

3499

4-679
Book "E"

BOOK 3499

FIELD NOTES

OF THE RETRACEMENT OF

part of the South boundary of Township 23 North, Range 28 East,

OF THE RESURVEY OF

the South boundary of Township 23 North, Range 29 East,

AND OF THE SURVEY OF

the East boundary,

the West boundary,

the North boundary,

and the Subdivision lines of

Township 23 North, Range 29 East,

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

EXECUTED BY

Sidney E. Blout, U. S. Cadastral Engineer,

In the capacity of U. S. Surveyor, under Special Instructions dated Sept. 27, 1918, issued by the United States Surveyor General to govern surveys included in Group No. 92, Arizona, which were approved by the Commissioner of the General Land Office, October 19, 1918, and Assignment Instructions dated April 1, 1920

Retracement,
Resurvey and Survey commenced June 24, 1920

Retracement,
Resurvey and Survey completed August 10, 1920

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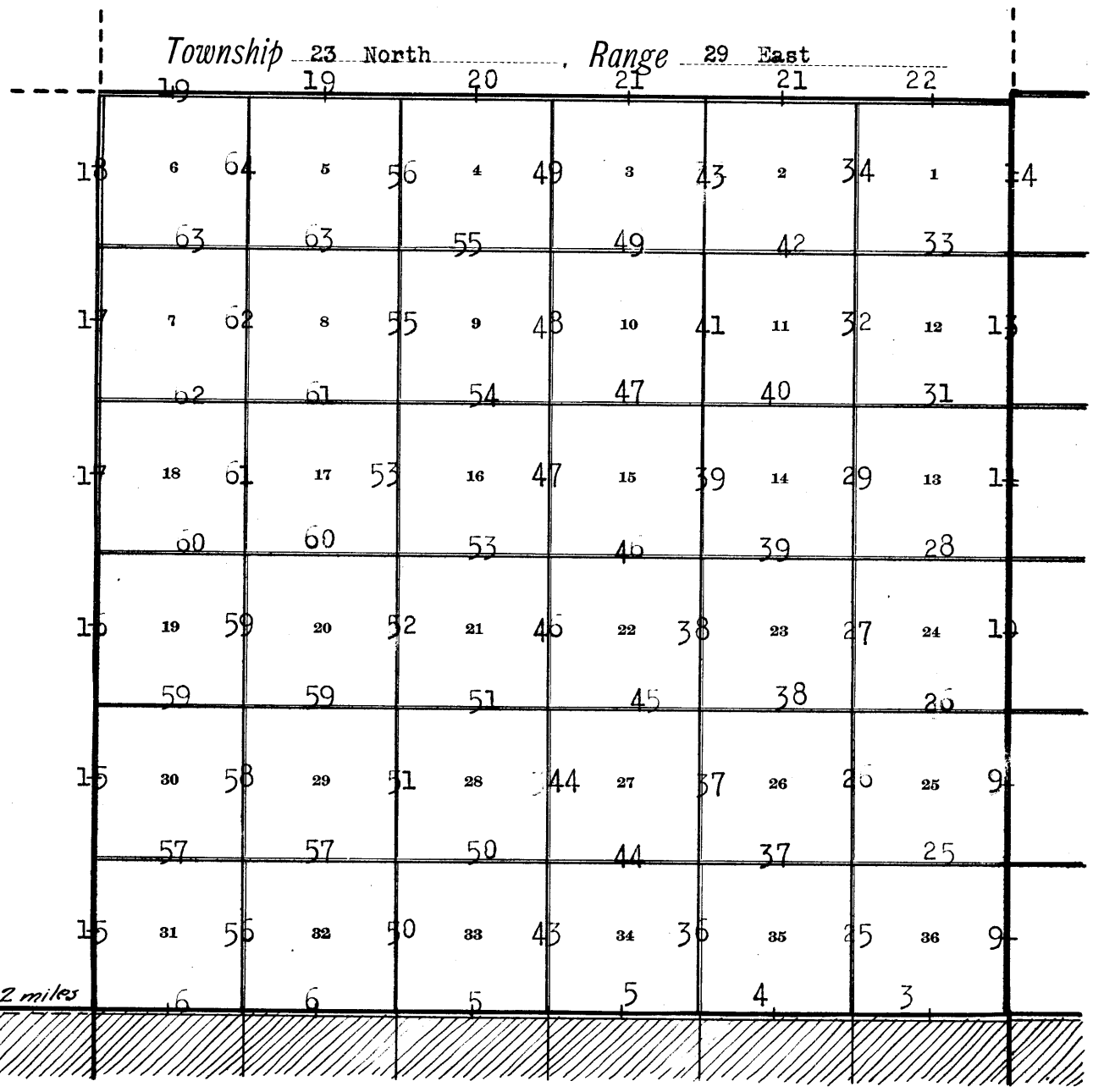
121






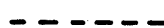
BOOK 3499

Book "E"

Group 92 - - - - Arizona.

INDEX DIAGRAM.



-  Lines retraced under this Group
-  Lines resurveyed under this Group
-  Lines surveyed under this Group
-  Accepted surveys
-  Areas surveyed as per accepted plats on file
-  Unsurveyed.

3499

Book "E"

Township 23 North, Range 29 East.

DATE DIAGRAM.

8-10-20 7-8-20 6	8-10-20 8-7-20 5	8-10-20 8-7-30 4	8-9-20 8-5-20 3	8-9-20 8-9-20 2	8-9-20 8-9-20 1	7-1-20
8-7-20 7-8-20 7	8-7-20 8-6-20 8	8-5-20 8-5-20 9	8-5-20 7-31-20 10	7-27-20 7-27-20 11	7-23-20 7-23-20 12	6-29-20
8-6-20 7-7-20 18	8-6-20 8-6-20 17	8-2-20 8-2-20 16	7-31-20 7-21-20 15	7-27-20 7-26-20 14	7-23-20 7-22-20 13	6-29-20
8-4-20 7-7-20 19	8-4-20 8-4-20 20	8-2-20 8-2-20 21	7-26-20 7-26-20 22	7-24-20 7-24-20 23	7-21-20 7-21-20 24	6-29-20
8-3-20 7-7-20 30	8-3-20 8-3-20 29	7-29-20 7-29-20 28	7-20-20 7-20-20 27	7-17-20 7-17-20 26	7-16-20 7-16-20 25	6-24-20
8-3-20 7-7-20 31	7-29-20 7-29-20 32	7-28-20 7-28-20 33	7-19-20 7-19-20 34	7-14-20 7-14-20 35	7-10-20 7-10-20 36	6-24-20
7-6-20	7-6-20	7-29-20	7-29-20	7-28-20	7-9-20	7-9-20

On the above diagram:

Black lines indicate surveys.

Red lines indicate resurveys, and

Dotted red lines indicate retracements,

all executed by Sidney E. Blout, U. S. Cadastral Engineer, on dates shown thereon.

Retracements, resurveys and surveys hereinafter described, executed on dates shown on diagram on page 1 hereof by Sidney E. Blout, U.S. Cadastral Engineer, using a Buff light mountain transit No. 9984 with U-shaped standards, 4 $\frac{1}{2}$ inch horizontal circle, 4-inch vertical circle, and improved Smith solar attachment; all azimuth determinations are accomplished with the solar attachment, except the special observations on Polaris for meridian upon which to test the solar attachment as stated in the field notes.

All measurements are made with a Lufkin 5-chain steel tape, compared with a Chesterman standard steel tape and found correct. The measurements are made on the slope, the vertical angle determined, and the slope measurements properly reduced to true horizontal distances.

Before beginning the surveys in this township, examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus by comparing its indications, resulting from solar observations, made during a.m. and p.m. hours with a meridian determined by observations on Polaris, proceed as follows:

June 13, 1920: In camp at the Houck Indian Trading Post, near the $\frac{1}{2}$ sec. cor. bet. secs. 20 and 35, T. 22 N., R. 29 E., in approximate latitude $35^{\circ}16'N.$, longitude $109^{\circ}13'45''W.$, set off $35^{\circ}16'N.$ on the lat. arc; $23^{\circ}14'N.$ on the decl. arc, and at 8h. 29m. a.m., l.m.t., determine a meridian with the solar, from which an iron drift bolt in coal chute alongside of A.T. & S.F. Ry., bears $N.0^{\circ}01\frac{1}{2}'W.$, about 15 chs. dist.

On the above date, at this station, make a meridian observation of the sun for time and latitude, observing simultaneously the altitude of the sun's lower limb and transit of the sun's west limb, reversing the telescope and observing simultaneously the altitude of the sun's upper limb and transit of the sun's east limb.

Mean observed altitude,	=	$77^{\circ}57'$	$53''$
Reduced latitude,	=	$35^{\circ}16'$	$03''$
Mean watch time of observation	=	12h04m.	20s.
Watch fast of local mean time	=	04m.	07s.

June 13: At 3h. 29m. p.m., l.m.t., set off $23^{\circ}15'N.$ on the decl. arc, and determine a meridian with the solar from which the drift bolt in the coal chute described above bears $N.0^{\circ}03'W.$

At the same station at 6h. 59m. p.m., l.m.t., make an hour angle observation of Polaris west of the meridian, two each with the telescope in direct and reversed positions reading the horizontal deflection angle from the drift bolt in the A.T. & S.F. Ry. coal chute, N. about 15 chs. dist. in the direction W-N. to Polaris.

Watch time of observation	=	7h. 2m.	45s.
Mean horizontal angle from Polaris to the drift bolt,	=	$0^{\circ}19'$	N-E.
Azimuth of Polaris	=	$0^{\circ}21'$	W.
True bearing of drift bolt,	=	$0^{\circ}02'$	W.

The solar apparatus by a.m. and p.m. observations, defines positions for meridian, respectively about $0\frac{1}{2}'W.$ and $01'E.$ of the meridian determined by the Polaris observation; therefore, conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h. 30m., a.m. is $N.14^{\circ}20'W.$, and the angle thus determined gives the magnetic declination $14^{\circ}20'E.$

Dependent Resurvey of South bdy. of Township 23 North, Range 29 East

Chains.

This township boundary was surveyed by W.R. Ditzgerald, U.S. D.S. in 1882, and no retracement or resurvey of any part of the line is of record. The following notes describe a dependent resurvey of the line in its entirety.

Retracement for Resurvey:

The original cor. of Ts. 22 and 23 N., Rs. 29 and 30 E. is a sandstone, 24x10x3 ins. firmly set in a mound of stone, marked "T23N R30E" on NE. face, and 6 notches on each of N., S., E. and W. edges. No accessories. Reestablish this cor. by raising a mound of stone, 3 ft. base, 2 ft. high, S. of cor.

Thence, S. 89° 57' W., on random line, searching diligently at record intervals for the original 1/4 sec. and sec. cors., setting temp. 1/4 sec. and sec. cors. at such intervals, and find no trace of any cor. on the line.

479.12

(Record length of bdy.) Set temp. cor. of Ts. 22 and 23 N., Rs. 28 and 29 E. Diligent search in this vicinity failing to reveal any trace of the original Tp. cor., it becomes necessary to continue the retracement for resurvey into Range 28 East.

The township boundary bet. Ts. 28 and 29 N., R. 28 E. was surveyed in 1882 by Frank Hollman, U.S.D.S., and no retracement or resurvey of any part of said line is of record; therefore, use the record of said survey in continuing the random line, as follows:

S. 89° 51' W., on a random line, continuing measurement, searching diligently at record intervals, for the original 1/4 sec. and sec. cors., setting temp. 1/4 sec. and sec. cors. at such intervals, and find no trace of a cor. in the east two miles bet. Ts. 22 and 23 N. Rs. 28 E.

639.12

(Record dist. from cor. of Ts. 22 and 23 N., Rs. 29 and 30 E.) Set temp. cor. of secs. 2, 3, 34 and 35, Ts. 22 and 23 N., R. 28 E., from which the original cor. of said secs. bear S. 70° 08' E., 271 lks. dist.

Having made retracement 6 miles S. from the temp. cor. of Ts. 22 and 23 S., Rs. 28 and 29 E., without finding any trace of a cor. to be used in reestablishing said Tp. cor. by double proportion, it becomes necessary to use single proportion in such reestablishment, as follows:

From temp. cor. of Ts. 22 and 23 N., Rs. 28 and 29 E., the reestablished point for cor. is S. 70° 08' E., 203 lks. dist.

Such reestablishment of the Tp. cor. gives true courses and dists. for the Tp. boundaries as follows:

S. bdy. of T. 23 N. R. 29 E.: S. 89° 52' W., 477.21 chs.
S. bdy. of T. 23 N., R. 28 E. (E. 2 mi.): S. 89° 41' W., 159.36 chs.

To maintain original proportion between the cor. intervals, there will be eleven equal intervals of 39.84 chs. each on the east 5 1/2 miles of S. bdy. of T. 23 N., R. 29 E., and one interval of 38.97 chs. S. of W. 1/2 of S. bdy. of sec. 31 of same township, and 4 equal intervals of 39.84 chs. each on the E. 2 miles of S. bdy. of T. 23 N., R. 28 E.

Resurvey:

From the reestablished cor. of Ts. 22 and 23 N. Rs. 29 and 30 E., hereinbefore described, S. 89° 52' W., on a true line, bet. secs. 31 and 36. Over mountainous land, thru. scattering timber. Descend 40 ft. over SW. slope.

1.61

Ravine, 5 lks. wide, course S. Asc. 212 ft. over SE. slppe.

Dependent Resurvey of South bdy. of Township 23 North, Range 29 East

Chains.

33.32 Stony ridge, brs N. and S. Descend 40 ft., over W. slope.
 36.24 Ravine, 6 lks. wide, course SW. Ascend 6 ft., over SE. slope.
 38.00 Point of spur, slopes NW. Descend 29 ft. over SW. slope.
 39.84 (Proportional dist.), Set an iron post, 3 ft. long, 1 in.
 in diam., 18 ins. in the ground, on bed rock, supported
 in a mound of stone 4 ft. base, 1 1/2 ft. high for rees-
 tablished 1/4 sec. cor. of secs. 1 and 36, marked on brass
 cap,

1/4 S 36
 S 1
 1920

A cedar, 10 ins. in diam., brs. S. 5 lks. dist., mark
 S 1 BT. 10 ins. in diam., brs. south 5 lks. dist.
 68.18 Raise a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor.
 Ravine, 10 lks. wide, course S. Asc. 65 ft., over E. slope,
 to

79.68 (Proportional dist.), Set an iron post, 3 ft. long, 2 ins.
 in diam., 12 ins. in the ground on bedrock, supported in
 a mound of stone, 4 ft. base, 2 ft. high, for reestab-
 lished cor. of secs. 1, 2, 35 and 36, marked on brass cap,

T23N | R29E
 S35 | S36
 S 2 | S 1
 T22N
 1920

- A cedar, 4 ins. in diam., brs. N. 55 1/4° E., 138 lks.
 dist., mark "T23N R29E S36 BT."
- A cedar, 6 ins. in diam., brs. S. 66° E., 78 lks.
 dist., mark "T22N R29E S1 BT."
- A cedar, 6 ins. in diam., brs. S. 30° W., 68 lks.
 dist., mark "T22N R29E S2 BT."
- A cedar, 10 ins. in diam., brs. N. 39 3/4° W., 59 lks.
 dist., mark "T23N R29E S35 BT."

Land, mountainous and broken.
 Soil, stony, 3rd and 4th rate.
 Timber, scattering small pinyon pine and cedar
 No undergrowth.
 Fair grass.

S. 89° 52' W., on a true line, bet. secs. 2 and 35.
 Over mountainous land, thru. scattering timber and under-
 growth. Ascend 26 ft., over E. slope.

2.50 Spur, slopes S. Descend 89 ft., over W. slope.
 13.30 Dry bed of creek, 50 lks. wide, course SE. Asc. 60 ft. over
 NE. slope.

17.10 Point of spur, slopes SW. Desc. 50 ft., over NW. slope.
 21.00 Ravine, 8 lks. wide, course N. 70° E. Asc. 98 ft., over SE.
 slope.

39.84 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for reestablished 1/4 sec. cor. of secs. 2 and
 35, marked on brass cap,

1/4 S 35
 S 2
 1920

from which

- A pinon, pine, 10 ins. in diam., brs. N. 72° E., 59
 lks. dist., mark "1/4 S 35 BT."
- A cedar, 10 ins. in diam., brs. S. 14° E., 93 lks.
 dist., mark "1/4 S 2 BT."

54.00 Spur, slopes NE. Desc. 23 ft., over NW. slope.
 69.00 Draw, 20 lks. wide, course N. Asc. 46 ft. over E. slope.
 79.68 (Proportional dist.) Set an iron post, 3 ft. long, 2 ins.
 in diam., 24 ins. in the ground, for reestablished cor.
 of secs. 2, 3, 34 and 35, marked on brass cap,

Dependent Resurvey of South bdy. of township 23 North, Range 29 E 5

Chains.	T23N R29E S34 S35 S 3 S 2 T22N 1920
	<p>A cedar, 14 ins. in diam. brs. N. 77° E., 49 lks. dist. mark "T23N R29E S35 BT."</p> <p>A cedar, 10 ins. in diam., brs. S. 68° E., 101 lks. dist. mark "T22N R29E S2 BT."</p> <p>A pinyon pine, 10 ins. in diam., brs. S. 15½° W., 19 lks. dist., mark "T22N R29E S3 BT."</p> <p>A pinyon pine, 14 ins. in diam., brs. N. 84° W., 73 lks. dist., mark "T23N R29E S34 BT."</p> <p>Land, mountainous. Soil, stony and sandy, 3rd and 4th rate. Timber, scattering pinyon, pine and cedar. Undergrowth, scattering scrub cedar. Fair grass.</p>
39.84	<p>S. 89° 52' W., on a true line, bet. secs. 3 and 34. Over mountainous land, thru dense timber and undergrowth. Asc. 98 ft. over E. slope.</p> <p>Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished ¼ sec. cor. of secs. 3 and 34, marked on brass cap,</p> <p style="text-align: center;">¼ S 34 S 3 1920</p> <p>A pine, 6 ins. in diam., brs. N. 26° E., 68 lks. dist., mark "¼ S 34 BT."</p> <p>A pinyon pine, 8 ins. in diam., brs. S. 39½° E., 83 lks. dist., mark "¼ S 3 BT."</p>
59.00	Ridge, brs. N. and S. Desc. gradually over W. slope.
68.78	Old road from Houck to Ganado, Arizona, brs. NW and SE.
75.28	Road from Houck to St. Michaels, Arizona, brs. N. and S.
79.68	(Proportional dist.), Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 3, 4, 33 and 34, marked on brass cap,
	T23N R29E S33 S34 S 4 S 3 T22N 1920
	<p>A pine, 6 ins. in diam., brs. N. 46½° E., 38 lks. dist., mark "T23N R29E S34 BT."</p> <p>A pinyon pine, 14 ins. in diam., brs. S. 32¼° E., 138 lks. dist., mark "T22N R29E S3 BT."</p> <p>A cedar, 12 ins. in diam., brs. S. 18° W., 149 lks. dist., mark "T22N R29E S4 BT."</p> <p>A pinyon pine, 8 ins. in diam., brs. N. 69° W., 89 lks. dist., mark "T23N R29E S33 BT."</p> <p>Land, mountainous. Soil, sandy and stony, 3rd and 4th rate. Timber, dense pinyon pine and cedar. Undergrowth, dense scrub cedar. Poor grass.</p>
0.70	S. 89° 52' W. on true line, bet. secs. 4 and 33. Over stony, hilly land, thru dense timber.
25.00	Draw; 40 lks. wide, course S. Asc. 23 ft. over E. slope.
39.84	Ridge, brs. N. and S. Desc. 132 ft. over W. slope. (Proportional dist.), Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for reestablished ¼ sec. cor. of secs. 4 and 33, marked on brass cap,
	¼ S 33 S 4 1920
44.00	A pinyon pine, 8 ins. in diam., brs. N. 73° W., 165 lks. dist., mark "¼ S 33 BT."
69.35	A pinyon pine, 6 ins. in diam., brs. S. 10½° E., 43 lks. dist., mark "¼ S 4 BT."
74.25	Foot of descent in E. edge of flat, brs. N. and S.; thence over level, sandy land; leave timber, brs. N. and S. Old wood road, brs. NE and SW. West edge of flat; leave level, and enter mountainous land and dense timber Asc. 23 ft. over NE slope, to

6 Dependent Resurvey of South bdy. of Township 23 North, Range 29 East.

Chains.

79.68 (Proportional dist.), Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 4, 5, 32 and 33, marked on brass cap,

T23N	R29E
S32	S33
S 5	S 4
T22N	
1920	

A cedar, 12 ins. in diam., brs. N. $32\frac{1}{2}^{\circ}$ E., 40 lks. dist., mark "T23N R29E S33 BT."

A pinyon pine, 8 ins. in diam., brs. S. 48° E., 59 lks. dist., mark "T22N R29E S 4 BT."

A cedar, 14 ins. in diam., brs. S. $34\frac{1}{2}^{\circ}$ W., 44 lks. dist., mark "T22N R29E S5 BT."

A cedar, 12 ins. in diam., brs. N. $52\frac{1}{2}^{\circ}$ W., 39 lks. dist., mark "T23N R29E S32 BT."

Land, hilly, level and mountainous.

Soil, sandy and stony, 2nd and 3rd rate.

Timber, dense pinyon pine and cedar. No undergrowth.

Fair grass.

S. $89^{\circ}52'$ W., on a true line, bet. secs. 5 and 32.

Over mountainous land, thru. timber. Asc. 121 ft., over E. slope.

34.15 Ridge, brs. N. and S. Desc. 44 ft., over W. slope.

39.84 (Proportional dist.), Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor., of secs. 5 and 32, marked on brass cap,

$\frac{1}{4}$ S 32
S 5
1920

A cedar, 10 ins. in diam., brs. N. $74\frac{1}{2}^{\circ}$ E., 30 lks. dist., mark " $\frac{1}{4}$ S 32 BT."

A pine, 8 ins. in diam., brs. S. 7° E., 75 lks. dist., mark "S 5 BT."

41.75 Ravine, 10 lks. wide, course S. Asc. 52 ft. over E. slope.

69.00 Old road from Houck, Arizona to settlements on the Navajo Indian Reservation, brs. NW and SE.

69.25 Ridge, brs. N. and S. Desc. 23 ft., over W. slope, to

79.68 (Proportional dist.), Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for reestablished cor. of secs. 5, 6, 31 and 32, marked on brass cap,

T23N	R29E
S31	S32
S 6	S 5
T22N	
1920	

A pinyon pine, 8 ins. in diam., brs. N. 41° E., 106 lks. dist., mark "T23N R29E S32 BT."

A pinyon pine, 6 ins. in diam., brs. S. $65\frac{1}{2}^{\circ}$ E., 80 lks. dist., mark "T22N R29E S5 BT."

A pinyon pine, 4 ins. in diam., brs. S. $22\frac{1}{2}^{\circ}$ W., 83 lks. dist., mark "T22N R29E S6 BT."

A pinyon pine, 6 ins. in diam., brs. N. 63° W., 73 lks. dist., mark "T23N R29E S31 BT."

Land, rolling and mountainous. Soil, sandy and stony, 2nd and 3rd rate. Timber, dense pinyon, pine and cedar. No undergrowth. Fair grass,

S. $89^{\circ}52'$ W., on a true line, bet. secs. 6 and 31.

Over rolling and mountainous land, thru. dense timber. Descend 91 ft. over W. slope.

15.56 Old road from Houck, Arizona to Indian hogans in sec. 31, brs. N. and S.

16.36 Road from Houck, Arizona to the Wide Ruins, brs. NW. and SE., joins preceding road about 200 lks. S. of line.

26.24 Wash, 50 lks. wide, course S. 40° W. Asc. 60 ft., over SE. slope.

29.05 Road from the Navajo Indian Reservation to store in sec. 18, T. 22 N., R. 29 E., brs. N. and S.

Dependent Resurvey of South bdy. of Township 23 North, Range 29 E.

7

Chains.

38.05 Spur, slopes SE. Descend 10 ft., over SW. slope, to
 39.84 (Proportional dist.), Set an iron post, 3 ft. long, 1 in.
 in diam., 20 ins. in the ground, for reestablished $\frac{1}{4}$
 sec. cor. of secs. 0 and 31, marked on brass cap,

$\frac{1}{4}$ S 31
 S 6
 1920

A cedar, 10 ins. in diam., brs. N. $3\frac{1}{4}^{\circ}$ W., 81 lks.
 dist., mark " $\frac{1}{4}$ S 31 BT."
 A cedar, 10 ins. in diam., brs. S. $10\frac{1}{2}^{\circ}$ W., 37 lks.
 dist., mark " $\frac{1}{4}$ S 6 BT."

43.65 Ravine, 10 lks. wide, course SE. Asc. 80 ft., over NE.
 slope.

55.20 Spur, slopes SE. Descend 58 ft., over SW. slope.

70.15 Ravine, 5 lks. wide, course S. 15° E. Ascend 29 ft., over
 SE. slope, to

78.81 (Proportional dist.), Set an iron post, 3 ft. long, 3 ins.
 in diam., 24 ins. in the ground, for reestablished
 cor. of Ts. 22 and 23 N., Rs. 28 and 29 E., marked on
 brass cap,

T23N
 R28E | R29E
 S30 | S31
 S 1 | S 6
 T22N
 1920

A pinyon pine, 10 ins. in diam., brs. N. $03\frac{1}{2}^{\circ}$ E.,
 81 lks. dist., mark "T23N R29E S31 BT."
 A pinyon pine, 10 ins. in diam., brs. S. 08° E.,
 149 lks. dist., mark "T22N R29E S0 BT."
 A pinyon pine, 8 ins. in diam., brs. S. 17° W.,
 150 lks. dist., mark "T22N R28E S 1 BT."
 A pinyon pine, 10 ins. in diam., brs. N. $35\frac{1}{2}^{\circ}$ W.,
 104 lks. dist., mark "T23N R28E S30 BT."

Land, rolling and mountainous.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense pinyon, pine and cedar.
 No undergrowth.
 Fair grass.



Retracement of part of S bdy. of Township 23 North, Range 28 E.
8.

Chains.

	From reestablished cor. of Ts. 22 and 23 North, Ranges 28 and 29 E., hereinbefore described, S. 89° 41' W., on a true line, bet. secs. 1 and 36, Ts. 22 and 23 N., R. 28 E. Over mountainous land, thru scattering timber. Descend 30 ft., over W. slope.
8.96	Wash, course SW. Asc. 10 ft., over SE. slope.
11.74	Spur, slopes S. Desc. 45 ft., over W. slope.
13.34	Road, brs. N. and S.
16.13	Wash, course S. Asc. 85 ft., over E. slope, to
39.84	Reestablished point for $\frac{1}{4}$ sec. cor. of secs. 1 and 36 at 220 lks. S. 70° 08' E., from the temp. cor. thereof. Move temp. cor. to this point. This cor. and none west hereof permanently monumented, as no areas involved in the survey of this group are dependent upon these cors. Continue line and measurement.
79.68	Reestablish point for cor. of secs. 1, 2, 35 and 36 at 237 lks. S. 70° 08' E., from the temp. cor. thereof. Move temp. cor. to this point. Land, mountainous and rolling. Soil, sandy and stony, 3rd and 4th rate. Timber, scattering pinyon pine and cedar. No undergrowth. Poor grass.
	S. 89° 41' W., on a true line, bet. secs. 2 and 35. Over rolling and mountainous land, thru scattering timber. Descend 97 ft., over west slope.
17.19	Gulch, course S. Ascend 25 ft., over E. slope.
19.26	Spur, slopes S. Descend 16 ft., over SW. slope.
22.86	Ravine, course SE. Ascend 20 ft., over E. slope.
26.94	Ridge, brs. N. and S. Descend 40 ft., over W. slope, to $\frac{1}{4}$ sec. cor.
38.42	Road brs. N. and S.
39.84	Reestablished point for $\frac{1}{4}$ sec. cor. of secs. 2 and 35 at 254 lks. S. 70° 08' E. from temp. cor. thereof. Move temp. cor. to this point. Continue line and measurement. Descend 50 ft., over W. slope.
58.27	Gulch, course S. Ascend 75 ft., over E. slope, to
79.68	Intersect the cor. of secs. 2, 3, 34 and 35, Ts. 22 and 23 N., R. 28 E., which is a wood post set between two rocks, marked "TXXI" on N. face, and "XX" on S. face. No accessories. While this monument does not agree with record description of the same, its position would indicate that it has been set at the original cor. point. Land, rolling and mountainous. Soil, sandy and stony, 3rd and 4th rate. Timber, scattering pinyon pine and cedar. No undergrowth. Poor grass.

ECON

Survey of East bdy. of Township 23 North, Range 29 East.

Chains.

From original cor. of T_s. 22 and 23 N. R_s. 29 and 30 E.,
 hereinbefore described,
 North, on true line, bet. secs. 31 and 36.
 Over mountainous land, thru. scattering timber and under-
 growth. Ascend 11 ft., over SW. slope.
 1.00 Rocky spur, slopes SW. Descend 30 ft., over NW. slope.
 2.95 Head of ravine, 5 lks. wide, course SW. Ascend 84 ft., over
 SE. slope.
 13.28 Point of spur, slopes E. Descend 20 ft. over N. slope.
 19.08 Ravine, 6 lks. wide, course SE. Asc. 136 ft., over SW. slope.
 29.15 Spur, slopes E., thence on E. slope, along edge of sandstone
 rim rock, about 6 ft. high.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the
 ground, for $\frac{1}{4}$ sec. cor. marked on brass cap,

$\frac{1}{4}$
 S30 | S31

1920

A pinyon pine, 5 ins. in diam., brs. N. $10\frac{1}{2}^\circ$ E., 98
 lks. dist., mark " $\frac{1}{4}$ S 31 BT."
 A pinyon pine, 5 ins. in diam., brs. N. 1° W., 23 lks.
 dist., mark " $\frac{1}{4}$ S 36 BT."

59.35 Descend 79 ft., over NE. slope.
 76.45 Ravine, 10 lks. wide, course E. Asc. 15 ft., over S. slope.
 79.60 Spur, slopes E. Descend 16 ft., over N. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 25, 30, 31 and 36, marked
 on brass cap,

T23N
 R29E | R30E
 S25 | S30
 S36 | S31
 1920

A pinyon pine, 5 ins. in diam., brs. N. $10\frac{1}{2}^\circ$ E., 98 lks.
 dist., mark "T23N R30E S30 BT."
 A cedar, 8 ins. in diam., brs. S. 26° E., 40 lks. dist.,
 mark "T23N, R30E S31 BT."
 A pinyon pine, 10 ins. in diam., brs. S. 32° W., 50 lks.
 dist., mark "T23N R29E S36 BT."
 A cedar, 12 ins. in diam., brs. N. 10° W., 142 lks.
 dist., mark "T23N R29E S25 BT."

Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, scattering cedar and pinyon pine.
 Undergrowth, scattering scrub cedar.
 Fair grass.

North, on true line, bet. secs. 25 and 30.
 Over mountainous land, thru. dense timber and undergrowth.
 Descend 8 ft., over N. slope.
 1.50 Ravine, 6 lks. wide, course E. Ascend 30 ft., over S. slope.
 8.29 Spur, slopes SE. Desc. 87 ft., over NE. slope.
 19.19 Ravine, 8 lks. wide, course SE. Asc. 50 ft., over SW. slope
 32.09 Spur, slopes E. Desc. 57 ft., over N. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in
 the ground for $\frac{1}{4}$ sec. cor. of secs. 25 and 30, marked
 on brass cap,

$\frac{1}{4}$
 S25 | S30

1920

A pinyon pine, 12 ins. in diam., brs. N. 32° E., 119 lks.
 dist., mark " $\frac{1}{4}$ S 30 BT."
 A cedar, 8 ins. in diam., brs. N. 15° W., 112 lks. dist.,
 mark " $\frac{1}{4}$ S 25 BT."

10 East boundary of Township 23 North, Range 29 East.

Chains.

46.00 Center of wash, 100 lks. wide, course S. 85° E. Asc. 77 ft. over SW. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked on brass cap,

T23N
 R29E | R30E
 S24 | S19
 S25 | S30
 1920

A cedar, 8 ins. in diam., brs. N. 25 1/2° E., 112 lks. dist., mark "T23N R30E S19 BT."
 A cedar, 4 ins. in diam., brs. S. 9 1/2° E., 47 lks. dist., mark "T23N R30E S30 BT."
 A cedar, 12 ins. in diam., brs. S. 40 1/4° W., 73 lks. dist., mark "T23N R29E S25 BT."
 A pinyon pine, 14 ins. in diam., brs. N. 5 1/2° W., 216 lks. dist., mark "T23N R29E S24 BT."

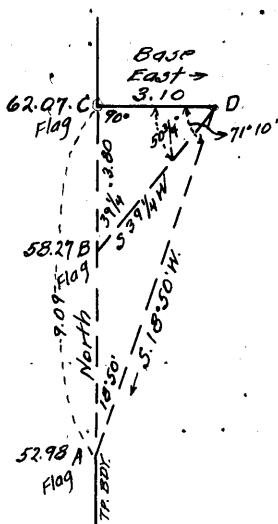
Land, mountainous.
 Soil, sandy and stony, 2nd, 3rd and 4th rate.
 Timber, dense cedar and pinyon pine.
 Undergrowth, dense scrub cedar.

4.57 North, on true line, bet. secs. 19 and 24.
 9.55 Over mountainous land, thru. dense timber and undergrowth. Ascend 24 ft., over SE. slope.
 21.76 Spur, slopes SE. Desc. 66 ft., over NE. slope.
 28.90 Ravine, 5 lks. wide, at foot of descent in canyon, course SE. Asc. 98 ft., over SW. slope.
 37.50 Stony ridge, brs. NW. and SE. Desc. over NE. slope.
 40.00 Ravine, 8 lks. wide, course SE. Asc. 54 ft., over SW. slope.
 Top of ascent on point of spur, slopes NW. Desc. 44 ft., over NE. slope.
 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for 1/4 sec. cor. of secs. 19 and 24, marked on brass cap,

S24 | S19
 1920

A pinyon pine, 12 ins. in diam., brs. N. 30° E., 50 lks. dist., mark "1/4 S 19 BT."
 A cedar, 6 ins. in diam., brs. N. 37° W., 66 lks. dist., mark "1/4 S 24 BT."

52.98 South rim of box canyon 500 ft. deep, with perpendicular sandstone walls, brs. NW and SE. To determine distance of line across the canyon, and also to point on line in west fork of Defiance Creek in bottom of canyon, triangulate as described as follows, and as shown on the diagram hereon;



Leave flag at this point on line, indicated on diagram as "A".
 Set flag on line at crossing of west fork of Defiance Creek in bottom of canyon, indicated as "B".
 Set flag on line on N. rim of canyon indicated as "C".
 Vertical angle from "A" to "B" is - 57°
 From flag "C" measure a base, east 3.10 chs. to point indicated as "D".
 Bearing of "DA" = S. 18° 50' W.

East boundary of Township 23 North, Range 29 East.

Chains.

Bearing of "DB" = S. 39 1/4° W.

Included angles of "DAC" are 71° 10', 18° 50' and 90° 00', the sum of which is 180° 00'.

Included angles of "DBC" are 50 3/4°, 39 1/4° and 90°, the sum of which is 180°.

"AC" = tang. 71° 10' x base or 2.93189 x 3.10 = 9.09 chs., which added to 52.98 chs. gives 62.07 chs. N. from sec. cor. for point "C."

"BC" = tang. 50 3/4° x base or 1.22394 x 3.10 = 3.80 chs., which subtracted from 62.07 chs. gives 58.27 chs. N. from sec. cor. for point "B."

58.27 West fork of Defiance Creek, with stream of clear water, 40 lks. wide, course S. 50° E., in bottom of canyon.

62.07 North rim of canyon, brs. NW. and SE.; ascend gradually over SW. slope, thru. scattering timber.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

T23N	
R29E	R30E
S13	S18
S24	S19

1920

A cedar, 6 ins. in diam., brs. N. 48° E., 113 lks. dist., mark "T23N R30E S18 BT."

A cedar, 10 ins. in diam., brs. S. 26 3/4° E., 97 lks. dist., mark "T23N R30E S19 BT."

A cedar, 8 ins. in diam., brs. S. 56 1/2° W., 70 lks. dist., mark "T23N R29E S24 BT"

A pinyon, pine, 10 ins. in diam., brs. N. 50 1/2° W., 210 lks. dist., mark "T23N R29E S13 BT."

Land, broken and mountainous.

Soil, stony, 3rd and 4th rate.

Timber, dense pinyon pine and cedar in S. 62 chs., scattering in N. 18 chs.

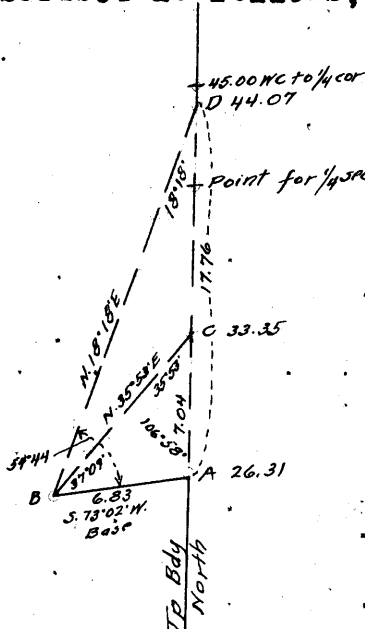
Undergrowth, dense scrub cedar.

North, on true line, bet. secs. 13 and 18.

Over slightly rolling and broken land, thru. dense timber. Ascend over SW. slope.

26.31 South rim of canyon, 300 ft. deep, brs. N. 85° E. and S. 86° W.

Walls of canyon too steep and rugged to chain. To determine the distance on line across canyon, and also to point on line in bottom of canyon, triangulate as described as follows; and as shown on the diagram hereon:



From this point on line, indicated as "A" on diagram, measure a base S. 73° 02' W. 6.83 chs. to point "B."

Set flag on line in bottom of canyon at "C."

Set flag on line on N. rim of canyon at "D."

Vertical angle from "A" to "C" is - 35° 40'.

Bearing of "BC" = N. 35° 53' E.

Bearing of "BD" = N. 18° 18' E.

Included angles of "BCA" are 37° 09', 35° 53' and 106° 58', the sum of which is 180° 00'.

Included angles of "BDA" are 54° 44' 18', 18° 18' and 106° 58', the sum of which is 180° 00'.

"AC" = $\frac{\text{sine } 37^\circ 09' \times \text{base}}{\text{sine } 35^\circ 53'}$

Chains.

33.35
40.00

44.07

45.00

47.50

57.57

or $\frac{.60390.83}{.58614}$ or 7.04 chs., which

added to 26.31 chs. gives 33.35 chs. N. from sec. cor. for point "U."

"AD" = $\frac{\text{side } 54^{\circ}44' \times \text{base}}{\text{side } 18^{\circ}18'}$ or $\frac{.81647 \times 6.83}{.31399}$

= 17.76 chs., which added to 26.31

chs. gives 44.07 chs. N. from sec. cor. for point "D."

Ravine, 8 lks. wide in bottom of canyon, course N. 85° E. The point for the $\frac{1}{4}$ sec. cor. of secs. 13 and 18 falls in an inaccessible place on wall of canyon; therefore, establish witness cor. at a point 5 chs. N. as hereinafter described.

North rim of canyon, brs. N. 80° E. and S. 50° W.; thence over bare sandstone ledge,

Set an iron post, 3 ft. long, 1 in. in diam., over cross (x) on sandstone ledge, supported in a mound of stone, $5\frac{1}{2}$ ft. base, $2\frac{1}{2}$ ft. high for witness cor. to the $\frac{1}{4}$ sec. cor. of secs. 13 and 18, marked on brass cap,

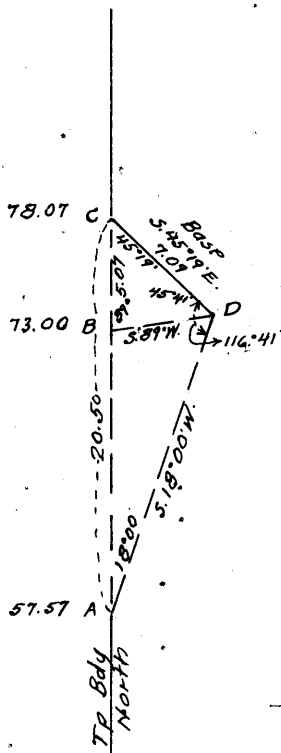


A cedar, 24 ins. in diam., brs. S. 83 $\frac{1}{4}$ ° E., 8 lks. dist., mark "WC $\frac{1}{4}$ S 18 BT."

A cedar, 5 ins. in diam., brs. S. 27 $\frac{1}{2}$ ° W., 66 lks. dist., mark "WC $\frac{1}{4}$ S 13 BT."

Stony ridge, brs. NE and SW. Descend gradually over NW slope.

East rim of box canyon 350 ft. deep; walls too steep to chain, brs. N. 30° E. and S. 30° W. To determine distance on line across bend in canyon, and to a point on line in bottom of canyon, triangulate as described as follows, and as shown on diagram hereon:



Leave flag at this point on line designated on diagram as "A." Set flag on line in bottom of canyon at point "B." Set flag on line on E. rim of canyon at point "C." Vertical angle "A" to "B" is -18° 47'.

From flag "C" measure a base S. 45° 19' E., 7.09 chs. to point "D".

Bearing of "DA" = S. 18° 00' W.

Bearing of "DB" = S. 89° 00' W.

Included angles of "DAC" are 116° 41', 18° 00' and 45° 19', the sum of which is 180° 00'.

Included angles of "DBC" are 45° 41', 89° 00' and 45° 19', the sum of which is 180° 00'.

"AC" = $\frac{\text{side } 116^{\circ}41' \times \text{base}}{\text{side } 18^{\circ}00'}$ or

$\frac{.89350 \times 7.00}{.30902}$ = 20.50 chs., which

added to 57.57 chs., gives 78.07 chs. N. from sec. cor. for point "C".

"BC" = $\frac{\text{side } 45^{\circ}41' \times \text{base}}{\text{side } 89^{\circ}00'}$ or

$\frac{.71549 \times 7.09}{.99905}$ = 5.07 chs., which,

subtracted from 78.07 chs. gives 73.00 chs. N. from sec. cor. for point "B."

East boundary of Township 23 North, Range 29 East.

Chains.

- 73.00 Bottom of canyon in bend from N.50°W. to S.40°W. Ascend over E.wall of canyon.
- 78.07 East rim of canyon, brs.N.50°W. and S.50°E.
- 80.00 Set an iron post, 3 ft.long, 2 ins. in diam.,14 ins. in the ground to bed rock, supported in a mound of stone, 4 ft.base, 1½ ft. high for cor. of secs. 7,12,13 and 18, marked on brass cap,

T23N
R29E | R30E
S12 | S 7
S13 | S18

1920

- A cedar, 6 ins.in diam.,brs.N.48°E., 113 lks. dist.,mark "T23N R30E S7 BT."
- A cedar,10 ins.in diam.,brs.S.26¾°E.,97 lks. dist.,mark "T23N R30E S18 BT."
- A cedar,8 ins.in diam.,brs.S.56½°W.,70 lks. dist., mark "T23N R29E S13 BT."
- A pinyon pine,10 ins.in diam.,brs.N.50½°W.,210 lks. dist.,mark "T23N R29E S12 BT."

Land,broken and rolling.
Soil, stony,4th rate.
Timber, dense, pinyon pine and cedar.
No undergrowth.

- 15.00 North, on true line, bet. secs.7 and 12. Over rolling and broken land, thru. scattering timber and undergrowth. Asc. 23 ft.,over SW.slope.
- 38.00 Top of ascent at SW.end of ridge, brs.NE. and SW. Desc. gradual NW.slope.
- 40.00 East rim of canyon, brs.N.30°E. and S.30°W. Desc.70 ft. over cliffs and ledges on E.wall of canyon.
- 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, for ¼ sec.cor. of secs.7 and 12, marked on brass cap,

¼
S12 | S 7

1920

- 47.15 A pine, 8 ins. in diam.,brs.S.48½°E., 54 lks. dist.,mark "¼S 7 BT."
- 50.50 A pine,12 ins. in diam.,brs.S.15½°W.,74 lks. dist., mark "¼S 12 BT."
- 52.50 Foot of E. wall of canyon. Ascend 65 ft.over SW.slope, to East rim of canyon, brs.N.40° W., and S.40°E.; thence over level land, to East rim of same canyon, brs.N.40°E. and S.35°W. Desc.150 ft.over cliffs and ledges.
- 55.40 Dry bed of creek, 8 lks.wide in bottom of canyon, course S.50°W. Asc. 202 ft.,over cliffs, facing SE.
- 65.20 West rim of canyon, brs.N.40°E. and S.40°W.
- 80.00 Set an iron post 3 ft.long, 2 ins. in diam.,over cross (x) on sandstone ledge, supported in a mound of stone 5 ft.base, 2½ ft. high for cor.of secs.1,6,7 and 12, marked on brass cap,

T23N
R29E | R30E
S 1 | S 6
S12 | S 7

1920

- A pine,12 ins. in diam.,brs.N.48¾°E.,27 lks. dist.,mark "T23N R30E S6 BT."

14 East boundary of Township 23 North, Range 29 East.

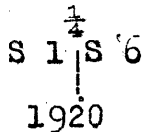
Chains.

- A pine, 12 ins. in diam., brs. S. $30\frac{1}{2}^{\circ}$ E., 77 lks. dist., mark "T23N R30E S7 BT."
- A pine, 14 ins. in diam., brs. S. $46\frac{3}{4}^{\circ}$ W., 15 lks. dist., mark "T23N R29E S12 BT."
- A pine, 8 ins. in diam., brs. N. $61\frac{1}{2}^{\circ}$ W., 61 lks. dist., mark "T23N R29E S1 BT."

Land, broken, rolling and level.
 Soil, stony, 3rd and 4th rate.
 Timber, scattering pinon, pine and cedar.
 Poor. grass.

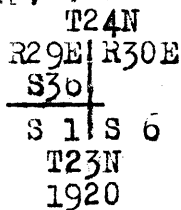
34.00
40.00

North, on true line, bet. secs. 1 and 6.
 Over rolling and broken land, thru. dense timber and undergrowth. Ascend 74 ft. over SE. slope.
 Ridge, brs. NW and SE. Desc. 17 ft., over NE. slope.
 Set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 1 and 6, marked on brass cap,



50.95
53.00
58.40
59.65
80.00

- A cedar, 14 ins. in diam., brs. S. $86\frac{3}{4}^{\circ}$ E., 48 lks. dist., mark " $\frac{1}{4}$ S 6 BT."
- A pinyon pine 10 ins. in diam., brs. S. $46\frac{3}{4}^{\circ}$ W., 48 lks. dist., mark " $\frac{1}{4}$ S 1 BT."
- Ravine, 10 lks. wide, course SE.
- Same ravine, 8 lks. wide, course SW. Ascend 31 ft., over SE. slope.
- Point of spur, slopes SE. Descend 14 ft. over NE. slope.
- Ravine, 6 lks. wide, course N. 80° E. Asc. 75 ft., over SE. slope, to
- Set an iron post 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of Ts. 23 and 24 N., R. 29 E. only, marked on brass cap,



- A pinyon pine, 6 ins. in diam., brs. S. 48° W., 141 lks. dist., mark "T23N R29E S1 BT."
- A pinyon pine, 9 ins. in diam., brs. N. $70\frac{3}{4}^{\circ}$ W., 126 lks. dist., mark "T24N R29E S30 BT."

Note: This cor. was first established, marked and witnessed for four townships, but was changed to its present designation and description by Loyd E. Sechrist, U.S.T. in connection with his survey of the N. bdy. of T. 23 N., R. 30 E. at which time he established cor. of Ts. 23 and 24 N., R. 30 E. at a point 3.55 chs. N. of this cor., as described in Book "F" of this group.
 Land, rolling and broken.
 Soil, stony, 3rd and 4th rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub cedar.

Survey of West boundary of Township 23 North, Range 29 East. 15

Chains.

Begin at the reestablished cor. of Ts. 22 and 23 N., Rs. 28 and 29 E., hereinbefore described.

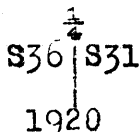
Thence, North, bet. secs. 31 and 30.

Ascend SE. slope, 34 ft., over stony, mountainous land, thru. scattering pinyon pine and heavy cedar timber, to

20.00 Top of ridge, brs. NE. and SW. Descend over NW. slope, 23 ft.

29.95 Dry ravine, 5 lks. wide, course W.; ascend 23 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for 1/4 sec. cor., marked on brass cap,



A pinyon pine, 4 ins. in diam., brs. S. 83 3/4° E., 55 lks. dist., mark "1/4 S 31 B T.", and

A pinyon pine, 5 ins. in diam., brs. S. 61 1/4° W., 76 lks. dist., mark "1/4 S 30 B T."

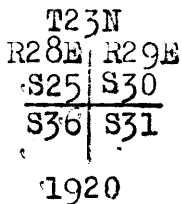
42.50 Top of same ridge, brs. E. and W.; descend over N. slope, 29 ft., to

48.50 Dry ravine, 8 lks. wide, course E. Ascend over SE. slope, 10 ft. to

55.22 Top of spur, brs. E. and W.; descend over N. slope, 34 ft. to

75.88 Road from Houck, Arizona, to the Wide Ruins, brs. NW and SE. at foot of descent in draw, 30 lks. wide, course E.; ascend over S. slope, 56 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 30, 31 and 36, marked on brass cap,



A pinyon pine, 8 ins. in diam., brs. N. 71° E., 74 lks. dist., mark "T23N R29E S30 B T."

A pinyon pine, 8 ins. in diam., brs. S. 58 1/4° E., 345 lks. dist., mark "T23N R29E S31 B T."

A pinyon pine, 14 ins. in diam., brs. S. 60° W., 112 lks. dist., mark "T23N R28E S36 B T."

A pinyon pine, 12 ins. in diam., brs. N. 4 1/4° W., 240 lks. dist., mark "T23N R28E S25 B T."

Land, hilly and rolling.
Soil, sandy and stony, 3rd rate.
Timber, pinyon pine and cedar.

North, bet. secs. 25 and 30.

Ascend SE. slope, 59 ft., over hilly, sandy land, thru. scattering pinyon pine and heavy cedar timber and brush undergrowth.

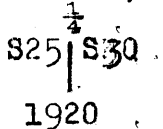
4.85 Dry ravine, 5 lks. wide, 2 ft. deep, course SE.

17.20 Top of sand ridge, brs. NW and SE.; continue along SW. slope.

28.00 Top of ridge, brs. W. and SE.; descend over NE. slope, 40 ft.

37.00 Leave timber, brs. NE. and SW. Enter sage brush flat.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground for 1/4 sec. cor., marked on brass cap,



16 West boundary of Township 23 North, Range 29 East.

Chains.

42.90 Raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor. Draw, 150 lks. wide, course SW. Ascend 23 ft., over SE. slope.

68.40 Road from Indian hogans to Pine Springs, brs. NE. and SW.

75.00 Leave dense and enter scattering timber, brs. NE. and SW.

78.84 Road leads from Navajo Indian Reservation to Houck, Arizona, brs. NW and SE.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, marked on brass cap,

T23N
R28E | R29E
S24 | S19
S25 | S30
1920

A pinyon pine, 8 ins. in diam., brs. N. 47 1/2° E., 88 lks. dist., mark "T23N R29E S19 BT."

A pinyon pine, 8 ins. in diam., brs. S. 64 1/2° E., 111 lks. dist., mark "T23N R29E S30 BT."

A pinyon pine, 10 ins. in diam., brs. S. 52 1/4° W., 189 lks. dist., mark "T23N R28E S25 BT."

A cedar 6 ins. in diam., brs. N. 10 1/2° W., 328 lks. dist., mark "T23N R29E S24 BT."

Land, hilly and rolling.

Soil, sandy and stony, 2nd and 3rd rate.

Timber, pinyon pine and cedar, scattering and dense as noted.

Undergrowth, scattering and dense scrub cedar and sage brush.

North, on true line, bet. secs. 19 and 24.

Over rolling and hilly land, thru. dense timber and undergrowth. Ascend 60 ft., over SE. slope.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 10 ins. in the ground, on bed rock, supported in a mound of stone 4 ft. base, 2 ft. high, for 1/4 sec. cor. of secs. 19 and 24, marked on brass cap,

1/4
S24 | S19
1920

A cedar, 14 ins. in diam., brs. S. 19° E., 221 lks. dist., mark "1/4 S S19 BT."

A pinyon pine, 8 ins. in diam., brs. S. 10 1/2° W., 119 lks. dist., mark "1/4 S 24 BT."

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 13, 18, 19 and 24, marked on brass cap,

T23N
R28E | R29E
S13 | S18
S24 | S19
1920

A pinyon pine, 8 ins. in diam., brs. N. 71 1/2° E., 35 lks. dist., mark "T23N R29E S18 BT."

A pinyon pine, 10 ins. in diam., brs. S. 47 1/4° E., 167 lks. dist., mark "T23N R29E S19 BT."

A pinyon pine, 8 ins. in diam., brs. S. 54° W., 37 lks. dist., mark "T23N R28E S24 BT."

A pinyon pine, 5 ins. in diam., brs. N. 52° W., 75 lks. dist., mark "T23N R28E S13 BT."

Land, rolling and hilly.

Soil, sandy and stony, 3rd and 4th rate.

Timber, dense pinyon pine and cedar.

BOOK 8490

West boundary of Township 23 North, Range 29 East.

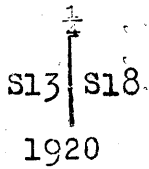
17

Chains.

Undergrowth, dense scrub cedar.

North, on true line, bet. secs.13 and 18.
Over hilly land, thru. dense timber and undergrowth. Ascend over SE.slope.

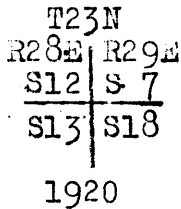
- 5.00 Ridge, brs.NE and SW. Descend 102 ft., over NW.slope.
- 28.85 Ravine, 10 lks.wide, course W. Ascend 30 ft. over S.slope.
- 38.12 Road to Indian hogans west of line, brs.E. and W.
- 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 20 ins.in the ground for 1/4 sec.cor.of secs.13 and 18, marked on brass cap,



A pinyon pine, 4 ins. in diam., brs.S.85 1/2°E., 54 lks. dist., mark "1/4 S 18 BT."

A pinyon pine, 10 ins. in diam., brs.S.11 1/2°W., 45 lks.dist., mark "1/4 S 13 BT."

- 50.00 Ridge, brs.NE and SW. Descend 131 ft., over NW.slope.
- 68.30 Ravine, 25 lks.wide, course SW. Ascend 80 ft., over S.slope to
- 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 7,12,13 and 18, marked on brass cap,



A pinyon pine, 10 ins.in diam., brs.N.66 1/4°E., 116 lks.dist., mark "T23N R29E S7 BT."

A pinyon pine.6 ins. in diam., brs.S.69°E., 30 lks.dist., mark "T23N R29E S18 BT."

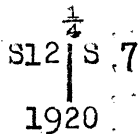
A pinyon pine, 10 ins.in diam., brs.S.52 1/2°W., 80 lks.dist., mark "T23N R28E S13 BT."

A pinyon pine, 10 ins. in diam., brs. N.44°W., 65 lks.dist., mark "T23N R28E S12 BT."

Land, hilly.
Soil, sandy and stony, 3rd and 4th rate.
Timber, dense pinyon, pine and cedar.
Undergrowth, dense scrub cedar.

North, on true line, bet. secs.7 and 12.
Over hilly land, thru. dense timber and undergrowth. Ascend over SW.slope.

- 14.35 Ridge, brs.NE and SW. Descend 23 ft. over NW. slope.
- 27.80 Water hole in bed of ravine, 25 lks.wide, course S.50° W. Ascend 104 ft. over SW.slope.
- 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec.cor. of secs.7 and 12, marked on brass cap,



A pinyon pine, 6 ins. in diam., brs.N.65 1/2°E., 50 lks.dist., mark "1/4 S 7 BT."

A cedar, 14 ins.in diam., brs.N.57°W., 42 lks. dist., mark "1/4 S 12 BT."

- 55.35 Ridge, brs.E. and W. Descend 20 ft., over N.slope.

18 West boundary of Township 23 North, Range 29 East.

Chains.

70.00

80.00

Foot of gradual descent, leave hilly and enter level land. Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 6, 7 and 12, marked on brass cap,

T23N
R28E R29E
S 1 | S 6
S12 | S 7

1920

A pinyon pine, 14 ins. in diam., brs. N. 52 1/2° E., 60 lks. dist., mark "T23N R29E S6 BT."

A pinyon pine, 4 ins. in diam., brs. S. 24° E., 65 lks. dist., mark "T23N R29E S7 BT."

A pinyon pine, 7 ins. in diam., brs. S. 07 1/2° W., 85 lks. dist., mark "T23N R28E S12 BT."

A pinyon, 5 ins. in diam., brs. N. 70° W., 64 lks. dist., mark "T23N R28E S1 BT."

Land, level and hilly.

Soil, sandy and stony, 3rd and 4th rate.

Timber, dense pinyon, pine and cedar.

Undergrowth, dense scrub cedar.

8.00

10.85

31.70

40.00

North, on true line, bet. secs. 1 and 6.

Over level land, thru. dense timber and undergrowth.

Leave level and enter rolling land.

Ravine, 6 lks. wide, course SW. Ascend 12 ft., over SE. slope.

Wood road, brs. NE and SW.

Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for 1/4 sec. cor. of secs. 1 and 6, marked on brass cap,

1/4
S 1 | S 6
1920

A cedar, 6 ins. in diam., brs. N. 33 1/2° E., 73 lks. dist., mark "1/4 S 6 BT."

A pinyon pine, 10 ins. in diam., brs. N. 72° W., 110 lks. dist., mark "1/4 S 1 BT."

72.30

Old road to Indian hogans in township to west of line, brs. E. and W.

80.00

Set an iron post, 3 ft. long, 3 ins. in diam., 24 ins. in the ground, for cor. of Ts. 23 and 24 N., Rs. 28 and 29 E., marked on brass cap,

T24N
R28E R29E
S36 | S31
S 1 | S 6
T23N
1920

A pinyon pine, 14 ins. in diam., brs. N. 49 1/2° E., 43 lks. dist., mark "T24N R29E S31 BT."

A pinyon pine, 10 ins. in diam., brs. S. 69° E., 94 lks. dist., mark "T23N R29E S6 BT."

A pinyon pine, 13 ins. in diam., brs. S. 24 1/2° W., 60 lks. dist., mark "T23N R28E S1 BT."

A pinyon pine, 13 ins. in diam., brs. N. 75 1/4° W., 99 lks. dist., mark "T24N R28E S36 BT."

Land, level and rolling.

Soil, sandy and stony, 2nd and 3rd rate.

Timber, dense pinyon pine and cedar.

Undergrowth, dense scrub cedar.

Survey of North boundary of Township 23 North, Range 29 East.

Chains.

From the cor. of Ts. 23 and 24 N., R. 29 E., hereinbefore described,
 S. 89° 52' W., on a random line, along the N. bdy. of T. 23 N., R. 29 E., setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs.; and at 476.84 chs. fall 27 lks. N. of the cor. of Ts. 23 and 24 N., Rs. 28 and 29 E., hereinbefore described. The falling answers to a correction of 02' or 5 lks. S. per mile, counting from the NE. cor. of the Tp.; therefore, from cor. of Ts. 23 and 24 N., Rs. 28 and 29 E.,
 N. 89° 50' E., on true line, bet. secs. 6 and 31.
 Over rolling land, thru. dense timber and undergrowth. Ascend 23 ft., over NW. slope.
 5.00 Low ridge, brs. NE and SW. Descend.
 13.55 Ravine, 5 lks. wide, course SW. Asc. 34 ft., over NW. slope.
 16.80 Ridge, brs. N. and S. Descend 12 ft., over SE. slope.
 24.05 Ravine, 4 lks. wide, course SW. Wood road in same, brs. NE. and SW. Ascend 20 ft., over W. slope.
 26.85 Ridge, brs. NE. and SW. Descend gradually over SE. slope.
 36.84 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor. of secs. 6 and 31, marked on brass cap,

$\frac{1}{4}$ S 31
 S 6
 1920

A pinyon pine, 12 ins. in diam., brs. N. 50° E., 32 lks. dist., mark " $\frac{1}{4}$ S 31 BT."
 A pinyon pine, 12 ins. in diam., brs. S. 37 $\frac{1}{4}$ ° E., 79 lks. dist., mark " $\frac{1}{4}$ S 6 BT."
 76.84 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 31 and 32, marked on brass cap,

T24N | R29E
 S31 | S32
 S 6 | S 5
 T23N
 1920

A pinyon pine, 10 ins. in diam., brs. N. 68 $\frac{1}{2}$ ° E., 25 lks. dist., mark "T24N R29E S32 BT."
 A pinyon pine, 16 ins. in diam., brs. S. 15 $\frac{1}{2}$ ° E., 32 lks. dist., mark "T23N R29E S5 BT."
 A cedar, 6 ins. in diam., brs. S. 58° W., 54 lks. dist., mark "T23N R29E S 6 B T."
 A pinyon pine, 7 ins. in diam., brs. N. 53° W., 74 lks. dist., mark "T24N R29E S31 BT."
 Land, rolling.
 Soil, sandy and stony, 3rd rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub cedar.

N. 89° 50' E., on true line, bet. secs. 5 and 32.
 Over rolling land, thru. dense timber and undergrowth.
 35.00 Leave rolling and enter level land.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., of secs. 5 and 32, marked on brass cap,

$\frac{1}{4}$ S 32
 S 5
 1920

A pinyon pine, 7 ins. in diam., brs. N. 11 $\frac{1}{4}$ ° E., 32 lks. dist., mark " $\frac{1}{4}$ S 32 BT."
 A pinyon pine, 13 ins. in diam., brs. S. 68 $\frac{1}{2}$ ° E., 56 lks. dist., mark " $\frac{1}{4}$ S 5 BT."

20 North Boundary of Township 23 North Range 29 East.

Chains.

55.00 Leave level, and enter hilly land, brs. NE and SW. Ascend 34 ft. over NW slope.

65.00 Ridge, brs. NW and SE. Descend 12 ft., over SE slope.

67.50 Leave timber, brs. NW and SE.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 4, 5, 32 and 33, marked on brass cap,

T24N	R29E
S32	S33
S 5	S 4
T23N	
1920	

Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Land, level, rolling and hilly.

Soil, sandy and stony, 3rd and 4th rate.

Timber, dense pinyon pine and cedar, except in E. 12.50 chs., where there is no timber.

Undergrowth, dense scrub cedar and sage brush.

N. 89°50'E. on true line, bet. secs. 4 and 33.

Over hilly land, thru. dense undergrowth. Desc. 6 ft. over NE slope.

4.70 Ravine, 4 lks. wide, course SE. Asc. 34 ft., over SW slope.

15.00 Ridge, brs. NW and SE. Enter scattering timber. Descend 23 ft., over NE slope.

28.40 Road from the Navajo Indian Reservation to Houck, Arizona, brs. N. and S.

31.15 Ravine, 6 lks. wide, course S. Ascend 80 ft., over W. slope.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for ¼ sec. cor. of secs. 4 and 33, marked on brass cap,

¼	S 33
S 4	
1920	

A pinyon pine, 7 ins. in diam., brs. N. 54°W., 45 lks. dist., mark "¼ S 33 BT."

A pinyon pine, 8 ins. in diam., brs. S. 43°W., 36 lks. dist., mark "¼ S 4 BT."

62.00 Ridge, brs. NW and SE. Desc. 22 ft., over NE slope.

62.50 Indian goat corral on line.

62.75 Indian hogan brs. N. about 125 lks. dist.

63.20 Road from Pine Spring to hogan, brs. NE. and SW.

77.00 Draw, 25 lks. wide, course S. Asc. gradually over W. slope.

80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 3, 4, 33 and 34, marked on brass cap,

T24N	R29E
S33	S34
S 4	S 3
T23N	
1920	

A pinyon pine, 5 ins. in diam., brs. N. 33¼°E., 57 lks. dist., mark "T24N R29E S34 BT."

A pinyon pine, 4 ins. in diam., brs. S. 7½°E., 46 lks. dist., mark "T23N R29E S3 BT."

A pinyon pine, 4 ins. in diam., brs. S. 39¼°W., 47 lks. dist., mark "T23N R29E S4 BT."

A pinyon pine, 4 ins. in diam., brs. N. 36¼°W., 55 lks. dist., mark "T24N R29E S33 BT."

Land, rolling and hilly.

Soil, sandy and stony, 3rd rate.

Timber, scattering pinyon pine and cedar.

Undergrowth, dense and scattering cedar and sage brush.

Chains.

N. 89° 50' E. on true line, bet. secs. 3 and 34.
Over rolling land, thru. dense timber and undergrowth.
Ascend 39 ft. over W. slope.

16.80

Road leads from Houck to St. Michaels, Arizona, brs. NE. and SW.

20.00

Branch of same road, brs. NE and SW.

40.00

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor. of secs. 3 and 34, marked on brass cap,

1/4 S 34
S 3
1920

A pinyon pine, 10 ins. in diam., brs. N. 14° E., 105 lks. dist., mark "1/4 S 34 BT."

A pinyon pine, 8 ins. in diam., brs. S. 65 1/2° E., 64 lks. dist., mark "1/4 S 3 BT."

This cor. is situated on low ridge, brs. N. and S. Desc. E. slope, over rolling land.

80.00

Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground, to bed rock, supported in a mound of stone 5 ft. base, 2 ft. high, for cor. of secs. 2, 3, 34 and 35, marked on brass cap,

T24N | R29E
S34 | S35
S 3 | S 2
T23N
1920

A cedar, 8 ins. in diam., brs. N. 49° E., 25 lks. dist., mark "T24N R29E S35 BT."

A cedar, 18 ins. in diam., brs. S. 31 1/2° E., 68 lks. dist., mark "T23N R29E S2 BT."

A cedar, 10 ins. in diam., brs. S. 40 1/2° W., 150 lks. dist., mark "T23N R29E S3 BT."

A pinyon pine, 12 ins. in diam., brs. N. 69 1/2° W., 72 lks. dist., mark "T24N R29E S34 BT."

Land, rolling.

Soil, sandy and stony, 3rd and 4th rate.

Timber, dense pinyon pine and cedar.

Undergrowth, dense scrub cedar and sage brush.

N. 89° 50' E., on a true line, bet. secs. 2 and 35.
Over rolling land, thru. scattering timber. Ascend 11 ft. over SW. slope.

2.70

Brush fence, brs. NE. and SW.

10.00

Ridge, brs. NW and SE. Desc. 88 ft., over NE. slope.

40.00

Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor. of secs. 2 and 35, marked on brass cap,

1/4 S 35
S 2
1920

A pinyon pine, 8 ins. in diam., brs. N. 1° W., 42 lks. dist., mark "1/4 S 35 BT."

A pinyon pine, 10 ins. in diam., brs. S. 22° W., 40 lks. dist., mark "1/4 S 2 BT."

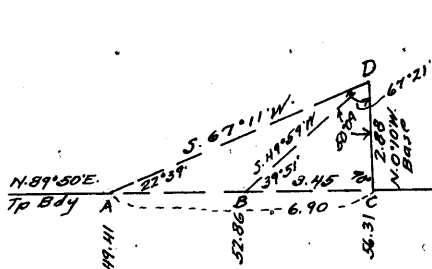
49.41

West rim of box canyon, 275 ft. deep, with perpendicular sandstone walls, rendering chain measurement across same impracticable; therefore, triangulate as described, as follows, and as shown on the diagram hereon.

Leave flag at this point on line, indicated on diagram as "A."

22 North boundary of Township 23 North, Range 29 East.

Chains.



Set flag on line at bottom of canyon at "B."
 Vertical angle "A" to "B" is 50°.
 Set flag on line on E. rim of canyon at "C."
 From flag "C" measure a base N. 0°10'W., 2.88 chs. to point "D."
 Bearing of "DB" = S. 49°59'W.
 Bearing of "DA" = S. 67°11'W.

Included angles of "DCA" are 67°21'; 90°00' and 22°39', the sum of which is 180°00'. Included angles of "DCB" are 50°09', 90°00' and 39°51', the sum of which is 180°00'. "AC" = tang. 67° 21' x base or 2.39645 x 2.88 = 6.90 chs., which added to 49.41 chs. gives 56.31 chs. N. 89°50' E. from sec. cor. for point "C."
 "BC" = tang. 50°09' x base or 1.19811 x 2.88 = 3.45 chs., which subtracted from 56.31 chs. gives 52.86 chs. N. 89°50' E., from sec. cor. for point "B."

- 52.86 Dry bed of creek, 20 lks. wide, in bottom of canyon, course SE.
- 50.31 East rim of canyon, brs. NW and SE. Ascend 28 ft., over SW. slope, thru. dense undergrowth.
- 71.00 South end of ridge brs. N. and S. Desc. 34 ft., over E. slope, to
- 80.00 Set an iron post 3 ft. long, 2 ins. in diam., over cross (x) on surface rock, supported in a mound of stone, 6 ft. base, 3 ft. high for cor. of secs. 1, 2, 35 and 36. marked on brass cap,

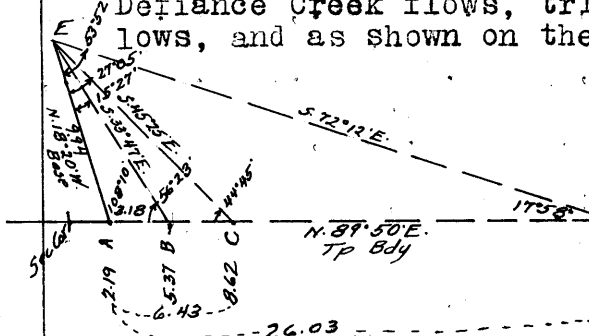
T24N R29E
 S35 S36
 S 2 S 1
 T23N
 1920

- A cedar, 14 ins. in diam., brs. N. 75° E., 91 lks. dist., mark "T24N R29E S36 BT."
- A pinyon pine, 8 ins. in diam., brs. S. 41½° E., 71 lks. dist., mark "T23N R29E S1 B T."
- A cedar, 12 ins. in diam., brs. S. 32° W., 53 lks. dist., mark "T23N R29E S2 BT."
- A cedar, 8 ins. in diam., brs. N. 72½° W., 119 lks. dist., mark "T24N R29E S35 BT."

Land, rolling, broken and hilly.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, scattering pinyon, pine and cedar.
 Undergrowth, scattering and dense scrub cedar and sage brush.

N. 89°50' E., on true line, bet. secs. 1 and 36.
 Over rolling and broken land, thru. scattering timber and undergrowth. Descend over E. slope.

- 2.19 West rim of box canyon 540 ft. deep, with perpendicular sandstone walls, too precipitous to chain; therefore, to determine distance across this canyon, and also across the main canyon thru. which the west fork of Defiance Creek flows, triangulate as described as follows, and as shown on the diagram hereon:



Set flag on line at this point indicated on diagram as "A."
 Set flag on line in bottom of side canyon at "B."
 Set flag on line on point of spur, bet. side canyon and main canyon at "C."
 Set flag on line on E. rim of main canyon at "D."

North boundary of Township 23 North, Range 29 East.

Chains.

Vertical angle "A" to "B" = 68°26'
From flag "A" measure a base, N. 18°
20' W., 9.94 chs. to point "E."
Bearing "ED" = S. 72°12' E.

Bearing "EC" = S. 45° 25' E. Bearing "EB" = S. 33° 47' E.
Included angles of "EDA" are 53° 52', 17° 58', and 108° 10',
the sum of which is 180° 00'.
Included angles of "ECA" are 27° 05', 44° 45' and 108° 10',
the sum of which is 180°.
Included angles of "EBA" are 15° 27' 56" 23' and 108° 10',
the sum of which is 180°.

"AB" = $\frac{\text{sine } 15^\circ 27' \times \text{base}}{\text{sine } 56^\circ 23'}$ or $\frac{.26640 \times 9.94}{.83276} = 3.18$ chs.,
which added to 2.19 chs. gives 5.37 chs. N. 89° 50' E. from
sec. cor. for point "B."

"AC" = $\frac{\text{sine } 27^\circ 05' \times \text{base}}{\text{sine } 44^\circ 45'}$ or $\frac{.45529 \times 9.94}{.70461} = 6.43$ chs.,
which added to 2.19 chs. gives 8.62 chs. N. 89° 50' E. from
sec. cor. for point "C."

"AD" = $\frac{\text{sine } 53^\circ 52' \times \text{base}}{\text{sine } 17^\circ 58'}$ or $\frac{.80765 \times 9.94}{.30846} = 26.03$ chs.,
which added to 2.19 chs. gives 28.22 chs. N. 89° 50' E.,
from sec. cor. for point "C."

- 5.37 Ravine, 15 lks. wide, in bottom of canyon, course S. 30° E. Ascend over perpendicular sandstone cliffs.
- 8.62 Top of ascent on point of spur, sloping S, Desc. SE. slope over cliffs into West Fork of Defiance Creek canyon.
- 23.00 (Approximate) Bottom of canyon, cross West Fork of Defiance creek, 45 lks. wide, 450 ft. (barometric elevation) below point of spur, course S. Asc. 560 ft. over E. wall of main canyon.
- 28.22 East rim of main canyon, brs. N. 20° E. and S. 20° W. Leave broken and enter rolling land and dense timber, brs. N. and S.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. of secs. 1 and 36, marked on brass cap,

$\frac{1}{4}$ S 36
S 1
1920

A pinyon pine, 5 ins. in diam., brs. N. 8 $\frac{1}{4}$ ° W., 36 lks. dist., mark " $\frac{1}{4}$ S 30 BT."

A pinyon pine, 10 ins. in diam., brs. S. 10 $\frac{1}{4}$ ° E., 5 lks. dist., mark " $\frac{1}{4}$ S 1 BT."

- 45.00 Draw, 25 lks. wide, course SW. Asc. 17 ft. over NW. slope.
- 50.80 Sandy ridge, brs. N. and S. Desc. 57 ft. over E. slope.
- 74.00 Draw, 50 lks. wide, course SW. Asc. 17 ft. to
- 80.00 The cor. of Ts. 23 and 24 N., Rs. 29 E., hereinbefore described.

Land, rolling and broken.
Soil, sandy and stony, 3rd and 4th rate.
Timber, pinyon, pine and cedar, scattering W. of canyon. dense E. of canyon.
Undergrowth, scrub cedar, scattering W. of canyon, dense E. of canyon.

Boundaries of Township 23 North, range 29 East.
Latitudes, Departures, and Closing Errors.

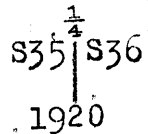
Line designated.	True bearing.	Dist.	Latitudes.		Departures.	
			N.	S.	E.	W.
South boundary,	S. 89° 52' W.,	477.21		1.10		477.21
West boundary,	North,	480.00	480.00			
North boundary,	N. 89° 50' E.	476.84	1.38		476.84	
East boundary,	South,	480.00		480.00		
Convergency,					.51	
<u>Totals.</u>			481.38	481.10	477.35	477.21
			481.10		477.21	
<u>Error in latitude.</u>			0.28			
<u>Error in departure.</u>					0.14	

Survey of Subdivision lines of Township 23 North, Range 29 East, 25

Chains.

From the reestablished cor. of secs. 1, 2, 35 and 36 on S. bdy. of Tp., hereinbefore described,
 N. 0° 02' W., bet. secs. 35 and 36.
 Over mountainous land, thru. dense timber and undergrowth.
 Descend over NE. slope.
 Ravine, 20 ft. deep, course SE. Asc. 49 ft., over SW. slope.
 Spur, slopes SW. Desc. 15 ft. over NW. slope.
 Ravine, 10 lks. wide, course SW. Asc. 47 ft. over SE. slope.
 Spur, slopes SW. Desc. 34 ft., over NW. slope.
 Gulch, 12 lks. wide, course W. Asc. 63 ft., over S. slope.
 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

.75
 4.95
 7.50
 34.17
 39.66
 40.00

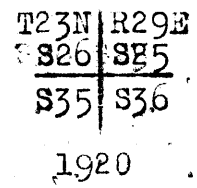


A pinyon pine, 10 ins. in diam., brs. N. 84° W., 37 lks. dist., marked " $\frac{1}{4}$ S 35 BT."

A pinyon pine, 8 ins. in diam., brs. S. 77 $\frac{1}{2}$ ° E., 25 lks. dist., mark " $\frac{1}{4}$ S 36 BT."

Spur, slopes SW. Descend 18 ft., over NW. slope.
 Ravine, 10 lks. wide, course SW. Asc. 23 ft., over SE. slope.
 Spur, slopes SW. Descend 20 ft., over NW. slope.
 Gulch, 15 lks. wide, course SW. Asc. 108 ft., over SE. slope, to
 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, marked on brass cap,

50.35
 52.45
 55.40
 60.54
 80.00



A pinyon pine, 8 ins. in diam., brs. N. 57 $\frac{1}{2}$ ° E., 67 lks. dist., mark "T23N R29E S25 BT."

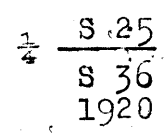
A pinyon pine, 8 ins. in diam., brs. S. 26 $\frac{1}{2}$ ° E., 115 lks. dist., mark "T23N R29E S36 BT."

A pinyon pine, 5 ins. in diam., brs. S. 68 $\frac{1}{2}$ ° W., 104 lks. dist., mark "T23N R29E S35 BT."

A pinyon pine, 6 ins. in diam., brs. N. 01° W., 52 lks. dist., mark "T23N R29E S26 BT."

Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N. 89° 52' E., on a random line, bet. secs. 25 and 36.
 Set temp. $\frac{1}{4}$ sec. cor.
 40.00
 79.80
 Intersect E bdy. of Tp., at the cor. of secs. 25, 30, 31 and 36, hereinbefore described.
 Thence,
 S. 89° 52' W., on a true line, bet. secs. 25 and 36.
 Over mountainous land, thru. dense timber and undergrowth.
 Ascend over SE. slope.
 Ravine, 15 lks. wide, 3 ft. deep, course SE.
 6.70
 39.90
 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

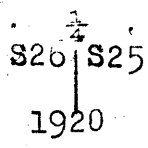


A cedar, 24 ins. in diam., brs. N. 59° E., 12 lks. dist., mark " $\frac{1}{4}$ S 25 BT."

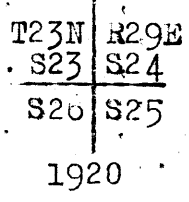
A cedar, 8 ins. in diam., brs. S. 25° E., 26 lks. dist., mark " $\frac{1}{4}$ S 36 BT."

Chains.
 43.50 Stony ridge, brs.N. and S. Desc. 29 ft., over W.slope.
 58.45 Ravine, 12 lks.wide, course S. Asc. 77 ft., over E.slope, to
 79.80 The cor.of secs.25,26,35 and 36.
 Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N.0°02' W., bet. secs.25 and 26.
 Over mountainous land, thru dense timber and undergrowth.
 Asc. over SE.slope.
 7.00 Spur, slopes S.30° W. Descend over NW.slope.
 12.00 Head of ravine, 5 lks.wide, course SW. Asc. 20 ft., over
 SE.slope.
 14.45 Point of spur, slopes S.30°E.; thence along E.slope.
 20.85 Ridge, brs.E and NW. Desc.137 ft., over N.slope.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,



A cedar, 10 ins.in diam., brs.S.65 $\frac{1}{2}$ °E., 88 lks.
 dist., mark " $\frac{1}{4}$ S25 BT."
 A cedar, 4 ins.in diam., brs.S.63 $\frac{1}{2}$ ° W., 28 lks.
 dist., mark " $\frac{1}{4}$ S 26 BT."
 51.85 Ravine, 8 lks.wide, course NE. Asc. 40 ft., over SE.slope.
 58.50 Spur, slopes E. Desc.87 ft., over N.slope.
 63.80 Ravine, 10 lks.wide, course NE. Asc.8 ft., over SE.slope.
 65.30 Spur, slopes E. Desc.53 ft. over N.slope.
 69.70 Ravine, 20 lks.wide, in center of flat, 2 chs.wide,
 course SE. Asc. 6 ft., over SE.slope, to
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs. 23,24,25 and 26, marked
 on brass cap,



A cedar, 10 ins.in diam., brs.N.87 $\frac{1}{2}$ °E., 240 lks.
 dist., mark "T23N R29E S24 BT."
 A cedar, 12 ins.in diam., brs.S.53 $\frac{1}{2}$ °E., 300 lks.
 dist., mark "T23N R29E S25 BT."
 A cedar, 12 ins.in diam., brs.S.52 $\frac{1}{2}$ °W., 210 lks.
 dist., mark "T23N R29E S26 BT."
 A cedar, 8 ins.in diam., brs.N.58°W., 103 lks.dist.
 mark "T23N R29E S23 BT."
 Land, mountainous.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N.89°52'E., on a random line, bet.secs. 24 and 25.
 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 80.04 Intersect E. bdy. of Tp., 3 lks.N. of the cor. of secs.
 19,24, 25 and 30, hereinbefore described.
 Thence,
 S.89°53' W., on a true line, bet. secs. 24 and 25.
 Over mountainous land, thru. dense timber and scattering
 undergrowth. Asc. 27 ft., over SE.slope.
 1.20 Spur, slopes SE., thence over rolling land on top of spur.

Chains.

9.70 Descend 38 ft., over SW. slope of spur.
 12.80 Ravine, 15 lks. wide, course SE. Asc. 150 ft., over broken NE. slope.
 40.02 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 24
 S 25
 1920

A cedar, 10 ins. in diam., brs. N. $30\frac{3}{4}^{\circ}$ W., 34 lks. dist., mark " $\frac{1}{4}$ S 24 BT."
 A cedar, 10 ins. in diam., brs. S. $26\frac{1}{4}^{\circ}$ W., 46 lks. dist., mark " $\frac{1}{4}$ S 25 BT."
 47.65 Spur, slopes SE. Descend 61 ft., over SW. slope.
 59.41 Ravine, 8 lks. wide, course S. Asc. 46 ft., over E. slope.
 60.15 Stony spur, slopes S. Desc. 111 ft., over W. slope.
 80.04 The cor. of secs. 23, 24, 25 and 26.
 Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, scattering scrub cedar.

N. $0^{\circ}02'$ W., bet. secs. 23 and 24.
 Over mountainous land, thru. dense timber and undergrowth. Asc. 105 ft., over SE. slope.

13.70 Spur, slopes SW Desc. 32 ft., over N. slope.
 19.87 Ravine, 10 lks. wide, course SW. Asc. 17 ft. over SE. slope.
 33.00 Spur, slopes SE. Desc. 17 ft., over SE. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S23 | S24
 1920

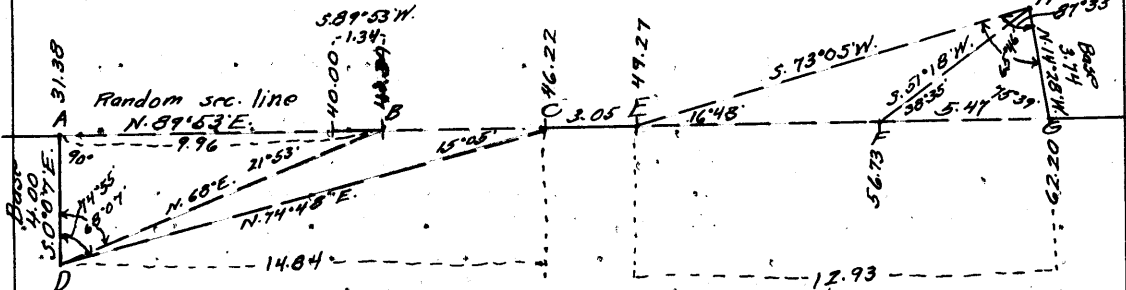
A pinyon pine, 8 ins. in diam., brs. N. $42\frac{1}{2}^{\circ}$ E., 46 lks. dist., mark " $\frac{1}{4}$ S 24 BT."
 A pinyon pine, 8 ins. in diam., brs. S. $80\frac{1}{4}^{\circ}$ W., 38 lks. dist., mark " $\frac{1}{4}$ S 23 BT."
 Ascend 23 ft. over SE. slope.
 65.00 Spur, slopes E. Desc. 86 ft., over N. slope.
 69.94 Ravine, 8 lks. wide, course E. Asc. 17 ft. over S. slope.
 73.15 Spur, slopes E. Desc. 28 ft., over NE. slope.
 75.12 Gulch, 20 lks. wide, course S. 60° E. Asc. 58 ft., over stony SW. slope; to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 6 ins. in the ground, over cross (x) on bedrock, supported in a mound of stone 6 ft. base, $2\frac{1}{2}$ ft. high, for cor. of secs. 13, 14, 23 and 24, marked on brass cap,

T23N | R29E
 S14 | S13
 S23 | S24
 1920

A pinyon pine, 10 ins. in diam., brs. N. $60\frac{1}{4}^{\circ}$ E., 22 lks. dist., mark "T22N R29E S13 BT."
 A pinyon pine, 10 ins. in diam., brs. S. $13\frac{3}{4}^{\circ}$ E., 71 lks. dist., mark "T23N R29E S24 BT."
 A pinyon pine, 12 ins. in diam., brs. S. $26\frac{1}{4}^{\circ}$ W., 58 lks. dist., mark "T23NR29E S23 BT."
 A pinyon pine, 8 ins. in diam., brs. N. 57° W., 35 lks. dist., mark "T23N R29E S14 BT."
 Land, mountainous.
 Soil, stony, 3rd and 4th rate.

Chains. Timber, dense pinyon, pine and cedar.
Undergrowth, dense scrub cedar.

31.38 N. 89° 53' E., on a random line, bet. secs. 13 and 24.
West rim of canyon of west fork of Defiance Creek, precipitous broken walls of which render chain measurement across impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



Set flag on random line at point on W. rim of canyon indicated on diagram as "A."
Set flag on line in bottom of canyon in bend of same from NW. to NE., at "B."
Set flag on line at another point on W. rim of canyon at "C."
From "C" chain measurement on random line, N. 89° 53' E., 3.05 chs. dist. to another point on W. rim of canyon, and set flag at "E."
Set flag on line at another point in bottom of canyon at "F."
Set flag on line at point on E. rim of canyon at "G."
Vertical angle from A to B = 40° 54'
Vertical angle from E to F = 49° 42'.
From "A" measure a base S. 0° 07' E., 4.00 chs. to point "D."
From "G" measure a base N. 14° 28' W., 3.74 chs. to point "H."
Bearing DB = N. 68° 00' E.
Bearing DC = N. 74° 48' E.
Bearing HE = S. 73° 05' W.
Bearing HF = S. 51° 18' W.
Included angles of "DAB" are 68° 00', 90° 00' and 21° 53', the sum of which is 180°.
Included angles of "DAC" are 74° 55', 90° 00' and 15° 05', the sum of which is 180°.
Included angles of "HGE" are 87° 33', 75° 39' and 16° 48', the sum of which is 180°.
Included angles of "HGF" are 65° 46', 75° 39' and 38° 35', the sum of which is 180°.
AB = $\text{tang. } 68^{\circ} 07' \times \text{base}$ or $2.48967 \times 4.00 = 9.96$ chs., which added to 31.38 chs. gives 41.34 chs. N. 89° 53' E. from sec. cor. for point "B." on random line, from which measure S. 89° 53' W., 1.34 chs. to point 40 chs. N. 89° 53' E. from sec. cor., and set temp. $\frac{1}{2}$ sec. cor.
AC = $\text{tang. } 74^{\circ} 55' \times \text{base}$ or $3.71046 \times 4.00 = 14.84$ chs., which added to 31.38 chs. gives 46.22 chs. N. 89° 53' E. from sec. cor. for point "C" on random line.
46.22 chs. + 3.05 chs. = 49.27 chs. N. 89° 53' E. from sec. cor. to point "E" on random line.
EG = $\frac{\text{sine } 87^{\circ} 33' \times \text{base}}{\text{sine } 16^{\circ} 48'}$ or $\frac{.99909 \times 3.74}{.28903} = 12.93$ chs., which added to 49.27 chs. gives 62.20 chs. N. 89° 53' E. from sec. cor. for point "G" on random line.
FG = $\frac{\text{sine } 65^{\circ} 46' \times \text{base}}{\text{sine } 38^{\circ} 35'}$ or $\frac{.91188 \times 3.74}{.62365} = 5.47$ chs., which subtracted from 62.20 chs. gives 56.73 chs. N. 89° 53' E. from sec. cor. for point "F" on random line.
40.00 Set temp. $\frac{1}{2}$ sec. cor. as determined above.
62.20 Triangulation point "G" described above. Thence continue line and measurement, by chaining.
80.04 Intersect E. bdy. of Tp. 21 lks. S. of the cor. of secs. 13,

Chains.

18,19 and 24, hereinbefore described.
 Thence,
 S.89°44'W.. on true line, bet. secs.13 and 24:
 Over rolling land, thru. dense timber and undergrowth.
 Descend 17 ft.,over SW.slope.
 17.84 East rim of canyon, 580 ft.deep, with perpendicular sand-
 stone walls, brs.N.40°W. and S.40°E.
 23.31 Thence by triangulated measurement to
 Bottom of canyon;cross west fork of Defiance Creek, 40
 lks.wide, water clear, 4 ins.deep,on stony bottom,
 course S.40° E. Ascend W.wall of canyon. Triangulated
 measurement to
 30.77 West rim of canyon, brs. N.40°W. and S.40°E.; thence over
 level bench or point in W.rim of canyon. Chain measure-
 ment to
 33.82 West rim of same canyon, with perpendicular sandstone
 walls 575 ft.high, brs.N.00°E. and S.00°W. Triangulated
 measurement to
 38.70 Bottom of same canyon, cross dry bed of West fork of
 Defiance Creek, 40 lks.wide, course N.60°E. Ascend
 creek bank, 8 ft.high. Chain measurement to
 40.02 Set an iron post 3 ft.long, 1 in. in diam., 26 ins. in
 the ground for 1/4 sec.cor., marked on brass cap,

S 13
 S 24
 1920

A cottonwood, 11 ins. in diam., brs.N.51°E., 41
 lks.dist., mark "1/4 S 13 BT."
 An oak, 12 ins.in diam., brs.S.14 1/2°W., 87 lks.
 dist., mark "1/4 S 24 BT."

Chain measurement to
 40.75 Dry bed of west fork of Defiance Creek, 40 lks.wide, banks
 8 ft.high, course S.40°E. Ascend W. wall of canyon.
 Triangulated measurement to
 48.66 West rim of same canyon, brs.N.30°W. and S.30°E. Thence
 continue measurement by chaining.
 Ascend 63 ft.,over SE.slope.
 60.75 Spur, slopes SE. Descend 18 ft.,over SW.slope.
 63.00 Ravine, 5 lks.wide, course SE. Asc. 97 ft.,over NE.slope.
 79.10 Rocky spur, slopes S. Descend 24 ft.,over SW.slope, to
 80.04 The cor.of secs.13,14,23 and 24.
 Land, rolling, broken and mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense, pinyon, pine and cedar, cottonwood in canyon.
 Undergrowth, dense scrub cedar.

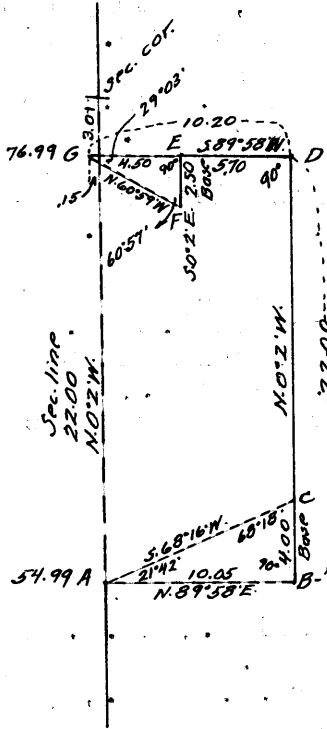
N.0°02'W., bet. secs. 13 and 14.
 Over mountainous land, thru. dense timber and undergrowth.
 Ascend 46 ft.,over SW.slope.
 15.58 Spur, slopes SE. Descend 118 ft.,over NE.slope.
 34.20 West rim of west fork of Defiance Creek canyon, with per-
 pendicular sandstone walls, 150 ft. high, brs.E and
 W. Extends W. of line 3.00 chs.dist.
 34.70 Ravine, 8 lks.wide, course E., near head, course E. Ascend
 steep broken S.slope.
 36.70 West rim of same canyon, brs.E and W. Extends W.of line
 3.00 chs.dist. Asc. 122 ft.,over SE.slope.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the
 ground for 1/4 sec.cor., marked on brass cap,

S14 | S13
 1920

No trees suitable for bearing trees within limits; raise
 a mound of stone 2 ft.base, 1 1/2 ft.high, W of cor.
 43.30 Spur, slopes SE. Desc.102 ft.,over NE.slope. to

Chains.
54.99

West rim of west fork of Defiance Creek canyon, 550 ft. deep, with perpendicular sandstone walls, brs. N. 5° W. and S. 10° E. From this point N. the line passes along the face of inaccessible cliffs on the W. wall of said canyon, and enters the bottom of canyon. Discontinue chaining on sec. line at this point, and triangulate and offset as described as follows, and as shown on the diagram hereon.



Set flag on line at this point indicated on diagram as "A."
 Set flag on E. rim of canyon, N. 89° 58' E. from point "A" at point "B."
 From point "B" measure a base N. 0° 2' W., 4.00 chs. to point "C."
 Bearing of "CA" = S. 68° 16' W.
 Included angles of "CBA" are 68° 18', 90°, and 21° 42', the sum of which is 180°.
 AB = tang. 68° 18' x base or $2.51289 \times 4.00 = 10.05$ chs.
 From point "C" continue measurement N. 0° 2' W. on offset line in sec. 13 to point "D" 22.00 chs. N. 0° 2' W. from "B" and 10.05 chs. E. of sec. line.
 Thence, S. 89° 58' W. on offset line 5.70 chs. to point "E" on E. rim of canyon.
 Set flag in bottom of canyon at point "G" S. 89° 58' W. from "E."
 From "E" measure a base, S. 0° 2' E., 2.50 chs. to point "F."
 Bearing of "FG" = N. 60° 59' W.

Included angles of "FGE" are 60° 57', 29° 03' and 90°, the sum of which is 180°.
 EG = tang. 60° 57' x base or $1.80034 \times 2.50 = 4.50$ chs., which added to 5.70 chs. gives 10.20 chs. S. 89° 58' W. from point "D" as the position of point "G". As point "D" is 10.05 chs. E. of sec. line, point "G" is therefore 15 lks. S. 89° 58' W. from a point on sec. line 22.00 chs. N. 0° 2' W. from offset point "A" or 76.99 chs. N. 0° 2' W. from sec. cor.

Vertical angle of E to G is - 42°.

- 76.99 Offset point at base of W. wall of canyon brs. NW. and SE. Thence over bottom of canyon, chaining measurement of 3.01 chs. N. 0° 2' W. to sec. cor.
- 79.25 West fork of Defiance Creek, with clear running water 45 lks. wide, 4 ins. deep, course S. 50° E. Asc. 25 ft. over bluff, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 11, 12, 13 and 14, marked on brass cap

T23N	R29E
S11	S12
S14	S13

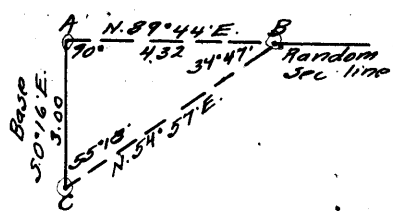
1920

- A cedar, 6 ins. in diam., brs. S. 55½° E., 138 lks. dist., mark "T23N R29E S13 BT."
- A cottonwood, 14 ins. in diam., brs. S. 46¼° W., 116 lks. dist., mark "T23N R29E S14 BT."
- An oak, 12 ins. in diam., brs. N. 75½° W., 155 lks. dist., mark "T23N R29E S11 BT."

Raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
 Land, broken and mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense oak, pinyon, pine, cottonwood and cedar.
 Undergrowth, dense scrub cedar.

Chains.

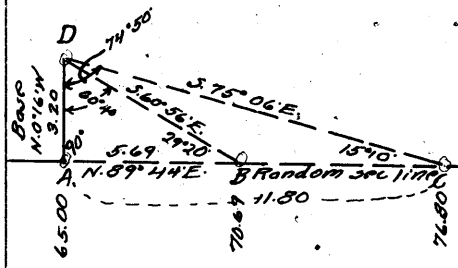
N. 89° 44' E., on a random line, bet. secs. 12 and 13.
 It being impracticable to chain measurement from the sec. cor. owing to steep broken ascent on E. wall of the canyon of west fork of Defiance Creek, triangulate the measurement of the beginning of the random line, bet. secs. 12 and 13, as described as follows, and as shown by the diagram hereon:



Set flag on random sec. line at point on E. rim of canyon, indicated on diagram as "B."
 From sec. cor. indicated as point "A" measure a base S. 0° 16' E., 3.00 chs. to point "C."
 Bearing from C to B = N. 54° 57' E.
 Vertical angle, A to B = 34° 47'.

Included angles of "CAB" are 55° 13', 90° and 34° 47', the sum of which is 180°.
 "AB" = $\text{tang. } 55^\circ 13' \times \text{base}$ or $1.43970 \times 3.00 = 4.32$ chs.
 Flag point of above described triangulation.
 Continue line and measurement by chaining.
 Set temp. $\frac{1}{4}$ sec. cor.
 West rim of another canyon. Discontinue chaining, and triangulate measurement on random line across canyon, and also, to point on line in bottom of canyon, as described as follows, and as shown on the diagram hereon:

4.32
 40.00
 65.00



From this point on random line, indicated on diagram as "A" measure a base N. 0° 16' W., 3.20 chs. to point "D." Set flag in bottom of canyon on random line at point "B."
 Set flag on E. rim of canyon on random line at point "C."
 Vertical angle from A. to B. = 14° 45'.

Bearing of "DB" = S. 60° 56' E. Bearing of "DC" = S. 75° 06' E.
 Included angles of "DBA" are 60° 40', 29° 20' and 90°, the sum of which is 180°.
 Included angles of "DCA" are 74° 50', 15° 10' and 90°, the sum of which is 180°.
 "AB" = $\text{tang. } 60^\circ 40' \times \text{base}$ or $1.77955 \times 3.20 = 5.69$ chs., which added to 65.00 chs., gives 70.69 chs. N. 89° 44' E. from sec. cor. for point "B" on random line.
 "AC" = $\text{tang. } 74^\circ 50' \times \text{base}$ or $3.68909 \times 3.20 = 11.80$ chs., which added to 65.00 chs. gives 76.80 chs. N. 89° 44' E. from sec. cor. for point "C" on random line.
 Point on random line on E. rim of canyon.
 Continue line and measurement by chaining.
 Intersect the E. bdy. of Tp. 3 lks. N. of the cor. of secs. 7, 12, 13 and 18, hereinbefore described.

76.80
 80.04

Thence,
 S. 89° 45' W., on true line, bet. secs. 12 and 13.
 Over mountainous land, thru. dense timber and undergrowth. Descend 18 ft., over SW. slope.
 3:25 East rim of canyon, 150 ft. deep, with precipitous walls, brs. N. 20° W. and S. 20° E. Measurement by triangulation to
 9:35 Dry creek bed, 20 lks. wide in bottom of canyon, course S. 25° E. Ascend W. wall of canyon. Measurement by triangulation to
 15:05 West rim of canyon, brs. North, and S. 35° E. Ascend 109 ft., over E. slope.
 33:00 Spur, slopes S. Descend 132 ft., over W. slope. Chaining measurement.
 40:02 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

Chains.

$\frac{1}{4}$ S 12
S 13
1920

58.30 A cedar, 14 ins. in diam., brs. N. $1\frac{1}{2}^{\circ}$ E., 31 lks. dist., mark " $\frac{1}{4}$ S 12 BT."

62.65 A pinyon pine, 7 ins. in diam., brs. S. $21\frac{1}{2}^{\circ}$ E., 13 lks. dist., mark " $\frac{1}{4}$ S 13 BT."

75.72 Ravine, course SW. Asc. 47 ft., over SE. slope.

80.04 Point of spur, slopes SW. Descend 128 ft., over NW. slope.

East rim of canyon, brs. N. and S. with perpendicular sandstone walls, 560 ft. high; desc. Measurement by triangulation to

The cor. of secs. 11, 12, 13 and 14.

Land, mountainous and broken.

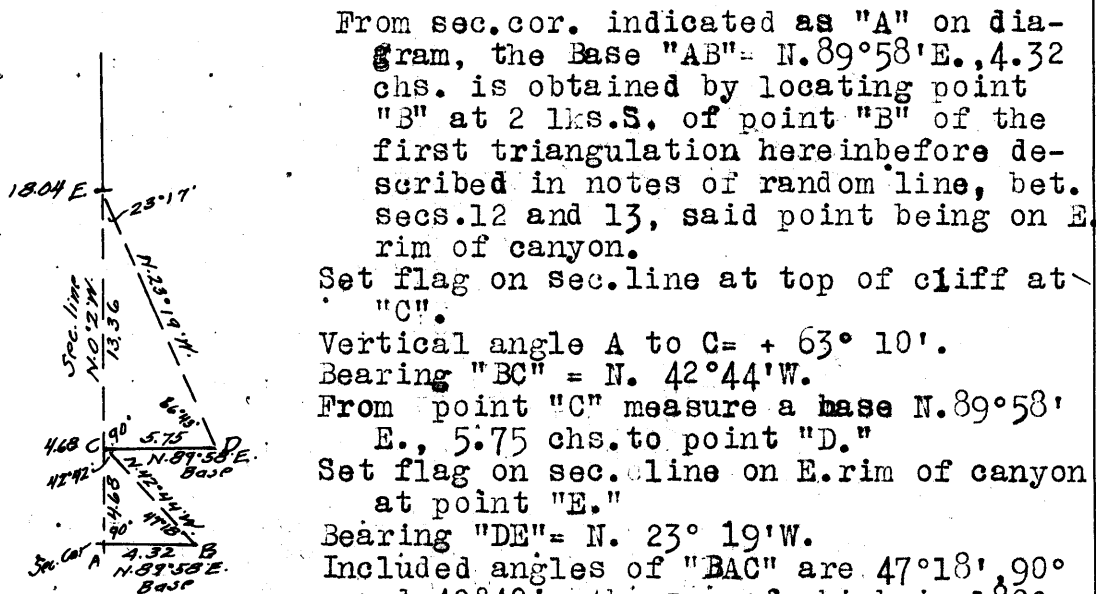
Soil, stony, 3rd and 4th rate.

Timber, dense pinyon pine and cedar.

Undergrowth, dense scrub cedar.

N. $0^{\circ}02'$ W., bet. secs. 11 and 12.

The beginning of line, bet. secs. 11 and 12 passes over steep cliffs and ledges on E. wall of W. fork of Defiance Creek Canyon, rendering chain measurement impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



From sec. cor. indicated as "A" on diagram, the Base "AB" = N. $89^{\circ}58'$ E., 4.32 chs. is obtained by locating point "B" at 2 lks. S. of point "B" of the first triangulation hereinbefore described in notes of random line, bet. secs. 12 and 13, said point being on E. rim of canyon.

Set flag on sec. line at top of cliff at "C".

Vertical angle A to C = $+63^{\circ}10'$.

Bearing "BC" = N. $42^{\circ}44'$ W.

From point "C" measure a base N. $89^{\circ}58'$ E., 5.75 chs. to point "D."

Set flag on sec. line on E. rim of canyon at point "E."

Bearing "DE" = N. $23^{\circ}19'$ W.

Included angles of "BAC" are $47^{\circ}18'$, 90° and $42^{\circ}42'$, the sum of which is 180° .

Included angles of "DCE" are $60^{\circ}43'$, 90° and $23^{\circ}17'$, the sum of which is 180° .

"AC" = tang. $47^{\circ}18'$ x base or $1.08369 \times 4.32 = 4.68$ chs.

"CE" = tang. $60^{\circ}43'$ x base or $2.32383 \times 5.75 = 13.36$ chs., which added to 4.68 chs. gives, 18.04 chs. N. $0^{\circ}02'$ W. from sec. cor. for point "E" on sec. line.

4.68 Triangulation point on top of cliffs on E. wall of canyon. Measurement by triangulation to

18.04 Triangulation point on E. rim of canyon, brs. N. 60° W. and S. 35° E.

Ascend 10 ft., over SE. slope. Over rolling land, thru. dense timber and undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 11 | S 12
1920

44.00 A cedar, 8 ins. in diam., brs. S. $41\frac{1}{2}^{\circ}$ E., 87 lks. dist., mark " $\frac{1}{4}$ S 12 BT."

A cedar, 12 ins. in diam., brs. S. $50\frac{3}{4}^{\circ}$ W., 50 lks. dist., mark " $\frac{1}{4}$ S 11 BT."

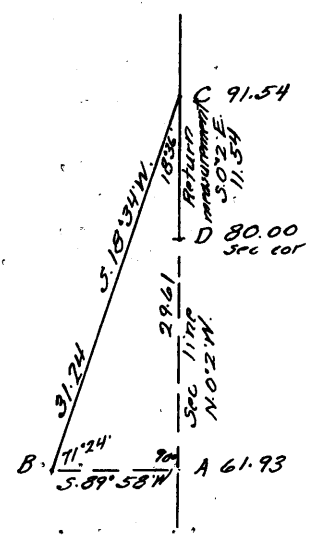
Spur, slopes S. 35° W. Desc. 17 ft., over NW. slope.

Subdivision of Township 23 North, Range 29 East.

Chains.

45.00
56.00
61.93

Ravine, 5 lks. wide, course SW. Asc. 40 ft., over SE. slope. Spur, slopes SW. Desc. 47 ft., over NW. slope, to East rim of west fork of Defiance Creek canyon 630 ft. deep, with precipitous sand stone walls, brs. N. 25° E. and S. 30° W. Discontinue chain measurement, and triangulate as described as follows, and as shown on diagram hereon:



From this point on sec. line indicated as "A" on diagram, line in flag at bottom of canyon, N. 0° 2' W. at point "C".
 Set flag in bottom of canyon, S. 89° 58' W. from point "A" at point "B".
 Vertical angle A to C; = - 16° 45'
 From point "C" take bearing and measurement down bottom of canyon to point "B" and determine same to be S. 18° 34' W., 31.24 chs.
 Included angles of "CAB" are 18° 30', 90° and 71° 24', the sum of which is 180°.
 "AC" = cosine 18° 30' x CB or .94777 x 31.24 = 29.61 chs., which added to 61.93 chs. gives 91.54 chs. N. 0° 2' W. from cor. of secs. 11, 12, 13 and 14, or 11.54 chs. N. 0° 2' W. from cor. of secs. 1, 2, 11 and 12, as the location of point "C".

80.00

From point "C" measure S. 0° 2' E., 11.54 chs. to point for sec. cor. at "D," near foot of E. wall of canyon. Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked on brass cap,

T23N	R29E
S 2	S 1
S11	S12

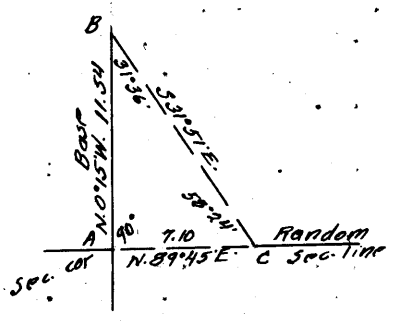
1920

- An oak, 8 ins. in diam., brs. N. 25½° E., 27 lks. dist., mark "T23N R29E S1 BT."
- An oak, 10 ins. in diam., brs. S. 15° E., 37 lks. dist., mark "T23N R29E S12 BT."
- An oak, 8 ins. in diam., brs. S. 65½° W., 28 lks. dist., mark "T23N R29E S11 BT."
- An oak, 10 ins. in diam., brs. N. 21½° W., 83 lks. dist., mark "T23N R29E S2 BT."

Land, rolling and broken. Soil, stony, 3rd and 4th rate. Timber, dense oak, pinyon, pine and cedar. Undergrowth, dense scrub oak and cedar.

N. 89° 45' E., on a random line, bet. secs. 1 and 12.

Beginning of this random line passes over E. wall of canyon of west fork of Defiance Creek, rendering chain measurement impracticable; therefore, triangulate as described as follows, and as shown on the diagram hereon:



From sec. cor. indicated on diagram as "A" measure a base N. 0° 15' W., 11.54 chs. to point "B".
 Set flag at point on random line at "C" on E. rim of canyon.
 Vertical angle "A" to "C" = + 50° 40'.

34

Subdivision of Township 23 North, Range 29 East.

Chains. Bearing "B" to "C" = S. 31° 51' E.
 Included angles of "BCA" are 31° 36', 58° 24', and 90°, the sum of which is 180°. $AC = \text{tang. } 31^\circ 36' \times \text{base, or } .61520 \times 11.54 = 7.10 \text{ chs.}$

7.10 Triangulation point on E. rim of canyon.
 Continue line and measurement by chaining.

40.00 Set temp. $\frac{1}{4}$ sec. cor.
 80.08 Intersect the E. bdy. of Tp., 5 lks. S. of the cor. of secs. 1, 6, 7 and 12, hereinbefore described.

Thence,
 S. 89° 43' W. on a true line, bet. secs. 1 and 12.
 Over mountainous land, thru. dense timber and undergrowth.
 Descend 23 ft., over W. slope, to
 4.50 Ravine, 25 lks. wide, course S. Asc. 110 ft., over E. slope.
 35.00 Ridge, brs. N. and S. Desc. 120 ft., over W. slope, to
 40.04 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ $\frac{S}{S}$ $\frac{1}{12}$
 1920

A pinyon pine, 4 ins. in diam., brs. N. 11° W., 30 lks. dist., mark " $\frac{1}{4}$ S 1 BT."

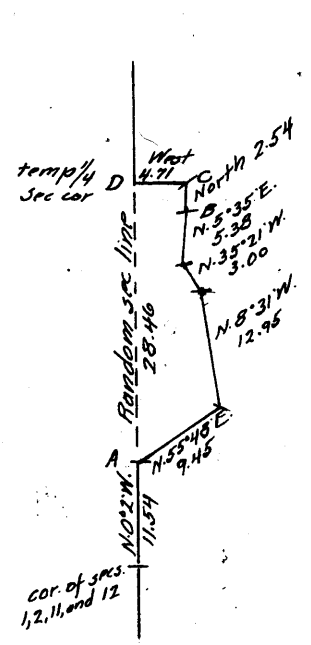
A pinyon pine, 8 ins. in diam., brs. S. 62 $\frac{1}{2}$ ° W., 110 lks. dist., mark " $\frac{1}{4}$ S 12 BT."

This cor. is in depression, brs. NE and SW. Asc. 6 ft., over SE slope.

43.10 Spur, slopes SW. Desc. over NW slope.
 72.98 East rim of west fork of Defiance Creek canyon, with precipitous sandstone walls, brs. N. 20° E. and S. 20° W. Descend 505 ft. to sec. cor. Measurement by triangulation.

80.08 The cor. of secs. 1, 2, 11 and 12.
 Land, broken and mountainous.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense oak, pinyon pine and cedar.
 Undergrowth, dense scrub oak and cedar.

11.54 N. 0° 02' W. on a random line, bet. secs. 1 and 2.
 Bottom of west fork of Defiance Creek Canyon, brs. N. 30° E. and S. 45° W. From this point the line passes along the precipitous west wall of said canyon, rendering chaining impracticable; therefore, obtain measurement by a traverse line, as described as follows, and as shown on the diagram hereon;



From this point on random sec. line, designated on diagram as "A"
 N. 55° 48' E., 9.45 chs.; thence
 N. 8° 31' W., 12.95 chs.; thence
 N. 35° 21' W., 3.00 chs.; thence
 N. 5° 35' E., 5.38 chs. to point "B"
 which by computation is 25.92 chs. N. and 4.69 chs. E. from point "A" or 37.40 chs. N. and 4.69 chs. E. from sec. cor."

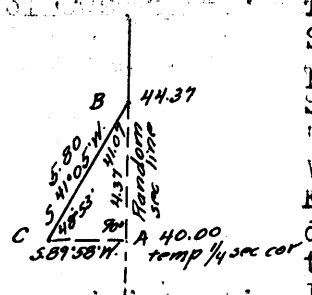
The point for temp. $\frac{1}{4}$ sec. cor. on random line indicated as "D" being 40.00 chs. N. and 2 lks. W. of sec. cor.; therefore, point "B" on traverse is 2.54 chs. S. and 4.71 chs. E. from point "D."

Complete the traverse to temp. $\frac{1}{4}$ sec. cor. as follows:
 From point "B"
 North, 2.54 chs. to point "C," thence
 West, 4.71 chs. to point "D" which is 26.40 chs. N. 0° 2' W. from point "A."

40.00 End of traverse described above. Set temp. $\frac{1}{4}$ sec. cor. at foot of precipitous sandstone cliffs 325 ft. high on W. wall of main canyon. Chain measurement beyond this

Chains.

point being impracticable, triangulate as described as follows and as shown on the diagram hereon; Sec. cor. 1 as follows:



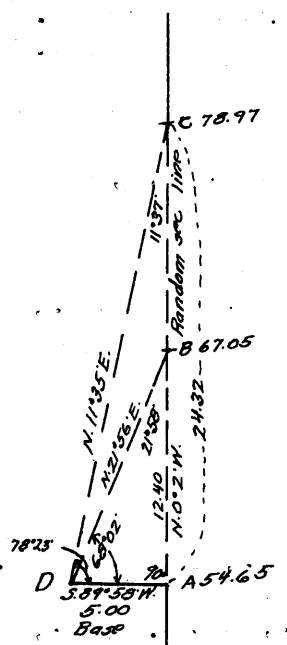
Temp. sec. cor. is indicated at "A".
 Set flag on W. rim of main canyon at point "C", S. 89° 58' W. from point "A".
 Set a flag on random sec. line at point "B" on W. rim of main canyon.
 Vertical angle "A" to "B" = 48° 05'.
 From point "B" determine bearing and distance to point "C" and find same to be S. 41° 05' W., 5.80 chs.
 Included angles of "BAC" are 41° 07', 90° and 48° 53', the sum of which is 180°.
 Triangulated distance on random sec. line

44.37

and is obtained by $\cos 41^\circ 07' \times BC$ or $.75337 \times 5.80 = 4.37$ chs., which added to 40:00 chs. gives 44.37 chs.
 N. 0° 2' W. from sec. cor. for point "B" on random sec. line.
 Triangulation point on random line on W. rim of main canyon.

54.05

Continue line and measurement by chaining.
 South rim of side canyon, with perpendicular walls 300 ft. high. Discontinue chaining, and triangulate measurement on random line to point in bottom of said canyon, and to point on N. rim of same, as described as follows, and as shown on the diagram hereon.



From this point on random sec. line indicated on diagram as "A," measure a base S. 89° 58' W., 5.00 chs. to point "D."

Set flag on random sec. line in bottom of canyon at "B."
 Set flag on random sec. line on N. rim of side canyon at "C."
 Vertical angle, A to B = 33° 25'.
 Bearing of "DB" = N. 21° 56' E.
 Bearing of "DC" = N. 11° 35' E.
 Included angles of "DBA" are 68° 02', 21° 58' and 90° 00' the sum of which is 180°.

Included angles of "DCA" are 78° 23', 11° 37' and 90° 00', the sum of which is 180°.

"AB" = $\text{tang. } 68^\circ 02' \times \text{base}$ or $2.47924 \times 5.00 = 12.40$ chs., which added to 54.65 chs. gives 67.05 chs. N. 0° 2' W. from sec. cor. for point "B" on random sec. line.

"AC" = $\text{tang. } 78^\circ 23' \times \text{base}$ or $4.86444 \times 5 = 24.32$ chs., which added to 54.65 chs. gives 78.97 chs. N. 0° 2' W. from sec. cor. for point "C" on random sec. line.

67.05

Triangulation point in bottom of side canyon; thence by triangulated measurement to

78.97

Triangulation point on N. rim of side canyon.

79.86

Continue line and measurement by chaining.
 Intersect N. bdy. of Tp., 5 lks. W. of the cor. of secs. 1, 2, 35 and 36, hereinbefore described.

Thence,
 South, on true line, bet. secs. 1 and 2.
 Over broken and mountainous land, thru. scattering timber and undergrowth.

.89

North rim of side canyon 540 ft. deep, with perpendicular sandstone walls, brs. N. 70° W. and S. 70° E. Triangulated measurement to

12.81

Bottom of side canyon, cross dry bed of creek, 25 lks. wide, course S. 70° E. Asc. 540 ft. over cliffs. Triangulated measurement to

25.21

South rim of side canyon, brs. N. 80° W. and S. 80° E. Thence by chaining to

35.49

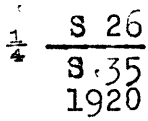
West rim of canyon of west fork of Defiance Creek, 600 ft. deep, with precipitous sand stone wall, brs. N. 35° E. and S. 20° W. Desc. 325 ft. to $\frac{1}{4}$ sec. cor. Triangulated measurement to

36 Subdivision of Township 23 North, Range 29 East.

Chains.	
39.86	Set an iron post 3 ft. long, 1 in. in diam., 12 ins. in the ground over cross (x) on bed rock, supported in a mound of stone 4 ft. base, 1½ ft. high for ¼ sec. cor., marked on brass cap, $\begin{array}{c} \frac{1}{4} \\ S\ 2\ \ S\ 1 \\ 1920 \end{array}$ <p>A cedar, 12 ins. in diam., brs. N. 28½° E., 40 lks. dist., mark "¼ S 1 BT." A cross (x) chiseled on face of cliff brs. N. 41° W. 7 lks. dist., chisel "¼ S 2 BR" underneath cross (x). Descend 275 ft. along face of cliffs on west wall of main canyon. Measurement by traverse to</p>
68.32	End of traverse hereinbefore described. Thence by chain measurement on sec. line.
70.25	Bottom of canyon, cross west fork of Defiance Creek, 125 lks. wide, course S. 40° W. Asc. 18 ft. over NW. slope, to
79.86	The cor. of secs. 1, 2, 11 and 12. Land, broken and mountainous. Soil, stony, 3rd and 4th rate. Timber, scattering oak, pinyon, pine and cedar. Undergrowth, scattering scrub oak and cedar.
40.00	From the reestablished cor. of secs. 2, 3, 34 and 35 on S. bdy. of Tp., hereinbefore described, N. 0° 4' W., bet. secs. 34 and 35. Over rolling land, thru dense timber and undergrowth. Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for ¼ sec. cor., marked on brass cap, $\begin{array}{c} \frac{1}{4} \\ S\ 34\ \ S\ 35 \\ 1920 \end{array}$ <p>A cedar, 16 ins. in diam., brs. N. 59½° E., 85 lks. dist., mark "¼ S 35 BT." A cedar, 18 ins. in diam., brs. N. 84° W., 58 lks. dist., mark "¼ S 34 BT."</p>
44.95	Ravine, 10 lks. wide, course NE. Asc. 12 ft., over SE. slope.
47.65	Spur, slopes E. Desc. 41 ft., over NW. slope.
50.72	Ravine, 8 lks. wide, course SE. Asc. 29 ft. over SW. slope.
61.20	Spur, slopes SE. Desc. 51 ft. over N. slope, to
80.00	Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 20, 27, 34 and 35, marked on brass cap, $\begin{array}{c} T\ 23\ N\ \ R\ 29\ E \\ S\ 27\ \ S\ 26 \\ \hline S\ 34\ \ S\ 35 \\ 1920 \end{array}$ <p>A cedar, 10 ins. in diam., brs. N. 46½° E., 260 lks. dist., mark "T23N R29E S26 BT." A pinyon pine, 8 ins. in diam., brs. S. 54½° E., 194 lks. dist., mark "T23N R29E S25 BT." A pinyon pine, 14 ins. in diam., brs. S. 69½° W., 90 lks. dist., mark "T23N R29E S34 BT." A cedar, 4 ins. in diam., brs. N. 4° W., 129 lks. dist., mark "T23N R29E S27 BT."</p>
	Land, rolling. Soil, sandy and stony, 3rd and 4th rate. Timber, dense pinyon pine and cedar. Undergrowth, dense scrub cedar.

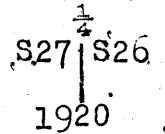
Chains.

N. 89° 52' E., on a random line, bet. secs. 26 and 35.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.82 Intersect N. and S. line, 2 lks. N. of the cor. of secs. 25, 26, 35 and 36.
 Thence,
 S. 89° 53' W., on true line, bet. secs. 26 and 35.
 Over rolling land, thru. dense timber and undergrowth. Asc. 9 ft., over SE. slope.
 8.50 Spur, slopes SW. Descend 38 ft., over NW. slope.
 16.88 Ravine, 5 lks. wide, course SW. Asc. 46 ft., over SE. slope.
 29.80 Spur, slopes S. Desc. 67 ft., over W. slope.
 39.91 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

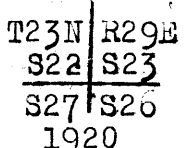


A pinyon pine, 8 ins. in diam., brs. N. 53 $\frac{1}{2}$ ° W., 26 lks. dist., mark " $\frac{1}{4}$ S 26 BT."
 A cedar, 8 ins. in diam., brs. S. 11 $\frac{1}{4}$ ° W., 48 lks. dist., mark " $\frac{1}{4}$ S 35 BT."
 52.40 Ravine, 8 lks. wide, course S. Asc. 26 ft., over E. slope.
 55.77 Spur, slopes S. Desc. 10 ft., over W. slope.
 59.52 Ravine, 5 lks. wide, 4 ft. deep, course SW.
 65.65 Ravine, 6 lks. wide, course S. Asc. 89 ft., over E. slope.
 71.30 Spur, slopes S. Desc. 59 ft., over W. slope.
 77.80 Dry creek bed 50 lks. wide, course S. 10° E. Asc. 5 ft. over NE. slope, to
 79.82 The cor. of secs. 26, 27, 34 and 35.
 Land, rolling.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N. 0° 04' W., bet. secs. 26 and 27.
 Over rolling land, thru. dense timber and scattering undergrowth. Desc. 5 ft., over NE. slope.
 1.60 Dry bed of creek, 50 lks. wide, course S. 60° E. Asc. 58 ft. over SW. slope.
 11.60 Point of spur, slopes W. Thence over broken land, sloping W.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,



A pinyon pine, 6 ins. in diam., brs. N. 85 $\frac{1}{2}$ ° E., 80 lks. dist., mark " $\frac{1}{4}$ S 26 BT."
 A pinyon pine, 8 ins. in diam., brs. S. 80° W., 110 lks. dist., mark " $\frac{1}{4}$ S 27 BT."
 43.40 Wash, 40 lks. wide, course SW. Asc. 23 ft., over SE. slope.
 50.00 Point of spur, slopes SE. Desc. 30 ft. over NE. slope.
 52.10 Same wash, 30 lks. wide, course SE. Asc. 17 ft. over SW. slope.
 60.00 Point of spur, slopes W. Desc. 17 ft., over NW. slope.
 62.10 Enter wash, 40 lks. wide, course SW. from N.
 67.20 Leave wash, course S. from NW. Asc. 57 ft., over SW. slope, to
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked on brass cap,



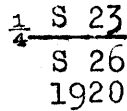
A pinyon pine, 8 ins. in diam., brs. N. 68 $\frac{1}{2}$ ° E., 109 lks. dist., mark "T23N R29E S23 BT."

Chains.

- A cedar, 10 ins. in diam., brs. S. 59 $\frac{1}{2}$ ° E., 132 lks. dist., mark "T23N R29E S25 BT."
- A cedar, 6 ins. in diam., brs. S. 20 $\frac{1}{2}$ ° W., 60 lks. dist., mark "T23N R29E S27 BT."
- A pinyon pine, 8 ins. in diam., brs. N. 31° W., 40 lks. dist., mark "T23N R29E S22 BT."

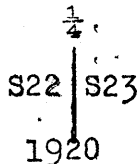
Land, rolling and broken.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, scattering scrub cedar.

- 40.00 N. 89° 53' E., on a random line, bet. secs. 23 and 26. Set temp. $\frac{1}{4}$ sec. cor.
- 79.74 Intersect N. and S. line, 8 lks. N. of the cor. of secs. 23, 24, 25 and 26.
 Thence,
 S. 89° 50' W., on a true line, bet. secs. 23 and 26.
 Over rolling and mountainous land, thru. dense timber and scattering undergrowth. Asc. 25 ft., over E. slope.
- 4.00 Spur, slopes S. Desc. 33 ft., over W. slope.
- 10.80 Gulch, 15 lks. wide, 8 ft. deep, course S. 50° E. Asc. 70 ft., over NE. slope.
- 21.65 Spur, slopes SE. Desc. 9 ft., over SW. slope.
- 27.37 Ravine, 6 lks. wide, course SE. Asc. 140 ft., over NE. slope.
- 39.87 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

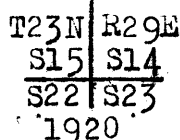


- .A cedar, 9 ins. in diam., brs. N. 73° W., 34 lks. dist., mark " $\frac{1}{4}$ S 23 BT."
- A pinyon pine, 10 ins. in diam., brs. S. 10° E., 142 lks. dist., mark " $\frac{1}{4}$ S 26 BT."
- 60.20 Ridge, brs. N. and S. Desc. 96 ft. over W. slope, to
- 79.74 The cor. of secs. 22, 23, 26 and 27.
 Land, rolling and mountainous.
 Soil, stony and sandy, 3rd rate.
 Timber, dense pinyon, pine and cedar.

- 1.10 N. 0° 04' W., bet. secs. 22 and 23. Over mountainous land, thru. dense timber and scattering undergrowth. Asc. 5 ft., over SE. slope.
- 21.87 Spur, slopes SW. Desc. 65 ft., over NW. slope.
- 40.00 Ravine, 10 lks. wide, course SW. Asc. 68 ft., over SE. slope.
- Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



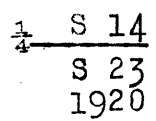
- A cedar, 10 ins. in diam., brs. N. 89 $\frac{1}{2}$ ° E., 30 lks. dist., mark " $\frac{1}{4}$ S 23 BT."
- A pinyon pine, 5 ins. in diam., brs. S. 40 $\frac{3}{4}$ ° W., 68 lks. dist., mark " $\frac{1}{4}$ S 22 BT."
- 43.20 Spur, slopes N. and W. Desc. 45 ft., over N. slope.
- 72.00 Draw, 25 lks. wide, course SW. Asc. 41 ft., over SE. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked on brass cap,



Chains.

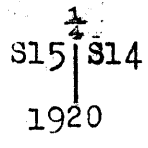
A pinyon pine, 6 ins. in diam., brs. N. 58 $\frac{3}{4}$ ° E., 92 lks. dist., mark "T23N R29E S14 BT."
 A pinyon pine, 4 ins. in diam., brs. S. 02° E., 58 lks. dist., mark "T23N R29E S23 BT."
 A pinyon pine, 6 ins. in diam., brs. S. 20° W., 89 lks. dist., mark "T23N R29E S22 BT."
 Land, spruce cedar, 6 ins. in diam., brs. N. 63° W., 68 lks. dist., mark "T23N R29E S15 BT."
 Soil, stony and sandy, 3rd and 4th rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, scattering scrub cedar.

40.00 N. 89° 50' E., on a random line, bet. secs. 14 and 23.
 79.92 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line, 14 lks. N. of the cor. of secs. 13, 14, 23 and 24.
 Thence,
 N. 89° 58' W., on true line, bet. secs. 14 and 23.
 Over mountainous land, thru. dense timber and undergrowth. Descend 35 ft., over SW. slope.
 1.52 Ravine, 20 lks. wide, course SE. Asc. 87 ft., over NE. slope.
 9.50 Point of spur, slopes SE. Desc. 25 ft., over SW. slope.
 13.25 Ravine, 10 lks. wide, course SE. Asc. 41 ft., over NE. slope.
 21.53 Spur, slopes SE. Desc. 11 ft., over SW. slope.
 25.90 Draw, 20 lks. wide, course SE. Asc. 57 ft., over NE. slope.
 39.96 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



54.96 A cedar, 4 ins. in diam., brs. N. 8° W., 64 lks. dist., mark " $\frac{1}{4}$ S 14 BT."
 61.44 A cedar, 10 ins. in diam., brs. S. 2 $\frac{3}{4}$ ° W., 42 lks. dist., mark " $\frac{1}{4}$ S 23 BT."
 69.95 Ridge, brs. NE and SW. Desc. 23 ft., over NW. slope.
 77.42 Draw, 25 lks. wide, course SW. Asc. 23 ft., over SE. slope.
 79.92 Spur, slopes S. Desc. 34 ft. over W. slope.
 Ravine, 5 lks. wide, course S. Asc. 11 ft., over SE. slope, to The cor. of secs. 14, 15, 22 and 23.
 Land, mountainous.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

6.00 N. 0° 04' W., bet. secs. 14 and 15.
 40.00 Over mountainous land, thru. dense timber and undergrowth. Desc. 12 ft., over E. slope.
 Draw, 10 lks. wide, course SE. Asc. 85 ft., over SW. slope.
 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,



50.00 A cedar, 12 ins. in diam., brs. S. 78 $\frac{1}{2}$ ° E., 58 lks. dist., mark " $\frac{1}{4}$ S 14 BT."
 66.00 A pinyon pine, 10 ins. in diam., brs. S. 77 $\frac{1}{2}$ ° W., 59 lks. dist., mark " $\frac{1}{4}$ S 15 BT."
 80.00 Stony ridge, brs. E. and W. Desc. 15 ft. over N. slope.
 Draw, 10 lks. wide, course E. Asc. 11 ft., over S. slope.
 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, marked on brass cap,

40 Subdivision of Township 23 North, Range 29 East.

Chains.

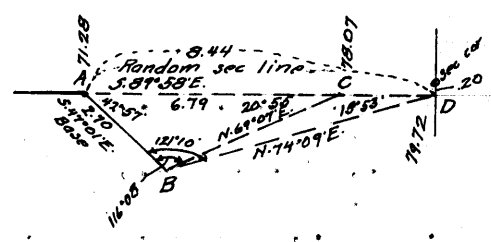
T23N	R29E.
S310	S11
S15	S14
1920	

- A pinyon pine, 10 ins. in diam., brs. N. 18 1/2° E., 26 lks. dist., mark "T23N R29E S11 BT."
- A pinyon pine, 8 ins. in diam., brs. S. 42 1/2° E., 25 lks. dist., mark "T23N R29E S14 BT."
- A pinyon pine, 8 ins. in diam., brs. S. 37 3/4° W., 21 lks. dist., mark "T23N R29E S15 BT."
- A pinyon pine, 8 ins. in diam., brs. N. 50 1/2° W., 63 lks. dist., mark "T23N R29E S10 BT."

Land, mountainous.
 Soil, stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

40.00
71.28

S. 89° 58' E., on a random line, bet. secs. 11 and 14.
 Set temp. 1/4 sec. cor.
 W. rim of canyon of west fork of Defiance Creek, with perpendicular sandstone walls 450 ft. high. Continuation of measurement of random line by chaining being impracticable, triangulate as described as follows, and as shown on the diagram hereon.



From this point on random sec. line, indicated on diagram at "A" measure a base, S. 47° 01' E., 2.70 chs. to point "B."
 Set flag on random sec. line in bottom of canyon at "C."
 Vertical angle A to C = -54° 18'
 Set flag at end of random sec. line at 20 lks. S. of cor. of secs. 11, 12, 13 and 14 at point "D."

Bearing of "BC" = N. 69° 07' E. Bearing of "BD" = N. 74° 09' E.
 Included angles of "BAC" are 116° 08', 42° 57' and 20° 55'; the sum of which is 180°.
 Included angles of "BAD" are 121° 10', 42° 57' and 15° 53', the sum of which is 180°.
 "AC" = $\frac{\text{sine } 116^{\circ}08' \times \text{base}}{\text{sine } 20^{\circ}55'}$ or $\frac{.89777 \times 2.70}{.35701} = 6.79$ chs., which added to 71.28 chs. gives 78.07 chs. S. 89° 58' E. from sec. cor. for point "C" on random sec. line.

78.07

"AD" $\frac{\text{sine } 121^{\circ}10' \times \text{base}}{\text{sine } 15^{\circ}53'}$ or $\frac{.85567 \times 2.70}{.27368} = 8.44$ chs., which added to 71.28 chs. gives 79.72 chs. S. 89° 58' E. from sec. cor. for point "D" at E. end of random line.

79.72

Triangulation point in bottom of canyon.
 Continue line and measurement by above described triangulation.
 Intersect N. and S. line 20 lks. S. of the cor. of secs. 11, 12, 13 and 14.
 Thence, S. 89° 54' W., on a true line, bet. secs. 11 and 14.
 Over mountainous land, thru. scattering timber and undergrowth.

1.05

Descend 30 ft. over W. slope.
 Measurement by triangulation, to Bottom of canyon of west fork of Defiance Creek, with stream of water 40 lks. wide, 3 ins. deep, course S. 60° E. Asc. 630 ft. over cliffs. Measurement by triangulation to

8.44

West rim of canyon, brs. N. 45° W. and S. 45° E. Ascend 119 ft. over E. slope, thru. dense timber and undergrowth. Remainder of mile by chain measurement.

Chains.

- 22.40 Point of spur, slopes N. from SW. Desc. 28 ft., over NW. slope, to
- 29.57 Gulch, 10 lks. wide, course NE. Leave mountainous and enter rolling land. Asc. 111 ft. over SE. slope to sec. cor.
- 39.86 Set an iron post 3 ft. long 1 in. in diam., 20 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 11
S 14
1920

- A pinyon pine, 8 ins. in diam., brs. N. 28° W., 55 lks. dist., mark " $\frac{1}{4}$ S 11 BT "
- A pinyon pine, 12 ins. in diam., brs. S. 58 $\frac{1}{2}$ ° W., 21 lks. dist., mark " $\frac{1}{4}$ S 14 BT."
- 79.72 The cor. of secs. 10, 11, 14 and 15. Land, mountainous and rolling. Soil, sandy and stony, 3rd and 4th rate. Timber, scattering oak and pinyon pine, and dense cedar. Undergrowth, scrub oak and cedar, scattering in canyon; dense elsewhere.

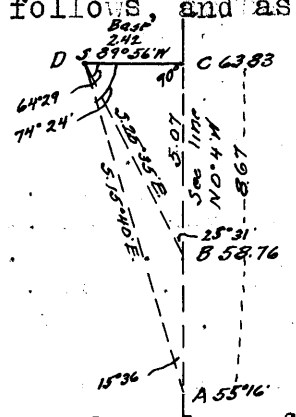
- N. 0° 4' W., bet. secs. 10 and 11. Over rolling land, thru. dense timber and undergrowth. Ascend 17 ft. over SE. slope.
- 11.00 Spur, slopes NE. Descend 121 ft. to the $\frac{1}{4}$ sec. cor.
 - 38.64 Gulch, 8 lks. wide, 3 ft. high, course E.
 - 39.05 Gulch, 6 lks. wide, banks 2 $\frac{1}{2}$ ft. high, course E.
 - 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
S 10 | S 11
1920

- A pinyon pine, 6 ins. in diam., brs. N. 25 $\frac{3}{4}$ ° W., 132 lks. dist., mark " $\frac{1}{4}$ S 10 BT."
- A pinyon pine, 8 ins. in diam., brs. S. 50 $\frac{1}{2}$ ° E., 92 lks. dist., mark " $\frac{1}{4}$ S 11 BT."

Thence over gently rolling land, to south rim of wide South rim of side canyon, 360 ft. deep, with perpendicular sandstone walls.

Discontinue chaining, and triangulate as described as follows, and as shown on the diagram hereon:



From this point on sec. line, indicated on diagram as "A" line in flags N. 0° 4' W. at points "B" and "C" at bottom of canyon and N. rim of canyon respectively. Vertical angle "A" to "B" = -50° 18'

From point "C" measure a base S. 89° 50' W., 2.42 chs. to point "D." Bearing of "DB" = S. 25° 35' E. Bearing of "DA" = S. 15° 40' E.

Included angles of "DCB" are 64° 29', 90° and 25° 31', the sum of which is 180°. Included angles of "DCA" are 74° 24', 90° and 15° 36', the sum of which is 180°. "AC" = tang. 74° 24' x base or 3.58100 x 2.42 = 8.67 chs., which added to 55.16 chs. gives 63.83 chs. N. 0° 4' W. from sec. cor. for point "C" on sec. line. "BC" = tang. 64° 29' x base or 2.09498 x 2.42 = 5.07 chs., which subtracted from 63.83 chs. gives 58.76 chs. N. 0° 4' W. from sec. cor. for point "B" on sec. line.

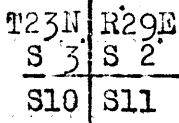
- 58.76 Dry bed of creek, 30 lks. wide in bottom of side canyon, course SE. Asc. 360 ft. over N. wall of canyon. Measurement by triangulation to

42 Subdivision of Township 23 North, Range 29 East.

Chains.

63.83

North rim of side canyon, brs. NW and SE.; thence over slightly rolling land, sloping S. Chain measurement to Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked on brass cap,



1920

A pinyon pine, 8 ins. in diam., brs. N. 25 1/2° E., 218 lks. dist., mark "T23N R29E S2 BT."

A pinyon pine, 8 ins. in diam., brs. S. 39 1/2° E., 67 lks. dist., mark "T23N R29E S11 BT."

A pinyon pine, 10 ins. in diam., brs. S. 48° W., 17 lks. dist., mark "T23N R29E S10 BT."

A pinyon pine, 12 ins. in diam., brs. N. 47 1/2° W., 36 lks. dist., mark "T23N R29E S3 BT."

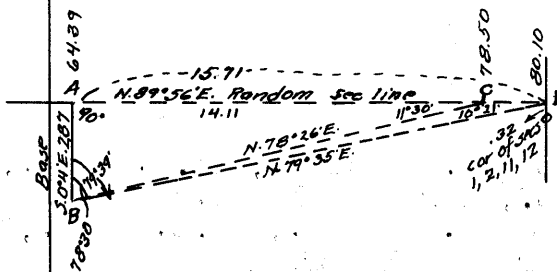
Land, rolling and broken.
Soil, sandy and stony, 3rd and 4th rate.
Timber dense pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

40.00

N. 89° 50' E., on a random line, bet. secs. 2 and 11. Set temp. 1/4 sec. cor.

64.39

West rim of main canyon with perpendicular sand stone walls. Discontinue chaining and triangulate the remainder of the random sec. line as described as follows; and as shown on the diagram hereon:



From this point on random sec. line designated on diagram as "A" measure a base, S. 0° 4' E., 2.87 chs. to point "B"

Set flag on random sec. line in bottom of canyon at point "C."

Set flag at E. end of random line at 32 lks. N. of the cor. of secs. 1, 2, 11 and 12 at point "D."

Vertical angle "A" to "C" 31° 13'.

Bearing of "BC" = N. 78° 20' E. Bearing of "BD" = N. 79° 35' E.

Included angles of "BAC" are 78° 30', 90° and 11° 30', the sum of which is 180°.

Included angles of "BAD" are 79° 39', 90° and 10° 21', the sum of which is 180°.

"AC" = tang. 78° 30' x base or 4.91516 x 2.87 = 14.11 chs., which added to 64.39 chs. gives 78.50 chs. N. 89° 56' E from sec. cor. for point "C" on random sec. line.

"AD" = tang. 79° 39' x base or 5.47548 x 2.87 = 15.71 chs., which added to 64.39 chs. gives 80.10 chs. N. 89° 56' E. from sec. cor. for point "D" at E. end of random sec. line.

78.50

Triangulation point on random line in bottom of main canyon.

80.10

Triangulated measurement to Intersect N. and S. line 32 lks. N. of the cor. of secs. 1, 2, 11 and 12.

thence, N. 89° 50' W. on true line, bet. secs. 2 and 11. Over hilly land, thru. scattering timber and undergrowth. Desc. 25 ft. over W. slope. Measurement by triangulation to

1.60

Triangulation point, chain measurement to

2.60

Center of west fork of Defiance Creek, with running clear water 140 lks. wide, 4 ins. deep, on gravelly bottom course S. 5° W. Asc. 570 ft. over W. wall of canyon, over

Subdivision of Township 23 North, Range 29 East.

Chains.

perpendicular sandstone cliffs and ledges. Triangulated measurement to

15.71 West rim of canyon, brs. N. and S. Leave canyon, and enter rolling land. Asc. 81 ft. over SE. slope, thru. dense timber and scattering undergrowth. Chaining measurement of remainder of mile.

40.05 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 2
S 11
1920

A pinyon pine, 12 ins. in diam., brs. N. $62\frac{1}{2}^\circ$ E., 74 lks. dist., mark " $\frac{1}{4}$ S 2 BT."

A cedar, 5 ins. in diam., brs. S. 45° E., 28 lks. dist., mark " $\frac{1}{4}$ S 11 BT."

50.10 Spur, slopes S. Desc. 20 ft. over SW. slope.

59.75 Ravine, 6 lks. wide, banks 3 ft. high, course S.

80.10 The cor. of secs. 2, 3, 10 and 11.
Land, rolling and broken.
Soil, sandy and stony, 3rd and 4th rate.
Timber, oak, pinyon, pine and cedar, scattering in canyon, dense elsewhere.
Undergrowth, scattering scrub oak and cedar, and sage brush.

N. $0^\circ 4' W.$, on a random line, ber. secs. 2 and 3.

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

80.18 Intersect N. bdy. of Tp., 9 lks. W of the cor. of secs. 2, 3, 34 and 35, hereinbefore described.
Thence,
South, on true line, bet. secs. 2 and 3.
Over rolling land, thru. scattering timber and undergrowth.

2.78 Brush fence, brs. NE. and SW.

40.18 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
S 3 | S 2
1920

A pinyon pine, 12 ins. in diam., brs. N. 72° E., 75 lks. dist., mark " $\frac{1}{4}$ S 2 BT."

A pinyon pine, 9 ins. in diam., brs. N. $37\frac{1}{4}^\circ$ W., 139 lks. dist., mark " $\frac{1}{4}$ S 3 BT."

80.18 The cor. of secs. 2, 3, 10 and 11.
Land, rolling.
Soil, sandy and stony, 3rd rate.
Timber, scattering pinyon pine and cedar.
Undergrowth, scattering scrub cedar and sage brush.

From the cor. of secs. 3, 4, 33 and 34 on S. bdy. of Tp., N. $0^\circ 07' W.$ (computed bearing) bet. secs. 33 and 34.

11:00 Over rolling land in wide draw, course S., thru. dense timber and undergrowth.

12:00 Enter sand wash, 10 lks. wide, banks $2\frac{1}{2}$ ft. high, course SW. from N.

15:50 Leave same wash, course S. from NW.

27:30 Old road leads to Houck, Arizona, brs. NW and SE.
Road from Houck to St. Michaels, Arizona, brs. NW. and SE.
Leave draw; ascend 28 ft. over S. slope, to

40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
S 33 | S 34
1920

44 Subdivision of Township 23 North, Range 29 East.

Chains.

A pinyon pine, 8 ins. in diam., brs. N. 89° E., 41 lks. dist., mark "1/4 S 34 BT."
 A cedar, 15 ins. in diam., brs. S. 58° W., 48 lks. dist., mark "1/4 S 33 BT."
 Ascend over SW. slope.
 49.00 Ridge, brs. NW. and SE. Desc. along E. slope.
 67.00 Spur, slopes NE. Desc. 38 ft. over N. slope.
 68.75 Ravine, 5 lks. wide, course NE. Asc. 15 ft., over SE. slope.
 74.05 Rocky spur, slopes E. Desc. 20 ft. over N. slope.
 75.40 Ravine, 4 lks. wide, course E. Asc. 8 ft., over S. slope.
 76.80 Spur, slopes E. Desc. 10 ft., over N. slope.
 77.57 Ravine, 6 lks. wide, course SE. Asc. 17 ft., over SW. slope, to
 80.00 Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap,

T23N	R29E
S28	S27
S33	S34
1920	

 A pine, 10 ins. in diam., brs. N. 69 1/4° E., 70 lks. dist., mark "T23N R29E S27 BT."
 A pinyon pine, 10 ins. in diam., brs. S. 83 1/4° E., 52 lks. dist., mark "T23N R29E S34 BT."
 A pinyon pine, 8 ins. in diam., brs. S. 32 1/4° W., 31 lks. dist., mark "T23N R29E S33 BT."
 A pinyon pine, 12 ins. in diam., brs. N. 37 3/4° W., 125 lks. dist., mark "T23N R29E S28 BT."
 Land, rolling.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub cedar.

 N. 89° 52' E., on a random line, bet. secs. 27 and 34.
 40.00 Set temp. 1/4 sec. cor.
 79.58 Intersect N. and S. line at the cor. of secs. 26, 27, 34 and 35.
 Thence,
 S. 89° 52' W., on true line, bet. secs. 27 and 34.
 Over mountainous land, thru. dense timber and undergrowth.
 Ascend 253 ft., over NE. slope.
 39.79 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1/4 S 27
S 34
1920

 A cedar, 10 ins. in diam., brs. N. 13° W., 51 lks. dist., mark "1/4 S 27 BT."
 A cedar, 6 ins. in diam., brs. S. 36 1/2° W., 55 lks. dist., mark "1/4 S 34 BT."
 48.00 Point of spur, slopes SE. Descend 11 ft., over SW. slope.
 51.85 Ravine, 4 lks. wide, course SE. Asc. 52 ft., over NE. slope.
 57.80 Spur, slopes SE. Descend 42 ft., over SW. slope.
 66.90 Wash, 25 lks. wide, course S. 50° E. Asc. 88 ft., over NE. slope.
 76.80 Spur, slopes SE. Desc. 13 ft., over SW. slope, to
 79.58 The cor. of secs. 27, 28, 33 and 34.
 Land, mountainous.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

 N. 0° 07' W., bet. secs. 27 and 28.
 Over mountainous land, thru. dense timber and undergrowth.
 Asc. 19 ft., over SW. slope.

Subdivision of Township 23 North, Range 29 East.

Chains.

- 3.15 Spur, slopes SE. Desc. 13 ft., over NE. slope.
- 4.77 Ravine, 4 lks. wide, course SE. Asc. 22 ft., over SW. slope.
- 13.00 Spur, slopes SE. Desc. 105 ft., over NE. slope.
- 25.87 Ravine, 10 lks. wide, course E. Asc. 20 ft. over S. slope.
- 31.40 Spur, slopes NE. Desc. 104 ft., over NW. slope.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S28 | S27
 1920

- A pinyon pine, 6 ins. in diam., brs. N. $23\frac{3}{4}^{\circ}$ E., 8 lks. dist., mark " $\frac{1}{4}$ S 27 BT."
- A pinyon pine, 12 ins. in diam., brs. N. $48\frac{1}{2}^{\circ}$ W., 25 lks. dist., mark " $\frac{1}{4}$ S 28 BT."
- 41.37 Wash, 15 lks. wide, course E. Asc. 33 ft., over S. slope.
- 47.42 Spur, slopes E. Desc. 46 ft., over N. slope.
- 49.11 Ravine, 10 lks. wide, course E. Asc. 40 ft., over S. slope.
- 53.00 Spur, slopes E. Desc. 20 ft., over N. slope.
- 66.72 Ravine, 9 lks. wide, course E. Asc. 11 ft., over S. slope.
- 70.55 Spur, slopes E. Desc. 11 ft., over N. slope.
- 75.20 Head of ravine, course E. Asc. 18 ft., over SE. slope.
- 77.02 Spur, slopes S. 80° E. Desc. 14 ft., over NE. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, marked on brass cap,

T23N | R29E
 S21 | S22
 S28 | S27
 1920

- A pinyon pine, 5 ins. in diam., brs. N. $26\frac{1}{2}^{\circ}$ E., 34 lks. dist., mark "T23N R29E S22 BT."
- A pinyon pine, 6 ins. in diam., brs. S. $61\frac{1}{4}^{\circ}$ E., 42 lks. dist., mark "T23N R29E S27 BT."
- A pinyon pine, 6 ins. in diam., brs. S. 57° W., 54 lks. dist., mark "T23N R29E S28 BT."
- A cedar, 8 ins. in diam., brs. N. 71° W., 52 lks. dist., marked "T23N R29E S21 BT."

Land, mountainous.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

- 40.00 N. $89^{\circ}52'$ E., on a random line, bet. secs. 22 and 27.
- Set temp. $\frac{1}{4}$ sec. cor.
- 79.70 Intersect N. and S. line, 24 lks. N. of the cor. of secs. 22, 23, 26 and 27.
- Thence,
- N. $89^{\circ}58'$ W., on a true line, bet. secs. 22 and 27.
- Over mountainous land, thru. dense timber and undergrowth.
- Descend 18 ft., over W. slope.
- 5.80 Ravine, 25 lks. wide, course S. Asc. 92 ft., over E. slope.
- 21.25 Spur, slopes S. Desc. 10 ft., over W. slope.
- 24.85 Ravine, 4 lks. wide, course S. Asc. 261 ft., over E. slope.
- 39.85 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

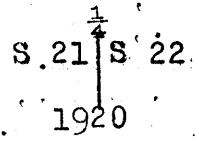
$\frac{1}{4}$ S 22
 S 27
 1920

- A pinyon pine, 8 ins. in diam., brs. N. 1° E., 52 lks. dist., mark " $\frac{1}{4}$ S 22 BT."
- A pinyon pine, 10 ins. in diam., brs. S. $48\frac{1}{2}^{\circ}$ W., 33 lks. dist., mark " $\frac{1}{4}$ S 27 BT."
- 66.12 Spur, slopes SE. Desc. 29 ft., over SW. slope.

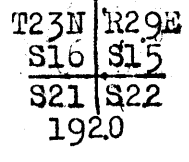
46 Subdivision of Township 23 North, Range 29 East.

Chains,
 77.70 Ravine, 6 lks.wide, course SE. Asc.17 ft., over NE.slope,
 79.70 The cor.of secs.21,22, 27 and 28.
 Land,mountainous.
 Soil,sandy and stony,2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N.0°7'W.,bet. secs.21 and 22.
 Over mountainous land, thru.dense timber and undergrowth.
 Descend 17 ft.,over NE.slope.
 1.60 Ravine, 20 lks.wide, course SE. Asc.45 ft.,over SW.slope.
 23.90 Spur,slopes SE. from W. Desc.20 ft.,over N.slope.
 28.04 Ravine,10 lks.wide, course E. Asc. 37 ft.,over S.slope.
 40.00 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,



A pinyon pine, 8 ins. in diam., brs.S.77 $\frac{1}{2}$ °E.,
 10 lks.dist.,mark " $\frac{1}{4}$ S 22 BT."
 A pinyon pine, 8 ins. in diam.,brs.S.79 $\frac{1}{2}$ °W.,42 lks.
 lks.dist., mark " $\frac{1}{4}$ S 21 BT."
 This cor.is on summit of ridge, brs.E and W.
 Desc. 65 ft.,over N.slope.
 46.54 Ravine,10 lks.wide, course E. Asc. 40 ft.,over S.slope.
 57.15 Spur,slopes E. Desc.30 ft.over N.slope.
 59.38 Ravine,10 lks.wide, course E. Asc. 50 ft.,over S.slope.
 62.61 Spur,slopes E. Desc.39 ft.,over NE.slope.
 65.96 Gulch, 20 lks.wide, course SE. Asc. 35 ft.,over SW.slope,
 to
 78.36 Spur,slopes SW. Desc.7 ft.,over NW.slope, to
 80.00 Set an iron post, 3 ft.long, 2 ins. in diam., 24 ins. in
 the ground, for cor.of secs.15,16,21 and 22, marked
 on brass cap,



A pinyon pine, 8 ins. in diam.,brs.N.53 $\frac{3}{4}$ °E.,
 32 lks.dist.,mark "T23N R29E S15 BT."
 A pinyon pine, 8 ins.in diam.,brs.S.82°E.,
 66 lks.dist.,mark "T23N R29E S22 BT."
 A pinyon pine,10 ins.in diam.,brs.S.53°W.,97
 lks.dist., mark "T23N R29E S21 BT."
 A pinyon pine,12 ins.in diam.,brs.N.66°W.,
 55 lks.dist.,mark."T23N R29E S16 BT."
 Land,mountainous.
 Soil,sandy and stony,2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

S.89°58'W., on a random line, bet. secs.15 and 22.
 40.00 Set temp. $\frac{1}{4}$ sec.cor..
 79.78 Intersect N. and S. line, 8 lks,S.of the cor. of secs.
 14.15, 22 and 23.
 Thence,
 S.89°59'W., on true line, bet. secs.15 and 22.
 Over mountainous land, thru. dense timber and undergrowth.
 Ascend,40 ft.,over NE.slope.
 7.18 Spur,slopes SE. Desc.75 ft.,over SW.slope.
 22.11 Wash,30 lks.wide, banks, 4 ft.high, course S. Asc.168
 ft.over E.slope,to
 39.89 Set an iron post, 3 ft.long, 1 in. in diam.,26 ins.in
 the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap, .

Subdivision of Township 23 North, Range 29 East.

Chains.

$\frac{1}{4}$ S 15
 S 22
 1920

A pinyon pine, 8 ins. in diam., brs. N. $18\frac{1}{2}^{\circ}$ W., .95 lks. dist., mark " $\frac{1}{4}$ S 15 BT."
 A cedar, 6 ins. in diam., brs. S. $32\frac{1}{2}^{\circ}$ W., .48 lks. dist., mark " $\frac{1}{4}$ S 22 BT."
 This cor. is on summit of spur, slopes NE. Desc. 6 ft., over NW. slope.
 46.33 Draw, 20 lks. wide, course NE. Asc. 46 ft., over SE. slope.
 49.31 Spur, slopes NE. Desc. 12 ft., over NW. slope.
 59.90 Same draw, 8 lks. wide, course SE. Asc. 10 ft., over NE. slope.
 63.80 Ridge, brs. NW and SE. Desc. 35 ft., over SW. slope, to
 79.78 The cor. of secs. 15, 16, 21 and 22.
 Land, mountainous.
 Soil, stony, 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N. $0^{\circ}07'$ W., bet. secs. 15 and 16.
 Over rolling land, thru. dense timber and undergrowth.
 Descend 10 ft., over NW. slope.
 1.49 Ravine, 6 lks. wide, course SW. Asc. 34 ft., over SE. slope.
 7.60 Spur, slopes SW. Desc. 17 ft., over NW. slope.
 12.50 Draw, 20 lks. wide, course SW. Asc. 47 ft., over SE. slope.
 25.90 Ridge, brs. NE and SW. Desc. 17 ft. over NW. slope, to
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S16 | S15
 1920

A pinyon pine, 8 ins. in diam., brs. N. $35\frac{1}{4}^{\circ}$ E., .42 lks. dist., mark " $\frac{1}{4}$ S 15 BT."
 A cedar, 12 ins. in diam., brs. N. 82° W., .34 lks. dist., mark " $\frac{1}{4}$ S 16 BT."
 Thence over rolling, sandy land, along W. and SW. slope of ridge.
 58.20 Same ridge, brs. NW and SE. Desc. 23 ft., over NE. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked on brass cap,

T23N	R29E
S 9	S10
S16	S15

 1920

A pinyon pine, 6 ins. in diam., brs. N. $25\frac{1}{4}^{\circ}$ E., .49 lks. dist., mark "T23N R29E S10 BT."
 A cedar, 5 ins. in diam., brs. S. 21° E., .163 lks. dist., mark "T23N R29E S15 BT."
 A pinyon pine, 4 ins. in diam., brs. S. $26\frac{3}{4}^{\circ}$ W., .40 lks. dist., mark "T23N R29E S16 BT."
 A pinyon pine, 4 ins. in diam., brs. N. $68\frac{3}{4}^{\circ}$ W., .180 lks. dist., mark "T23N R29E S9 BT."
 Land, rolling.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar.

N. $89^{\circ}59'$ E., on a random line; bet. secs. 10 and 15.
 40.00 Set temp: $\frac{1}{4}$ sec. cor.
 79.74 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 10, 11, 14 and 15.

Subdivision of Township 23 North, Range 29 East.

Chains.

Thence,
 S. 89° 58' W., on true line, bet. secs. 10 and 15.
 Over rolling land, thru. dense timber and undergrowth.
 Ascend 58 ft., over SE. slope.
 22.66 Ridge, brs. NE and SW. Desc. 17 ft., over NW. slope.
 29.75 Ravine, 4 lks. wide, course SW. Asc. 43 ft. over SE. slope,
 to
 39.87 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 10
 S 15
 1920.

A pinyon pine, 8 ins. in diam., brs. N. 11 $\frac{1}{4}$ ° E., 61
 lks. dist., mark " $\frac{1}{4}$ S 10 BT."
 A pinyon pine, 6 ins. in diam., brs. S. 15 $\frac{1}{4}$ ° W., 57
 lks. dist., mark " $\frac{1}{4}$ S 15 BT."
 This cor. is on summit of spur, slopes SW. Desc. 38 ft.,
 over NW. slope.
 65.00 Leave dense, and enter scattering timber, brs. NE. and SE.
 69.75 Draw, 100 lks. wide, course SE. Asc. 17 ft. over NE. slope, to
 79.74 The cor. of secs. 9, 10, 15 and 16.
 Land, rolling.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, pinyon, pine and cedar, dense and scattering as
 noted.
 Undergrowth, scattering scrub cedar, and sage brush.

N. 0° 07' W., bet. secs. 9 and 10.
 Over rolling land, thru. scattering timber and undergrowth.
 Desc. 5 ft., over NE. slope.
 10.00 Draw, 70 lks. wide, course SE. Asc. 45 ft., over SE. slope.
 24.50 Sandy spur, slopes NE. Desc. 70 ft., over NW. slope.
 29.40 Old wood road; brs. NE. and SW.
 34.40 Leave timber; brs. NE. and SW.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S 9 | S 10
 1920.

A cedar, 14 ins. in diam., brs. S. 76° E., 227 lks.
 dist., mark " $\frac{1}{4}$ S 10 BT."
 A cedar, 24 ins. in diam., brs. S. 15 $\frac{1}{2}$ ° W., 146 lks.
 dist., mark " $\frac{1}{4}$ S 9 BT."
 50.00 Draw, 50 lks. wide, course N. 85° E.
 50.75 A well at Pine Spring, brs. W. about 14 chs. dist.
 52.90 Indian well brs. E. about 90 lks. dist.
 54.12 South side of circular corral,
 54.90 North side of corral.
 60.00 Enter scattering timber, brs. E. and W.
 77.00 Begin descent, over NE. slope.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground for cor. of secs. 3, 4, 9 and 10, marked on
 brass cap,

T23N | R29E
 S 4 | S 3
 S 9 | S 10
 1920

A pinyon pine, 8 ins. in diam., brs. N. 56° E., 35
 lks. dist., mark "T23N R29E S3 BT."
 A pinyon pine, 8 ins. in diam., brs. S. 16 $\frac{1}{2}$ ° E., 77
 lks. dist., mark "T23N R29E S10 BT."
 A pinyon pine, 7 ins. in diam., brs. S. 49° W., 160
 lks. dist., mark "T23N R29E S9 BT."

Chains.

A cedar, 10 ins. in diam., brs. N. 67 1/2° W., 77 lks.
dist., mark "T23N R29E S4 BT."

Land, rolling.
Soil, sandy, 2nd and 3rd rate.
Timber, pinyon pine, yellow pine and cedar, as noted.
Undergrowth, scattering scrub cedar and sage brush.

40.00 N. 89° 58' E., on a random line, bet. secs. 3 and 10.
Set temp. 1/4 sec. cor.
79.76 Intersect N. and S. line, 10 lks. S. of the cor. of secs. 2,
3, 10 and 11.

Thence,
S. 89° 54' W., on true line, bet. secs. 3 and 10.
Over rolling land, thru. dense timber and undergrowth.
Desc. 39 ft., over SW. slope.
39.88 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground for 1/4 sec. cor., marked on brass cap,

1/4 S 3
S 10
1920

A cedar, 10 ins. in diam., brs. N. 4° W., 17 lks.
dist., mark "1/4 S 3 BT."
A pinyon pine, 10 ins. in diam., brs. S. 19 1/4° E., 42 lks.
dist., mark "1/4 S 10 BT."

41.50 Leave timber, brs. N and S.
46.30 Draw, 50 lks. wide, course S. Asc. E. slope.
55.00 Enter timber, brs. NW and SW.
61.30 Low spur, slopes SE. Desc. over SW. slope.
68.75 Ravine, 40 ft. deep, 50 lks. wide, discharges into box can-
yon, about 6.00 chs. S. of line, course S. 40° E. Asc. 38
ft., over NE. slope, to
79.76 The cor. of secs. 3, 4, 9 and 10.

Land, rolling.
Soil, sandy and stony, 3rd rate.
Timber, dense pinyon pine and cedar where noted.
Undergrowth, dense scrub cedar and sage brush.

40.00 N. 0° 7' W., on a random line, bet. secs. 3 and 4.
Set temp. 1/4 sec. cor.
80.14 Intersect the N. bdy. of Tp. at the cor. of secs. 3, 4, 33 and
34, hereinbefore described.

Thence,
S. 0° 07' E. on true line, bet. secs. 3 and 4.
Over rolling land, thru. scattering timber and under-
growth.

5.05 Draw, 2.00 chs. wide, course SE.
35.80 Road from Houck, to St. Michaels, Arizona, brs. NE and SW.
40.14 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
the ground for 1/4 sec. cor., marked on brass cap,

1/4 S 4 | S 3
1920

A cedar, 8 ins. in diam., brs. N. 77 1/2° W., 261 lks.
dist., mark "1/4 S 4 BT."
A pinyon pine, 6 ins. in diam., brs. S. 48° E., 23 lks.
dist., mark "1/4 S 3 BT."

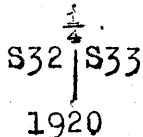
65.00 Low, stony spur, slopes SE. Desc. 34 ft., over SW. slope.
70.45 Ravine, 45 lks. wide, course SE. Asc. 23 ft., over NE. slope, to
80.14 The cor. of secs. 3, 4, 9 and 10.

Land, rolling.
Soil, sandy and stony, 3rd and 4th rate.
Timber, pinyon pine and cedar.
Undergrowth, scattering scrub cedar.

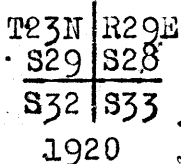
50 Subdivision of Township 23 North, Range 29 East.

Chains.

- From the reestablished cor. of secs. 4, 5, 32 and 33 on S. bdy. of Tp., hereinbefore described, N. 0° 09' W. (computed bearing) bet. secs. 32 and 33. Over rolling land, thru. dense timber and undergrowth. Descend 17 ft., over NE. slope.
- 10.78 Draw, 40 lks. wide, course SE. Asc. 18 ft., over SW. slope.
- 30.20 Old road, from Houck, Arizona, to Navajo Indian Reservation brs. E. and W.
- 30.25 Sandy spur, slopes SE. Desc. 50 ft., over NE. slope.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



- A cedar, 10 ins. in diam., brs. N. 86 $\frac{1}{2}$ ° E., 43 lks. dist., mark " $\frac{1}{4}$ S 33 BT."
- A pinyon pine, 10 ins. in diam., brs. N. 80° W., 92 lks. dist., mark " $\frac{1}{4}$ S 32 BT."
- 47.60 Ravine, 20 lks. wide, 4 ft. deep, course SE. Asc. 47 ft., over SW. slope.
- 58.50 Point of spur, slopes W. Desc. 47 ft., over NW. slope.
- 60.80 Gulch, 10 lks. wide, course SW. Asc. 57 ft., over SE. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 28, 29, 32 and 33, marked on brass cap,

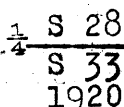


- A pinyon pine, 10 ins. in diam., brs. N. 38° E., 15 lks. dist., mark "T23N R29E S28 BT."
- A pinyon pine, 18 ins. in diam., brs. S. 65° E., 82 lks. dist., mark "T23N R29E S33 BT."
- A pinyon pine, 10 ins. in diam., brs. S. 20 $\frac{1}{2}$ ° W., 150 lks. dist., mark "T23N R29E S 32 BT."
- A pinyon pine, 12 ins. in diam., brs. N. 40° W., 67 lks. dist., mark "T23N R29E S29 BT."

Land, rolling and hilly.
Soil, sandy, 2nd and 3rd rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

- 40.00 N. 89° 52' E., on a random line, bet. secs. 28 and 33. Set temp. $\frac{1}{4}$ sec. cor.
- 79.64 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 27, 28, 33 and 34.

- Thence, S. 89° 51' W., on true line, bet. secs. 28 and 33. Over rolling land, thru. dense timber and undergrowth. Descend 17 ft., over SW. slope.
- 3.50 Ravine, 6 lks. wide, course SE. Asc. 46 ft., over NE. slope.
- 10.00 Sandy ridge, brs. N. and S. Desc. 29 ft., over W. slope.
- 20.91 Road, leads from Houck to St. Michaels, Arizona, brs. N. and S.
- 20.95 Ravine, 10 lks. wide, course S. Asc. 10 ft. over E. slope.
- 24.07 Top of spur, slopes S. Desc. 28 ft., over W. slope.
- 27.00 Leave timber; brs. NW. and SE.
- 30.00 Draw, 20 lks. wide, course SE. Asc. 54 ft., over E. slope.
- 38.00 Enter timber, brs. NW and SE.
- 39.82 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



Subdivision of Township 23 North, Range 29 East. 51

Chains.

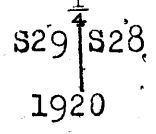
A pinyon pine, 8 ins. in diam., brs. N. $33\frac{1}{4}^{\circ}$ E.,
 97 lks. dist., mark " $\frac{1}{4}$ S 28 BT."

A cedar, 12 ins. in diam., brs. S. $30\frac{3}{4}^{\circ}$ W., 142
 lks. dist., mark " $\frac{1}{4}$ S 33 BT."

55.00 Ridge, brs. N. and S. Desc. 20 ft., over W. slope.
 66.79 Old road, brs. N and S.
 69.65 Ravine, 10 lks. wide, with cut banks, 3 ft. high, course
 S. Asc. 23 ft., over E. slope, to
 79.64 The cor. of secs. 28, 29, 32 and 33.
 Land, rolling and hilly.
 Soil, sandy, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar, where noted.
 Undergrowth, dense scrub cedar and sage brush.

N. $0^{\circ}09'$ W., bet. secs. 28 and 29.
 Over hilly land, thru. dense timber and undergrowth. Asc.
 36 ft., over SE. slope.

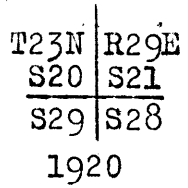
7.60 Spur, slopes SW. Desc. 7 ft., over NW. slope.
 10.00 Foot of descent. Asc. 23 ft., over SW. slope.
 30.00 Spur, slopes SW. Desc. 14 ft., over NW. slope.
 30.65 Ravine, 6 lks. wide, course SW, Asc. 40 ft., over SE. slope.
 40.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,



A pinyon pine, 10 ins. in diam., brs. S. $61\frac{3}{4}^{\circ}$ E., 60
 lks. dist., mark " $\frac{1}{4}$ S 28 BT."

A pinyon pine, 8 ins. in diam., brs. S. 60° W., 16
 lks. dist., mark " $\frac{1}{4}$ S 29 BT."

44.99 Spur, slopes E. Desc. 28 ft. over NE. slope.
 53.69 Draw, 20 lks. wide, course SE. Asc. 10 ft., over SW. slope.
 59.60 Wood road, brs. NW. and SE.
 70.00 Ridge, brs. NW. and SE.; thence along E. slope of same.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 20, 21, 28 and 29, marked
 on brass cap.



A pinyon pine, 8 ins. in diam., brs. N. $53\frac{3}{4}^{\circ}$ E., 103
 lks. dist., mark "T23N R29E S21 BT."

A pinyon pine, 14 ins. in diam., brs. S. $39\frac{1}{4}^{\circ}$ E., 154
 lks. dist., mark "T23N R29E S 28 BT."

A pinyon pine, 6 ins. in diam., brs. S. $33\frac{1}{4}^{\circ}$ W., 143
 lks. dist., mark "T23N R29E S29 BT."

A pinyon pine, 6 ins. in diam., brs. N. $13\frac{1}{4}^{\circ}$ W., 96
 lks. dist., mark "T23N R29E S20 BT."

Land, hilly.
 Soil, sandy, 3rd rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub cedar and sage brush.

N. $89^{\circ}51'$ E., on a random line, bet. secs. 21 and 28.
 40.00 Set temp. $\frac{1}{4}$ sec. cor.
 79.64 Intersect N. and S. line 5 lks. S. of the cor. of secs. 21,
 22, 27 and 28.
 Thence,
 S. $89^{\circ}49'$ W., on a true line, bet. secs. 21 and 28.
 Over hilly land, thru. dense timber and undergrowth. Asc.
 55 ft., over E. slope.

Chains.

7.75 Sandy, spur, slopes S. Desc. 27 ft., over W. slope.
 11.37 Ravine, 10 lks. wide, course S. Asc. 64 ft., over E. slope.
 17.70 Point of spur, slopes SE. Desc. 10 ft., over SW. slope.
 24.01 Ravine, 20 lks. wide, course SE. Asc. 8 ft., over NE. slope.
 26.19 Point of spur, slopes SE, Desc. 14 ft., over SW. slope.
 27.40 Ravine, 15 lks. wide, course SE. Asc. 58 ft., over NE. slope.
 38.00 Ridge, brs. N. and S. Desc. 49 ft., over W. slope.
 39.82 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 21
 S 28
 1920

A cedar, 14 ins. in diam., brs. N. $15\frac{3}{4}^{\circ}$ W., 137 lks.
 dist., mark " $\frac{1}{4}$ S 21 BT."

A pinyon pine, 10 ins. in diam., brs. S. 13° E., 84 lks.
 dist., mark " $\frac{1}{4}$ S 28 BT."

47.11 Wash, 20 lks. wide, course S. Asc. 57 ft., over E. slope.
 47.89 Road leads from Houck to St. Michaels, Arizona, brs. N. and S.
 54.84 Branch of same road, brs. N. 60° W. and S. 60° E.
 58.17 Sandy spur, slopes SE. Desc. 28 ft., over SW. slope.
 70.82 Ravine, 5 lks. wide, course SE. Asc. 52 ft., over NE. slope,
 to
 79.64 The cor. of secs. 20, 21, 28 and 29.
 Land, broken and hilly.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub oak and cedar, and sage brush.

N. 0° 09' W., bet. secs. 20 and 21.
 Over rolling land, thru. dense timber and undergrowth. As-
 cend along E. slope of ridge.
 8.00 Ridge, brs. N. and S. 10° W. Thence along top of same.
 35.00 Leave top of ridge; descend slightly along W. slope of same.
 37.20 Old road, brs. E. and W. leads to Indian hogans from
 Houck, Arizona.
 39.60 Old road, from Houck, Arizona to Indian hogans in sec. 20.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the
 ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S20 | S21
 1920

A cedar, 12 ins. in diam., brs. N. $73\frac{1}{2}^{\circ}$ E., 26 lks.
 dist., mark " $\frac{1}{4}$ S 21 BT."

A pinyon pine, 6 ins. in diam., brs. N. $73\frac{1}{2}^{\circ}$ W., 44 lks.
 dist., mark " $\frac{1}{4}$ S 20 BT."

Descend 11 ft., over NW. slope.
 48.00 Draw, 25 lks. wide, course SW. Asc. 22 ft., over SE. slope.
 60.50 Ridge, brs. NE and SW. Descend 28 ft., over NW. slope.
 76.50 Draw, 50 lks. wide, course SW. Asc. 8 ft., over SE. slope, to
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in
 the ground, for cor. of secs. 16, 17, 20 and 21, marked
 on brass cap,

T23N | R29E
 S17 | S16
 S20 | S21
 1920

A pinyon pine, 6 ins. in diam., brs. N. 34° E., 160
 lks. dist., mark "T23N R29E S16 BT."
 A cedar, 14 ins. in diam., brs. S. $58\frac{1}{2}^{\circ}$ E., 310
 lks. dist., mark "T23N R29E S21 BT."
 A cedar, 14 ins. in diam., brs. S. $34\frac{1}{2}^{\circ}$ W., 180
 lks. dist., mark "T23N R29E S20 BT."

Chains.

A pinyon pine, 14 ins. in diam., brs. N. 36° W., 194 lks. dist., mark "T23N R29E S17 BT."
 Land, rolling and hilly.
 Soil, sandy and stony, 3rd and 4th rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub oak and cedar, and sage brush.

40.00 N. 89° 49' E., on a random line, bet. secs. 16 and 21.
 Set temp. $\frac{1}{4}$ sec. cor.
 79.72 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 15, 16, 21 and 22.
 Thence,
 S. 89° 50' W., on true line, bet. secs. 16 and 21.
 Over hilly land, thru. dense timber and undergrowth. Desc. 20 ft., over NW. slope.
 .90 Ravine, 5 lks. wide, course SW. Asc. 5 ft., over SE. slope.
 4.40 Spur, slopes S. Desc. 8 ft., over W. slope.
 5.40 Wash, 20 lks. wide, course SE. Asc. 120 ft., over SE. slope.
 29.75 Stony spur, slopes SW. Desc. 11 ft., over NW. slope, to
 39.86 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 16
 S 21
 1920

A pinyon pine, 6 ins. in diam., brs. N. 4 $\frac{1}{2}$ ° W., 119 lks. dist., mark " $\frac{1}{4}$ S 16 BT."
 A pinyon pine, 5 ins. in diam., brs. S. 16 $\frac{1}{2}$ ° E., 108 lks. dist., mark " $\frac{1}{4}$ S 21 BT."
 Asc. 34 ft., over E. slope.
 40.12 Road from Houck to St. Michaels, Arizona, brs. N. and S.
 50.00 Leave dense timber, brs. NW and SE.
 60.00 Sandy spur, slopes SE. Enter scattering undergrowth and timber, brs. NW. and SE.
 67.72 Sandy ridge, brs. N. and S. Desc. 22 ft., over W. slope. Old road brs. N. 5° W., and S. 5° E.
 76.75 Draw, 20 lks. wide, course SW. Asc. 6 ft., over SE. slope, to
 79.72 The cor. of secs. 16, 17, 20 and 21.
 Land, hilly.
 Soil, sandy, 2nd and 3rd rate.
 Timber, pinyon, pine and cedar, dense and scattering as noted.
 Undergrowth, scrub cedar and sage brush.

N. 0° 09' W., bet. secs. 16 and 17.
 Over rolling and hilly land, thru. dense timber, and scattering undergrowth. Asc. 11 ft., over SE. slope.
 8.00 Sandy spur, slopes SW. Desc. over NW. slope.
 12.20 Old road to Indian hogans, brs. E. and W.
 20.00 Draw, 10 lks. wide, course E. Asc. 11 ft., over SE. slope.
 26.90 Sandy ridge, brs. NE and SW. Desc. 120 ft., over NW. slope.
 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

S17 | S16
 1920

A pinyon pine, 10 ins. in diam., brs. S. 45 $\frac{1}{2}$ ° E., 186 lks. dist., mark " $\frac{1}{4}$ S 16 BT."
 A cedar, 12 ins. in diam., brs. S. 72 $\frac{1}{2}$ ° W., 95 lks. dist., mark " $\frac{1}{4}$ S 17 BT."
 43.50 Leave timber, brs. NE and SW.
 53.50 Draw, 200 lks. wide, course SW. Asc. 11 ft., over SE. slope.
 58.46 Road from Houck, to St. Michaels, Arizona, brs. NE. and SW.

Chains.
 67.90 Dim road leads to Indian settlements in the Tp. to the west, brs. NW and SE.
 70.00 Enter scattering timber, brs. NE. and SW.
 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap,

T23N | R29E
 S 8 | S 9
 S17 | S16
 1920

- A cedar, 5 ins. in diam., brs. N. $40\frac{1}{2}^\circ$ E., 254 lks. dist., mark "T23N R29E S9 BT."
- A pinyon pine, 6 ins. in diam., brs. S. $69\frac{3}{4}^\circ$ E., 85 lks. dist., mark "T23N R29E S16 BT."
- A cedar, 6 ins. in diam., brs. S. $13\frac{1}{2}^\circ$ W., 189 lks. dist., mark "T23N R29E S17 BT."
- A pinyon pine, 12 ins. in diam., brs. N. $69\frac{1}{2}^\circ$ W., 154 lks. dist., mark "T23N R29E S8 BT."

Land, rolling and hilly.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, pinyon and cedar, dense and scattering as noted.
 Undergrowth, scattering scrub cedar and sage brush.

40.00 N. $89^\circ 50'$ E., on a random line, bet. secs. 9 and 16. Set temp. $\frac{1}{4}$ sec. cor.
 79.90 Intersect N. and S. line, 24 lks. N. of the cor. of secs. 9, 10, 15 and 16.
 Thence,
 West, on true line, bet. secs. 9 and 16.
 Over hilly land, thru. dense timber and undergrowth. Asc. 97 ft., over NE. slope.
 20.00 Ridge, brs. SE. and W.; thence on top of same.
 21.74 Old road to Indian hogans in sec. 10, brs. NE and SW., along top of spur, sloping NE.
 37.69 Road to Pine Spring, brs. NE and SW.
 37.80 Leave top of ridge, brs. E and SW. Descend 39 ft., over NW. slope.
 38.64 Road from Houck to St. Michaels, Arizona, brs. N. and S., joins preceding road, about 2 chs. S. of line.
 39.95 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 9
 S 16
 1920

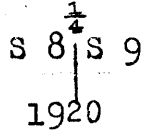
- A pinyon pine, 22 ins. in diam., brs. N. $18\frac{1}{2}^\circ$ E., 26 lks. dist., mark " $\frac{1}{4}$ S 9 BT."
- A pinyon pine, 14 ins. in diam., brs. S. $50\frac{1}{4}^\circ$ W., 28 lks. dist., mark " $\frac{1}{4}$ S 16 BT."

45.80 Road from deserted Indian hogans in sec. 16 to road leading to Pine Spring, brs. NW. and SE.
 55.00 Leave timber, brs. NE. and SW.
 66.15 Foot of descent in valley, brs. NE and SW.; drains NE. Asc. 22 ft., over SE. slope, over rolling land.
 66.20 Road from Houck, Arizona to Pine Springs, brs. NE. and SW.
 77.00 Enter scattering timber and undergrowth, brs. NE. and SW.
 79.90 The cor. of secs. 8, 9, 16 and 17.
 Land, rolling and hilly.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, pinyon pine and cedar, dense and scattering as noted.
 Undergrowth, scrub cedar and sage brush, dense and scattering as noted.

Subdivision of Township 23 North, Range 29 East.

Chains.

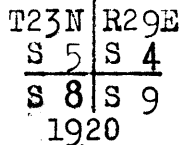
- N.0° 09'W., bet. secs.8 and 9.
Over rolling land, slopes E.; thru. scattering timber and dense undergrowth.
- 15.79 Road from Pine Spring to Indian settlements in the Tp., to the west, brs.E. and W.
- 25.65 Old fence line, brs.NW and SE.
- 40.00 Set an iron post 3 ft.long, 1 in. in diam.,26 ins.in the the ground for $\frac{1}{4}$ sec.cor., marked on brass cap,



- A pinyon pine,12 ins. in diam., brs.N.12 $\frac{1}{2}$ °E., 114 lks.dist.,mark " $\frac{1}{4}$ S 9 BT."
- A cottonwood,40 ins.in diam.,brs.S.42 $\frac{1}{2}$ °W.,383 lks.dist., mark " $\frac{1}{4}$ S 8 BT."

This cottonwood tree stands alongside of ancient Indian ruins on the western edge of circular sink, which, no doubt, was at one time the well or water hole from which these ancient people obtained their water supply.

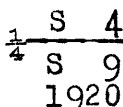
- 55.78 Wash, 6 lks.wide, course E. Asc.11 ft.,over SE.slope.
- 80.00 Set an iron post, 3 ft.long, 2 ins.in diam.,24 ins.in the ground for cor.of secs.4,5,8 and 9, marked on brass cap,



- A cedar, 12 ins.in diam., brs.N.02°E.,91 lks. dist.,mark "T23N R29E S4 BT."
- A pinyon pine,8 ins.in diam.,brs.S.54°E.,40 lks. dist.,mark "T23N R29E S9 BT."
- A pinyon,12 ins.in diam.,brs.S.34°W.,8 lks. dist.,mark "T23N R29E S8 BT."
- A cedar,12 ins. in diam.,brs.N.11 $\frac{1}{2}$ °W.,71 lks. dist.,mark "T23N R29E S5 BT."

Land, rolling.
Soil,sandy and stony, 2nd and 3rd rate.
Timber, scattering pine, pinyon and cedar.
Undergrowth, dense scrub oak and sage brush.

- 40.00 East, on a random line, bet. secs.4 and 9.
- 80.00 Set temp. $\frac{1}{4}$ sec.cor.
Intersect N. and S. line, 5 lks.S.of the cor.of secs.3,4, 9 and 10.
- Thence,
S.89°58'W., on a true line, bet. secs.4 and 9.
Over rolling land, thru. scattering timber and undergrowth.
Asc. 42 ft.,over NE.slope.
- 13.75 Road from Houck, to St.Michaels,Arizona, brs.N.and S.
- 20.00 Sandy ridge, brs.NW and SE. Desc. 15 ft.over SW.slope,to
- 30.45 Road from Houck, to Ganado,Arizona,brs.N.10°W. and S.10° E. Asc.26 ft.over SE.slope,to $\frac{1}{4}$ sec.cor.
- 36.50 A branch of the same road,brs.N.and S.
- 40.00 Set an iron post, 3 ft.long, 1 in. in diam.,20 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,



- A pinyon pine,14 ins.in diam.,brs.N.22°E.,18 lks.dist., mark "S 4 BT."
- A pinyon pine, 10 ins. in diam.,brs.S.50°E.,34 lks.dist.,mark " $\frac{1}{4}$ S 9 BT."

Ascend 33 ft. over S. slope.

Chains.

- Ascend 32 ft., over E. slope.
- 50.00 Sandy spur, slopes S. Desc. 11 ft., over W. slope, to
- 65.00 Foot of descent, brs. NE and SW. Asc. 345 ft., over SE. slope, to
- 80.00 The cor. of secs. 4, 5, 8 and 9.
Land, rolling and hilly.
Soil, sandy and stony, 3rd and 4th rate.
Timber scattering pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.
-
- 40.00 N. 0° 09' W., on a random line, bet. secs. 4 and 5.
Set temp. $\frac{1}{4}$ sec. cor.
- 80.00 Intersect the N. bdy. of Tp., 5 lks. W. of the cor. of secs. 4, 5, 32 and 33, hereinbefore described.
Thence,
S. 0° 07' E., on true line, bet. secs. 4 and 5.
Over rolling land, thru. dense undergrowth.
- 6.00 Enter dense timber, brs. NW. and SE.
- 12.45 North side of circular corral, 70 lks. in diam.
- 13.15 South side of corral.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
- S 5 | S 4
1920
- A cedar, 20 ins. in diam., brs. S. 82° E., 52 lks. dist., marked " $\frac{1}{4}$ S 4 BT."
- A cedar, 6 ins. in diam., brs. S. 46 $\frac{1}{2}$ ° W., 13 lks. dist., mark " $\frac{1}{4}$ S 5 B T."
- 44.00 Desc. 25 ft., over SE. slope.
- 46.35 Ravine, 10 lks. wide, course S. 80° E. Asc. 25 ft., over NE. slope.
- 47.50 Point of spur, slopes E. Desc. 15 ft., over S. slope.
- 65.00 Draw, 50 lks. wide, course NE. Asc. 30 ft., over NW. slope.
- 67.28 Road to Pine Spring, brs. NE and SW.
- 75.00 Low, sandy ridge, brs. NE. and SW. Desc. 8 ft., over SE. slope, to
- 80.00 The cor. of secs. 4, 5, 8 and 9.
Land, rolling and broken.
Soil, sandy and stony, 3rd and 4th rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub oak and cedar and sage brush.
-
- From the reestablished cor. of secs. 5, 6, 31 and 32, on S. bdy. of Tp., hereinbefore described,
N. 0° 12' W. (computed bearing) bet. secs. 31 and 32.
Over rolling land, thru. dense timber and undergrowth. Asc. 56 ft. over SE. slope.
- 7.50 Old road, leads to Houch, Arizona, brs. NW. and SE.
- 30.00 Spur, slopes W. Desc. 23 ft., over N. slope.
- 35.00 Ravine, 10 lks. wide, course SW. Asc. 11 ft., over SE. slope.
- 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
- S 31 | S 32
1920
- A cedar, 14 ins. in diam., brs. S. 63 $\frac{3}{4}$ ° E., 70 lks. dist., mark " $\frac{1}{4}$ S 32 BT."
- A pinyon pine, 6 ins. in diam., brs. S. 67 $\frac{1}{2}$ ° W., 29 lks. dist., mark " $\frac{1}{4}$ S 31 BT."
- 50.00 Spur, slopes SW. Desc. 29 ft., over NW. slope.

Subdivision of Township 23 North, Range 29 East. 57

Chains.
56.08
64.00
72.27
80.00

Draw, 15 lks. wide, course SW. Asc. 14 ft., over SE. slope.
Spur, slopes SW. Desc. 32 ft., over NW. slope.
Draw, 25 lks. wide, course SW. Asc. 17 ft., over SE. slope.
Set an iron post, 3 ft. long, 2 ins. in diam.; 24 ins. in the ground, for cor. of secs. 29, 30, 31 and 32; marked on brass cap,

T23N | R29E
S30 | S29
S31 | S32
1920

- A cedar, 12 ins. in diam., brs. N. 28 1/4° E., 29 lks. dist., mark "T23N R29E S29 BT."
- A pinyon pine, 5 ins. in diam., brs. S. 39 1/4° E., 81 lks. dist., mark "T23N R29E S32 BT."
- A pinyon pine, 8 ins. in diam., brs. S. 69 1/2° W., 141 lks. dist., mark "T23N R29E S31 BT."
- A pinyon pine, 8 ins. in diam., brs. N. 39 1/4° W., 79 lks. dist., mark "T23N R29E S30 BT."

Land, rolling and hilly.
Soil, sandy and stony, 3rd and 4th rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

40.00
79.64

N. 89° 52' E., on a random line, bet. secs. 29 and 32.
Set temp. 1/4 sec. cor.
Intersect N. and S. line, 28 lks. N. of the cor. of secs. 28, 29, 32 and 33.

Thence,
N. 89° 50' W., on a true line, bet. secs. 29 and 32.
Over hilly land; thru. dense timber and undergrowth. Asc. 17 ft., over SE. slope.

1.30
2.80
5.30
9.92
13.00
18.50
39.82

Spur, slopes S. Desc. 18 ft., over SW. slope.
Draw, 10 lks. wide, course SW. Asc. 8 ft., over SE. slope.
Point of spur, slopes S. Desc. 10 ft., over SW. slope.
Ravine, 12 lks. wide, course SE. Asc. 25 ft., over NE. slope.
Spur, slopes SE. Desc. 41 ft., over SW. slope.
Rocky ravine, 40 lks. wide, course SE. Asc. 190 ft., over NE. slope.
Set an iron post 3 ft. long; 1 in. in diam., 20 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1/4 S 29
S 32
1920

- A cedar, 14 ins. in diam., brs. N. 25 1/2° W., 231 lks. dist., mark "1/4 S 29 BT."
- A pinyon pine, 10 ins. in diam., brs. S. 19° E., 216 lks. dist., mark "1/4 S 32 BT."

60.65
72.65
79.64

Ridge, brs. NE. and SW.; descend 45 ft., over NW. slope.
Ravine, 6 lks. wide, course SW. Asc. 8 ft., over SE. slope to the cor. of secs. 29, 30, 31 and 32.
Land, rolling, hilly and broken.
Soil, sandy and stony, 3rd and 4th rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub oak and cedar, and sage brush.

40.00
78.30

S. 89° 52' W.; on a random line, bet. secs. 30 and 31.
Set temp. 1/4 sec. cor.
Intersect W. bdy. of Tp., 3 lks. N. of the cor. of secs. 25, 30, 31 and 36, hereinbefore described.

Thence,
N. 89° 51' E., on a true line, bet. secs. 30 and 31.
Over hilly land, thru. dense timber and undergrowth.
Desc. 5 ft., over E. slope.

1.90

Ravine, 4 lks. wide, course S. Asc. 17 ft. over W. slope.

58 Subdivision of Township 23 North, Range 29 East.

- Chains.
- 5.00 Spur, slopes S. Desc. 68 ft., over E. slope.
- 16.50 Wash, 30 lks. wide, course S. Asc. 50 ft., over W. slope.
- 17.00 Road leads from Houck to St. Michaels, Arizona, brs. NE and SW.
- 28.60 Spur, slopes S. Desc. 56 ft., over E. slope.
- 38.30 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 30
 S 31
 1920

- A pinyon pine, 8 ins. in diam., brs. N. $15\frac{1}{2}^{\circ}$ W., 21 lks. dist., mark " $\frac{1}{4}$ S 30 BT."
- A pinyon pine, 6 ins. in diam., brs. S. $27\frac{1}{2}^{\circ}$ E., 128 lks. dist., mark " $\frac{1}{4}$ S 31 BT."
- 41.00 Draw, 20 lks. wide, course S. Asc. 33 ft., over W. slope.
- 47.70 Spur, slopes S. Desc. 85 ft., over E. slope.
- 64.90 Draw, 15 lks. wide, course S. Asc. 18 ft., over W. slope.
- 77.45 Old road, brs. NE and SW, leads to Indian hogans in sec. 29.
- 78.30 The cor. of secs. 29, 30, 31 and 32.
Land, hilly.
Soil, sandy and stony, 2nd and 3rd rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

-
- N. $0^{\circ}12'W.$, bet. secs. 29 and 30.
Over hilly land, thru. dense timber and undergrowth; asc. 111 ft., over SE. slope.
 - .87 Old road to Indian hogans in sec. 29, brs. NE and SW.
 - 40.00 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S30 | S29
 1920

- A pinyon pine, 8 ins. in diam., brs. N. $72\frac{1}{2}^{\circ}$ W., 81 lks. dist., mark " $\frac{1}{4}$ S 30 BT."
- A cedar, 8 ins. in diam., brs. S. $57\frac{1}{4}^{\circ}$ E., 70 lks. dist., mark " $\frac{1}{4}$ S 29 BT."
- This cor. is on top of spur, sloping S. 10° W. Asc. along W. slope of same, to
- 52.00 Desc. 40 ft., over NW. slope of same.
- 62.10 Ravine, 5 lks. wide, course SW. Asc. 17 ft., over SE. slope.
- 78.20 Ridge, brs. NE and SW. Desc. 8 ft., over NW. slope, to
- 80.00 Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 19, 20, 29 and 30, marked on brass cap,

T23N | R29E
 S19 | S20
 S30 | S29
 1920

- A pinyon pine, 5 ins. in diam., brs. N. $64\frac{3}{4}^{\circ}$ E., 31 lks. dist., mark "T23N R29E S20 BT."
- A pinyon pine, 8 ins. in diam., brs. S. $42\frac{3}{4}^{\circ}$ E., 21 lks. dist., mark "T23N R29E S29 BT."
- A pinyon pine, 8 ins. in diam., brs. S. $23\frac{1}{2}^{\circ}$ W., 40 lks. dist., mark "T23N R29E S30 BT."
- A pinyon pine, 8 ins. in diam., brs. N. $52\frac{1}{2}^{\circ}$ W., 27 lks. dist., mark "T23N R29E S19 BT."
- Land, rolling sand hills.
Soil, sandy, 3rd and 4th rate.
Timber, dense pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

ECON

Subdivision of Township 23 North, Range 29 East.

chains.	S. 89°56'E., on a random line, bet. secs. 20 and 29.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.50	Intersect N. and S. line, 28 lks. N. of the cor. of secs. 20, 21, 28 and 29. Thence,
	N. 89°44'W., on true line, bet. secs. 20 and 29.
	Over hilly land, thru. scattering timber and dense undergrowth. Asc. over E. slope.
2.23	Ridge, brs. N and SE. Desc. 40 ft. over W. slope.
17.93	Ravine, 10 lks. wide, 3 ft. deep, course S. Asc. 39 ft. over E. slope.
30.25	Ridge, brs. N. and S. Desc. 17 ft., over W. slope.
39.78	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
	$\frac{1}{4}$ S 20
	S 29
	1920
	A pinyon pine, 8 ins. in diam., brs. N. 53°E., 134 lks. dist., mark " $\frac{1}{4}$ S 20 BT."
	A pinyon pine, 4 ins. in diam., brs. S. 57 $\frac{3}{4}$ °E., 111 lks. dist., mark " $\frac{1}{4}$ S 29 BT."
44.70	Ravine, 15 lks. wide, course S. Asc. 98 ft., over E. slope.
54.96	Deserted Indian hogan, brs. N. 1.00 ch. dist.
56.16	Deserted Indian hogan, brs. N. 60 lks. dist.
56.56	Circular brush corral, 100 lks. in diam., on line.
77.00	Ridge, brs. NE and SW. Desc. 11 ft., over NW. slope, to
79.56	The cor. of secs. 19, 20, 29 and 30.
	Land, hilly.
	Soil, sandy, 2nd and 3rd rate.
	Timber, scattering pinyon pine and cedar.
	Undergrowth, dense scrub cedar and sage brush.

	S. 89°51'W., on random line, bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
77.98	Intersect W bdy. of Tp., 7 lks. N. of the cor. of secs. 19, 24, 25 and 30, hereinbefore described. Thence,
	N. 89°48'E., on true line, bet. secs. 19 and 30.
	Over rolling land, thru. scattering timber and undergrowth.
	Descend 24 ft., over SE. slope.
10.00	Leave scattering timber and dense undergrowth, brs. NE and SW. Enter open land.
37.98	Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. marked on brass cap,
	$\frac{1}{4}$ S 19
	S 30
	1920
38.25	Dig pits, 18x13x12 ins., E. and W of post, 3 ft. dist.
42.49	Draw, 100 lks. wide, course SW. Asc. 115 ft. over NW slope.
73.00	Road leads from Houck, Arizona to Pine Spring, brs. NE. & SW.
77.98	Enter dense timber and undergrowth, brs. NE. & SW.
	The cor. of secs. 19, 20, 29 and 30.
	Land, rolling. Soil, sandy and stony, 2nd and 3rd rate.
	Timber, pinyon pine and cedar, dense and scattering as noted.
	Undergrowth, scrub oak and cedar, and sage brush, where noted.

	N. 0°12'W., bet. secs. 19 and 20.
	Over rolling land, thru. dense timber and undergrowth.
	Desc. 84 ft., over NW. slope.
20.00	Leave dense timber and undergrowth, brs. NE. and SW. Enter open land.
32.20	Road leads from Houck, Arizona to Pine Spring, brs. N. 80°E. and S. 80°W.
39.75	Road from Houck to Pine Spring brs. NE. and SW.; enter draw, course SW.
40.00	Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,
	$\frac{1}{4}$ S 19
	S 20
	1920
40.50	Dig pits, 18x13x12 ins., N. and S. of post, 3 ft. dist.
79.50	Leave draw, course SW. Asc. 25 ft. over SE. slope.
80.00	Enter scattering timber and dense undergrowth, brs. NE. and SW.
	Set an iron post 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, marked on brass cap,

Chains.

T23N R29E
S18 S17
S19 S20
1920

A pinyon pine, 10 ins. in diam., brs. N. 40° E., 43 lks. dist., marked "T23N R29E S17 BT."
A pinyon pine, 10 ins. in diam., brs. S. 53° E., 27 lks. dist., mark "T23N R29E S20 BT."
A pinyon pine, 6 ins. in diam., brs. S. 68° W., 27 lks. dist., mark "T23N R29E S19 BT."
A pinyon pine, 12 ins. in diam., brs. N. 34° W., 185 lks. dist., mark "T23N R29E S18 BT."
Land, rolling, Soil, sandy, 2nd and 3rd rate.
Timber, pinyon pine and cedar, dense and scattering as noted.
Undergrowth, dense scrub cedar and sage brush where noted.

40.00
79.70

S 89° 44' E., on a random line, bet. secs. 17 and 20.
Set temp. 1/4 sec. cor.
Intersect N. and S line, 18 lks. S. of the cor. of secs. 16, 17, 20 and 21.
Thence,
N. 89° 52' W.; on a true line, bet. secs. 17 and 20.
Over hilly land, thru. scattering timber and dense undergrowth. Ascend 28 ft., over SE. slope.
9.70 Spur, slopes SW. Desc. 40 ft., over NW. slope.
10.70 East side of circular goat corral, 75 lks. in diameter.
11.45 West side of corral.
15.19 A deserted log cabin, brs. S. 3.00 chs. dist.
29.75 Leave scattering timber and dense undergrowth, brs. NE. and SW. Enter open land.
39.85 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1/4 S 17
S 20
1920

45.00
45.04
79.70

Dig pits, 18x18x12 ins., E. and W of post, 3 ft. dist.
Foot of descent in draw, 200 lks. side, course SW.; ascend 62 ft., over SE. slope.
45.04 Road, leads from Houck, Arizona to Pine Spring, brs. NE. and SW.
79.70 The cor. of secs. 17, 18, 19 and 20.
Land, rolling and hilly.
Soil, sandy, 2nd and 3rd rate.
Timber, scattering pinyon pine and cedar, where noted.
Undergrowth, dense scrub cedar and sage brush where noted.

40.00
77.76
37.76

S. 89° 48' W., on a random line, bet. secs. 18 and 19.
Set temp. 1/4 sec. cor.
77.76 Intersect W. bdy. of Tp., 8 lks. S. of the cor. of secs. 13, 18, 19 and 24, hereinbefore described.
Thence, N. 89° 51' E., on a true line, bet. secs. 18 and 19.
Over rolling land, thru. scattering timber and dense undergrowth. Desc. 55 ft. over SE. slope.
37.76 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap,

1/4 S 18
S 19
1920

77.76

A pinyon pine, 10 ins. in diam., brs. N. 140 lks. dist., mark "1/4 S 18 BT."
A pinyon pine, 10 ins. in diam., brs. S. 2 1/2° W., 117 lks. dist., mark "1/4 S 19 BT."
77.76 The cor. of secs. 17, 18, 19 and 20.
Land, rolling.
Soil, sandy and stony, 2nd and 3rd rate.

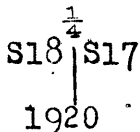
Subdivision of Township 23 North, Range 29 East. 61

Chains.

Timber, scattering pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

N.0°12'W., bet. secs.17 and 18.
Over rolling land, thru. scattering timber and dense undergrowth. Asc. gradually over SE.slope, thru. entire mile.

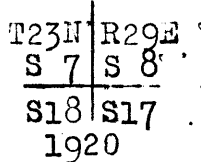
31.10 Old road to Pine Spring, brs.E. and W.
40.00 Set an iron post, 3 ft.long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,



A pinyon pine, 6 ins. in diam., brs.N.17 $\frac{1}{2}$ °W., 70 lks.dist., marked "S 18 BT."

A pinyon pine, 10 ins.in diam., brs.S.15 $\frac{1}{2}$ °E., 16 lks.dist., mark "S 17 BT."

50.35 Old road, brs.N.20°W. and S.20°E.
69.70 Road, brs.E and W., leads to Pine Spring.
80.00 Set an iron post 3 ft.long, 2 ins. in diam., 24 ins. in the ground, for cor.of secs. 7,8,17 and 18, marked on brass cap,



A cedar, 8 ins.in diam., brs.N.62 $\frac{1}{2}$ °E., 142 lks. dist., mark "T23N R29E S8 BT."

A cedar, 4 ins.in diam., brs.S.38 $\frac{1}{2}$ °E., 80 lks. dist., mark "T23N R29E S17 BT."

A pinyon pine, 10 ins.in diam., brs.S.53 $\frac{1}{2}$ °W., 68 lks. dist., mark "T23N R29E S18 BT."

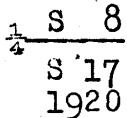
A cedar, 10 ins.in diam., brs.N.34°W., 172 lks. dist., mark "T23N R29E S7 BT."

Land, rolling.
Soil, sandy, 2nd and 3rd rate.
Timber, scattering pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

40.00 S.89°52'E., on a random line, bet. secs.8 and 17.
79.76 Set temp. $\frac{1}{4}$ sec.cor.
Intersect N. and S. line, 5 lks.S.of the cor.of secs.8,9, 16 and 17.

Thence,
N.89°54'W., on a true line, bet. secs.8 and 17.
Over rolling land, thru. scattering timber and dense undergrowth. Asc. over very gradual SE.slope, thru. entire mile.

39.88 Set an iron post, 3 ft.long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap,



A cedar, 6 ins.in diam., brs.N.19 $\frac{1}{2}$ °W., 38 lks. dist., mark "S 8 BT."

A cedar, 8 ins.in diam., brs.S.12 $\frac{1}{2}$ °E., 158 lks. dist., mark "S 17 BT."

57:06 Road to Pine Spring, brs.N.60°E. and S.60°W.
79.76 The cor.of secs.7,8,17 and 18.

Chains.

Land, rolling.
Soil, sandy, 2nd and 3rd rate.
Timber, scattering pinyon pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

- 40.00 S. 89°51' W., on a random line, bet. secs. 7 and 18.
- 77.42 Set temp. $\frac{1}{4}$ sec. cor.
- Intersect the W. bdy. of Tp., 3 lks. N. of the cor. of secs. 7, 12, 13 and 18, hereinbefore described.
- Thence,
- 11.02 N. 89°50' E., on a true line, bet. secs. 7 and 18.
- Over hilly land, thru. dense timber and undergrowth. Descend 18 ft., over SE. slope.
- Rocky ravine, 10 lks. wide, course SW. Asc. 115 ft., over NW. slope.
- 37.42 Set an iron post, 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 7
 S 18
 1920

- 40.92 A pinyon pine, 8 ins. in diam., brs. N. 22 $\frac{1}{2}$ ° E., 8 lks. dist., mark " $\frac{1}{4}$ S 7 BT."
- 52.50 A cedar, 6 ins. in diam., brs. S. 25 $\frac{1}{2}$ ° E., 90 lks. dist., mark " $\frac{1}{4}$ S 18 BT."
- 68.27 Old road, brs. N. 30° E. and S. 30° W.
- Ridge, brs. NE. and S. Desc. 11 ft., over E. slope.
- Old road from the Navajo Indian Reservation to Houck Trading Post at Houck, Arizona, brs. N. 25° W. and S. 25° E.
- 77.42 The cor. of secs. 7, 8, 17 and 18.
- Land, rolling and hilly.
- Soil, sandy and stony, 3rd and 4th rate.
- Timber, dense pinyon pine and cedar.
- Undergrowth, dense scrub cedar and sage brush.

- 24.50 N. 0°12' W., bet. secs. 7 and 8.
- 35.45 Over rolling land, thru. dense timber and undergrowth. Asc. 24 ft. over SE. slope.
- Ridge, brs. NE and SW. Desc. 29 ft., over NW. slope.
- Old road, brs. NE. and SW. at foot of descent in draw, 50 lks. wide, course SW. Asc. very gradually over SE. slope, thru. remainder of mile.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam., 20 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 7 | S 8
 1920

- 80.00 A pinyon pine, 12 ins. in diam., brs. N. 65 $\frac{1}{2}$ ° E., 32 lks. dist., mark " $\frac{1}{4}$ S 8 BT."
- A pinyon pine, 10 ins. in diam., brs. S. 32° W., 123 lks. dist., mark " $\frac{1}{4}$ S 7 BT."
- Set an iron post, 3 ft. long, 2 ins. in diam., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, marked on brass cap,

T23N | R29E
 S 6 | S 5
 S 7 | S 8
 1920

A cedar, 20 ins. in diam., brs. N. 23 $\frac{1}{2}$ ° E., 88 lks. dist., mark "T23N R29E S5 BT."

Subdivision of Township 23 North, Range 29 East.

Chains.

A pinyon pine, 8 ins. in diam., bears S. 48 $\frac{1}{2}$ ° E.,
 11 lks. dist., mark "T23N R29E S8 BT."
 A pinyon pine, 12 ins. in diam., brs. S. 44° W.,
 34 lks. dist., mark "T23N R29E S7 B T."
 A pinyon pine, 8 ins. in diam., brs. N. 16 $\frac{1}{2}$ ° W., 84
 lks. dist., mark "T23N R29E S6 BT"

Land, rolling.
 Soil, sandy, 2nd and 3rd rate.
 Timber, dense pinyon pine and cedar.
 Undergrowth, dense scrub cedar and sage brush.

40.00 S. 89° 54' E., on a random line, bet. secs. 5 and 8.
 79.72 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 4,
 5, 8 and 9.

Thence,
 N. 89° 50' W., on a true line, bet. secs. 5 and 8.
 Over hilly land, thru. dense timber and undergrowth. Asc.
 17 ft., over SE. slope.
 5.00 Sand ridge, brs. NE and SW. Desc. 23 ft., over NW. slope.
 12.70 Center of dry bed of pond, brs. NE and SW. 5.00 chs. wide,
 at foot of descent, in draw, course NE.
 15.80 Old road, brs. NE and SW. Asc. 35 ft. over SE. slope, to
 39.86 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in
 the ground for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 5
 S 8
 1920

79.72 A cedar, 8 ins. in diam., brs. N. 22 $\frac{1}{2}$ ° W., 67 lks.
 dist., mark " $\frac{1}{4}$ S 5 BT."
 A pinyon pine, 5 ins. in diam., brs. S. 32 $\frac{1}{2}$ ° W., 99 lks.
 dist., mark " $\frac{1}{4}$ S 8 BT."
 Ascend 74 ft., over SE. slope, to
 The cor. of secs. 5, 6, 7 and 8.
 Land, rolling and hilly.
 Soil, sandy and stony, 2nd and 3rd rate.
 Timber, dense pinyon, pine and cedar.
 Undergrowth, dense scrub cedar and sage brush.

40.00 S. 89° 50' W., on a random line, bet. secs. 6 and 7.
 77.00 Set temp. $\frac{1}{4}$ sec. cor.
 Intersect the W. bdy. of Tp., 9 lks. S of the cor. of secs.
 1, 6, 7 and 12; hereinbefore described.

Thence
 N. 89° 54' E. on true line, bet. secs. 6 and 7.
 Over rolling land, thru. dense timber and undergrowth.
 Ascend 30 ft., over W. slope.
 7.00 Ridge, brs. N. and S. Desc. 11 ft., over E. slope.
 27.70 Draw, 25 lks. wide, course S. Asc. 96 ft., over W. slope.
 28.60 Old road, brs. NW and SE.
 37.00 Set an iron post 3 ft. long, 1 in. in diam., 26 ins. in
 the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$ S 6
 S 7
 1920

52.00 A pinyon pine, 6 ins. in diam., brs. N. 23° E., 17
 lks. dist., mark "S 6 BT."
 77.00 A pinyon pine, 18 ins. in diam., brs. S. 58 $\frac{1}{2}$ ° W., 54
 lks. dist., marked " $\frac{1}{4}$ S 7 BT."
 Ridge, brs. NE and SW. Descend 5 ft., over SE. slope.
 The cor. of secs. 5, 6, 7 and 8.
 Land, rolling hills. Soil, sandy & stony, 2nd and 3rd rate.
 Timber, dense pinyon, pine and cedar. Undergrowth, dense
 scrub cedar and sage brush.

64 Subdivision of Township 23 North, Range 29 East.

Chains.

N.0°12'W., on a random line, bet. secs. 5 and 6.

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

79.68 Intersect the N. bdy. of Tp., 21 lks. W. of the cor. of secs. 5, 6, 31 and 32, hereinbefore described.

thence,
S.0°03'E., on a true line, bet. secs. 5 and 6.
Over rolling land, thru. dense timber and undergrowth.
Asc. very gradual NW slope, to

39.68 Set an iron post, 3 ft. long, 1 in. in diam., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap,

$\frac{1}{4}$
 S 6 | S 5
 1920

A pinyon pine, 8 ins. in diam., brs. N. 85 $\frac{1}{2}$ °W., 61 lks. dist., mark " $\frac{1}{4}$ S 6 BT."

A pinyon pine, 12 ins. in diam., brs. S. 71 $\frac{1}{2}$ °E., 14 lks. dist., mark " $\frac{1}{4}$ S 5 BT."

Ascend 17 ft., over N. slope.

68.00 Ridge, brs. NE and SW. Desc. 6 ft., over S. slope, to

79.68 The cor. of secs. 5, 6, 7 and 8.
Land, rolling.
Soil, sandy, 2nd and 3rd rate.
Timber, dense pinyon, pine and cedar.
Undergrowth, dense scrub cedar and sage brush.

GENERAL DESCRIPTION.

This township is broken and mountainous in the eastern portion, hilly in the western and southwestern portions, while in the central and northern portions, there is some nearly level land. The township is highest along the north boundary, where an elevation of approximately 9800 feet, as shown by the barometer is reached, and slopes gradually in a southerly direction towards the Rio Puerco wash in T. 21N, R. 29 E. A high sand ridge crossed on the south boundary of sec. 34, extends in a northerly direction across the township, forming a water shed for the drainage of the land within the township; all of the land lying east of the crest of this ridge, drains in a southeasterly direction into the West fork of Defiance Creek, which crosses thru. the NE. cor. of the Tp. in a box canyon, with almost inaccessible sides, and into a large sand wash which crosses the south boundary of sec. 35 in a southeasterly direction, while the lands which lie to the west of the crest of this ridge are drained by numerous ravines and washes in a southwesterly direction into the Rio Puerco wash.

The soil of the eastern or mountainous portion of the township is generally a stony clay loam, only a few inches in depth, underlaid with a sandstone bed rock. This can nearly all be classed as 3rd and 4th rate. The soil of the hilly portions of the township, ranges from sandy loam to loose shifting sand, and can nearly all be classed as 3rd rate. In sec. 33 is a small valley or flat, comprising about 160 acres over which the soil is a rich red sandy loam, varying in depth from one to three feet, and can all be classed as 1st rate. The soil of the level and rolling land in the northern part of the township is mostly a sandy loam, varying in depth from 6 to 12 ins., and underlaid either by clay subsoil or sandstone bed rock, and

can nearly all be classed as second rate. The soil of the township is mostly a sandstone, varying in depth from 3 to 15 ft., and is made up either of clay, gravel, or sandstone, and is generally well adapted for agriculture.

The township is poorly watered by the west fork of Defiance Creek, which is fed from springs in the almost inaccessible box canyon thru. which it flows, and by water obtained from wells sunk in the sand to a depth of about 7 ft. in secs. 8, 9, and 10.

Nearly the entire township is covered with a dense growth of pinyon pine and cedar timber, while in the north tier of secs., and in the bottom of the canyons, groves of oak and yellow pine are found, many of the pines being very large. The timber, with the exception of the yellow pine, is too small to have any commercial value except for fencing and fuel purposes. Cedar is the predominating species of timber in the township, and judging from present indications has existed undisturbed, by fire or other source of destruction for centuries.

No indications of mineral deposits were found in the township.

The only occupants of the land in the township are Navajo Indians, living in hogans in secs. 9, 10, and 20, and engaged in stock raising, to which the land in the township is best adapted.

FINAL TEST OF INSTRUMENT.

August 10, 1920, upon completion of the surveys in this township, examine the adjustments of transit 9984, described on page 2 hereof, and find them correct; then to test the solar apparatus by comparing its indications resulting from solar observations on the sun made during a.m. and p.m. hours with a meridian established by observations on Polaris, proceed as follows:

Set instrument on the meridian established by observations on Polaris near camp at Pine Spring, in sec. 9, T. 23 N., R. 29 E., July 3, 1920, and at 4h. 5m. p.m., l.m.t., set off 35° 24' N. on the lat. arc; 15° 44½' N. on the decl. arc, and determine a meridian with the solar, and mark a point in the line thus determined by a nail driven in the stake already set 5 chs. N.; this point falls 01½' W. of the meridian established by the Polaris observations.

August 11, 1920 at the same station, set off 35° 24' N. on the lat. arc; 15° 21' N. on the decl. arc; and at 8h. 5m. a.m., l.m.t., determine a meridian with the solar, and mark a point thereof by a tack in stake already set in the ground 5 chs. N. of instrument; this point falls 01' E. of the meridian established by the Polaris observations.

The solar apparatus by p.m. and a.m. observations defines positions for meridians, respectively about 01½' west and 01' east of the meridian, established by the Polaris observations; therefore, conclude that the instrument is in satisfactory adjustment at the conclusion of this survey.

FIELD ASSISTANTS.

to Sidney E. Blout, U. S. Cadastral Engineer

NAMES.	CAPACITY.
John B. McClung	Head chainman
Herbert R. Spotts	Rear "
Ben J. Kinsey	" "
Andrew Ahlbeck	Houndman
John H. Luok	Axman
Sterling Everett	Flagman

CERTIFICATE OF UNITED STATES CADASTRAL ENGINEER.

I, Sidney E. Blout, U. S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the U. S. Surveyor General, for Group 92, Arizona,

bearing date of the 27th day of September, 1918, I have well, faithfully, and truly

in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, retraced

all those parts or portions of the South boundary of Township 23 North, Range 28 East, resurveyed all those parts or portions of the South boundary of Township 23 North, Range 29 East, and surveyed all those parts or portions of the East, West, and North boundaries, and Subdivision lines of

Township 23 North, Range 29 East,

of the Gila and Salt River

Base and Meridian, in the State of Arizona, which are represented in and by diagram on page 1 hereof

the foregoing field notes, as having been executed by me, and under my direction; and that all the corners of retracement, resurvey, and

said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General, for Group 92, Arizona,

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

Phoenix, Arizona.

Date October 21, 1921

Sidney E. Blout
U. S. Cadastral Engineer

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix Arizona, Nov. 15, 1921.

The foregoing field notes of the survey of retracement of part of the South boundary of Township 23 North, Range 28 East, of the resurvey of the South boundary of Township 23 North, Range 29 East, and of the survey of the East, West, and North boundaries and Subdivision lines of

Township 23 North, Range 29 East,

of the Gila and Salt River Base and Meridian,

in the State of Arizona,

executed by Sidney E. Blout, U. S. Cadastral Engineer

under his special instructions dated September 27, 1918 for Group 92, Arizona having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank A. Frost

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.