 21. Thence S. 89° 57' W. on a true line, bet. secs. 17 and 20. Over rolling land, through scattering timber and dense undergrowth. Asc. 105 ft. Ridge, brs. NW. and SE. Desc. 40 ft. Head of draw, course SE. Asc. Set an iron post, 3 ft. long, 1 in. diam., 18 ins. in the ground, on bed rock, with marked (x) stone, for <math>\frac{1}{4}</math> sec. cor.; and raise a mound of stone around post, with brass cap marked</p> <p style="text-align: center;"><math>\frac{1}{4}</math> <u>S 17</u> S 20 1921</p>
79.78	<p>Continue ascent, 125 ft. The cor. of secs. 17, 18, 19 and 20. Land, rolling. Soil, sandy and gravelly loam, 3rd rate. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Fair grass.</p>
40.00 79.28 17.30 34.30 39.28	<p>N. 89° 54' W. on a random line, bet. secs. 18 and 19. Set temp. <math>\frac{1}{4}</math> sec. cor. Fall 5 lks. S. of the cor. of secs. 18 and 19, on the W. bdy. of Tp., which is an iron post, 2 ins. diam., set in a mound of stone, properly marked, as described in the field notes of current group No. 110. Thence S. 89° 52' E. on a true line, bet. secs. 18 and 19. Over heavily rolling land, through scattering timber and dense undergrowth. Asc. 310 ft. Road, brs. SW. to Milkweed Spring and NE. to Meriwhitica Farm. Spur, slopes NE. Desc. 30 ft. Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, with marked (x) stone, for <math>\frac{1}{4}</math> sec. cor.; and raise a mound of stone around post, with brass cap marked</p> <p style="text-align: center;"><math>\frac{1}{4}</math> <u>S 18</u> S 19 1921</p>
48.14 73.50	<p>Continue descent 70 ft. Wash, 30 lks. wide, course NE. Asc. 315 ft. Spur, slopes N. 80° E. Desc. 50 ft.</p>

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains  
79.28

The cor. of secs. 17, 18, 19 and 20.  
Land, heavily rolling.  
Soil, sandy and gravelly, 2nd and 4th rate.  
Timber, cedar and dogwood.  
Undergrowth, sagebrush and cactus.  
Good grass.

N.003'W. bet. secs. 17 and 18.  
Over rolling land, through scattering timber and dense  
undergrowth.

Asc. 20 ft.

1.09 Ridge, brs. E. and W. Desc. 80 ft.

30.00 Draw, course NE. Continue descent.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 10 ins. in the  
ground, in a mound of stone, for  $\frac{1}{4}$  sec. cor., marked on  
brass cap

$\frac{1}{4}$   
S18 | S17

From which 1921

A dogwood, 8 ins. diam., brs. N. 69 $\frac{1}{2}$ °E.,  
12 lks. dist., marked  $\frac{1}{4}$ S17 BT.

A dogwood, 6 ins. diam., brs. S. 64°W.,  
65 lks. dist., marked  $\frac{1}{4}$ S18 BT.

Continue descent, 100 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 14 ins. in the  
ground, with marked (x) stone, for cor. of secs. 7, 8,  
17 and 18; and raise a mound of stone around post,  
with brass cap marked

T27N | R13W  
S 7 | S 8  
S18 | S17  
1921

Land, rolling.  
Soil, sandy and gravelly, 3rd rate.  
Timber, dogwood.  
Undergrowth, sagebrush and cactus.  
Fair grass.

40.00 N.89°57'E. on a random line, bet. secs. 8 and 17.

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

79.72 Intersect the cor. of secs. 8, 9, 16 and 17.

Thence S.89°57'W. on a true line, bet. secs. 8 and 17.  
Over heavily rolling land, through scattering timber  
and undergrowth.

Desc. 60 ft.

7.70 Draw, course N. Desc. 200 ft.

39.86 Set an iron post, 3 ft. long, 1 in. diam., 28 ins. in the  
ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$  S 8  
S 17  
1921

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

Continue descent.

48.95 Draw, 50 lks. wide, course NE. Asc. 75 ft.

79.72 The cor. of secs. 7, 8, 17 and 18.

Land, heavily rolling.

Soil, sandy and gravelly, 2nd and 3rd rates.  
Timber and dogwood.

Survey of the Subdivision  
of T. 27-N., R. 13-W.

Chains

Undergrowth, sagebrush and cactus.  
Good grass.

N.89°52'W. on a random line, bet. secs. 7 and 18.

40.00  
79.17

Set temp.  $\frac{1}{4}$  sec. cor.  
Fall 28 lks. N. of the cor. of secs. 7 and 18, on the W. bdy. of Tp., which is an iron post, 10 ins. projecting above ground, properly marked, witnessed by two bearing trees as described in the field notes of current Group No. 110.

Thence N.89°56'E. on a true line, bet. secs. 7 and 18. Over rolling land, through scattering timber and dense undergrowth.

Desc. 65 ft.

4.35  
11.65  
24.15  
28.35  
39.17

Enter flat, brs. N. and S.  
Road, brs. SW. to Milkweed Spring and NE. to Meriwhitica Farm.  
Draw, course N.  
Leave flat, brs. N. and S. Asc. 125 ft.  
Set an iron post, 3 ft. long, 1 in. diam., 8 ins. in the ground, with marked (x) stone, for  $\frac{1}{4}$  sec. cor. and raise a mound of stone around post, with brass cap marked

$$\frac{1}{4} \begin{array}{c} S \ 7 \\ S \ 18 \\ 1921 \end{array}$$

Continue ascent.

41.15  
64.45  
79.17

Ridge, brs. N.20°W. and S.20°E. Desc. 160 ft.  
Draw, course N. Asc. 60 ft.  
The cor. of secs. 7, 8, 17 and 18.  
Land, rolling.  
Soil, sandy, 2nd and 3rd rates.  
Timber, cedar and dogwood.  
Undergrowth, sagebrush and cactus.  
Good grass.

N.00°3'W. bet. secs. 7 and 8.

Over rolling land, through scattering timber and dense undergrowth.

Desc. 145 ft.

40.00

Set an iron post, 3 ft. long, 1 in. diam., on bed rock, with cross (x) at exact cor. point, for  $\frac{1}{4}$  sec. cor. and raise a mound of stone around post, with brass cap marked

$$\frac{1}{4} \begin{array}{c} S \ 7 \\ S \ 8 \\ 1921 \end{array}$$

Desc. 10 ft.

42.40  
51.49  
61.33  
79.50  
80.00

Draw, course NE. Asc. 20 ft.  
Ridge, brs. NE. and SW. Desc. 50 ft.  
Draw, course NE. Thence along E. slope.  
Draw, course N.70°E.

Set an iron post, 3 ft. long, 2 ins. diam., 28 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, marked on brass cap

$$\begin{array}{c} T27N \ R13W \\ S \ 6 \ S \ 5 \\ S \ 7 \ S \ 8 \\ 1921 \end{array}$$

From which

A cedar, 16 ins. diam., brs. N. 42 $\frac{3}{4}$ °E.,  
133 lks. dist., marked T27N R13W S5 BT.

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains	<p>A cedar, 14 ins. diam., brs. S. 86<math>\frac{1}{2}</math>°W., 185 lks. dist., marked T27N R13W S 7 BT. A cedar, 16 ins. diam., brs. N. 72<math>\frac{1}{2}</math>°W., 690 lks. dist., marked T27N R13W S 6 BT. No other trees within limits. Raise a mound of stone, 2 ft. base, 1<math>\frac{1}{2}</math> ft. high, W. of cor. Land, rolling. Soil, sandy and gravelly, 3rd rate. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Fair grass.</p>
40.00 79.72	<p>N. 89° 57' E. on a random line bet. secs. 5 and 8. Set temp. <math>\frac{1}{4}</math> sec. cor. Intersect N. and S. line, 7 lks. N. of the cor. of secs. 4, 5, 8 and 9. Thence West on a true line, bet. secs. 5 and 8. Over rolling land, through scattering timber and dense undergrowth. Desc. 50 ft. Draw, course N. Asc. 200 ft. Spur, slopes N. Desc. 25 ft. Set an iron post, 3 ft. long, 1 in. diam., 16 ins. in the ground, with marked (x) stone, for <math>\frac{1}{4}</math> sec. cor.; and raise a mound of stone around post, with brass cap marked</p>
7.95 37.70 39.86	<p style="text-align: center;"> <math>\frac{1}{4}</math> <math>\frac{S \ 5}{S \ 8}</math>        1921     </p> <p>Continue descent, 120 ft. Dry reservoir brs. North 5 chs. dist. Draw, course N. 70° E. Draw, course S. 70° E. The cor. of secs. 5, 6, 7 and 8. Land, rolling. Soil, sandy and gravelly, 2nd and 4th rates. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass.</p>
40.00 78.80	<p>S. 89° 56' W. on a random line, bet. secs. 6 and 7. Set temp. <math>\frac{1}{4}</math> sec. cor. Fall 7 lks. S. of the cor. of secs. 6 and 7 on the W. bdy. of Tp., which is an iron post, 2 ins. diam., set in a mound of stone, properly marked, witnessed as described in the field notes of current Group No. 110. Thence N. 89° 59' E. on a true line, bet. secs. 6 and 7. Over level land, through scattering timber and dense undergrowth.</p>
19.70 38.80 78.80	<p>Road, brs. S. to Milkweed Spring and N. to Meriwhitica Farm. Set an iron post, 3 ft. long, 1 in. diam., 12 ins. in the ground, in a mound of stone, for <math>\frac{1}{4}</math> sec. cor., marked on brass cap</p> <p style="text-align: center;"> <math>\frac{1}{4}</math> <math>\frac{S \ 6}{S \ 7}</math>        1921     </p> <p>From which A cedar, 6 ins. diam., brs. N. 120° E., 181 lks. dist., marked <math>\frac{1}{4}</math> S 6 BT. A cedar, 5 ins. diam., brs. S. 7<math>\frac{1}{2}</math>° E., 126 lks. dist., marked <math>\frac{1}{4}</math> S 7 BT. Desc. 80 ft. The cor. of secs. 5, 6, 7 and 8.</p>

Survey of the Subdivision  
of T. 27 N., R. 13 W.

Chains	Land, level and rolling. Soil, sandy, gravelly and rocky, 2nd and 4th rates. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass.
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40.00	N.0°11'W. on a random line, bet. secs. 5 and 6.
82.44	Set temp. $\frac{1}{4}$ sec. cor. Fall 19 lks. E. of the cor. of secs. 5, 6, 31 and 32, on the N. bdy. of Tp. hereinbefore described. Thence S.0°19'E. on a true line, bet. sec. 5 and 6. Over heavily rolling land, through scattering timber and dense undergrowth. Asc. gradual slope.
10.45	Draw, course E. Continue slight ascent.
24.45	Enter mesa, brs. E. and W.
42.44	Set an iron post, 3 ft. long, 1 in. diam., 30 in. in the ground, for $\frac{1}{4}$ sec. cor. marked on brass cap
$\begin{array}{c} \frac{1}{4} \\ S\ 6\ S.5 \\   \\ 1921 \end{array}$	
From which	
A cedar, 7 ins. diam., N.55°E., 69 lks. dist., marked $\frac{1}{4}$ S5 BT.	
A cedar, 14 ins. diam., brs. N. 79 $\frac{1}{2}$ °W., 101 lks. dist., marked $\frac{1}{4}$ S6 B.T.	
52.45	Leave mesa, brs. E. and W. Desc. 155 ft.
68.05	Draw, 30 lks. wide, course SE. Desc. 50 ft.
82.15	Draw, course E. Asc.
82.44	The cor. of secs. 5, 6, 31 and 32. Land, level and rolling. Soil, sandy, gravelly and rocky, 2nd and 4th rates. Timber, cedar and dogwood. Undergrowth, sagebrush and cactus. Good grass.

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The continued satisfactory adjustment of the solar  
apparatus during the survey of this Tp. is indicated from  
field tests as described in Book "I".

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GENERAL DESCRIPTION.

The western part of this township is rolling land, covered with a scattering growth of cedar and dogwood timber and a dense growth of sagebrush and cactus undergrowth. The soil varies from sandy and gravelly, 2nd rate, to rocky, 4th rate. A road runs in a northerly direction through the western range of secs. to Meriwitica Canyon. The eastern part is rough mountainous land, being cut by Spencer Canyon, with vertical walls several hundred feet high. In this part of the township, the soil is rocky 4th rate. There is very little timber here. The drainage throughout the Tp. is to the north. There are no settlers in this Tp.

8556

4-680

FIELD ASSISTANTS. to

Glenn F. Sawyer, U. S. Transitman

NAMES.	CAPACITY.
J. S. Dameron	1st Chainman.
Max Dessau	1st and 2nd Chainman
Ed. F. Stanley	Flagman and 2nd Chainman
Geoffrey Brewer	Flagman, Cornerman and 2nd Chainman
W. L. Price	Cornerman
Hugh Bowers	Axeman

BOOK 3556

CERTIFICATE OF UNITED STATES TRANSITMAN.

I, Glenn F. Sawyer, U. S. Transitman, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 109, Arizona, bearing date of the 26th day of February, 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, surveyed all those parts or portions of the

North Boundary and

Subdivision Lines of

TOWNSHIP 27 NORTH, RANGE 13 WEST

of the Gila and Salt

River Base and Meridian, in the State of Arizona, 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 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 109, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place Animas, New Mexico

Glenn F. Sawyer
U. S. Transitman

Date Apr. 16 1923

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.

3596

4-680

FIELD ASSISTANTS. to

Dupree R. Averill, U. S. Surveyor

NAMES.	CAPACITY.
Frank G. Smith	2nd Chainman.
Chas. S. Rye	Flagman
Wm. T. Keplinger	Flagman
Chas. Worden	Axeman
Robyn Wilcox	Axeman
W. H. Harmon	Cornerman
Henry McKelvey	Cornerman

BOOK 3556

CERTIFICATE OF UNITED STATES SURVEYOR.

I, Dupree R. Averill, U. S. Surveyor, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 109, Arizona, bearing date of the 26th day of February, 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, surveyed all those parts or portions of the North Boundary and Subdivision Lines of TOWNSHIP 27 NORTH, RANGE 13 WEST of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes and by diagram on page 1 hereof as having been executed by me, and under my direction; and that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 109, Arizona, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Place Hudon Calif.  
Date April 9, 1923

*Dupree R. Averill*  
U. S. Surveyor.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Arizona, **MAY 24 1923**

The foregoing field notes of the survey of the North Boundary and Subdivision Lines of TOWNSHIP 27 NORTH, RANGE 13 WEST, of the Gila and Salt River Base & Meridian, in the State of Arizona,

executed by Dupree R. Averill, U. S. Surveyor, & Glenn F. Sawyer, U. S. Transitman, under his special instructions dated Feb. 26, 1920, for Group 109, Arizona, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Glenn F. Sawyer*  
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*