Volume

#

R0397

BOOK A-397

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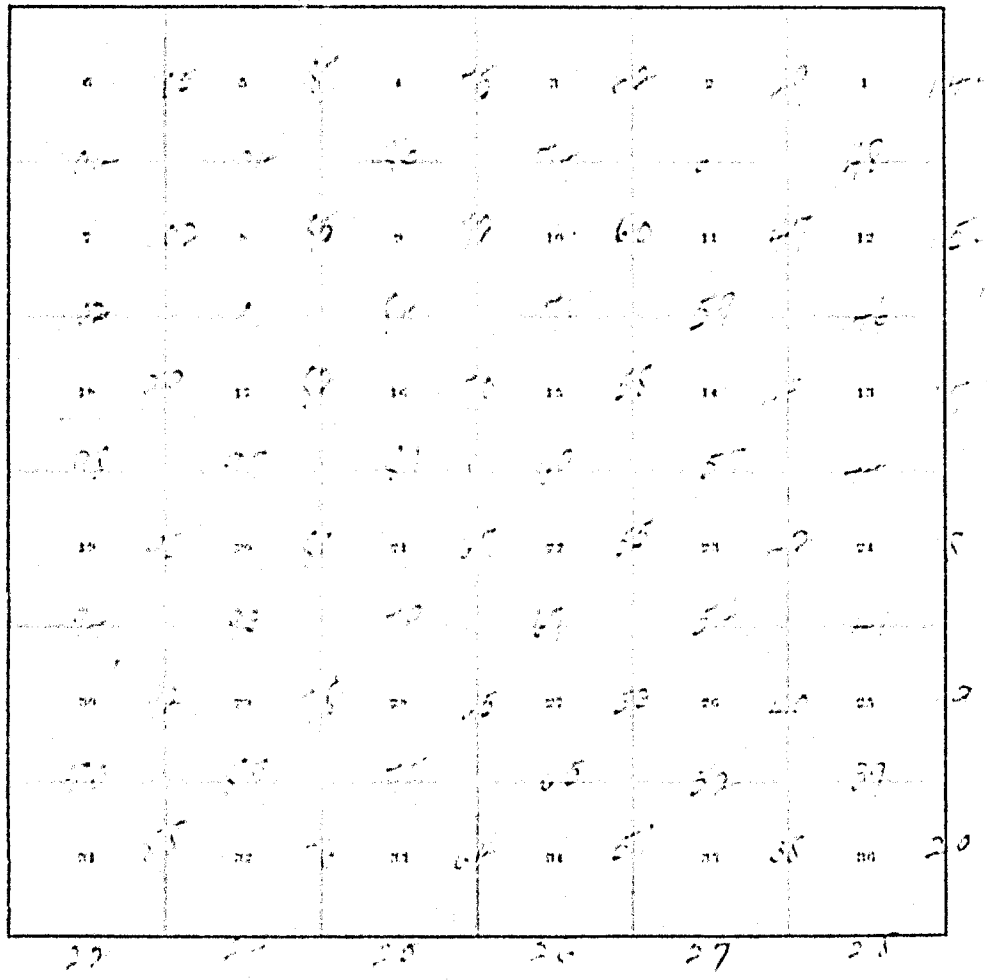
Township 32 S, *Range* 7 W



FIELD NOTES

OF THE SURVEY OF THE

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Of the ..... *Meridian,*

In the State of .....

EXECUTED BY

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In the capacity of U. S. Surveyor...., *under instructions dated*....., *191*...., *issued by the United States Surveyor General to govern surveys included in Group No.* ....., *which were approved by the Commissioner of the General Land Office,* ....., *191*...., *pursuant to authority contained in the Act of Congress dated* ..... *191*....

Survey commenced ....., *191*....

Survey completed ....., *191*....

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Township 39 South, Range 3 West

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FIELD NOTES

OF THE SURVEY OF THE

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Survey commenced ....., 191....

Survey completed ....., 191....

BOOK A-397

INDEX DIAGRAM.

Township 40 South, Range 43 West

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30	29	28	27	26	25
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0—151

FIELD NOTES

OF THE SURVEY OF THE

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In the State of .....

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issued by the United States Surveyor General to govern surveys included in

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Office, ... *191* ..., *pursuant to authority contained in the Act of*

Congress dated ..... *191*...

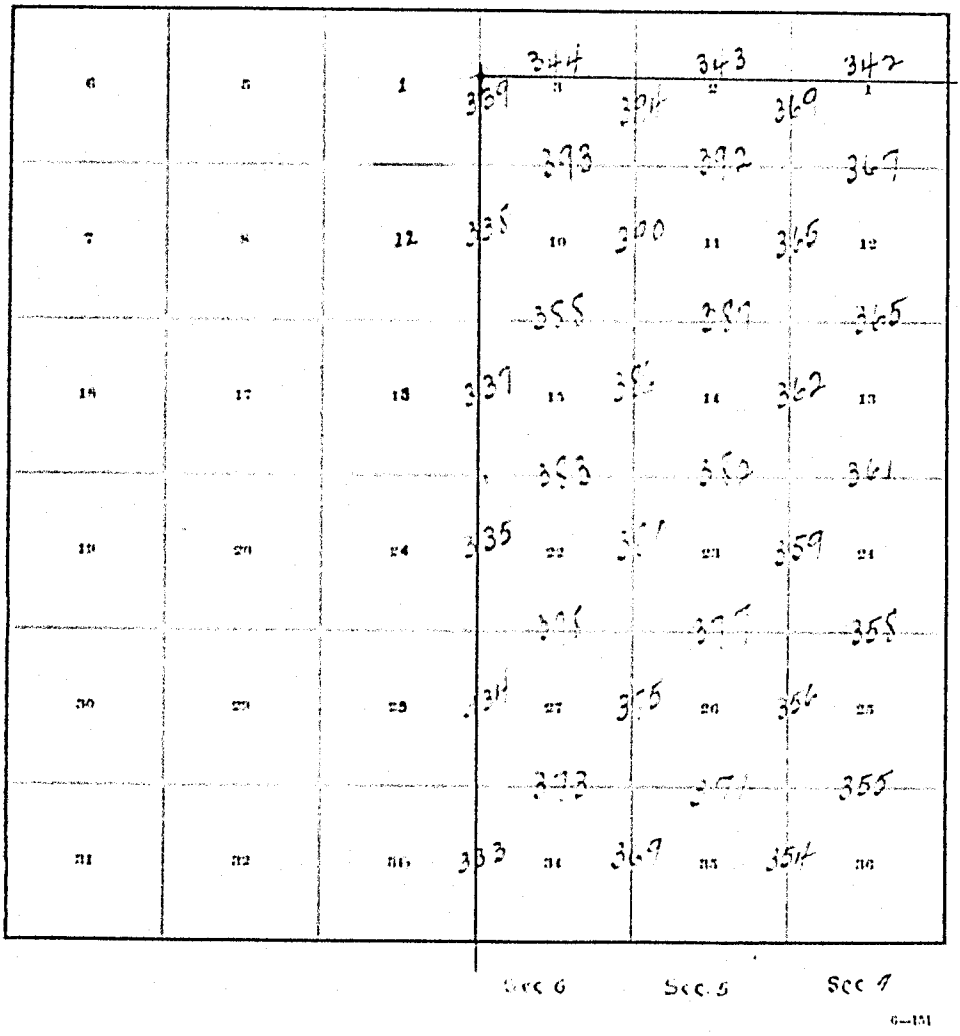
Survey commenced ....., *191*...

Survey completed ....., *191*...

BOOK A-397

INDEX DIAGRAM.

Township 39 South, *Range* 4½ West



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FIELD NOTES

OF THE SURVEY OF THE

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Of the ..... *Meridian,*

In the State of .....

EXECUTED BY

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In the capacity of U. S. Surveyor...., *under instructions dated*....., *191*...., *issued by the United States Surveyor General to govern surveys included in Group No.*....., *which were approved by the Commissioner of the General Land Office,* ....., *191*...., *pursuant to authority contained in the Act of Congress dated* ....., *191*....

Survey commenced ....., *191*....

Survey completed ....., *191*....

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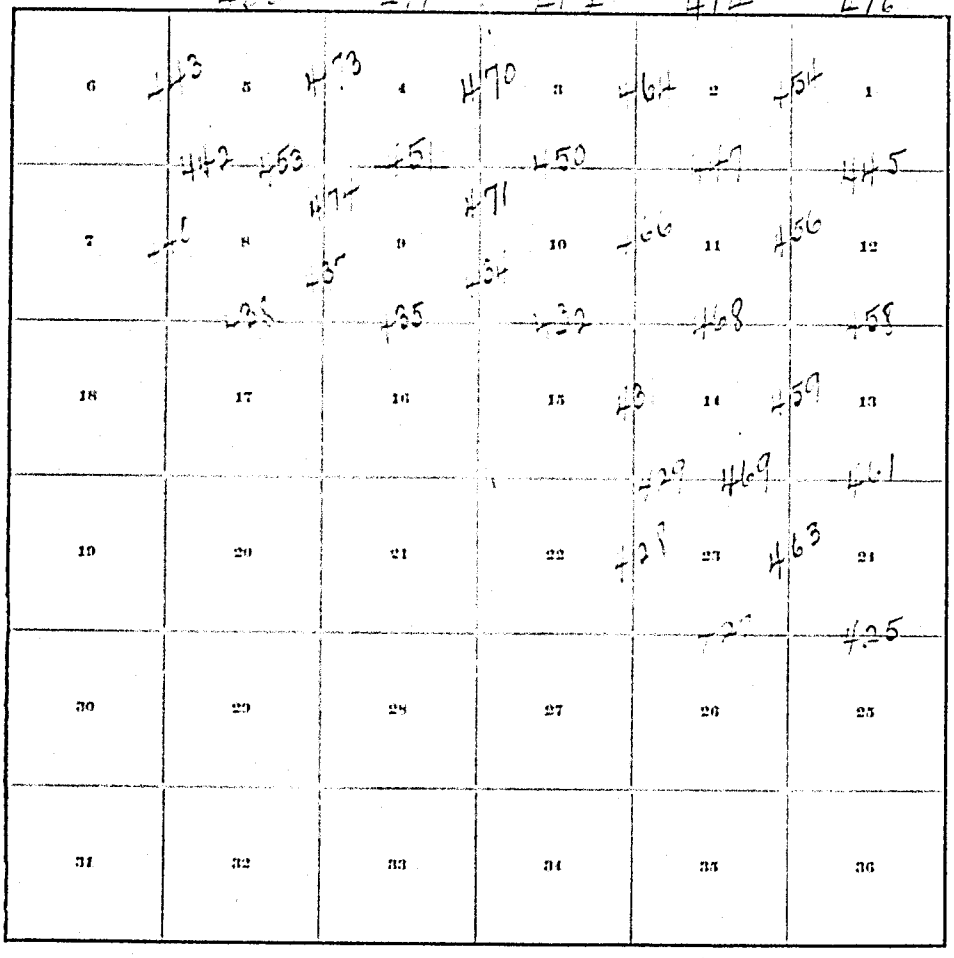
INDEX DIAGRAM.

Township 40 South, *Range* 5 West



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FIELD NOTES

OF THE SURVEY OF THE

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Of the ..... *Meridian,*

In the State of .....

EXECUTED BY

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In the capacity of U. S. Surveyor...., *under instructions dated*....., *191*...., *issued by the United States Surveyor General to govern surveys included in Group No.*....., *which were approved by the Commissioner of the General Land Office,* ....., *191*...., *pursuant to authority contained in the Act of Congress dated* ....., *191*....

Survey commenced ....., *191*....

Survey completed ....., *191*....

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Filed Jan.17, 1912.
W.S.H.

BOOK O. A-397

FIELD NOTES

OF THE SURVEY OF THE

EAST AND SOUTH BOUNDARIES

OF

TOWNSHIP 38 SOUTH, RANGE 9 EAST

Of the SALT LAKE BASE AND *Meridian,*

In the State of U T A H

EXECUTED BY

John R.Stewart

In the capacity of U. S. ~~Surveyor~~ Transitman *, under instructions dated* March 27, *1911,*

issued by the United States Surveyor General to govern surveys included in

Group No. 8, *which were approved by the Commissioner of the General Land*

Office, April 22, *1911, pursuant to authority contained in the Act of*

Congress dated . *191*

Survey commenced September 3, *1911.*

Survey completed September 9, *1911.*

6—151

BOOK A-397

INDEX DIAGRAM.

Township 32 South, *Range* 9 East

6	5	4	3	2	1	2
7	8	9	10	11	12	3
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Survey E. Bdy. T. 32 S. R. 9 E.

Survey commenced, Sept. 3, 1911, and executed with a W. and L. E. Gurley's explorer's transit, No. 957, with solar attachment. The horizontal limb is provided with two verniers placed opposite each other, reading to single minutes of arc; which is also the least count of the lat. and decl. arcs. The instrument was examined, tested on the meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, March 29, 1911. Examine the adjustments of the instrument, and correct the level and collimation error, 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 established by polaris observations, I proceed as follows:

At the cor. of secs. 1, 6, 31 and 36 Ts. 31 and 32 S. R's. 9 and 10 E., latitude 38° 04' 17" N., longitude 110° 54' 38" W. I set off 38° 04' N. on the lat. arc; 7° 43' N. on the decl. arc, and at 4 h. 0 m. p.m., l.m.t., determine a meridian with the solar, and mark a point thereof on a stone, set firmly in the ground 5.00 chs. N. of cor.

At 8 h. 44 m. p.m., l.m.t., I observe polaris at eastern elongation in accordance with the manual, and mark a point in the line thus determined, by a tack driven in a wooden peg, set 5.00 chs. N. of cor.

Sept. 3, 1911.

Survey E. Bdy. T. 32 S. R. 9 E.

Sept. 4, 1911: At 7 h. 40 m. a. m., l. m. t., I lay off the azimuth of Polaris, 1° 29.4' to the W. and mark the meridian thus determined by a groove in the rock already set 5.00 north of cor. This mark falls 0.30 ins. W. of the line determined by the solar.
At 7 h. 59 m. a. m., l. m. t., I set off 38° 04' N. on the lat. arc., 7° 28' N. on the decl. arc. and mark the meridian thus determined by the solar, by a cross on the rock, set 5.00 chs. N. of cor. This line is 0.22 ins. W. of meridian established by Polaris.
The solar apparatus by p. m. and a. m. observations defines positions respectively for meridians about 0' 16" E. and 10" W. of meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.
The magnetic bearing of the meridian at 8 h. 20 m. a. m. is N. 16° 15' W., the angle thus determined, gives the mag. decl. N. 16° 15' E.

South bet. secs. 1 and 6.
Over steep mountainous country, through heavy cedar and pinion pine timber desc.

4.00 Branch of South Creek, 1 lk. wide, 2 ins. deep, 10 ft. below cor. course S. 40° W.
Asc.:

8.50 Top of ridge, 100 feet above creek, bns N.E. and S.W.

Chains	Desc.
24.50	Bottom of South Creek 2 lks. wide, 1 in dep., 110 ft. below ridge, course N 80° W. Asc.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd on brass cap. 1/4 S 1 in W. half. S 6 in E. half from which a Pinion pine, 8 ins. in dia., brs. S. 80° E. 60 lks. dist. mkd. 1/4 S 6 B.T. a Pinion pine, 6 ins. in dia., brs. N. 60° W., 40 lks. dist., mkd. 1/4 S 1 B.T.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins in the ground, for cor. of secs. 1, 6, 7 and 12, mkd. on brass cap. T 32 S S 1 in N.W. R 10 E. S 6 in N.E. S 7 in S.E. and R. 9 E. S 12 in S.W. quadrants, from which a Cedar, 7 ins in dia., brs. N. 62° E. 16 lks. dist., mkd. T 32 S R 10 E S 6 B.T. a Cedar, 8 ins in dia., brs S. 41° 30' E. 44 lks. dist., mkd. T 32 S R 10 E S 7 B.T. a Cedar, 7 ins. in dia., brs S. 69° W. 34 lks dist., mkd T 32 S R 9 E S 12 B.T. a Pinion pine, 4 ins. in dia., brs. N. 46° W. 75 lks. dist., mkd. T 32 S R 9 E. S 1 B.T. Land, mountainous, slopes and drains westerly. Soil, sand and gravel. Subsoil, sand stone formation. Timber, cedar and pinion pine. a little grass. Mountainous land or land covered with timber. 80.00 chs.

South bet. secs. 7 and 12.
Over mountainous country; through

Chains

cedar and pinion pine timber and sage brush.
Acc.

5.00 Top of ridge, 100 ft. above cor. brs. E and W.
Desc.

6.00 Bottom of hollow, 60 ft. below ridge. course W.
Acc.

27.00 Top of ridge, 200 ft above hollow, brs N.50° E. and S.80° W.
Desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins in the ground for 1/4 sec. cor. mkd. on brass cap. 1/4 S 12 in W. and S 7 in E. halves, from which:

a Pinion pine, 8 ins. in dia., bas. N.46° E. 47 lks. dist. mkd. 1/4 S7 BT.

a Pinion pine, 5 ins. in dia., bas. N.65° W. 25 lks. dist.; mkd. 1/4 S 12 BT.

40.20 Bottom of hollow, 100 ft. below ridge, course S.80° W.
Acc.

46.00 Top of ridge, 150 ft. above hollow, brs E. and W.
Desc.

50.00 Set an iron post, 3 ft. long, 3 ins in dia, 24 ins. in the ground, for cor. of secs. 7, 12, 13 and 18, mkd. on brass cap.

T32S S 12 in N.W.
R10E S 7 in N.E.
S 18 in S.E. and
R9E S 13 in S.W. quadrants

from which:

a Pinion pine, 14 ins in dia, brs N.71° E., 54 lks. dist., mkd. T32S R10E S 7 BT.

a Cedar 7 ins. in dia, brs. S.54° 30' E. 60 lks. dist., mkd. T32S R10E S 18 BT.

a Cedar, 7 ins. in dia, brs. S50° W. 70 lks dist., mkd T32S R9E S 13 BT.

Survey, T 32 S R 9 E. East Bdy.

A Cedar, 14 ins. in dia., bes N. 82° W, 58 lks dist., mkd T 32 S R 9 E S 12 B.T.
Land mountainous
Soil, sand and clay.
Subsoil, clay.
Timber, cedar and pinion pine.
Undergrowth sage.
Good grass.
Mountainous land or land covered with timber or brush 80.00 chs.

South bet. secs. 13 and 18.
Over broken mountainous country; through cedar timber
Desc.
1.00 Foot of Desc. 75 ft. below cor. bes. E and W.
1.10 Bottom of wash, 20 lks wide, 2 ft. deep, course W.
40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., mkd. on brass cap, 1/4 S 13 on W. half and S 18 in E. half from which
A Cedar, 6 ins. in dia., bes E. 48 lks. mkd. dist. 1/4 S 18 B.T.
A Cedar, 8 ins. in dia., bes N 65° W 84 lks. dist., mkd 1/4 S 13 B.T.
62.00 Bottom of wash, 20 lks wide 10 ft. deep. course W.
62.75 Asc. bes. E and W.
70.00 Top of ridge, 100 ft. above wash, bes E. and W.
Desc.
80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins in the ground for cor. of secs. 13, 18, 19 and 24, mkd on brass cap.

T 32 S S 13 in N.W.
R 10 E. S 18 in N.E.
S 19 in S.E. and
R 9 E S 24 in S.W. quadrants.

Chains

and raised a mound of stone
2 ft. base, 1½ ft. high W. of cor.
Land, mountainous, slopes westerly.
Soil, sandy, 2nd rate.
Subsoil, clay and gravel.
Timber, cedar.
A little grass.
Mountainous land or land covered
with timber 80.00 chs.

Sept 4, 1911.

September 5th 1911.
At 7 h. 59 m. a. m. l. m. t., I set
off 38°02' N. on the lat. arc. 7°06' N.
on the decl. arc. and determine a
meridian with the solar at the
cor. of secs. 13, 18, 19, and 24. on E. bdy.
of tp.
Thence I run,
South bet. secs 19 and 24.
Over rolling foothills, through sage brush.
Desc.
4.00 Bottom of hollow, 60 ft. below cor. course
S.80°W. Enter cedar timber
Asc. gradually.
40.00 Set an iron post, 3 ft. long, 1 in. in dia.,
26 ins. in the ground, for 1/4 sec. cor.
mkd. on brass cap. 1/4 S 24 in W. and
S 19 in E. bears from which
A Cedar, 10 ins. in dia, brs. N. 75° E.
66 lks. dist., mkd. 1/4 S 19 B.T.
A Cedar, 11 ins. in dia, brs. N. 30° W.
25 lks dist., mkd. 1/4 S 24 B.T.
80.00 Set an iron post, 3 ft. long, ~~one~~ 3 ins. in dia
24 ins. in the ground for cor. of secs.
19, 24, 25 and 30 mkd. on brass cap,
T 32 S S 24 in N.W.
R 10 E. S 19 in N.E.
S 30 in S.E. and

Chains R. 9 E. S. 25 in S.W. quadrants and raise mound of stone 2 ft. base 1½ ft. high. W. of cor.
Land, rolling.
Soil, sandy loam, 1st rate.
Subsoil, gravel.
Timber, cedar.
Undergrowth, sage
A little grass.
Rolling land or land covered with timber or brush. 80.00 chs.
Sept 5, 1911. At this cor. I sit off. 7°02' N. on the decl. arc, and at 11h 59m a.m. l.m.t., observe the sun on the meridian the resulting lat. is 38°01' N. which is the proper lat. nearly.

South bet secs. 25 and 30
Over rolling mountainous country, through cedar and pinion pine timber and sage brush
Desc. gradually.

36.50 Bottom of swale, 10.0 ft. below cor. course W.
Asc.

40.00 Set an iron post, 3 ft. long, 1 in in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd on brass cap. 1/4 S 25 in W. and S 30 in E
Habe and raised a mound of stone 2 ft. base, 1½ ft. high W. of cor.

41.00 Top of spur, 20 ft. above swale, brs S 70° E and N 70° W.
Desc.

44.20 Bottom of swale, 20 ft. below spur, course W.
Asc.

61.70 Top of spur: 40 ft. above swale, brs. N. 70° E. and S. 70° W.
Desc.

78.00 Bottom of hollow, 60 ft. below spur, course N. 80° W.
Asc.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia,

Survey East Bdy T 32 S R 9 E Continued

Chains

24 ins in the ground, for cor. of secs, 25, 30, 31 and 36. mkd on brass cap.

T 32 S S 25 in N.W.

R 10 E S 30 in N.E.

S 31 in S.E. and

R 9 E S 36 in S.W. quadrants

from which

A Pinion pine, 6 ins. in dia., brs N.82° E. 40 lks. dist., mkd. T 32 S R 10 E S 30 B.T.

A Pinion pine, 4 ins. in dia., brs. S 54° E. 49 lks. dist., mkd. T 32 S R 10 E S 31 B.T.

A Pinion pine, 8 ins in dia., brs. S. 88° W. 105 lks. dist., mkd T 32 S R 9 E S 36 B.T.

A Pinion pine, 8 ins. in dia., brs. N. 3° W. 48 lks. dist., mkd. T 32 S R 9 E S 26 B.T.

Land, mountainous, slopes westerly.
Soil, sandy loam. 2nd rate.
Subsoil, gravel.
Timber, cedar and pinion pine
Undergrowth, sage.
Mountainous land or land covered with timber or brush 80.00 chs.

South bet secs 31 and 36.
Over mountainous country; through heavy timber (cedar and pinion pine.
Here gradually.

15.50 Bottom of swale, 70 ft. below cor. course W. asc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia. 26 ins. in the ground, for 1/4 sec. mkd. on brass cap 1/4 S 36 in W. and S 31 in E. halves from which

A pinion pine, 8 ins. in dia., brs. S.16° W. 37 lks. dist, mkd 1/4 S 36 B.T.

A Cedar, 5 ins. in dia. N 73° E. 14 lks. dist., mkd. 1/4 S 31 B.T.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of Townships

Survey South Bdy. T. 32 S. R. 9 E.

Chains

32 and 33 South, Ranges 9 and 10 East,
mkd. on brass cap.

T32S S36 in N.W.
R10E S31 in N.E.
T33S S6 in S.E. and
R9E S1 in S.W. quadrants

from which:

a Pinion pine, 4 ins. in dia., brs. N.22°E.
12 lks. dist., mkd T32S R10E S31 BT.
a Pinion pine, 10 ins. in dia., brs. S.60°E.
14 lks. dist., mkd T33S R10E S6 BT.
a Pinion pine, 6 ins. in dia., brs. S.31°W.
34 lks. dist., mkd T33S R9E S1 BT.
a Cedar, 10 ins. in dia., brs. N.60°W.
34 lks. dist., mkd. T32S R9E S36 BT.

Land, mountainous slopes westerly
Soil, sandy loam.
Subsoil, clay and loam.
Timber, cedar and pinion pine.
Undergrowth, sage.
Mountainous land or land covered
with timber or brush 8000. chs

Sept. 5, 1911.

Sept 6, 1911. At 7 h. 59 m. a. m. l. m. t.
I set off 37°59'N. on the lat. arc., 6°44'N.
on the decl. arc. and determine a
meridian with the solar at the cor.
of ~~tps~~ 32 and 33 South, Rgs. 9 and 10 E.
Thence I run:
West on a random line on S. side
of township, setting temp. sec. and 1/4 sec. cors.
at 40.00 ch. intervals.

240.00 Set temp. cor. for secs. 3, 4, 33 and 34.

Sept 6, 1911.

Survey South Bdy T 32 S. R 9 E. Continued

Chains	
	Sept 7, 1911, At 7 h. 58 m. a. m. l. m. t. I set off 37°59' N. on the lat. arc. 6°32' N on the decl. arc. and determine a meridian with the solar, at the temp cor. of secs. 3, 4, 33 and 34, on S. bdy of tp.
	Thence I run,
	West on a random line setting temp sec. and 1/4 sec. cor. at intervals of 40.00 chs.
238.20	Intersect W. Bdy of township, at the true corner for cor., 2.50 chs S. of W. C. to cor. of Ts. 32 and 33 S. Rgs. 8 and 9 E., which is an iron post, 3 ft. long, 3 ins in dia., witnessed by a mound of stone.
	Sept. 7, 1911.
	Sept. 8, 1911. At 7 h. 58 m. a. m. l. m. t. I set off 37°59' N. on the lat. arc. 6°00' N on the decl. arc. and determine a meridian with the solar, at the cor. point of Ts. 32 and 33 S. Rs. 8 and 9 E.
	Thence I run,
	East in a true line bet. secs. 31 and 6 Over rolling mesa land, through sage brush.
	Asc abruptly.
1.50	Top of step asc. brs. N. 30° W. and S. 30° E.
	Asc. gradually.
38.20	Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground for 1/4 sec. cor. mkd. on base cap. 1/4 S 31 in N. and S 6 in S halves, and dug pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist and raised a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
42.50	Top of ridge, 180 ft. above sec. cor, brs. N. and S.
	Desc.

Survey South Boundary T32S R9E Continue

Chains	
45.00	Enter cedar and pinion pine timber brs. N. and S.
59.50	Bottom of swale, 60 ft. below ridge, course N.
	asc.
63.00	Top of ridge, 75 ft. above swale, brs. N. and S.
	Desc
68.00	Bottom of swale, 40 ft. below ridge, course N 25° W.
	asc.
76.00	Top of ridge, 40 ft. above swale, brs. N. 10° W. and S 10° E.
	Desc.
78.20	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 5, 6, 31 and 32, mkd. on brass cap.

T32S S 31 in N.W.
R9E S32 in N.E.
S 5 in S.E. and
T33S S6 in S.W. quadrants

from which

A Pinion pine, 3 ins in dia., brs N. 30° E, 36 lks. dist., mkd. T32S R9E S32 BT.
A Pinion pine, 8 ins. in dia., brs. S. 70° E 85 lks. dist., mkd. T33S R9E S5 BT.
A Pinion pine, 10 ins. in dia., brs. S. 45° W. 75 lks. dist., mkd. T33S R9E S6 BT.
A Cedar, 8 ins. in dia., brs. N. 60° W. 45 lks. dist., mkd T32S R9E S31 BT.

Land, rolling mesa, slopes northerly
Soil, sandy loam, 2nd rate.
Subsoil, gravel and clay.
Timber, cedar and pinion pine
Undergrowth, sage.
A little grass.
Mesa land or land covered with timber or brush. 78.20 chs.
Sept. 8, 1911. At this cor. I set off 5° 55' N. on the decl. arc, and at 11 h 58 m a.m. l.m.t. observe the sun on the meridian, the resulting lat. is 37° 59' N.

Chains

which is the proper lat. nearly.

East bet. secs 5 and 32.
Over rolling mesa land, through cedar and pinion pine timber and sage brush.
Desc.
1.50 Bottom of swale, 20 ft. below cor.
course N.W.
Asc.
40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 32 in N. and S 5 in S. halves, from which a
Cedar, 10 ins. in dia., brs. N. 31° E. 9.3 lks. dist., mkd. 1/4 S 32 BT
A Pinion pine, 4 ins. in dia., brs. S. 73° W., 42 lks. dist., mkd. 1/4 S 5 BT.
80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 4, 5, 32 and 33. mkd. on brass cap.
T 32 S S 32 in N.W.
R 9 E S 33 in N.E.
S 4 in S.E. and
T 33 S S 5 in S.W. quadrants,
from which
A Cedar, 8 ins. in dia, brs. N. 22° E. 15.1 lks. dist., mkd. T 32 S R 9 E S 33 BT.
A Pinion pine, 6 ins. in dia, brs S. 50° E. 15 lks. dist., mkd T 33 S R 9 E S 4 BT.
A Pinion pine, 12 ins. in dia., brs. S. 16° W. 7.0 lks. dist. mkd. T 33 S R 9 E S 5 BT.
A Pinion pine, 5 ins. in dia, brs. N. 54° W. 4.0 lks dist., mkd. T 32 S R 9 E S 32 BT.
Land, rolling mesa, slopes southerly.
Soil, sandy loam, 2 ft. dep. 1st rate.
Subsoil, gravel and sandstone.
Timber, cedar and pinion pine.
Undergrowth sage.

Survey South Bdy. T32SR9E. Continued

Chains	
	A little grass.
	Rolling mesa land or land covered with timber or brush. 80.00 chs
	East bet. secs. 4 and 33.
	Over rolling mesa land, through heavy cedar and pinion pine timber and sage brush.
	Asc.
16.00	Top of ridge, 200 ft. above cor. brs. N.10° E. and S.10° W.
	Desc.
40.00	Set an iron post, 3 ft. long, 1 in. in dia. 26 ins. in the ground, for 1/4 sec. cor. mkd on brass cap, 1/4 S33 in N. and S4 in S. halves, from which :-
	A Pinion pine, 6 ins. in dia., brs. N.86° W. 35 lks. dist., mkd. 1/4 S 33 13 T.
	A Pinion pine, 6 ins. in dia, brs. S.3° W. 14 lks. dist., mkd. 1/4 S 4 13 T.
65.00	Desc. abruptly., brs. S.30° W. and N.30° E.
	Leave mesa.
70.00	Bottom of canon, 600 ft. below mesa, course, N.30° E.
	Asc. abruptly.
77.00	Top of asc. brs N30° E and S20° W.
	Enter mesa.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 3, 4, 33, and 34. mkd. on brass cap.
	T32S S 33 in N.W.
	R9E S 34 in N.E.
	S 3 in S.E. and
	T 33 S S 4 in S.W. quadrants
	from which :-
	A Cedar, 8 ins. in dia, brs. N.71° E. 91 lks dist., mkd T32S R9E S 34 13 T.
	A Cedar, 9 ins. in dia, brs. S.66° E. 38 lks. dist, mkd. T33 S R9E S 3 13 T.

Chain

a Cedar, 6 ins. in dia, brs. S.48°W.
84 lks. dist., mkd. T33SR9E S4 B.T.
a Pinion pine, 12 ins. in dia, brs. N.40°W.
50 lks. dist., mkd T32SR9E S33 B.T.
Land, mountainous, slopes northerly.
Soil, sandy loam, 2nd rate.
Subsoil, sandstone and gravel.
Timber, cedar and pinion pine.
Undergrowth, sage.
a little grass.
Mountainous land or land covered with timber or brush 80.00 chs.

Sept. 8, 1911.

Sept. 9, 1911. At 7 h. 58 m. a. m. l. m. t., I set off 37°58'N. on the lat. arc. 5°37' N on the decl. arc. and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34.
Thence I run,
East bet. secs 3 and 34.
Over mesa land or land broken, through cedar and pinion pine timber and sage brush.
33.00 Leave mesa, brs. N. and S.
Desc.
40.00 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 34 in N. and S 3 in S. halves, from which
a Cedar, 6 ins. in dia., brs. N.36°E.
9 lks. dist., mkd. 1/4 S 34 B.T.
a Pinion pine, 30 ins. in dia., brs.
S.40°E., 55 lks. dist., mkd. 1/4 S 3 B.T.
41.90 Bottom of swale, 560 ft. below mesa, course S.30°E.
Asc.
55.00 Top of spur, 200 ft. above swale, brs. N. and S.

Chains	
	Desc.
60.00	Bottom of swale, 260 ft. below spur course. S.
	Asc.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia. 24 ins. in the ground, for cor. of secs. 2, 3, 34 and 35, mkd. on brass cap.
	T32S S34 in N.W.
	R9E S35 in N.E.
	S2 in S.E. and
	T.33S S3 in S.W. quadrants, and raised a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
	Land, mesa W. 33 chs. Rugged mountainous E. 47 chs slopes and drains southerly.
	Soil, sand and black loam, 3rd rate
	Subsoil, gravel and sand stone formation
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	A little grass.
	Mountainous land or land covered with timber or brush 80.00 chs.
	Sept. 7, 1911, at this cor. I set off 5°33' W on the decl. arc, and at 11 h. 58 m. a.m. c.m.t. observed the sun on the meridian, the resulting lat is 37°59' N. which is the proper lat nearly.
	East on a true line between 2 and 35.
	Over rough mountainous country through cedar and pinion pine timber and sage brush.
	Asc.
1.00	Top of asc. brs N 35°W and S 35°E.
	Enter Tarantula Mesa.
16.80	Desc. brs. N. and S.

South Boundary T 32 S R 9 E Continued

Chains	
	Leave mesa
20.00	Foot asc. brs. N. and S.
	Enter broad canon
29.50	Wash, 20 lks wide, 10 ft. deep, 1000 ft. below mesa, course S.E.
30.00	Asc, brs. N.W. and S.E.
	Leave Bottom of canon.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 36 in N. and S 2 in S. Below from which
	A Pinion pine, 6 ins. in dia., brs N 87° E 34 lks. dist., mkd. 1/4 S 35 B T.
	A Cedar, 5 ins. in dia., brs S 71° W. 40 lks. dist., mkd. 1/4 S 2 B T.
80.00	Set an iron post, 3 ft. long, 3 ins in dia., 24 ins in the ground for cor of secs. 1, 2, 35, and 36. mkd. on brass cap. T 32 S S 35 in N.W. R 9 E S 36 in N.E. S 1 in S.E. and T 33 S S 2 in S.W. quadrants and raised a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.
	Land mountainous, rugged.
	Soil, sand
	Subsoil, gravel and sand stone.
	Timber, cedar and pinion pine
	Undergrowth, sage.
	Alkali grass
	Mountainous land or land covered with timber or sagebrush 80.00

East bet. secs. 1 and 36.
Over rough mountainous country, through cedar and pinion pine timber and sagebrush.
Asc.

20.00	Top of ridge, 400 ft. above cor., brs. N. 10° E, and S. 10° W.

Survey South bdy T 32 S R 9 E continued

Chains	
	Desc. abruptly
27.35	Bottom of hollow, 560 ft. below ridge, course S.W.
	Asc.
37.90	Top of spur, 100 ft. above hollow, brs. N.W. and S.E.
	Desc.
40.00	Set an iron post, 3 ft. long, 1 in. in dia. 26 ins. in the ground for ¼ sec. cor. mkd. on brass cap. ¼ S. 36 in N. and S 1. in S halves, from which
	a Pinion pine, 6 ins in dia., brs. N. 68° W. 9 lks. dist., mkd. ¼ S. 36 B.T.
	a Pinion pine, 8 ins. in dia., brs. S. 84° E. 83 lks. dist., mkd. ¼ S 1 B.T.
45.00	Bottom of swale, 60 ft. below ridge, course N.W.
	Asc. gradually
80.00	The cor. of Ts 32 and 33 S., Rgs. 9 and 10 E. heretofore described.
	Land, steep or ~~smooth~~ mountainous.
	Soil, sand and black loam.
	Subsoil, clay or gravel.
	Timber, cedar and Pinion pine.
	Undergrowth sage
	A little grass for graging.
	Mountainous land or land covered with timber or brush. 80.00 ch.
	Sept. 9, 1911.

Latitudes, Departures and Closing Errors.

Line designated	Course	Distance Chs	Latitudes N. Chs.	Latitudes S. Chs.	Departures E. Chs.	Departures W. Chs.
W. Bdy. T 32 S R 9 E.	North	480.00	480.00			
N. " " " "	East	477.74			477.74	
E. " " " "	South	480.00		480.00		
S. " " " "	West	478.20				478.20
Contingency					.57	
Total			480.00	480.00	478.31	478.20
			480.00		478.20	

Error in Latitude

Error in Departure .11

Sept. 9. 1911
John R. Stewart

Instrumentman G. L. O.

Volume
#
R0397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, _____, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of _____

For certificate of assistants see book "P" T.32 S., R.9 E.

of the _____ Meridian, in the State of _____ which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

_____

U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitman see book "P" T.32 S., R.9 E.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____
U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 18, 191 4.

The foregoing field notes of the survey of the East and South Boundaries of Township No.32 South, Range No.9 East of the Salt Lake Base and Meridian, Utah,

executed by John R. Stewart under his special instructions dated March 27, 191 1 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

N. C. Thorsen
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.

6—2761

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Filed Jan.17, 1912.

4—679

BOOK A-397

P.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP 32 SOUTH, RANGE 9 EAST

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

n R. Stewart and Quinby Stewart

the capacity of U. S. ~~Surveyor~~ Transitmen *, under instructions dated* March 27 *, 191* 1*,*

sued by the United States Surveyor General to govern surveys included in

roup No. 8 *, which were approved by the Commissioner of the General Land*

fice, April 22, *, 191* 1*, pursuant to authority contained in the Act of*

ngress dated *191*

Survey commenced September 7 *, 191* 1

Survey completed September 23, *, 191* 1.

Subd. 59-59-51

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BOOK A-397

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Township 32 South, *Range* 9 East

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Subdivision T. 32 S. R. 9 E.

Survey commenced Sept. 7, 1911, and executed with a Kuffel and Esser, mountain transit, with solar attachment No. 20578.
The horizontal limb is provided with two verniers placed opposite each other reading to single minutes of arc, which is also the least count of the lat. and decl. arcs. The instrument was examined tested on the meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, March 20, 1911.
I examine the adjustments of the instrument and correct the levels and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations, made during the p.m. and a.m. hours with meridian established by polaris observation, I proceed as follows:
At the cor. of secs. 1, 2, 35 and 36 on S. bdy. of Tp., latitude 37° 59' 04" N., longitude 110° 55' 41" W., I set off, 37° 59' N. on the lat. arc. 6° 15' N. on the decl. arc., and determine a meridian with the solar, at 3 h. 30 m. p. m. l. m. t., and mark a point thereof on a stone firmly set in the ground 5.00 chs. N. of cor.
At 8 h. 29 m. p.m. l. m. t., I observe polaris at eastern elongation in accordance with the manual, and mark a point in the line thus determined by a tack driven in a wooden plug, set 5.00 chs. N. of cor.

Sept. 7, 1911.

Sept. 8, 1911, at 7 h. 44 m. a. m. l.m.t. I lay off the azimuth of polaris 1° 29.4' to the W., and mark the meridian thus determined

Chains

by a groove in the rock, already set 5.00 chs. N. of cor. This mark falls 0.40 ins. W. of the line determined by solar.
At 7 h. 58 m. a. m. l. m. t. I set off 87°59' N. on the lat. arc. 5°59' N. on the decl. arc., and determine a meridian with the solar, then mark the line thus determined by a notch in the rock, set 5.00 chs. N. of cor. This line falls 0.36 ins. W. of meridian established by Polaris observation.
The solar apparatus by p. m. and a. m. observations, defines positions respectively about 27" E. and 18" W. of meridian established by Polaris observations, therefore I conclude the adjustments of the instrument are satisfactory.
The magnetic bearing of this line at 8 h. 25 m. a. m. is N. 16°22' W., the angle thus determined gives the mag. decl. 16°22' E.

N. 0°01' W. bet. secs. 35 and 36.
Over mountainous country, through cedar and pinion pine timber and sage brush.

30.60 Leave timber, brs. E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap, 1/4 S 35 in W. and S 36 in E. halves, and raised a mound of stone 2 ft. base, 1 1/2 ft. high. W. of cor.

79.90 Top of ridge, 560 ft. above cor. brs. N. 10° W. and S. 10° E.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 25, 26, 35 and 36, mkd. on brass cap.

T 32 S S 26 in N.W.
R 9 E S 25 in N.E.
S 36 in S.E. and
S 35 in S.W. quadrants, from

Chains

which a

Cedar, 10 ins. in dia., brs. N.28°E.
22 lks. dist, mkd. T32S R9E S25 B.T.
Pinion pine, 12 ins. in dia, brs S48°E
57 lks. dist., mkd T32S R9E S36 B.T.
Cedar, 8 ins. in dia., brs. S.85°W.
43 lks. dist., mkd. T32S R9E S35 B.T.
Cedar, 12 ins. in dia., brs. N.9°W.
43 lks. dist mkd. T32S R9E S26 B.T.

Land, mountainous, slopes S.W.
Soil, sandy loam, 2nd rate.
Subsoil, gravel.
Timber, cedar and pinion pine
Undergrowth sage.
Mountainous land or land covered with timber or sage. 80.00 chs.
Sept 8, 1911, at 11 h. 58 m. a.m.l. m. t. I set off; 5°55' N. on the decl. arc. and observe the sun on the meridian, the resulting lat. is 38°0' N. which is the proper lat. nearly.

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

40.00 Set temp 1/4 sec. cor.

80.04 Intersect the cor. of secs. 25, 30, 31 and 36. heretofore described, on E. bdy. of Tp.

Thence I run,

West on a true line bet. secs 25 and 36

Over mountainous country; through cedar and pinion pine timber and dense sage brush.

Desc.

31.00 Bottom of hollow, 60 ft. below cor., course S 30°W.

Asc.

39.15 Top of spur, 100 ft. above hollow, brs N. and S.

Desc.

40.02 Set an iron post, 3 ft. long, 1 in. in dia., 26

Chains

ins. in the ground, for 1/4 sec. cor. mkd. on brass cap, 1/4 S25 in N. and S 36 in S. halves from which a

Pinion pine, 8 ins in dia., brs N.65°E., 29 lks dist., mkd 1/4 S25 BT.

Cedar, 10 ins. in dia., brs. S.40°W. 54 lks dist., mkd. 1/4 S36 BT.

43.00 Bottom of hollow, 100 ft. below ridge, course S.

Asc.

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

Land mountainous slopes and drains southerly

Soil, sandy loam, 2nd rate.

Subsoil, gravel and sandstone formation

Timber, cedar and pinion pine.

Undergrowth, sage.

Good grass for grazing

Mountainous land or land covered with timber or brush. 80.04 chs.

N. 0°01'W. bet. secs. 25 and 36.

Over mountainous country; through cedar and pinion pine timber and sage brush.

Desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap, 1/4 S26 in W. and S25 in E. halves, from which a

Cedar, 24 ins. in dia., brs. N.45°E. 4 lks. dist., mkd. 1/4 S25 BT.

Pinion pine, 12 ins. in dia., brs. S60°W. 72 lks. dist., mkd. 1/4 S26 BT.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 23 24, 25 and 26, mkd. on brass cap;

T32S S23 in N.W.

T9E S24 in N.E.

Subdivision T. 32 S. R. 9 E. Continued.

Chains

S 25 in S. E. and
S 26 in S. W. quadrants,
from which a
Pinion pine, 8 ins. in dia., bre. N. 71° E.
73 lks. dist., mkd. T 32 S R 9 E S 24 B.T.
Cedar, 8 ins. in dia., bre. S. 8° E.
75 lks. dist., mkd. T 32 S R 9 E S 25 B.T.
Cedar, 14 ins. in dia., bre. S. 55° W.
70 lks. dist., mkd. T 32 S R 9 E S 26 B.T.
Cedar, 20 ins. in dia., bre. N. 63° 30' W.
38 lks. dist., mkd. T 32 S R 9 E S 23 B.T.
Land, mountainous slopes, east. Drains south.
Soil, sandy loam, 2nd rate.
Subsoil, clay and gravel.
Timber, cedar and pinion pine.
Undergrowth, sage.
Good grass
Mountainous land or land covered with timber or brush 80.00 chs.

Sept. 8, 1911.

Sept. 9, 1911. At 7 h. 58 m. a. m. l. m. t. I set off 38° 01' N. on the lat. arc., 5° 37' N. on the decl. arc and determine a meridian with the solar at the cor. of sec. 23, 24, 25 and 26.
Thence I run,
East on a random line bet. secs. 24 and 25.
40.00 Set temp. 1/4 sec. cor.
80.06 Intersect E. bdy of tp., 9 lks N. of cor. of secs. 19, 24, 25 and 30. heretofore described.
Thence I run,
N. 89° 56' W. on a true line bet. secs. 24 and 25.
Over, mountainous country; through cedar and pinion pine timber and dense sage brush.
Desc.

Chains

17.00 Bottom of hollow, 100 ft. below cor. course S. 20° W.

Asc.

28.00 Top of ridge, 180 ft. above hollow, brs. N. 35° W. and S. 35° E.

Desc.

40.03 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 24 in N. and S 25 in S. halves, from which a

Pinion pine, 5 ins. in dia., brs. N. 78 W. 52 lks. dist., mkd 1/4 S 24 B.T.

Pinion pine, 5 ins. in dia., brs. S. 12° W. 40 lks. dist., mkd 1/4 S 25 B.T.

61.00 Bottom of hollow, 175 ft. below ridge, course S. 30° E.

Asc.

80.06 The cor. of secs. 23, 24, 25 and 26.

Land, mountainous, drains southerly.

Soil, sandy loam, 2nd rate.

Subsoil, gravel.

Timber, cedar and pinion pine.

Undergrowth, sage.

Good grass for graging.

Mountainous land or land covered with timber and brush. 80.06 chs.

Sept. 9, 1911, At this cor. I set off; 5° 33' N on the decl. arc., and at 11 h 58 m. a.m. l. m. t. observe the sun on the meridian; the resulting lat. is 38° 01' N. which is the proper lat. nearly.

N. 0° 01' W. bet. secs. 23 and 24.

Over mountainous country; through cedar and pinion pine timber and sage brush.

Desc.

38.00 Head of hollow, 200 ft. below cor. course S.E.

Chains	
	Asc.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap., 1/4 S 23 in W. and S 24 in E. halves, from which a,
	Pinion pine, 8 ins. in dia., brs. N. 10° E. 31 lks. dist. mkd 1/4 S 24 B.T.
	Cedar, 10 ins. in dia., brs. S. 39° W. 30 lks. dist., mkd. 1/4 S 23 B.T.
43.50	Top of flat knoll, 200 ft. above hollow, brs. E. and W.
58.00	Desc. from knoll, brs. N. 10° E. and S. 30° W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia. 24 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, mkd. on brass cap:
	T 32 S S 14 in N.W.
	R 9 E S 13 in N. E.
	S 24 in S. E. and
	S 23 in S. W. quadrants
	and raised a mound of stone, 2 ft. base, 1 1/2 ft. high, W. of cor.
	Land, mountainous, slopes southeasterly
	Soil, sandy loam.
	Subsoil, clay and sand
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	Mountainous land or land covered with timber or brush. 80.00 chs

Sept. 9, 1911.

Sept. 11, 1911, at 7 h. 57 m. a.m. l.m.t. I set off, 38° 02 N. on the lat. arc. 4° 51' N on the decl. arc. and determined a mm meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence I run,

S 89° 56 E on a random line bet secs. 13 and 24.

40.00 Set temp. 1/4 sec. cor.

Subdivision T. 32 S. R. 9 E. Continued

Chains	
79.98	Intersect E. bdy of township, 2 lks. N. of cor. of secs. 13, 18, 19 and 24. next fore described.
	Thence 2 run,
	N. 89°55' W. on a true line bet secs. 13 and 24.
	Over rolling mountainous country, through scattering cedar and pinion pine timber and dense sage brush.
	Desc.
18.50	Fl. desc., brs. N. and S.
	Enter flat.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap, 1/4 S 13 in N., and S 24 in S. below and dug pits, 18 x 18 x 12 ins. E. and W. of post, 3 ft. dia., and raised a mound of earth 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
45.00	Asc., brs. N. and S.
54.00	Top of ridge, 60 ft. above flat., brs. N. 10° E. and S. 10° W.
	Desc. abruptly over ledges.
55.00	Bottom of swale, 100 ft. below ridge, course N. 4° E.
	Asc.
77.00	Top of ridge, 120 ft. above swale, brs. N. 2° E. and S. 2° W.
78.50	Bottom of swale, 105 ft. below ridge, course N. 0 4° E.
	Asc.
79.98	The cor. of secs. 13, 14, 23 and 24.
	Land, mountainous, slopes northerly.
	Soil, sandy loam, 2nd rate
	Subsoil, gravel.
	Timber, cedar and pinion pine.
	Undergrowth, sage
	Good grass for grazing
	Mountainous land or land covered with timber and brush. 79.98 chs.
	Sept. 11, 1911. At this cor. I set off 4° 47' N on the decl. arc. and at 11 h 57 m. a.m. l. m. t. observe the sun on the meridian the resulting lat. is 38° 02' N. which is the

Survey Subdivision T32S R9E Continued

Chains	
	proper lat. nearly.
	N. 0° 01' W. bet secs. 13 and 14.
	over mountainous country; through cedar and pinion pine timber and dense sage brush.
	Desc.
10.00	Foot desc. brs. N 30° W and S 80° E.
	Enter flat
38.00	Wash, 20 lks. wide, 4 ft. deep, course S. 70° W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 14 in W. and S 13 in E. letters from which a
	Cedar, 8 ins. in dia, brs N. 62° E. 84 lks. dist., mkd. 1/4 S 13 B T.
	Pinion pine, 6 ins. in dia. brs S. 74° W., 72 lks. dist., mkd. 1/4 S 14 B T.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 11, 12, 13 and 14, mkd on brass cap,
	T32S S11 in N.W.
	R9E S12 in N.E.
	S 13 in S.E. and
	S 14 in S.W. quadrants
	from which a,
	Cedar, 9 ins. in dia, brs. N. 86° E. 40 lks. dist, mkd. T32S R9E S12 B T.
	Cedar, 4 ins. in dia., brs. S. 70° E. 28 lks. dist., mkd. T32S R9E S13 B T.
	Cedar, 6 ins. in dia., brs. S. 57° W., 82 lks. dist., mkd. T32S R9E S14 B T.
	Cedar, 5 ins. in dia., brs. N. 73° W. 42 lks. dist., mkd. T32S R9E S11 B T.
	Land, mountainous for. S. 10.00 chs. slopes northerly; flat for. N. 70.00 chs. slopes southerly
	Soil, sand and clay.
	Subsoil, gravel and clay.

Chains	
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	A little grass.
	Mountainous land or land covered with timber and brush. 8000 chs.
	Sept. 14, 1911. At this cor. I set off 4° 47' N. and at 11 h. 57 m. a.m. l. m. t., observe the sun on the meridian the resulting lat. is 38° 02' N. which is the proper lat. nearly.

	S 89° 55' E. on a random line, bet. secs. 12 and 13.
40.00	Set temp. 1/4 sec. cor.
79.90	Intersect E. bdy. of township, 2 lks. N. of cor. of secs. 7, 12, 13 and 18, as before described.
	Thence I run
	N. 89° 54' W. on a true line bet. secs. 12 and 13.
	Over rolling mountainous country, through cedar and pinion pine timber and sage brush
	Asc.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 12 in N. and S 13 in S. halves, and dug pits, 18x18x12 ins. E. and W. of post, 3 ft. dist., and raised a mound of earth, 3 ft. base, 1½ ft. high, N. of cor.
41.00	Top of ridge, 400 ft. above sec. cor., brs. N. and S.
	Desc.
48.00	Ft. desc., brs. N. 30° E. and S 10° W.
	Enter flat.
50.50	Wash, 20 lks. wide, 2 ft. dep. course S.W.
78.50	Wash, 10 lks. wide, 2 ft. dep. course S. 30° E.
79.90	The cor. of secs. 11, 12, 13 and 14.
	Land, mountainous slopes southerly
	Soil, sand and clay, 3rd rate.

Chains	
	Subsoil, clay and gravel.
	Timber, cedar.
	Undergrowth sage.
	A little grass.
	Mountainous land or land covered with timber or brush, 79.90 chs.
	Sept. 11, 1911.
	Linsby Stewart U.S. Instrumentman
	Sept. 12. 1911. Clouds prevent morning solar.
	N. 0°01' W. bet. secs. 11 and 12.
	Over mountainous country, through scattering cedar and pinon pine timber and sage brush.
2.50	Wash, 10 lks. wide, 2 ft. deep, course S 30°E.
40.00	Asc. brs. E. and N. 35° W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 11 in W. and S. 12 in E. halves, and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
52.00	Top of ridge, 300 ft. above sec. cor. brs N.E. and S 30 W.
	Desc.
55.00	Bottom of swale, 160 ft. below ridge, course S.W.
	Asc.
59.00	Top of spur, 200 ft. above swale, brs. N.E. and S.W.
66.00	Bottom of hollow, 200 ft. below spur, c., course S.W.
	Asc.
79.10	Top of ridge, 400 ft. above hollow brs. N. 70° E. and S. 70° W.
	Desc.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 1, 2, 11, and 12, mkd. on brass cap;
	T32S S2 in N.W.
	R9E S1 in N.E.
	S12 in S.E. and
	S11 in S.W. quadrants,

Chains

and raised a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
Land, mountainous, slopes southwesterly
Soil, clay,
Subsoil, white clay.
Timber, cedar
Undergrowth, sage brush.
A little grass.
Mountainous land or land covered with timber or brush. 80.00 chs.
Sept. 12, 1911. At this cor. I set off 4° 23' W on the decl. arc. and at 11 h 07 m a. m. l. m. t., observe the sun on meridian, the resulting lat. is 38° 03' N.

S 89° 54' E on a random line, bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

79.88 Intersect E. bdy. of township, 7 lks. S. of cor. of secs. 1, 6, 7 and 12 heretofore described.
Thence I run,
N. 89° 57' W. on a true line bet. secs 1 and 12.
Over rough mountainous country, through heavy cedar and pinion pine timber.
Asc.

22.00 Top of ridge, 250 ft. above cor. brs. N. and S.
Desc.

32.00 Bottom of hollow, 200 ft. below ridge, course S 10° E.
Asc.

39.94 Set an iron post, 3 ft. long, 1 in. in dia, 26 in. in the ground for ¼ sec. cor. mkd. on brass cap, ¼ S1 in N. and S12 in S. half, from which a,

Cedar, 20 ins. in dia., brs. N. 2° E.
19 lks. dist., mkd. ¼ S1 13 T.
Cedar, 8 ins. in dia., brs. S. 5° W.
18 lks. dist., mkd. ¼ S12 13 T.

40.90 Top of ridge, 250 ft. above hollow, brs N.E. and S.W.

Chains	
	Desc.
48.00	Bottom of swale, 150 ft. below ridge, course S.W.
	Asc.
78.00	Top of ridge, 250 ft. above swale, brs. N.70°E. and S.70°W.
	Desc.
79.88	The cor. of secs. 1, 2, 11 and 12.
	Land, mountainous, slopes southerly
	Soil, clay.
	Subsoil, white clay
	Timber, cedar.
	Undergrowth, sage
	No grass
	Mountainous land or land covered with timber or brush. 79.88 chs.
	N.0°01'W. on a random line bet. secs. 1 and 2.
40.00	Set temp. 1/4 sec. cor.
80.06	Intersect N. bdy. of township, 5 lks W. of cor. of secs. 1, 2, 35 and 36, heretofore described.
	Thence 3 mm,
	S.0°01'W. on a true line bet. secs. 1 and 2.
	Over mountainous country; through heavy cedar and pinion pine timber and dense sage brush.
	Desc.
14.00	Ft. desc. brs. N.70°W and S.70°E.
	Enter canon bottom.
15.00	South Creek, 3 lks wide, 6 ins. deep course N.70°W.
16.00	Asc. brs. N.70°W. and S.70°E.
40.06	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. "1/4 S 2 in W. and 51 in E. halves. from which a,
	Pinion pine, 4 ins. in dia., brs. N.45°E. 07 lks. dist., mkd. 1/4 S 1 B.T.

Chains

Pinion pine, 6 ins. in dia., bs. S 7 W.
200 lks. dist., mkd. 14 S 2 B T.

42.00 Top of ridge, 300 ft. above creek, bs.
N. 70° W. and S. 70° E.
desc.

64.00 Bottom of hollow, course S. 80° W., 200 ft.
below ridge.
asc.

80.06 The cor. of secs. 1, 2, 11 and 12.
Land, mountainous, slopes westerly
Soil, sand clay.
Subsoil, gravel and clay.
Timber, cedar and pinion pine.
Undergrowth, sage brush.
No grass.
Mountainous land or land covered
with timber or sage brush.

Sept. 12, 1911.

Dimity Stewart
Instrumentman G.L.O.

Survey commenced Sept. 11, 1911. and
executed with a W. and L. E. Gurley's
Explorer's transit, No 957 with solar
attachment. The horizontal limb is
provided with two verniers placed
opposite each other, reading to single
minutes of arc, which is also the
least count of the lat. and decl. arcs.
The instrument was examined, tested
on the meridian at Salt Lake City,
found correct, and was approved by
the surveyor general, March 29, 1911.
For test of instrument see notes of bdy.
of this tp.
At 7 h 57 m. a. m. l. m. t., I set off 37°
57' N. on the lat. arc., 4° 57' N on the
decl. arc., and determine a meridian
with the solar, at the cor. of secs. 2, 3,

Chains	
	34 and 35, on S. bdy. of Tp. heretofore described.
	Thence 9 mm,
	N. 0°01' W. bet. secs. 34 and 35
	Over rough mountainous country;
	through heavy cedar and pinion pine
	timber and dense sage brush.
	Asc.
1.50	Top of asc. 40 ft. above cor. brs. N.W. and S.E.
	Enter Tarantula Mesa.
40.00	Set an iron post, 3 ft. long, 1 in. in dia.,
	26 ins. in the ground, for 1/4 sec. cor. mkd.
	on brass cap; 1/4 S 34 in W. and S 35 in E
	halves, from which a
	Pinion pine, 28 ins. in dia., brs. S.78°E.
	58 lks. dist., mkd. 1/4 S 35 1B T.
	Pinion pine, 7 ins. in dia., brs. S.46°W
	24 lks. dist., mkd. 1/4 S 34 1B T.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia.,
	24 ins. in the ground, for cor. of secs.
	26, 27, 34 and 35; mkd. on brass cap;
	T32S R 27 in N.W.
	R9E S 26 in N.E.
	S 35 in S.E. and
	S 34 in S.W. quadrants.
	from which a
	Pinion pine, 10 ins. in dia., brs. N.60°E.
	44 lks. dist., mkd. T32S R9E S 26 1B T.
	Pinion pine, 8 ins. in dia., brs. S.41°E.
	100 lks. dist., mkd. T32S R9E S 35 1B T.
	Pinion pine, 18 ins. in dia., brs. S.72°W.
	48 lks. dist., mkd. T32S R9E. S 34 1B T.
	Pinion pine, 10 ins. in dia., brs. N.40°W.
	40 lks. dist., mkd. T32S R9E S 27 1B T.
	Land, mesa.
	Soil, sandy.
	Subsoil, gravel
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	a little grass.
	Mesa land covered with timber 80.00 chs.
	Sept. 14, 1911. At this cor. 2 set off, 4°47' on

Chains	
	the decl. are., and at 11 h. 57 m. a.m.l.m.t., observe the sun on the meridian, the resulting lat. is 38°0' N. which is the proper lat. nearly.
	East on a random line, bet. secs. 26 and 35.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect N. and S. line, 9 lks. N. of the cor. of sec. 25, 26, 35 and 36.
	Thence 9 rns.
	N. 89°56' W. on a true line bet. secs. 26 and 35.
	Over mountainous country, through heavy cedar and pinion pine timber and dense sage brush.
	Asc.
0.90	Top of ridge, 20 ft. above cor. brs. N. 10° W. and S. 10° E.
	Desc.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap, 1/4 S 26 in N. and S 35 in S. halves, and raised a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor.
44.00	Bottom of hollow, 400 ft. below ridge, course S. 15° E.
	Asc.
74.50	Top of asc. 600 ft. above hollow.
	Enter Tarantula Mesa.
80.00	The cor. of secs. 26, 27, 34 and 35.
	Land, mountainous, slopes southerly
	Soil, sandy loam.
	Subsoil, gravel and sandstone formation
	Timber, cedar and pinion pine.
	Undergrowth, sage brush.
	A little grass.
	Mountainous land or land covered with timber or brush. 80.00 chs.

Oct 11 1911

Subdivision, T.32S.R.9E. Continued

Chains

Sept. 12, 1911. At 7 h 57 m. a. m. l. m. t., I set off, 38°0' N. on the lat. arc, 4° 29' N on the decl. arc. and determine a meridian with the solar, at the cor. of secs. 26, 27, 34 and 35.

Thence I run,

N. 0°01' W. bet. secs. 26 and 27.

Over mesa land, through cedar and pinion pine timber and sage brush.

40.00 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 27 in the W. and S 26, in the E. halves, from which a

Cedar, 20 ins. in dia, brs. N. 36° E. 25 lks. dist, mkd. 1/4 S 27 B.T.

Cedar, 20 ins. in dia., brs. N. 88° W. 36 lks. dist., mkd. 1/4 S 27 B.T.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 22, 23, 26 and 27, mkd. on brass cap.

T. 32 S S 22 in N. W.
R 9 E. S 23 in N. E.
S 26 in S. E. and
S 27 in S.W. quadrants,

from which a

Pinion pine, 10 ins. in dia., brs. N. 45° E. 40 lks. dist., mkd. T 32 S R 9 E S 23 B.T.

Pinion pine, 10 ins. in dia., brs. S. 40° E. 35 lks. dist., mkd. T 32 S R 9 E S 26 B.T.

Pinion pine, 5 ins. in dia., brs. S. 5° 0' W. 37 lks. dist., mkd. T 32 S R 9 E S 27 B.T.

Pinion pine, 12 ins. in dia., brs. N. 44° W, 75 lks. dist., mkd. T 32 S R 9 E S 27 B.T.

Land, mesa
Soil, sandy loam.
Subsoil, gravel.
Timber, cedar and pinion pine.
Undergrowth, sage.
a little grass.
Mesa land or land covered with timber or brush. 80.00 chs.

Chains

Sept. 12, 1911. At this cor. I set off 4°25' N. on the decl. arc, and at 11 h. 57 m. a.m. l.m.t., observe the sun on the meridian the resulting lat. is 38°01' N. which is the proper lat. nearly.

S 89°56' E on a random line bet. secs. 23 and 26.

40.00 Set temp. 1/4 sec. cor.

50.08 I intersect N.T.S. line 9 chs. S. of W. secs 23, 24, 25 and 26.

Thence I run

West on a true line bet. secs. 23 and 26.

over rough mountainous country; through heavy cedar and pinion pine timber and sage brush.

Acc.

5.15 Top of ridge, 300 ft. above cor., brs. N and S West.

26.00 Bottom of hollow, 400 ft. below ridge, course S.W.

Acc.

33.50 Top of acc., 150 ft. above hollow, brs. N. 10° E. and S 10° W.

Enter Tarantula Mesa.

40.04 Set an iron post, 3 ft. long 1 in. in dia., 26 in. in the ground for 1/4 sec. cor. with an brass cap; 14 S 23 in N. and S 26 in S. halves, from which a,

Cedar, 7 in. in dia., brs. N. 86° W. 31 lks. dist., mkd. 1/4 S 23 1/5 T.

Pinion pine, 6 in. in dia, brs. S. 75° W. 75 lks. dist, mkd. 1/4 S 26 1/5 T.

40.10 Swale, 100 ft. below mesa, course S.

Acc.

50.08 The cor. of secs. 23, 26, 26 and 27.

Land, mountainous

Soil, sandy

Subsoil, good

Timber, cedar and pinion pine

Chains

Undergrowth, sage.
A little grass.
Mountainous or mesa land or land covered with timber. 80.08 chs.

Sept. 12, 1911.

Sept. 13, 1911. At 7 h. 56 m. a. m. l. m. t., I set off; 38°00' N. on the lat. arc, 4°06' N. on the decl. arc, and determine a meridian with the solar, at the cor. of secs. 22, 23, 26 and 27.
Thence I run,
N. 0°01' W. bet secs. 22 and 23.
Over mesa land, through heavy cedar and pinion pine and dense sage brush.

4.00 Desc., bra. E. and W.
Leave Tarantula Mesa.

16.00 Bottom of steep canon, 600 ft. below mesa, course N. 60° W.
Asc.

26.00 Top of asc., 600 ft. above canon, bra. E. and W.
Enter mesa.

35.00 Desc., bra. E. and W.
Leave mesa.

40.00 Point on sand stone ledge. Unable to perpetuate cor. at this point, therefore I mark cor. point with +.

52.00 Bottom of hollow, 600 ft. below mesa. course W.

55.65 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, mked on base cap. W.C. 1/4 S 22 in W. and S 23 in E. halves, from which a,

Pinion pine, 6 ins. in dia., bra.
S. 60° E., 100 lks. dist., mkd W.C. 1/4 S 23 B.T.
Pinion pine, 7 ins. in dia., bra.

Chains

N.75°W., 30 lks. dist., mkd WC 1/4 S 22 BT.

57.50 Top of ridge, 400 ft above hollow, bears E. and W. lines.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 14, 15, 22 and 23, mkd. on brass cap;

T32S S15 in N.W.

R9E S14 in N.E.

S23 in S.E. and

S22 in S.W. quadrants, from which a,

Cedar, 6 ins. in dia., brs. N.10°E. 25 lks. dist., mkd. T32S R9E S 14 BT.

Pinion pine, 8 ins. in dia., brs. S.21°E. 23 lks. dist., mkd. T32S R9E S 23 BT.

Pinion pine, 6 ins. in dia., brs S.67°W. 36 lks. dist., mkd. T32S R9E S 22 BT.

Cedar, 14 ins. in dia., brs. N.52°W. 22 lks. dist., mkd. T32S R9E S 15 BT.

Land, mountainous, slopes westerly

Soil, sandy loam.

Subsoil, gravel or sandstone formation

Timber, cedar and pinion pine.

Undergrowth, sage.

A little grass.

Mountainous land covered with timber and brush. 80.00 chs.

Sept. 13, 1911. At this cor. I set off 4° 02' N. on the decl. arc, and at 11 h. 56 m. a. m. l. m. t, observe the sun on the meridian the resulting lat. is 38°02' N. which is the proper lat. nearly.

East on a random line, bet. secs. 14 and 23.

40.00 Set temp. 1/4 sec. cor.

80.08 Intersect N. and S. line, 7 lks. N. of cor. of secs. 13, 14, 23 and 24.

Thence I run,

Chains	
	N. 87°57' W. on a true line bet. secs. 14 and 23. Over rough mountainous country; through heavy cedar and pinion pine timber and dense sage brush.
	Asc.
9.00	Top of ridge, 100 ft. above cor. brs. N. and S.
	Desc.
20.00	Bottom of hollow, 150 ft. below ridge, course N.
	Asc.
33.00	Top of ridge, 200 ft. above hollow, brs. N. and S.
	Desc.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap; 1/4 S 14 in N. and S 23 in S halves, from which a,
	Cedar, 7 ins. in dia., brs. S. 30° E. 23 lks. dist. mkd. 1/4 S 23 B.T.
	Pinion pine, 6 ins. in dia., brs N. 10° W., 108 lks. dist, mkd. 1/4 S 14 B.T.
57.00	Bottom of hollow, 420 ft. below ridge, course N. 20° W.
	Asc.
80.08	The cor. of secs. 14, 15, 22, and 23.
	Land, mountainous, slopes northerly.
	Soil, solid
	Subsoil, gravel and sandstone formation
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	Mountainous land, or land covered with timber and sage brush. 80.08 ch.

Sept. 13, 1911.

Sept. 14, 1911. At 7 h. 56 m. a. m. l. apt. t. I set off; 38° 01' N. on the lat. arc, 3° 43' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23

Chains

Thence 2 run,
N. 0°01' W. bet. secs. 14 and 15.
Over mountainous country; through heavy cedar and pinion pine timber.
Desc.
8.00 Ft. of desc., 120 ft. below cor., brs. E. and W.
8.25 Wash in Stephen's Canon, below Stephen's Narrows, 30 lks. wide, 4 ft. deep, course W.
11.00 Asc., brs. E. and W.
Leave canon.
40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 15 in W. and S. 14 in E. halves. from which a,
Pinion pine, 8 ins. in dia., brs. S. 30° E., 10 lks. dist., mkd. 1/4 S 14 B.T.
Pinion pine, 6 ins. in dia., brs. N. 60° W., 25 lks. dist., mkd. 1/4 S 15 B.T.
78.36 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 10, 11, 14 and 15, mkd. on brass cap,
W.C. T 32 S S 10 in N.W.
R 9 E S 11 in N.E.
S 14 in S.E. and
S 15 in S.W. quadrants, from which a,
Pinion pine, 6 ins. in dia., brs. N. 44° W.
14 lks. dist., mkd. T 32 S R 9 E S 10 B.T.
and raised a mound of stone, 2 ft. base 1½ ft. high, W. of cor.
No other trees within limits.
80.00 At this point, I mark a + on the solid sandstone formation, where it is impossible to perpetuate cor.
Land, mountainous
Soil, sandy
Subsoil, gravel and sandstone formation.
Timber, cedar and pinion pine.
Undergrowth, sage.
No grass.
Mountainous land or land covered

with timber or brush. 80.00 chs.
Sept. 14, 1911. At noon today the sky is over cast making solar observations impossible.

S. 89° 57' E. on a random line bet. secs. 11 and 14.
40.00 Set temp. 1/4 sec. cor.
80.06 Intersect N. & S. line 7 lks. S. of cor. of secs. 11, 12, 13 and 14.
Thence S. run,
West on a true line bet. secs 11 and 14.
Over flat land, through heavy cedar and pinion pine, timber.
4.00 Asc., brs. N. and S.
17.90 Top of rough ridge, 600 ft. above sec. cor. brs. N. and S.
Desc.
40.03 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 11 in N. and S 14 in S halves. from which a
Pinion pine, 8 ins. in dia, brs. N. 35° W., 60 lks. dist, mkd. 1/4 S 11 13 T.
Pinion, pine, 6 ins. in dia, brs. S. 10° E. 38 lks. dist, mkd. 1/4 S 14 13 T.
80.06 The cor. point for secs. 10, 11, 14 and 15.
Land, mountainous.
Soil, sandy loam.
Subsoil, sandstone formation.
Timber, cedar and pinion pine
Undergrowth, sage brush.
No grass.
Mountainous land or land covered with timber or sage brush. 80.06 chs.

Sept. 14, 1911.

Chains

Sept. 13, 1911. At 7 h. 56 m. a. m. by t., I set off 38°02' N. on the lat. arc, 3°20' N on the decl. arc, and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.

Thence I run.

N. 0°01' W. bet. secs. 10 and 11.

Over rough mountainous country, through heavy cedar and pinion pine timber and sage brush.

Rec. gradually.

15.75 Bottom of hollow, 40 ft. below sec. cor. course S. 15° W.

Rec.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap; 1/4 S 10 in W. and S 11 in E. halves, from which a

Pinion pine, 16 ins. in dia., bs. N. 72° E., 10 lks. dist., mkd. 1/4 S 10 B T.

Cedar, 10 ins. in dia., bs. S. 48° W. 113 lks. dist., mkd. 1/4 S 10 B T.

65.60 Top of ridge, 440 ft. above hollow, bs. N. 50° E. and S. 50° W.

Rec.

75.00 Bottom of swale, 200 ft. below ridge, course W.

Rec.

76.00 Top of point, 100 ft. above swale, bs. E. and W.

Rec.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 2, 3, 10 and 11, mkd on brass cap;

T 32 S S 3 in N.W.,

R 9 E S 2 in N.E.

S 11 in S.E. and

S 10 in S.W. quadrants, from which a

Pinion pine, 8 ins. in dia., bs. N 78° E. 24 lks. dist., mkd. T 32 S R 9 E S 2 B T

Pinion pine, 16 ins. in dia., bs. S. 65° 30' E.

Chains

70 lks. dist., mkd. T32SR9E S11B.T.
Pinion pine, 6 ins. in dia., brs. S.18°W.
23 lks. dist., mkd. T32SR9E S10B.T.
Pinion pine, 10 ins. in dia., brs. N.65°W.
70 lks. dist., mkd. T32SR9E S3B.T.
Land, mountainous
Soil, sand.
Subsoil, sandstone formation or gravel.
Timber, cedar and pinion pine.
Undergrowth, sage brush.
Degree.
Mountainous land or land covered with timber or brush. 80.00 chs.
Sept. 15, 1911. At noon this day the sky is over cast, making solar observations impossible.

East on a random line bet. secs. 2 and 11.

40.00 Set temp. 1/4 sec. cor.

50.10 Intersect N. and S. line, 7 chs. S. of cor. of secs. 1, 2, 11 and 12.
Change 2 rem.,
S 81°57' W. on true line bet. secs. 2 and 11.
Over mountainous country, through cedar and pinion pine timber and sage brush.
Asc. gradually.

3.50 Top of ridge, 20 ft. above cor., brs. N.W. and S.E.
Desc.

24.00 Bottom of swale, 200 ft. below ridge, course N.
Asc.

29.00 Top of ridge, 200 ft. above swale, brs. N.10°W. and S.10°E.
Desc.

32.50 Bottom of swale, 200 ft. below ridge, course N.W.
Asc.

Chains	
39.90	Top of ridge, 120 ft. above swale, brs. N.4°W and S.4°E.
	Desc.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on base cap; 1/4 S 2 in N. and S 11 in S halves. from which a
	Pinion pine, 12 ins. in dia., brs. N.35°E. 38 lks. dist., mkd. 1/4 S 2 B.T.
	Cedar, 5 ins. in dia, brs S.31°E. 65 lks. dist., mkd. 1/4 S 11 B.T.
44.50	Bottom of swale, 100 ft. below ridge, course N.10°W.
	Asc.
45.60	Top of ridge, 260 ft. above swale, brs. N.10°W. and S.10°E.
	Desc.
80.10	The cor. of secs. 2, 3, 10 and 11.
	Land, mountainous slopes northerly.
	Soil, sand and clay
	Subsoil clay and gravel.
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	A little grass.
	Mountainous land or land covered with timber or sage brush. 80.10 chs.

	N.0°01'W. on a random line bet. secs. 2 and 3.
40.00	Set temp. 1/4 sec. cor.
80.04	Intersect N. bdy. of tp. 3 lks W. of cor. of secs. 2, 3, 34 and 35. herein described.
	Thence I run
	South on a true line bet. secs. 2 and 3.
	Over mountainous country, through cedar and pinion pine timber and sage brush.
	Asc.
15.00	Top of ridge, 200 ft. above sec. cor., brs.

Subdivision T 32 S. R. 7 E. Continued

Chains	
	76.60° W. and 82.60° E.
	Desc.
40.04	Set an iron post, 3 ft. long, 1 in. in dia. 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap, 4 S. 3 in. W. and S. 2 in. E. balance from which a
	Pinion pine, 6 in. in dia., bears S. 15 E., 30 lks. dist., mkd. 1/4 S 2 B T.
	Pinion pine, 18 in. in dia., bears S. 50 W. 20 lks. dist., mkd. 1/4 S 3 B T.
48.00	Bottom of hollow, 100 ft. below ridge.
	~~Course~~ W.
	Asc.
57.50	Top of ridge, 100 ft. above hollow bra.
	E. and W.
	Desc.
76.00	Bottom of hollow, 200 ft. below ridge, course W.
	Asc.
80.04	The cor. of secs. 2, 3, 10 and 11.
	Land, mountainous
	Soil, sand and clay.
	Subsoil, clay.
	Timber, cedar and pinion pine.
	Undergrowth sage.
	No grass.
	Mountainous land on hard covered with timber or sage brush 80.04 chs.

Sept. 15, 1911.
John T. Stewart
Lieut. Quartermaster U.S.C.

Sept 13, 1911. At 7 h 56 m a.m. h.m.t. I set off 37°57' N on the latitude 4°06' N on decl. arc, and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34, on S. Bdy of Tp., but not marked. Thence I run.

Subdivision T32S R9E Continued

Chains

N 0° 02' W. bet. secs. 33 and 34.
Over mesa land; through heavy cedar and pinion pine timber.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 33 in W. and S 34 in E. halves, from which a

Pinion pine, 4 ins. in dia., bs. N. 19° E. 21 lks. dist., mkd. 1/4 S 34 B.T.
Pinion pine, 8 ins. in dia., bs. N. 8° W. 48 lks. dist., mkd. 1/4 S 33 B.T.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 27, 28, 33 and 34, mkd. on brass cap;

T32S S28 in N.W.
R9E S27 in N.E.
S34 in S.E. and
S33 in S.W. quadrants, from which a,

Pinion pine, 10 ins. in dia., bs. N. 60° E. 44 lks. dist., mkd. T32S R9E S27 B.T.
Pinion pine, 8 ins. in dia., bs. S. 41° E. 100 lks. dist., mkd. T32S R9E S34 B.T.
Pinion pine, 18 ins. in dia., bs. S. 72° W. 48 lks. dist., mkd. T32S R9E S33 B.T.
Pinion pine, 10 ins. in dia., bs. N. 40° W. 40 lks. dist., mkd. T32S R9E S28 B.T.

Land, rolling mesa.
Soil, sandy.
Subsoil, gravel.
Timber cedar and pinion pine.
Good grass.
Mesa land covered with timber, 80.00 chs.
Sept. 13, 1911. at this cor. I set off 4° 02' N. on the decl. arc. and at 11 h 56 m a.m. l.m.t., observe the sun on the meridian, the resulting lat. is 38° N. which is the proper lat. nearly.

Subdivision T32S R9E Continued

Chains

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

40.00 Set temp ¼ sec. cor.

79.92 Intersect N. and S. line, 5 lks. S. of cor. of secs. 26, 27, 34 and 35.

Thence 2 run

S 89°58' W. on a true line bet. secs 27 and 34

Over mesa land; through heavy cedar and pinion pine timber.

39.96 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor. mkd. on brass cap. ¼ S 27 in N. and S 34 in S. halves, from which a

pinion pine, 6 ins. in dia, bs. N. 61° W. 47 lks. dist, mkd ¼ S 27 BT.

Pinion pine, 6 ins. in dia., bs. S. 3° E. 21 lks. dist, mkd. ¼ S 34 BT.

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

Land, mesa.

Soil, sandy loam

Subsoil, gravel.

Timber, cedar and pinion pine.

Good grass for grazing.

Mesa land or land covered with timber

79.92 chs.

Sept. 13, 1911.

Sept 14, 1911. At 7 h 56 m. a.m. L.M.T., I set off 38°0' N. on the ~~decl~~ arc. 3°43' N. on the decl. arc, and determined a meridian with the solar at cor. of secs 27, 28, 33 and 34.

Thence 2 run,

N. 0°02' W. bet. secs. 27 and 28.

Over mesa land, through heavy cedar and pinion pine timber and sage brush.

40.00 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for ¼ sec. cor. mkd. on brass cap; ¼ S 28 in W. and S 27 in E halves, from

Chains

which a
Pinion pine, 8 ins. in dia., brs. N. 75° E.
8 lks. dist., mkd. 14 S. 21 BT.
Pinion pine, 14 ins. in dia., brs. N. 50° W.
75 lks. dist., mkd 14 S 28 BT.

60.00 Desc, brs N. 80° W. and S. 80° E.
Leave Tarantula Mesa.

74.00 Bottom of canon, 700 ft. below mesa.
course N.W.
Asc.

80.00 Set an iron post, 3 ft. long, 2 ins in dia., 24 ins. in the ground, ~~post~~ cor of secs. 21, 22, 27 and 28, mkd. on brass cap;
T 32 S S 21 in N.W.
R 9 E S 22 in N.E.
S 27 in S.E. and
S 28 in S.W. quadrants, from
which a
Pinion pine, 8 ins in dia, brs. N. 85° E.
74 lks. dist., mkd. T 32 S R 9 E S 22 BT.
Pinion pine, 6 ins. in dia., brs. S. 61° E.
38 lks. dist., mkd T 32 S R 9 E S 27 BT.
Pinion pine, 8 ins. in dia, brs. S. 5° W.
52 lks. dist., mkd. T 32 S R 9 E S 28 BT.
Cedar, 7 ins. in dia., brs. N. 40° W.
80 lks. dist., mkd. T 32 S R 9 E S 21 BT.
Land, mountainous
Soil, sandy loam.
Subsoil, gravel.
Timber, cedar and pinion pine.
Good grass for grazing
Mountainous land or mesa land covered with heavy cedar and pine timber, 80.00 chs.
Sept. 14 1911 At noon this day the sky is over cast, making solar observations impossible.

N 89° 58' E, on a randome line, bet secs. 22 and 27.

Subdivision T.32S R.9E Continued

Chains	
40.00	Set temp 1/4 sec. cor.
80.00	Intersect N&S line S. Eko. N.D. cor. of secs. 22, 23, 26 and 27.
	Thence 2 mm,
	West on a true line bet secs. 22 and 27
	Over mountainous country, through
	heavy cedar and pinion pine timber.
	Desc.
15.00	Bottom of swale, 200 ft. below cor.
	course N.10°W.
35.00	Desc. abruptly over series of ledges
	bra. N.10°W. and S10°E.
39.25	Set an iron post, 3 ft. long, 1 in. in
	dia., 26 ins in the ground for W.C. 1/4 sec
	cor. mkd. on brass cap; W.C. 1/4 S 22 in
	N. and S 27 in S holes, from which
	a
	Pinion pine, 6 ins. in dia., brs. N15°E.
	40 lks. dist., mkd WC 1/4 S. 22 BT.
	Cedar, 8 ins. in dia., brs. S.75°W.
	30 lks. dist., mkd WC 1/4 S 27 BT.
40.00	Point on smooth ledge, marked with
	a +. I was unable to perpetuate cor.
	at this point.
80.00	The cor. of secs: 21, 22, 27 and 28.
	Land, mountainous
	Soil sandy loam
	Subsoil, gravel
	Timber, cedar and pinion pine
	Good grass for grazing.
	Mountainous land or land covered
	with timber, 80.00 chs
	Sept. 14, 1911.

N. 0°02'W. bet secs 21 and 22.
Over mountainous country, through
heavy cedar and pinion pine timber
and dense sage brush.
Desc

Subdivision T 32 S R 9 E Continued

Chains	
7.00	Top of ridge, 200 ft. above cor, brs E. and W.
	Desc.
18.00	Bottom of hollow, 200 ft. below ridge, course S.W.
	asc. abruptly
21.25	Top of asc. brs E. and W.
	Entr. Tarantula Mesa.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 21 in W. and S 22. in E holes, from which a
	Pinion pine, 5 ins. in dia., brs. N 60° E. 40 lks. dist., mkd. 1/4 S 22 BT.
	Pinion pine, 4 ins. in dia., brs. N 35° W. 80 lks. dist., mkd. 1/4 S 21 BT.
63.55	Desc. abruptly, brs. N.W. and S.E.
	Lease mesa.
	Lease timber, brs. N.W. and S.E.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 in in the ground, for cor. of secs. 15, 16, 21 and 22 mkd. on brass cap.
	T 32 S S 16 in N.W.
	R 9 E S 15 in N.E.
	S 22 in S.E. and
	S 21 in S.W. quadrants, and

raised a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Land, Mountainous

Soil, sandy loam.

Subsoil, gravel.

Timber, cedar and pinion pine

Good grass for graging

Mountainous land & land covered with timber, 80.00 chs.

Sept. 15, 1911. At noon thushy is over cast making solar observations impossible.

Subdivision T32S R9E Continued

Chains	
	East on a random line bet. secs. 15 and 22.
40.00	Set temp. 1/4 sec cor.
80.00	Intersect N. and S. line, 12 lks. S. of cor. of secs. 14, 15, 22 and 23.
	Thence I run.
	S 89°55' W. on a true line bet. secs. 15 and 22.
	Over rough mountainous country; through scattering cedar and pinion pine timber.
	asc.
24.00	Top of step asc., bse N. 10° W and S. 10° E.
	Enter mesa.
39.00	Desc abruptly over series of ledges, bse. W. and S.
	Leave mesa.
40.00	Point on sand stone ledge, where it is impossible to perpetuate cor. I mark point with a +.
56.10	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for W.C. 1/4 sec. cor., mkd. on brass cap; 1/4 W.C. S 15 in N. S 22 in S. halves, and raised a mound of stone 2 ft. base, 1½ ft. high N. of cor.
72.90	Bottom of canon, 700 ft. below mesa, course N.W.
	asc.
80.00	The cor. of secs. 15, 16, 21 and 22.
	Land, mountainous
	Soil, sandy loam and clay.
	Subsoil, clay and gravel
	Timber cedar and pinion pine
	Undergrowth sage
	Good grass for grazing.
	Mountainous land or land covered with timber or brush. 80.00 chs.
	Sept 15, 1911.

Chain

Sept. 16, 1911. At 7 h 55 m. a.m. l. m. t., I set off, 38°02' N. on the lat. arc., 2°57' N. on the decl. arc., and determine a meridian with the solar at the cor. of secs. 15, 16, 21 and 22.

Thence I run,

N. 0°02' W. bet. secs. 15 and 16.

Over mountainous country; through scattering cedar and pinion pine timber and dense sage brush.

Desc.

60.00 Bottom of canon 40 ft. below cor, course N.W.

Asc.

39.90 Top of ridge, 200 ft. above canon, bra. E. and W.

Desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor., mkd. on brass cap, 1/4 S 16 in W. and S 15 in E halves, from which a,

Cedar, 10 ins in dia, bears S. 70° E. 65 lks. dist., marked 1/4 S 15 BT.

Cedar, 7 ins. in dia, bra. N. 35 W. 50 lks. dist., mkd. 1/4 S 16 BT.

60.25 Wash in Bottom of canon, 40 lks. wide, 10 ft. dep, 220 ft. below ridge, course N. 86° W.

Asc.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 9, 10, 15 and 16, mkd. on brass cap;

T 32 S 9 in N.W.

R 9 E S 10 in N.E.

S 15 in S.E. and

S 16 in S.W. quadrants, and raised a mound of stone, 2 ft. base 1½ ft. high, W. of cor.

Land, mountainous.

Soil, sand and clay

Subsoil, clay or gravel

Chains	
	Timber, cedar and pinion pine. Undergrowth, sage. Good grass for grazing. Mountainous land or land covered with timber and brush. 8000 lbs. Sept. 16, 1911. At this cor. I set off 2° 03' N. on the tech. sec., and at 51.50 chs. a meander, thence the cor. on the meridian the resulting lat. is 3503' N. which is the proper lat. nearly.
	N 50°55' E. on a random line, bet. secs. 10 and 15.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect random line, I chs. N. of cor. of secs. 10, 11, 14 and 15. Thence I chs. S. 50°55' W. on true line bet. secs. 10 and 15. Ascending mountainous country, through cedar and pinion pine timber and sage brush.
	Desc.
8.00	Bottom of hollow, 120 ft. below cor. course, S. 10° W.
	Asc.
20.00	Top of ridge, 200 ft. above hollow, bra. N. and S.
	Desc.
28.00	Bottom of swale, 100 ft. below ridge course S.
	Asc.
37.00	Top of point, 120 ft. above swale, bra. N. and S 10° W.
	Desc.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 in. in the ground for 1/4 sec. cor. mkd. on brass cap; 1/4 S 10 in N. and S 15 in S. bearings, from which a,

Chains

Cedar, 8 ins. in dia., brs. N. 9° W.
10 lks. dist., mkd. 1/4 S 10 B.T.
Cedar, 8 ins. in dia., brs. S 19° W
82 lks. dist, mkd 1/4 S 15 B.T.

50.00 Bottom of hollow, 320 ft. below ridge, course S. 15° W.
asc.

68.50 Top of spur, 180 ft. above hollow, brs. N. and S.
desc.

70.50 Bottom of swale, 120 ft. below spur, course S.
asc.

79.00 Top of ridge, 100 ft. above swale, brs. N. and S.
desc.

80.04 The cor. of secs. 9, 10, 15 and 16.
Land, mountainous
Soil, sand and clay.
Subsoil, clay and gravel.
Timber, cedar and pinion pine.
Undergrowth, sage
a little grass
Mountainous land or land covered with timber or brush. 80.04 chs

Sept 16, 1911.

Sept. 18, 1911. The sky is over cast all day making solar observations impossible.
N. 0° 02' W. bet. secs. 9 and 10.
Over broken mountainous country through heavy cedar and pinion pine timber and sage brush.
asc.

23.00 Top of asc. brs. E. and W. 400 ft. above cor. Enter flat ridge.

33.00 desc., brs. E. and W.

Subdivision, T 32 S R 9 E. Continued

Chains	
	Leave ridge.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 9 in N. and S 10 in E. halves, from which a,
	Cedar, 4 ins. in dia., bra. N 60° E. 9 lks. dist., mkd. 1/4 S 10 B T.
	Pinion pine, 7 ins. in dia. bra. N 27° W. 28 lks. dist., mkd. 1/4 S 9 B T.
49.00	Bottom of hollow, 260 ft. below ridge, course N 35° W.
	Asc.
55.00	Top of spur, 200 ft. above hollow, bra. N.W. and S.E.
	Desc.
67.00	Bottom of hollow, 200 ft. below spur, course W.
	Asc.
78.50	Top of spur, 160 ft. above hollow, bra E. and W.
	Desc.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia. 24 ins. in the ground, for cor. of secs. 3, 4, 9 and 10, mkd. on brass cap.
	T 32 S S 4 in N.W.
	R 9 E. S 3 in N.E.
	S 10 in S.E. and
	S 9 in S.W. quadrants, and
	raised, a mound of stone, 2 ft. base 1 1/2 ft. high, W. of cor.
	Land, mountainous
	Soil, sand and gravel.
	Subsoil, clay.
	Timber, cedar and pinion pine,
	Undergrowth, sage.
	Good grass.
	Mountainous land or land covered with timber or brush 8000 chs.

Chains	
	N. 89°58' E on a random line bet. secs. 3 and 10.
40.00	Set temp. 1/4 sec. cor.
80.08	Intersect the 1/4 S line 5 chs. N. of the cor. of secs. 2, 3, 10 and 11.
	Thence 2 rds.
	West on a true line bet. secs. 3 and 10.
	Over rough mountainous country;
	through cedar and pinion pine timber and dense sage brush.
	Desc.
21.00	Bottom of hollow, 160 ft. below cor. course N.
	Asc.
26.00	Top of ridge, 200 ft. above hollow, brs. N. and S.
	Desc.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap; 1/4 S 3 in N. and S 10 in S. holes, from which a,
	Pinion pine, 6 ins. in dia., brs. N 15° E. 42 lks. dist., mkd 1/4 S 3 B.T.
	Cedar, 7 ins. in dia., brs. S. 10° W. 66 lks. dist., mkd. 1/4 S 10 B.T.
40.50	Bottom of hollow, 200 ft. below ridge, course N.
	Asc.
74.50	Top of ridge, 366 ft. above hollow, brs. N 15° E and S 15° W
	Desc.
80.08	The cor. of secs. 3, 4, 9 and 10.
	Land, mountainous
	Soil, sand and clay.
	Subsoil, clay and gravel.
	Timber, cedar and pinion
	Undergrowth, sage
	good grass.
	Mountainous land a land covered with timber or brush, 80.08 chs.

Subdivision T 32 S R 9 E. Continued

Chains	
	N. 0°02' W. on a random line bet. secs. 3 and 4.
40.00	Set temp ¼ sec. cor.
80.02	Intersect N. bdy. of tp., 3 chs E. of cor. of secs. 3, 4, 33 and 34, heretofore described.
	Thence I run,
	S 0°03' E on a true line bet. secs. 3 and 4.
	Over mountainous country; through heavy cedar timber and sage brush.
25.00	Bottom of canon, 200 ft. below sec. cor., course W.
	Asc.
	Leave heavy timber.
	Enter scattering timber.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. mkd. on brass cap: ¼ S 4 in W. and S. 3 in E. halves, and raised a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
52.75	Top of ridge, 260 ft. above canon, brs. N.W. and S.E.
	Desc. gradually.
80.02	The cor. of secs. 3, 4, 9 and 10.
	Land, mountainous
	Soil, sand and clay
	Subsoil, clay and gravel
	Timber, cedar
	Undergrowth, sage.
	Good grass.
	Mountainous land or land covered with timber or brush. 80.02 chs.

Sept. 18, 1911.

Quimby Stewart,
Instrumentman G.L.O.

Chains

Sept. 16, 1911. The sky was over cast all day, making solar observations impossible, from cor. of secs. 4-5-32 and 33 on S. bdy. of Tp. heretofore described from N. 0°03' W. bet secs. 32 and 33.

Over rolling mesa land, through heavy cedar and pinion pine timber.

asc

34.00 Top of ridge, 120 ft. above sec. cor. brs N.W. and S.E.

desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 4 cor. secs. mkd on brass cap; 1/4 S 32 in W. and S 33 in E. halves, from which a,

Pinion pine, 8 ins. in dia., brs N.40°E.
8 lks. dist., mkd. 1/4 S 33 BT.
Cedar, 6 ins. in dia., brs. N.41°W.
12 lks. dist., mkd. 1/4 S 32 BT.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 28, 29, 32 and 33, mkd. on brass cap;

T 32 S S 29 in N.W.
R 9 E S 28 in N.E.
S 33 in S.E. and
S 32 in S.W. quadrants, from which a,

Cedar, 4 ins. in dia., brs. N.30°E.
91 lks. dist., mkd. T 32 S R 9 E S 28 BT.
Pinion pine, 1 ins. in dia., brs. S.43°E.
50 lks. dist., mkd. T 32 S R 9 E S 33 BT.
Cedar, 10 ins. in dia., brs. S.51°W.
32 lks. dist., mkd. T 32 S R 9 E S 32 BT.
Pinion pine, 8 ins. in dia., brs. N.33°W.
59 lks. dist., mkd. T 32 S R 9 E S 29 BT.

Land, mesa.
Soil, sandy loam
~~Hardwood, gravel~~
Timber, cedar and pinion pine
Undergrowth, sage.
Good grass for grazing

Subdivision, T 32 S R 9 E Continued

Chains	
	Mountainous or mesa land or land covered with timber, 80.00 chs.
	East on a random line bet. secs. 28 and 33.
40.00	Set temp. 1/4 sec. cor.
80.02	Intersect the cor. of secs. 27, 28, 33, and 34.
	Thence 2 mm,
	West on a true line bet. secs. 28 and 33
	Over mountainous country, through cedar and pinion pine timber and sage brush.
21.20	Disc. abruptly over series of ledges. brs. N. and S.
26.81	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for W.C. 1/4 sec cor. mkd. on brass cap; W.C. 1/4 S 28 in N. and S 33 in S halves, from which a,
	Pinion pine, 8 ins. in dia., brs. N. 40° W. 48 lks. dist., mkd. 1/4 S 28 B T.
	Pinion pine, 8 ins. in dia., brs. S. 68° E. 14 lks. dist. mkd. 1/4 S 33 B T.
37.00	Bottom of Reveme, 620 ft. below mesa, course N. 10° E.
	asc. abruptly
40.01	Point on sloping ledge, where it is impossible to perpetuate cor. I mark this point with a +.
52.60	Top of asc., 640 ft. above reveme, brs. N. 10° E. and S. 20° W.
	Enter Tarantula Mesa.
80.02	The cor. of secs. 28, 29, 32 and 33.
	Land, mountainous
	Soil sandy loam
	Subsoil, clay and gravel
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	Good grass.

Chains	
	mountainous or mesa land or land covered with timber, 80.02 chs.
	Sept 16, 1911.
	Sept 18, 1911. Solar observations are unpreventable on account of clouds.
	N. 0°03' W. bet secs. 28 and 29.
	Over mesa land, through heavy cedar and pinion pine timber.
9.00	Desc. abruptly, brs. N. 75° W. and S. 75° E.
	Leave Tarantula Mesa.
17.50	Head of hollow, 610 ft. below mesa, course, N 80° E.
	Asc.
25.00	Top of asc., brs. N. 60° E. and S 60° W.
	Enter mesa.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground, surrounded by a mound of earth and stone, for 1/4 sec. cor. mkd. on brass cap; 1/4 S. 29 in W. and S 28 in E. halves. from which a
	Cedar, 6 ins. in dia., brs. S. 65° E. 110 lks. dist., mkd. 1/4 S 28 B T.
	Cedar, 5 ins. in dia, brs. N. 20° W. 48 lks. dist. mkd. 1/4 S 29 B T.
50.00	Top of ridge 750 ft. above hollow, brs. N. 10° E. and S 10° W.
	Desc.
73.00	Desc. abruptly, over series of ledges. brs. N. 25° E. and S. 15° W.
80.00	Set an iron post, 3 ft long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 20, 21, 28 and 29, mkd. on brass cap;
	T 32 S S 20 in N.W.
	R 9 E. S 21 in N.E.
	S 28 in S.E. and
	S 29 in S.W. quarants, and raised a mound of stone, 2 ft. base, 1 1/2 ft. high W. of cor.
	Land, mountainous or mesa.

Chains	
	Soil, sandy loam.
	Subsoil, gravel.
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	Good grass.
	Mountainous or mesa land or land covered with timber 80.00 chs.
	Sept. 18, 1911, At noon the sky is over cast, making solar observations impossible
	---
	East on a random line, bet. secs. 21 and 28.
40.00	Set temp. 1/4 sec. cor.
74.72	Intersect N. and S. line, 5 lks. N. of cor. of secs. 21, 22, 27 and 28.
	Thence 2 mm.
	N. 87° 55' W. on a true line between 21 and 28.
	Over mountainous country, through cedar and pinion pine timber and dense sage brush.
	Desc.
77.00	Bottom of canon, 60 ft. below cor, course N. 75° W.
	Asc. over series of ledges.
26.35	Top of ridge, 400 ft. above canon, brs. N.W. and S.E.
	Desc. over series of ledges.
32.50	Bottom of swale, 290 ft. below ridge, course N. 50° W.
	Asc.
39.50	Top of spur, 300 ft. above swale, brs N. 60° W. and S. 60° E.
	Desc.
39.77	Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd, on brass cap; 1/4 S 21 in N. and S 28 in S. halves, and raised a mound of stone, 2 ft. base 1½ ft. high, N. of post.
64.80	Bottom of canon, 410 ft. below spur, course

Subdivision T 32 S R 9 E Continued.

Chains

N.

Asc. over series of ledges.

75.50 Top of point, 520 ft. above canon, brs. N. and S 15° W.

Desc.

79.94 The cor. of secs. 20, 21, 28 and 29.

Land, mountainous.

Soil, sandy loam.

Subsoil, gravel.

Timber, cedar.

Undergrowth sage.

Good grass for grazing.

Mountainous land or land covered with timber or brush, 79.94 chs.

N. 0° 03' W. bet secs. 20 and 21

Over rough mountainous country; through heavy cedar and pinion pine timber and sage brush

Desc.

20.00 Bottom of hollow, 400 ft. below cor. course N. 80° E.

Asc.

25.00 Top of point, 420 ft. above hollow, brs. N. 85° E. and S. 85° W.

Desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor., mkd. on brass cap; 1/4 S 20 in N. and S 21 in E. halves, from which a

Cedar, 5 in. in dia., brs. S. 82° W. 48 lks. dist., mkd. 1/4 S 20 S T.

No other bearing trees within limits; raise a mound of stones 2 ft. base 1½ ft. high N. of cor.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor of secs. 16, 17, 20 and 21, mkd. on brass cap;

T 32 S S 17 in N.W.

R 9 E S 16 in N.E.

S 21 in S.E. and

S 20 in S.W. quadrants

Chains

from which a,
Pinion pine, 4 ins. in dia., bra. N25°E.
100 lks. dist., mkd. T32SR9ES16 13T
Pinion pine, 5 ins. in dia., bra. S.84°E.
55 lks. dist, mkd. T32SR9ES21 13T.
Pinion pine, 4 ins. in dia., bra. S.31°W.
120 lks. dist., mkd. T32SR9ES20 13T.
Pinion pine, 14 ins. in dia., bra. N.48°W.
80 lks. dist, mkd. T32SR9ES17 13T.
Land, mountainous.
Soil, sandy loam.
Subsoil, gravel and clay.
Timber, cedar and pinion pine.
Undergrowth, sage brush.
Good grass for grazing.
Mountainous land or land covered with cedar and pinion pine timber or brush. 80.00 chs.

Sept. 18, 1911.

Sept. 19, 1911, at 7 h 54 m. a. m. true t.
I set off 35°01'N. on the lat. arc, 1°47'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.
Thence I min,
S89°58'E. on a random line bet. secs. 16 and 21.
40.00 Set temp. ¼ sec. cor.
79.96 Intersect W. and S. line, 2 lks. S. of cor. of secs. 15, 16, 21 and 22.
Thence I min,
N. 89°59'W. on a true line bet. secs. 16 and 21.
Over mountainous country, through heavy cedar and pinion pine timber and sage brush
Asc.
28.00 Top of asc., 420 ft. above cor. bra. N.40°W.

Chains	and S. 40° E.
	Enter mesa.
35.00	Desc., brs. N. 20° W and S. 20° E.
	Leave mesa.
39.98	Set an iron post, 3 ft. long, 1 in in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 16 in N. and S 21 in S halves. from which a
	Cedar, 7 ins. in dia., brs. N. 13° E., 30 lks. dist., mkd. 1/4 S 16 B T.
	Cedar, 16 ins. in dia., brs. S. 85° E. 90 lks. dist., mkd 1/4 S 21 B T.
69.90	Bottom of canon, 640 ft. below mesa
	course N.
	Asc.
79.96	The cor. of secs. 16, 17, 20 and 21.
	Land, mountainous
	Soil, sandy loam
	Subsoil clay and gravel.
	Timber, cedar and pinion pine
	Undergrowth, sage.
	good grass.
	Mountainous land or land covered with timber or brush. 79.96 chs.
	Sept. 19, 1911. at this cor. I set off 1° 43' N. on the decl. arc. and at 11 h. 54 m. a. m. l. m. t., observe the sun on the meridian the resulting lat. is 38° 02' N. which is the proper lat. nearly.

	N. 0° 03' W. bet. secs. 16 and 17
	Over mountainous country; through heavy cedar and pinion pine timber and dense sage brush.
	Desc.
40.00	Set an iron post, 3 ft. long, 1 in in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 16 in E.

Chains.

S 17 in W. halves, from which a,
Pinion Pine, 16 ins. in dia., brs. N. 19° E.
40 lks. dist., mkd 14 S 16 B T.
Cedar, 7 ins. in dia., brs. N. 30° W.
45 lks. dist., mkd. 14 S 17 B T.

40.50 Ft. Desc., brs. N. 75° W. and S. 75° E.
Enter flat

41.00 Wash, 10 lks. wide, 4 ft. deep. course N. 75° W.

72.00 Wash, 75 lks. wide, 6 ft. deep. course N.W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 8, 9, 16 and 17, mkd. on brass cap.
T 32 S S 8 in N.W.
R 9 E S 9 in N.E.
S 16 in S.E. and
S 17 in S.W. quadrants, from which a
Cedar, 10 ins. in dia., brs. N. 12° 30' E.
158 lks. dist., mkd T 32 S R 9 E S 9 B T.
Cedar, 8 ins. in dia., brs. N. 41° 30' W.
105 lks. dist., mkd. T 32 S R 9 E S 8 B T.
No other trees within limits, so I dug pits 18 x 18 x 12 ins. in sec. 16 and 17, 5½ ft. from post and raised a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
Land, mountainous
Soil, sand and clay.
Subsoil, clay and gravel
Timber, cedar and pinion pine
Undergrowth, sage.
good grass.
Mountainous land or land covered with timber or brush. 80.00 chs.

Sept. 19, 1911.

Sept. 20, 1911. At 7h. 54m. a.m. l.m.t., I set off, 38° 03' N. on the lat. arc, 1° 35' N. on the decl. arc, and determine a

Chains

meridian with the solar, at the cor. of secs. 8, 9, 16 and 17.
Thence 2 mm
S. 89° 59' E. on a random line bet. secs. 9 and 16.
40.00 Set temp. 1/4 sec. cor.
79.98 Intersect 1/4 S line, 2 lks. S. of cor of secs 9, 10, 15 and 16.
Thence 2 mm
West on a true line bet. secs. 9 and 16.
Over mountainous country, through cedar timber and sage brush.
Desc.
39.99 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 9 in N. and S 16 in S. halves. from which a,
Cedar, 6 ins. in dia., brs. N 51° W. 33 lks. dist., mkd. 1/4 S 9 B.T.
Cedar, 6 ins. in dia, brs. S. 63° E. 36 lks. dist., mkd. 1/4 S 16 B.T.
49.00 Bottom of swale, 220 ft. below sec. cor. course S.
Asc.
55.90 Top of ridge, 120 ft. above swale, brs. N. and S.
Desc.
78.10 Ft. desc. 190 ft. below ridge. brs. N. and S.
Enter flat.
79.98 The cor. of secs. 8, 9, 16 and 17.
Land, mountainous.
Soil, sandy loam.
Subsoil, gravel.
Timber, cedar.
Undergrowth, sage.
Good grass.
Mountainous land or land covered with cedar and pinion pine, 79.98 chs.
Sept. 20, 1911. At noon the sky is over cast making solar observations impossible.

Subdivision T32S R9E Continued

Chains	
	N. 0°03'W. bet secs. 8 and 9.
	Over rolling land, through cedar and pinion pine timber and sage brush.
35.00	Bottom of wash, 12 lks. wide, 4 ft. deep course W.
40.00	Set an iron post, 3 ft. long, 1½ in in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S8 in W. and S9 in E. halves, and raised a mound of stone 2 ft. base, 1½ ft. high, W. of post.
69.20	Wash, 15 lks. wide, 2 ft. deep course W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 4, 5, 8 and 9, mkd. on brass cap;
	T32S S5 in N.W.
	R9E S4 in N.E.
	S9 in S.E. and
	5/8 in S.W. quadrants; plug
	pits 18x18x12 ins. in each sec., 5 ft. from post, and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.
	Land, rolling
	Soil, sand and clay, 18 ins deep; 3rd rate.
	Subsoil, clay and gravel.
	Timber, cedar.
	Undergrowth, sage.
	Good grass.
	Nearly level land covered with timber or brush. 80.00 chs.
	Sept 20, 1911.

Sept. 21, 1911., At 7 h. 53 m. a.m. h.m.t., I set off, 38°03'N. on the lat. arc, 1°01'N. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.
Thence I run,

Chains

East on a random line bet. secs. 4 and 9.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect the cor. of secs 3, 4, 9 and 10

Thence 9 mm

West on a true line bet secs 4 and 9.

Our mountainous country, through cedar and pinion pine timber and sage brush.

Desc.

30.00 Foot desc. brs. N. 10° E. and S 50° E.

Enter flat.

40.00 Set pinion post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 4 in N. and S 9 in S. halves, from which a.

Cedar, 6 ins. in dia., brs. N. 30° E. 34 lks. dist, mkd. 1/4 S 4 B T.

Cedar, 6 ins. in dia., brs. S. 20° E. 48 lks. dist, mkd. 1/4 S 9 B T.

41.00 Ridge, 20 ft. brs. N. and S.

Desc. to flat.

60.00 Top of ridge, 25 ft. above flat, brs. N. and S.

Desc. to flat.

61.75 Wash, 10 lks. wide, 1 ft. deep. course S.

75.00 Top of ridge, 20 ft. above flat. brs. N. and S.

77.00 Wash, 10 lks. wide, 1 ft. deep. course S.

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

Land, rolling mountainous

Soil, sandy clay.

Subsoil, sand and gravel

Timber, cedar.

Undergrowth, sage.

Good grass.

Mountainous or level land or land covered with timber 2000 lks.

Sept 21, 1911. At noon the sky is over cast, making solar observations impossible

Subdivisions T 22 S R 9 E. Continued

Chains	
	N. 0°03' W on a random line bet. secs. 4 and 5.
40.00	Set temp. 1/4 sec. cor.
80.00	Intersect the cor. of secs. 4, 5, 32 and 33. on N. bdy of Tp heretofore described
	Thence 9 chs.,
	S 0°03' E on a true line bet. secs 4 and 5.
	Over rolling land, through cedar and pinion pine timber and sage brush.
8.50	Wash, 40 lks. wide, 2 ft. deep. course N 50° W.
19.00	Wash, 10 lks. wide, 1 ft. deep. course N 50° W.
20.00	Asc., brs. N 50° W. and S.E.
40.00	Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. 1/4 S 5 in N. and S 4 in E. halves, from which a
	Pinion pine, 5 ins. in dia., brs. S. 70° E., 120 lks. dist., mkd. 1/4 S 4 B.T.
	Cedar, 8 ins. in dia., brs. N. 53° W. 24 lks. dist., mkd. 1/4 S 5 B.T.
57.00	Top of ridge, 120 ft above wash, brs. N. 60° W and S 60° E.
	Desc.
60.00	Bottom of hollow, 100 ft. below ridge course N. 60° W.
	Asc.
68.00	Top of ridge, 90 ft. above hollow, brs. N. 80° W. and E.
	Desc.
78.50	Ft desc., 100 ft. below ridge, brs N.E. and N.W.
	Enter flat.
80.00	The cor. of secs. 4, 5, 8 and 9.
	Land, rolling mountainous
	Soil, sandy loam
	Subsoil clay and gravel
	Timber, cedar and pinion pine
	Undergrowth, sage.
	Mountainous land covered with timber or brush 80.00 chs.

Sept. 21, 1911.

John R. Stewart

Chains

Sept. 19, 1911. At 7 h 54 m a.m. l.m.t.,
I set off, 38°00' N. on the decl. arc 1°47' N.
on the decl. arc and determine a
meridian with the solar, at
the cor. of secs. 5, 6, 31 and 32, on S.
bdy. of tp. heretofore described.
Thence I run,
N. 0°03' W. bet. secs. 31 and 32.

3.00 Bottom of swale, 20 ft. below cor, course N.W.
arc.

6.00 Top of spur, 30 ft. above swale, brs. E. and W.

7.00 Head of swale, 20 ft. below spur, course W.
arc.

16.25 Desc., brs. E. and W.
Leave Tarantula Mesa.

20.80 Bottom of canon, 500 ft. below mesa, course
W.
arc.

39.00 Top of steep asc., brs. N.75°W. and S.75°E.
Enter Tarantula mesa.

40.00 Set an iron post, 3 ft. long, 1 in. in dia.,
26 ins. in the ground, for 1/4 sec. cor., mkd.
on brass cap; 1/4 S 31 in W. and S 32 in E.
halves, and raised a mound of stone
2 ft. base, 1 1/2 ft. high W. of cor.

67.00 Top of ridge, 600 ft. above canon, brs.
N. 80°W. and S.80°E.
Desc.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia.,
24 ins. in the ground, for cor. of secs.
29, 30, 31 and 32, mkd on brass cap;

T 32 S S 30 in N.W.
R 9 E S 29 in N.E.
S 32 in S.E. and
S 31 in S.W. quadrants, from

which a

Cedar, 5 ins. in dia., brs. N.75°E.
46 lks. dist., mkd. T 32 S R 9 E S 29 B.T.
Pinion pine, 4 ins. in dia., brs. S.47°E.
104 lks. dist., mkd. T 32 S R 9 E S 32 B.T.

and raised a mound of stone, 2 ft. base

Chains ½ ft. high.
W. of cor. No other bearing trees within limits.
Land, mountainous.
Soil, sandy loam.
Subsoil, gravel and sandstone formation.
Timber, cedar and pinion pine.
Undergrowth, sage.
Mountainous land or land covered with timber or brush, 80.00 chs.
Sept. 19, 1911. At this cor. I set off 1°43'N on the decl. arc., and at 11 h 54m. a. m. l. m. t., observe the sun on the meridian; the resulting lat. is 38°00'N. which is the proper lat. nearly.

East on a random line bet. secs. 29 and 32.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect N. and S. line, 3 lks. S. of cor. of secs. 28, 29, 32 and 33.

Thence I run.

S 89°59'W on a true line bet. secs 29 and 32.

Over mountainous land, through heavy cedar and pinion pine timber and sage brush.

Asc.

5.00 Top of ridge, 60 ft. above cor., brs. N. and S.

Desc.

20.00 Desc. abruptly over ledges. brs. N30°W and S.30°E.

23.00 Bottom of canon, 600 ft. below ridge, Course N.30°W.

Asc. abruptly over ledges.

30.00 Top of steep asc., brs. N.25°W. and S.25°E.

Asc. gradually.

39.95 Top of ridge, 600 ft. above canon, brs N.30°W. and S.30°E.

Desc.

40.04 Set an iron post, 3 ft. long, 1 in. in dia.,

Chains

36 ins. in the ground, for 1/4 sec. cor.
mkd. on brass cap, 1/4 S 29 in N. and
S 32 in S. holes, from which a,
Pinion pine, 5 ins. in dia., brs. N. 40° E.
11 lks. dist., mkd. 1/4 S 29 B.T.
Pinion pine, 5 ins. in dia., brs. S 10° W.
33 lks. dist., mkd. 1/4 S 32 B.T.

58.00 Bottom of swale, 100 ft. below ridge,
course N.W.

69.00 Bottom of swale, 20 ft. below mesa, course
N. 10° W.

asc

80.08 The cor. of secs. 29, 30, 31 and 32.
Land, mountainous
Soil, sandy loam
Subsoil, gravel and sandstone formation
Timber, cedar and pinion pine
Undergrowth, sage.
Good grass.
Mountainous land or land covered
with cedar and pine timber 80.08 chs.

Sept. 19, 1911.

Sept. 20, 1911. At 7 h 54 m. a. m. b. mp. t.,
I set off, 3 8° 0' N. on the lat. arc., 7° 25' N.
on the decl. arc. and determine a
meridian with the solar at the cor.
of secs. 29, 30, 31 and 32.
Thence I run,
West on a random line bet. secs.
30 and 31.

40.00 Set temp. 1/4 sec. cor.

78.04 Intersect the cor. of secs. 25, 30, 31 and 36
on W. bdy. of tp. which is a 3" iron post properly set mkd.
and witnessed.
Thence I run
East on a true line bet. secs. 30 and 31.
Over rough mountainous country,
through heavy cedar and pinion pine

Chains	
	timber and sage brush.
	Desc.
7.60	Desc. abruptly over ledges, brs. N. and S.
16.80	Bottom of canon, 620 ft. below cor. course N.
	Asc. abruptly over series of ledges.
21.10	Top of point, 400 ft. above canon, brs. N. and S.
	Desc. over ledges
27.00	Bottom of canon, 410 ft. below point, course N. 20° W.
	Asc. over ledges.
38.04	Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 30 in N. and S 31 in S. halves, from which a Sand stone ledge, 40 x 10 ft. brs. N. 50° E., 12 lks. dist, mkd. + B.O. Pinion pine, 8 ins. in dia, brs. S. 37° E., 54 lks. dist, mkd. 1/4 S 31 B.T.
47.40	Top of steep asc., brs. N. and S.
71.10	Top of ridge, 700 ft. above canon, brs N. 10° W. and S. 15° E.
	Desc.
78.04	The cor. of secs. 29, 30, 31 and 32.
	Land, mountainous
	Soil, sandy loam.
	Subsoil, sand and clay or sand stone
	Timber, cedar and pinion pine
	Undergrowth, sage brush,
	Good grass for graging
	mountainous land or land covered with timber or brush. 78.04 chs.
	Sept. 20, 1911, at this cor. I set off; 1° 20' N. on the decl. arc, and at 11 h 58 m. a m l.m.t. observe the sun on the meridian, the resulting lat. is 38° 00' N. which is the proper lat. nearly

Chains	
	N. 0°03' W. bet. secs. 29 and 30.
	Over mountainous country; through cedar and pinion pine timber and sage brush.
	Desc.
5.00	Desc. abruptly over series of ledges. brs. E. and W.
10.50	Bottom of canon, 400 ft. below cor. course N 70° W.
	Desc.
16.00	Top of spur, 280 ft. above canon, brs. E. and W.
	Desc.
29.20	Bottom of swale, 260 ft. below spur, course N. 50° W.
	Asc. abruptly over ledges.
31.60	Top of step asc. bis. N.W. and S.E.
	Asc. more gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor. mkd. on brass cap;
	Pinion pine, 7 ins. in dia., brs. S. 30° E. 35 lks. dist., mkd. 1/4 S 29 B.T.
	Pinion pine, 7 ins. in dia, brs. S. 75° W. 65 lks. dist., mkd. 1/4 S 30 B.T.
44.00	Top of ridge, 600 ft. above swale, brs. N.W. and S.E.
	Desc.
58.80	Desc. abruptly over series of ledges, brs. N.W. and S.E.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 19, 20, 29 and 30. mkd. on brass cap.
	T 32 S S 19 in N.W.
	R 9 E S 20 in N.E.
	S 29 in S.E. and
	S 30 in S.W. quadrants, and
	raised a mound of stones 2 ft. basis, 1 1/2 ft. high W. of cor.
	Land, mountainous
	Soil, sandy loam.

Chains

Subsoil, gravel and clay.
Timber, cedar and pinion pine
Undergrowth, sage
Good grass for grazing
Mountainous land or land covered with timber and brush.

Sept 20, 1911.

Sept 21, 1911. At 7h 53m a.m. l.m.t., I set off; 38°01' N on the lat. arc., 1°01' N. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.
Thence I run,
N. 89°59' E on a random line bet. secs. 20 and 29.
40.00 Set temp 1/4 sec. cor. N. + S. line 2 lks. N. of
80.02 Intersect cor. of secs. 20, 21, 28 and 29.
Thence I run.
West on a true line bet. secs. 20 and 29.
Over mountainous country, through cedar and pinion pine timber.
Desc.
7.50 Bottom of canon, 400 ft. below cor.
course N.
Asc. abruptly over ledge.
28.00 Top of steep asc. brs. N. 10° W. and S 20° E.
Asc. gradually.
Enter Tarantula Mesa.
40.01 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap, 1/4 S 20 in N. and S 29 in S halves, from which a
Pinion pine, 18 ins. in diam., brs. N. 88° E. 30 lks. dist., mkd. 1/4 S 20 BT.
Pinion pine, 4 in. in dia., brs. S. 5° E. 34 lks. dist., mkd. 1/4 S 29 BT.
58.00 Desc. abruptly over series of ledges

Chains	
	bre. N. 35° E. and S. 35° W.
74.80	Bottom of canon, 640 ft. below mea, course N. 35° W.
	Asc.
80.02	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous
	Soil, sandy loam
	Subsoil, clay and gravel.
	Timber, cedar and pinion pine
	Undergrowth, sage.
	Good grass.
	Mountainous land on land covered with timber or brush 80.02 chs.
	Sept. 21, 1911. At this cor. I set off 0° 56' N. on the decl. arc. and at 11 h. 53 m. a. m. l. mt., I observe the sun on the meridian the resulting lat. is 38° 01' N. which is the proper lat. nearly.

	West on a random line, bet. secs. 19 and 30.
40.00	Set temp. 1/4 sec. cor.
77.92	Intersect W. bdy. of tp., 3 lks. N. of cor. of secs. 19, 24, 25 and 30. which is a 3" iron post properly mkd. set and witnessed
	Thence I run,
	N. 89° 59' E. on a true line bet. secs 19 and 30.
	Over mountainous country, through cedar and pinion pine timber and sage brush.
	Desc.
11.00	Bottom of canon, 300 ft. below cor. course N.
	Asc. abruptly over ledges.
26.00	Top of asc. bre. N. and S.
	Enter mesa, 640 ft. above canon.
29.60	Desc. abruptly over ledges. bre. N. and S.
	Leave mesa
37.92	Set an iron post, 3 ft long, 1 in in dia, 26 ins. in the ground, for 1/4

Chains.

sec. cor., mkd. on brass cap; 1/4 S 19 in N. and S 30 in S. halves., and raised a mound of stone, 2 ft. base, 1½ ft. high N. of cor.

45.00 Bottom of canon, 600 ft. below mea course N.20°W.

Asc.

69.20 Top of point, 400 ft. above canon, brs. N.W. and S 15°E.

Desc.

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

Land, mountainous

Soil sand and clay.

Subsoil clay and gravel.

Timber, cedar and pinion pine.

Undergrowth, sage.

Good grass for graying.

Mountainous land or land covered with timber and brush, 77.92 chs.

N. 0°03'W. bet. secs. 19 and 20.

Over mountainous country, through cedar and pinion pine timber and sage brush.

Desc.

6.50 F.t. of desc. brs. N.W. and S.30°E.

Enter flat.

7.00 Wash, 20 lks. wide, 4 ft. dep. course N.40°W.

26.00 Top of spur, 100 ft. above wash. brs. N.60°W. and S.60°E.

Desc. to flat.

35.20 Wash, 10 lks. wide, 2 ft. dep, course N.80°W.

36.00 Asc. brs. N.W. and S.E.

40.00 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 19 in W. and S 20 in E. halves, from which a,

Pinion pine, 12 ins. in dia, brs. N.88°E. 7 lks. dist, mkd. 1/4 S 20 1ST.

Subdivision T32SR9E Continued

Chains

Cedar, 10 in. in dia., brs. S. 75° W.
75 lbs. dist., mkd. 14 S 19 BT.

54.80 Top of rocky point, 400 ft. above mach. bse. N.E. and S.W.
Here abruptly over ledges.

63.00 Bottom of gulch in Cove, 220 ft. below point, course W.
Asc. abruptly over ledges.

70.00 Top of asc. bse. N.W. and S.E.
Enter mesa, 400 ft. above gulch.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 17, 18, 19 and 20, mkd. on brass cap.

T32S S18 in N.W.
T9E S17 in N.E.
S20 in S.E. and
S19 in S.W. quadrants,

and raised a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
Land, mountainous.
Soil, sandy.
Subsoil, gravel
Timber, cedar and pinion pine
Undergrowth, sage.
Good grass for graying
Mountainous land of land covered with timber or brush 80.00 chs.

Sept. 21, 1911.

Sept. 22, 1911. At 7 h 53 m. a.m. l.m. t., I set off 38° 02' N. on the lat. arc. 0° 38' N. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.
Thence I run,
East on a random line bet. secs.

Subdivision T 32 S R 9 E. Continued

Chains 1

17 and 20.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect N. and S. line, 7 lks. N. of cor. of secs. 16, 17, 20 and 21.

Thence I run.

N. 84°57' W. on a true line bet. secs 17 and 20.

Over rough mountainous country, through heavy cedar and pinion pine timber and dense sage brush.

Asc. abruptly over ledges.

10.00 Top of ridge, 400 ft above cor. brs. N.10°W. and S.10°E. Desc. abruptly over ledges.

17.00 Bottom of hollow, 300 ft. below ridge course N.

Asc. abruptly over ledges.

22.80 Top of asc. 210 ft. above hollow, brs. N.15°W. and S.15°E.

Enter narrow branch of Tarantula Mesa,

25.00 Desc. abruptly over ledges, brs. N.15°W. and S.15°E.

Leave mesa.

35.00 Bottom of hollow, 350 ft. below mesa course N.40°W.

Asc. abruptly over series of ledges.

40.00 Point on sloping ledge. It is impossible to perpetuate cor. at this point, therefore I mark cor. point with a +.

49.20 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground for W.C. 1/4 sec. cor., mkd on brass cap, W.C. 1/4 S 17 in N. and S 20 in S. halves, from which a,

Pinion pine, 9 ins. in dia, brs. S.18°W., 74 lks. dist, mkd. W.C. 1/4 S 20 BT.

Pinion pine, 4 ins. in dia, brs. N.4°W. 46 lks. dist. mkd. W.C. 1/4 S 17 BT.

49.75 Top of asc. 400 ft. above hollow, brs. N.W. and S.E.

Enter branch of Tarantula Mesa.

52.70 Desc abruptly over ledges, brs. N.W. and S.E.

Leave mesa.

Chains

62.00 Bottom of canon, 390 ft. below mesa.
course N. 35° W.
asc. abruptly over ledges.

78.75 Top of asc. 410 ft. above canon. brs. N. and S.
Enter branch of Tarantula Mesa.

80.00 The cor. of secs. 17, 18, 19 and 20.
Land, mountainous
Soil, sandy loam.
Subsoil, sandstone formation
Timber, cedar and pinion pine.
Undergrowth, sage.
Mountainous land or land covered with cedar and pinion pine timber or sage brush. 80.00 chs.
Sept. 22, 1911. at noon the sky is overcast, making solar observations impossible.

S 89° 59' W on a random line bet. secs. 18 and 19.

40.00 Set temp. 1/4 sec. cor.

77.86 Intersect W. bdy. of tp. 5 lks. N. of cor. of secs. 13, 18, 19 and 24. which is a 3" iron post properly mkd set and witnessed
N. 89° 57' E. on a true line, bet. secs. 18 and 19.
Over nearly level land, through heavy cedar and pinion pine timber and sage brush.

7.60 W. ash in canon, 60 lks wide, 8 ft. deep course N. 10° E.

7.95 asc. brs. N. 10° E. and S.
Leave canon bottom.

21.70 Top of asc. 690 ft. above wash. brs N. and S.
Enter branch of Tarantula Mesa.

26.40 Desc. abruptly over ledges, brs. N. and S.

37.86 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 18 in N. and S 19 in S. halves, from which a,

Chains	
	Cedar, 6 ins. in dia., brs. N. 10 E.
	70 lbs. dist., mkd. 1/4 S 18 19 T.
	Cedar, 6 ins. in dia., brs. N. 70° W.
	110 lbs. dist., mkd. 1/4 S 19 19 T.
49.70	D. desc., brs. N.W. and S. 20° W.
	Enter canon bottom.
53.20	Wash in canon, 60 lbs. wide, 3 ft. deep.
	650 ft. below mesa, course N. 30° W.
	Asc. abruptly over ledges.
73.70	Top of asc., 610 ft. above canon, brs. N. and S.
	Enter branch of Tarantula Mesa.
77.86	The cor. of secs. 17, 18, 19 and 20.
	Land, mountainous, drains northerly
	Soil, sand and clay.
	Subsoil, white clay and gravel.
	Timber, cedar and pinion pine.
	Undergrowth, sage.
	good grass for grazing
	mountainous land or land covered with timber or brush, 77.86 chs.

Sept 22, 1911.

Dimitry Stewart
Instrumentman G.S.O.

Sept. 22, 1911. At 7 h. 53 m. a.m. l.sp.t., I set off 38° 02' N. on the lat. arc., 0° 38' N. on the decl. arc., and determine a meridian with the solar at the cor. of secs. 17, 18, 19 and 20.

Thence I run

N. 0° 03' W. on a true line bet. secs. 17 and 18.

Over mountainous country; through cedar and pinion pine timber and sage brush.

5.00	Desc. abruptly over series of ledges. brs. N. 50° W and S. 50° E.
	Leave mesa.

Subdivision T32SR9E Continued

Chains

27.50 Bottom of canon, 640 ft. below mesa, course N.40° W.
asc. abruptly over ledges.

40.00 Set an iron post, 3 ft. long, 1 in. in dia, 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap: 1/4 S 18 in W. and S 17 in E. halves, and raised a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

55.00 Top of point, 600 ft. above canon, brs. E. and W.
Desc. abruptly over ledges.

65.20 Bottom of hollow, 410 ft. below point course W.
asc. abruptly.

78.84 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins in the ground for, W.C. to cor. of secs. 7, 8, 17 and 18. mkd. on brass cap.

W.C. T32S S 7 in N.W.
R9E S 8 in N.E.
S 17 in S.E. and
S 18 in S.W. quadrants, from which a

Pinion pine, 6 ins. in dia, brs N.20°W. 73 lks. dist., mkd. W.C. T32S R9E S 8 B.T.
Cedar, 6 ins. in dia, brs. S12°W. 60 lks. dist. mkd. W.C. T32S R9E S 18 B.T.

and raised a mound of stone, 2 ft. base 1½ ft. high W. of cor.

80.00 Point on ledge, marked with a +. at this point it is impossible to perpetuate cor.

Land, mountainous
Soil, sandy loam.
Subsoil, gravel or sand stone formation
Timber, cedar and pinion pine.
Undergrowth, sage.
Mountainous land or land covered with cedar and pinion pine timber or brush. 80.00 chs.
Sept. 22, 1911. at noon the sky is over

Chains

cost, making solar observations impossible.

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

40.00 Set temp. 1/4 sec. cor.

79.96 Intersect N & S line, 7 chs. S. of cor. of secs. 8, 7, 16 and 17.

Thence 9 min,

West on a true line bet. secs. 8 and 17.

Over nearly level land, through heavy cedar and pinion pine timber and dense sage brush.

7.00 Wash, 70 lks. wide, 8 ft. deep. course N.

39.98. Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 8 in N. and S 17 in S. halves, and raised a mound of stone, 2 ft. base, 1 1/2 ft. high N. of cor.

45.00 Asc. brs. N. 10° E. and S 30° E.

Leave flat.

55.00 Top of asc, 640 ft. above sec. cor. brs. N. 30° W. and S. 30° E.

Enter Tarantula Mesa.

79.50 Desc. abruptly over ledges. brs. N. 70° W. and S. 70° E.

Leave mesa.

79.96 The point for cor. of secs. 7, 8, 17 and 18.

Land, mountainous

Soil, sand or clay.

Subsoil, gravel and sandstone formation

Timber, cedar

Undergrowth, sage.

Good grass.

Mountainous land or land covered with timber or brush. 79.96 chs.

S 89° 57' W on a random line bet secs 7 and 18.

Chains

40.00 Lt temp. 1/4 sec. cor.

77.77 Intersect W. Bdy. of tp. 7 lks. N. of cor. which is a 3" iron post properly mkd, set & witnessed of secs. 7, 12, 13 and 18.

Thence 2 mm, N. 89°54' E on a true line bet. secs. 7 & 18.

Over mountainous county; through scattering cedar timber and dense sage brush.

Desc.

22.00 Ft. desc. brs. N. 20° W. and S. 20° E.

22.70 Wash in canon, 320 ft. below cor., 100 lks wide, 5 ft. deep. course N. 20° W.

29.60 Asc. abruptly. brs. N and S.

37.77 Set an iron post, 3 ft. long, 1 in. in dia., 26 in. in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 7 in N. and S 18 in S. halves, and raised a mound of stone, 2 ft. base, 1½ ft. high. W. of cor.

77.77 Intersect the cor. point for cor. of secs. 7, 8, 17 and 18.

Land, mountainous

Soil, sandy loam,

Subsoil, gravel and clay.

Timber, cedar

Undergrowth, sage.

Grass for grazing purposes.

Mountainous land or land covered with timber or brush. 77.77 chs.

Sept. 22, 1911.

John R. Stewart

Instrumentman G.L.O.

Sept. 23, 1911. Cloud prevent solar observation.

M. 0° 03' W. bet. secs. 7 and 8.

Over rough mountainous county, through cedar and pinion pine timber and sage and buck brush.

Asc. abruptly over ledges

.20 Top of asc. brs. N 75° W and S 75° E.

Enter branch of Tarantula Mesa.

Subdivision T 32 S R 9 E Continued

Chains	
4.50	Desc. brs. E. and W.
	Leave mesa.
17.00	Bottom of gulch, 400 ft. below mesa course N.
	asc. abruptly.
25.00	Top of ridge, 400 ft. above gulch, brs. N. 30° W. and S. 30° E.
	Desc.
40.00	Set an iron post, 3 ft. long, 1 in. in dia, 26 ins in the ground, for 1/4 sec. cor. mkd. on brass cap; 1/4 S 7 in W. and S 8 in E. halves, from which a,
	Cedar, 8 ins. in dia., brs. S. 70° E. 120 lks. dist., mkd. 1/4 S 8 B.T.
	Cedar, 8 ins. in dia., brs. N. 45° W. 6 ins. in dia. mkd. 1/4 S 7 B.T.
80.00	Set an iron post, 2 ft. long, 2 ins. in dia, 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, mkd. on brass cap;
	T 32 S S 6 in N.W.
	R 9 E. S 5 in N.E.
	S 8 in S.E. and
	S 7 in S.W. quadrants, and
	raised a mound of stone 2 ft. base 1 1/2 ft. high, W. of cor.
	Land, mountainous
	Soil, sand and clay.
	Subsoil, clay and gravel.
	Timber, cedar, and pinion pine
	Undergrowth, sage and buck brush.
	good grass.
	Mountainous land or land covered with timber or brush 80.00 chs.

Sept 23, 1911.
Dimity Stewart
Instrumentman G.S.O.

Sept. 23, 1911. The sky is over cast making solar observations impossible.

Chains

East on a random line, bet. secs. 5 and 8.

40.00 Set temp. 1/4 sec. cor.

79.92 Intersect N. and S. line, 5 lks. S. of cor. of secs. 4, 5, 8 and 9.

Thence I run,

S. 89° 58' W. on a true line bet. secs 5 and 8.

Over nearly level land, through cedar timber and dense sage brush.

39.96 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd on brass cap. 1/4 S 5 in N. and S 8 in S. halves, from which a,

Cedar, 6 ins. in dia., brs. N. 43° W. 42 lks. dist, mkd. 1/4 S 5 B.T.

Cedar, 8 ins. in dia., brs S 75° W. 96 lks. dist., mkd. 1/4 S 8 B.T.

58.00 Wash, 100 lks wide, 14 ft. deep. course N.W.

58.50 Asc., brs. N 60° W and S 60° E.

Leave flat.

79.92 The cor. of secs. 5, 6, 7 and 8.

Land, mountainous.

Soil, sand and clay, 2nd rate.

Subsoil, clay and gravel.

Timber, cedar.

Undergrowth, sage.

Good grass.

Nearly level land covered with timber and brush. 79.92 chs. Sept. 23 1911.

John R Stewart
Instrumentman G.L.O.

S 89° 54' W on a random line bet. secs 6 and 7.

40.00 Set temp. 1/4 sec. cor.

77.70 Intersect W. bdy. of tp. 4 lks S. of cor. of secs. 1, 6, 7 and 12, which is a 3" iron post properly mkd. set and witnessed

Thence I run,

S 89° 56' E. on a true line bet. secs. 6 and 7

Chains

Over mountainous country, through scattering cedar timber and sage brush.
Asc.

32.70 Top of ridge, 200 ft. above cor. brs. N. 50° W. and S. 50° E.
Desc.

37.70 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor. mkd. on brass cap. 1/4 S 6 in N. and S 7 in S. halves, and raised a mound of stone, 2 ft. base, 1½ ft. high N. of cor.

43.70 Bottom of swale, 120 ft. below ridge, course N. 30° W.
Asc.

48.60 Top of ridge, 140 ft. above swale, brs. N. 30° W. and S. 30° E.
Desc.

77.70 The cor. of secs. 5, 6, 7 and 8.
Land, mountainous.
Soil, sandy loam.
Subsoil, gravel and white clay.
Timber, cedar.
Undergrowth, sage.
Mountainous land or land covered with timber and sage. 77.70 chs.

Sept. 23, 1911.
Dunby Stewart
Instrumentman G.L.O.

N. 0°03' W. on a random line, bet. secs. 5 and 6.

40.00 Set temp. 1/4 sec. cor.

80.00 Intersect cor. of secs 5, 6, 31 and 32 on N. bdy. of Tp.
Thence I run
S. 0°03' E. on a true line bet. secs 5 and 6.
Over nearly level land, through cedar timber and sage brush.

Subdivision T 22 S R 9 E Continued

Chains

25.00 Wash, 50 lks wide, 6 ft. deep, course W

40.00 Set an iron post, 3 ft. long, two in dia, 26 ins. in the ground, for 1/4 sec. cor, with on brass cap. 14 S 6 on W. and S S on E. Bears, from which a

Cedar, 30 ins. in dia. brs. S 37° 30' E 108 lks dist, mkd. 1/4 S S B.T.

Cedar, 24 ins. in dia, brs. S 8° 30' W. 120 lks. dist, mkd 1/4 S 6 B.T.

42.02 Wire and pole fence, brs. N. 60° W. and S. 60° E.

60.00 Wash, 110 lks. wide, 7 ft. deep, course N 75° W

70.00 dec, brs. N. 80° W. and S. 80° E.

Leave flat.

80.00 The cor. of secs. 5, 6, 7 and 8. mon. lost, Sand, bench.

Soil, sand and clay, 6 ft. deep, 1st rate.

Subsoil, gravel and white clay

Timber, cedar.

Undergrowth, sage

Good grass.

Bench land covered with timber and brush 80.00 chs.

Sept. 28, 1911.

John R. Stewart

Instrumentman G.L.O.

General Description

The greater portion of this township lies on a broken piece of country called Tarantula Mesa, which mesa joins on the foot hills to the east of the Sierra Mountains and connects them to the city on a fault that extends southward to the Colorado river.

The portion of the township which covers this mesa lies in a broken land composed of high ridges and deep canons, which are almost impassable

General Description

The entire township is covered with a heavy growth of cedar and pinion pine timber, which has no commercial value.
The sedimentary formation is red and white sandstone, which is very near to the surface. The canons having cut gorges through leaving the entire faces of ridges exposed of this formation. There are a few cobble stones and lava rock scattered through the township, but their number is comparatively small.
There is water in good quantity in secs 1, 2, and 14, and more small seeps in the southwestern portion of the township, which afford good drinking water for the many cattle, horses and sheep that occupy the grazing lands in all seasons of the year.
We found no indications of mineral in the township.
Some land is fenced in secs. 5 and 6. of this township, but no other improvements were visible.

John R Stewart. and
Jimby Stewart
Instrumentmen G.L.O.

Sept. 23, 1911.

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Page

4—680

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, John R. Stewart, U. S. ~~Surveyor~~ Transitman, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of Retracement th Standard Parallel S., through Rs.3,4, and 5 W., S., and E.bdys. and ub.T.31 S., R.5 W.; S. and E.bdys. and Sub.T.31 S., R.4 W.; S. and E.bdys. and Sub.Tp.31 S., R.3 W; 6th Standard Parallel South, through Ranges 9 and 0 E.; S. and E.bdys. and Sub.T.31 S., R.9 E.; and S and E.bdys. and Sub. T.32 S., R.9 E.; and E.bdy. T.32 S., R.5 W.

the Salt Lake Base and Meridian, in the State of Utah hich are represented in the foregoing field notes as having been executed by him, and under his direc- on; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully executed.

NAME.	PERIOD OF SERVICE. Begun.	Ended.	CAPACITY.
Maeser Dalley	~~June 8, 1911~~	~~August 9, 1911~~	~~Chainman~~
Warren Pendleton	June 17, 1911.	August 9, 1911	Axman
Virgil Decker	June 16, 1911.	August 9, 1911	Cornerman
	June 8 1911	June 15, 1911	Axman
Earl B Clark	June 17, 1911	August 9, 1911	Axman
Earl Mulford	Aug. 18, 1911	September 6, 1911	Axman
Clarence Clark	June 8, 1911	September 11,	Chainman
Clarence Baker	Sept. 12, 1911	Sept. 26, 1911	Axman
Leon Johnson	Aug. 16, 1911	Sept. 11, 1911	Axman
Samuel Gifford	Sept. 12, 1911	Sept. 25, 1911	Cornerman
	Aug. 16, 1911	Sept. 11, 1911	Cornerman
	Sept. 12, 1911	Sept. 25, 1911	Chainman
Johney A Lee	Aug. 16. 1911.	Sept. 25, 1911	Cornerman
Claud Baker	Sept. 7, 1911	Sept. 26, 1911.	Axman
Isaac R Hayes	June 8, 1911	Sept. 29, 1911.	Chainman
Edgar S. Hurst	June 8, 1911	June 15, 1911	Cornerman
James A Alderton	June 17, 1911	Aug. 9, 1911	Cornerman
James A Alderton	August, 10, 1911	Sept. 28, 1911	Chainman
Edgar S. Hurst	June 16, 1911	Sept. 29, 1911	Chainman

Subscribed and certified to before me on the dates of the final service as shown above.

John R. Stewart
U. S. ~~Surveyor~~ Transitman

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, John R. Stewart, U. S. ~~Surveyor~~ Transitman, ~~do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for~~ Utah ~~bearing date of the~~ 27th ~~day of~~ March, ~~1911, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of~~ Retracement Sixth Standard Parallel South, through Ranges 4 and 5 W.; subdivision T. 31 S.R.5 W.; Panguitch G.M. T.31 S. bet. Rs. 4 & 5 W.; subdivision T.31 S.R 4 W.; S.&E. bdys. and Sub. T.31 S., R.3 W.; 6th Standard Parallel South through Ranges 9 and 10 E.; subdivision T.31 S., R.9 E., and S. and E. bdys. and Sub. T.32 S., R.9 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes as having been executed by me, and under my direction; ~~and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for~~ Utah ~~and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.~~

John R. Stewart
~~U. S. Surveyor.~~
U.S. Transitman.

, ~~and sworn to before me~~
, 191 2

SEAL

Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

, 191

The foregoing field notes of the survey of

executed by

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

U. S. Surveyor General.

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

U. S. Surveyor General.

4—080

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

.....

.....

.....

.....

.....

.....

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

6—2761 *U. S. Surveyor.*

FINAL OATH OF UNITED STATES ~~SURVEYOR~~.

I, John R. Stewart, U. S. ~~Surveyor~~ Transitman, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 27 day of March, 1911, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Retracement Sixth Standard Parallel South, through Rs.4 and 5 W.; subdivision T.31 S.R.5 W.; Panguitch Guide Meridian T.31 S., between Rs.4 and 5 W.; subdivision T.31 S., R.4 W.; S.and E.bdrs.and subdivision T.31 S., R.3 W.; Sixth Standard Parallel South through Rs.9 and 10 E.; subdivision T.31 S.R.9 E.; and S.and E.bdrs.and subdivision T.32 S.R.9 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books B.D.E.G.H.I.K.L.N.O.& P as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

John R. Stewart
~~U. S. Surveyor~~ U.S. Transitman.

Subscribed by said John R. Stewart, and sworn to before me this 3 day of May, 1912.

Thomas Kell
U.S. Surveyor-general
for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

_____, 191

The foregoing field notes of the survey of _____

executed by _____

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

_____
U. S. Surveyor General.

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

_____
U. S. Surveyor General.

6—2761

4—680

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

.....

.....

.....

.....

.....

.....

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

6—2764 *U. S. Surveyor.*

FINAL OATH OF UNITED STATES ~~SURVEYOR~~

I, Quinby Stewart, U. S. ~~Surveyor~~ Transitman, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 27 day of March, 1911, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of Panguitch Guide Meridian, T.32 S., bet.Rs.4½ and 5 W.; S.bdy.and subdivision T. 31 S.,R.5 W.; S.and E.bdrs.and subdivision T.31 S.R.4 W.; retracement Sixth Standard Parallel South through R.3 W.; subdivision T.31 S., R.5 W.; S.and E.bdrs.T.31 S., R.9 E.; and subdivision of Tps.31 and 32 S.R. 9 E. of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books A.C.D.F.H.J.K.M.N.& P. as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Quinby Stewart
~~U.S.Surveyor.~~
U.S.Transitman

Subscribed by said Quinby Stewart, and sworn to before me this 4 day of June, 1912

Thomas Bucee
U.S.Surveyor-General
for Utah.

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, June 18, 1914.

The foregoing field notes of the survey of the Subdivisional lines of Township No.32 South, Range No. 9 East of the Salt Lake Base and Meridian, Utah,

executed by John R.Stewart and Quinby Stewart under ~~his~~ their special instructions dated March 27, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

N.C.Thorsen
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.

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BOOK A-397

Book "A"

C.S.

FIELD NOTES

OF THE SURVEY OF THE

SOUTH AND EAST

AND

RETRACEMENT OF NORTH

BOUNDARIES

OF

TOWNSHIP NO.38 SOUTH, RANGE NO.3 WEST

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

ANDREW NELSON AND WALTER A.STULM

In the capacity of U. S. ~~Surveyor~~ Transitman, *under instructions dated* March 27, *191*1, *issued by the United States Surveyor General to govern surveys included in Group No.* 6, *which were approved by the Commissioner of the General Land Office,* April 19, *191*1, *pursuant to authority contained in the Act of Congress dated* ....., *191*....

Survey commenced May 7, *191*1

Survey completed May 31, *191*1.

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BOOK A-397

INDEX DIAGRAM.

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South Boundary T. 39 S., R. 3 W.

Survey commenced May 7, 1911, and executed with a W. & L. E. Gurley light mountain and explorers' transits, Nos. 9624 and 9211 respectively, with solar attachments. The horizontal limbs are provided with two double verniers placed opposite to each other, and reading to single minutes of arc, which is also the least count of the verniers of the latitude arcs and the declination arc of the explorers' transit. The least count of the declination arc on the light mountain transit is 30". The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and were approved by the Surveyor General for Utah, Apr. 19, 1911.

I examine the adjustments of the transits and correct the level and collimation errors; then to test the solar apparatus, by comparing ~~xxx~~ indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris I proceed as follows:

At the cor. of Tps. 39 and 40 S., Rs. 3 and 4 W., latitude 37° 22' 31" N., longitude 112° 13' 23" W., I set off 37° 22½' on the lat. arc; 16° 44½' N. on the decl. arc; and at 3h 57m p.m. l.m.t. determine with the solar a meridian and mark a point thereof, on a stake firmly set in the ground, 5 chs. N. of the cor.

May 7, 1911.

May 8: At 4h 30m a. m. by my watch which carries correct l.m.t., I observe Polaris at eastern elongation, in accordence with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 6:30 a.m., l.m.t. I lay off the azimuth of Polaris, 1° 28½' to the west, and mark the meridiam thus determined. This mark conicides with the mark determined by the solar, of May 7th.

chains

At 6h 56m am.,l.m.t.,I set off 37° 22½' on the lat arc; 16° 54½' N. on the decl. arc;and mark a point in the meridian determined with the solar. This meridian also agrees with the stellar meridian; therefore, I conclude that the instruments are in perfect adjustments.

In order to locate the cor. of Tps. 39 and 40 S., Rs. 2 and 3 W., which is situated in a rough,broken country, and probably difficult to find. I commence at the tp. cor. heretofore mentioned. And run East on a blank line along the S. bdy. of T 39 S., R 3 W. for falling only.

May 11th I locate the cor. of Tps. 39 and 40 S., Rs. 2 and 3 W.; falling 72 lks. N. of said corner, which is a sandstone 18 x 15 x 12 ins.,lying loose on the ground, marked dimly with 6 notches on the four edges; witnessed by a dilapidated mound of stone about the cor. Before commenceing survey from this cor. I retrace as follows:

East retracing line bet. secs. 6 and 31.

Over broken mountainous land, along N. side of gulch, nearly solid sandstone bedrock.

Ascend barren rock Slope, facing SW and S.,50 ft.to

8.00 Top ascent and S. point ridge, bears NE. and NW.;

Enter scattering scrub cedar and pinon, bears N & S.

Descend steep SE. slope into gulch 250 ft. to

11.25 Bottom of gulch, 50 lks. wide, 60 ft. deep with perpendicular sandstone walls, course NE.

Ascend steep NW. face, 200 ft. to

31.50 Top steep ascent, bears NE. and SW.; thence gradually ascend 25 ft. to.

37.50 Thence over nearly level bench, bears NE. and SW.

39.47 Fall 3 lks. S. of the ¼ sec. cor.,which is a sandstone 10 x 12 x 6 ins. firmly set, marked ¼ on N. face; witnessed as described by the Surveyor General.

South boundary T 39 S., R 3 W.

chains

I reestablish cor of Tps 39 & 40 S., Rs. 2 and 3 W. at same point as follows: Cut a cross 8 ins. long, ¾ in. deep in sandstone bedrock, with T 39 S. NE., R 2 W. in SE., T 40 S. in SW., R 3 W. in NW., and 6 grooves N. S. E. and W. of cross; from which

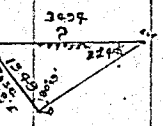
A Yellow pine, 12 ins. diam., bears S64°40'W., 1301ks. dist., marked T40S R3W S1 BT

and raise a mound of stone 2ft. base 1½ft. high S. of cor.

No other trees within limits.

Note: An iron post could not be set within reasonable distance, on account of bedrock and steep slopes.

Thence I run N. 89°55' W. on true line, bet. secs. 1 and 36.



Being unable to chain up rocky E. face of mountain, I set flag on line, on top of high cliff, and from objective side, measure a base line S. 23° 28' E., 13.49 chs., angle bet. flag and S. end of base line measures 22° 44'. From the S. end base line, angle bet. flag and tp. cor. is 90° 49'. therefore dist. is

$$\frac{\sin.\ 90°\ 49' \times 13.49}{\sin.\ 22°44'} \text{ or } \frac{.9999 \times 13.49}{.38644} = 34.90 \text{ chs.}$$

34.90 Top of 800 ft. nearly perpendicular cliff, bears N. 4 chs thence NE. and S 30° E.

Gradually ascend 30 ft. to

36.50 Top of mountain and ridge, 1100 ft. above tp. cor., bears N 10° W. and S 20° E.

Thence over rolling and broken mountainous land, general slope to the W., through scattering forest of cedar and pinon, and yellow pine; undergrowth of manzanita, service and some scrub oak brush. Soil, rocky, sandstone formation and sandy.

Gradually descend W. slope.

38.00 15 ft. ledge, bears NW. and extends SE. 3 chs.

40.00 Point for ¼ sec. cor. falls on broken slope of ledge, SW. face, cannot be prepetuated.

South boundry of T 39 S., R. 3 W.

chains	
41.00	30 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness cor. to the ¼ sec. cor., marked on brass cap ¼ S 36 T39S R3 W on N. half and S 1 on S half, with W C.; from which
	A yellow pine, 24 ins. diam., bears N 53° W. 98 lks. dist., marked ¼ S 36 BT WC
	A yellow pine, 13 ins. diam., bears South, 47 lks. dist., marked ¼ S 1 BT WC
	Cease Work, May 11, 1911.
	May 12: At 7h 56m a.m., l.m.t., I set off 37° 22½' on the lat. arc; 17° 58¼' N. on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 1 and 36. Thence I continue N. 89° 55' W.
	Continue gradual descent over land facing nearly W.
49.60	Head of draw, drains NW.
60.00	Enter dense timber, bears N. and S.; thence over land with NW. slope.
72.00	Draw, 50 ft. deep, course NW.
80.00	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 1-2-35 and 36, marked on brass cap,
	R 3 W S 36 in NE,
	R 3 W S 1 in SE,
	T 40 S S 2 in SW. and
	T 39 S S 35 in NW. quadrant; from which
	A pinon, 15 ins. diam., bears N 46½° E., 81 lks. dist., marked T39S R3W S36 BT
	A pinon, 10 ins. diam., bears S 84½° E., 42 lks. dist., marked T40S R3W S1 BT
	A pinon, 14 ins. diam., bears S 41½° W., 50½ lks. dist., marked T 40 S R 3 W S 2 BT
	A pinon, 14 ins. diam., bears N 17½° W., 68 lks. dist., marked T39S R3W S35 BT

South boundry T 39 S., R. 3 W.

chains	
	Land, mountainous; E. 35 chs. barren rocky E. face, few scattering cedar & pinon, no undergrowth, and exceptional difficult to survey; W. 45 chs. rolling W. slope, rocky and sandy; 4th rate; dense timber on W. 20 chs. Undergrowth scattering manzanita, service and oak.
	N 89°55' W on true line bet. secs. 2 and 35.
	Over broken mountainous land, facing NW., through heavy cedar & pinon, some scattering yellow pine, and undergrowth of service, shaparral and oak. Soil, rocky and some light sandy loam.
8.00	Descend.
11.75	Draw, 75 ft. deep, course N. for 5 chs. into hollow, thence W.; ascend.
16.00	Spur, projects N. 2 chs.
	Descend 200 ft. over broken land, facing nearly N.
30.60	Bottom of canyon, 200 ft. deep, course SW; enter less heavy cedar and pinon and heavier yellow pine. Ascend SE. slope 75 ft. to
40.00	On SE. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 35 on N. and S 2 on S. half; from which
	A yellow pine, 20 ins. diam., bears N 54° 10' E. 147 lks., dist., marked ¼ S 35 BT
	A yellow pine, 14 ins. diam., bears S 47° E. 63 lks. dist., marked ¼ S 2 BT.
	May 12: At this ¼ sec. cor. I set off 18° 00' ¼" N. on the decl. arc; and at 11h 56m a.m., l.m.t. observe the sun on the meridian; the resulting lat. is 37° 22½'.
41.50	Rocky S. point of spur, 20 ft. above ¼ cor., bears N. Descend.
45.00	Hollow, 100 ft. deep, course S., heads 6 chs. N.

South boundry T. 39 S., R. 3 W.

chains	
	Ascend 175 ft. to
52.00	Top ascent or bench, bears NE. and S.; thence across top.
54.50	Begin abrupt descent over sandstone ledges, bears NE. and SW.
56.00	100 ft. nearly perpendicular ledge, bears nearly N. & S.
65.30	Bottom of canyon, 300 ft. deep, course SW.
	Ascend over series of small sandstone ledges, facing SW., 300 ft. to
76.00	Top ascent, bears NE. and SW.; thence across flat top of ridge.
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for cor. of secs. 2-3-34 and 35, marked on brass cap.

R 3 W S 35 in NE,
R 3 W S 2 in SE,
T 40 S S 3 in SW, and
T 39 S S 34 in NW. quadrant; from which

A pinon, 10 ins. diam., bears N 26¾° E., 53½ lks. dist., marked T39S R3W S35 BT

A pinon, 7 ins. diam., bears S 45° 50' E., 135 lks. dist., marked T. 40S R3W S2 BT

A pinon, 18 ins. diam., bears S 51° 40' W., 90 lks. dist., marked T40S R3W S3 BT

A pinon, 8 ins. diam., bears N 60° 04' W. 36 lks. dist., marked T39S R3W S34 BT

Land, broken mountainous; E. 30 chs. general N. slope, and W. 50 chs. having a southerly drain.

Soil, mostly barren rocky surfaces, with some light sandy loam; 3rd and 4th rates.

Timber, cedar, pinon and yellow pine on mile.

Undergrowth, service, chaparral and oak.

Land mountainous and covered with dense timber, 80 chs.

South boundry T. 39 S., R. 3 W.

chains	
	N 89°55'W on true line bet. secs. 3 and 34.
	Over rough, broken mountainous land, draining S., through forest of dense cedar and pinon, scattering yellow pinon, and undergrowth of shapparral, service and oak. Soil, rocky and light sandy loam.
	Along top of ridge to
3.75	Begin abrupt descent over ledges bearing N & S.
8.00	Bottom of gulch, 135 ft. below sec. cor., course S. 20° W. heads N. about 6 chs.
	Ascend steep E. slope over series of small sandstone ledges, 50 ft. to
10.00	S. point of spur, bears N.; descend 40 ft. to
11.00	Gulch, course S. 20° E. heads about 12 chs. NW.
	Gradually ascend.
26.00	Spur ridge, near S. end, bears N.
	Cease work, May 12, 1911
	May 13: At 7h 56m a.m., l.m.t. I set off 37° 22½' on the lat. arc; 18° 13½' N. on the decl. arc; and determine a meridian with the solar, at this station.
	Thence I continue West, with continuous measurement.
	Gradually descend W. slope.
37.80	Top 50 ft. ledge, bears N. and S.; descend abruptly 75 ft. to
40.00	On steep W. slope, 160 ft. below ridge.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 34 on N. and S 3 on S. half; from which
	A yellow pine, 12 ins. diam., bears N 22° W., 24½ lks. dist., marked ¼ S 34 BT
	A yellow pine, 14 ins. diam., bears S 1° W., 32½ lks. dist., marked ¼ S 3 BT
44.00	Bottom of gulch, 2oo ft. deep, course SW.
	Ascend rocky land, facing SE.
52.75	40 ft. ledge, bears N. and S.

South boundry T 39 S., R. 3 W.

chains	
54.00	Top steep ascent, bears NE. and S.
57.00	Top of ascent and ridge, 150 ft. above last gulch, bears N. 20° E. and S 20° W.
58.00	Top E. side Deer Range canyon or gulch.; enter scattering timber, bears N. an d S.
	Descend precipitous W. face, over series of high ledges. bearing N. and S.
60.00	250 ft. ledge, bears N. and S.
76.00	Bottom of Deer Range gulch, 550 ft. below top, course S.
	Ascend over bottom land, 25 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins.dia.,24 ins. in the ground, for cor. of secs. 3-4-33 and 34, marked on brass cap

R 3 W S 34 in NE,

R 3 W S 3 in SE,

T 40 S S 4 in SW. and

T 39 S S 33 in NW. quadrant; from which

A yellow pine, 10 ins. diam.,bears N 83½° E.,157 lks. dist.,marked T39S R3W S34 BT

A yellow pine, 12 ins. diam.,bears S 63° E., 46½ lks. dist.,marked T 40S R3W S3 BT

A cedar, 10 ins. diam.,bears S 41° W., 73 lks., dist.,marked T40S R3W S4 BT

A yellow pine, 13 ins. diam.,beras N 12½° W.,49 lks. dist.,marked T39S R3W S33 B T

Land, rough broken mountainous, general S. slope.

Soil, barren rocky sandstone and sandy; 4th rate,

Timber, cedar and pinon and yellow pine, on mile.

Undergrowth, service, chaparral and oak, on mile.

Lamd mountainous and heavily timbered, on 80.00 chs.

May 13: At this sec. cor. I set off 18° 15½'N. on the decl. arc; and at 11h56m am l.m.t. observe the sun on the meridian; the resulting lat. is 37° 22½'

South boundry T 39 S.,R 3 W.

chains	
	N. 89° 55' W. on true line, bet. secs. 4 and 33.
	Over rough mountainous land, through scattering forest of cedar, pinon and yellow pine; undergrowth of manzanita, service and oak. Soil, rocky and sandy.
	Ascend along bottom of gulch, land facing NE.
15.00	Begin abrupt ascent over ledges, forming W. wall of gulch, bearing N. and SE.
24.00	Top of gulch and ridge; 550 ft. above bottom, bears N. and SE.
	Thence across broken top, sloping S.
27.30	Draw, 75 ft. deep, course S.
32.00	Top ascent and ridge, 75 ft. above draw, bears N & S.
	Descend 125 ft. over W. slope to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ Sec. cor.,marked on brass cap ¼ S 33 on N. and S 4 on S. half; from which
	A yellow pine, 11 ins. diam.,bears N 67° E.,31½ lks. dist.,marked ¼ S 33 BT
	A yellow pine, 12 ins. diam.,bears South, 17 lks., dist.,marked ¼ S 4 BT
40.75	Hollow, 75 ft. deep, course S 10° W.
	Ascend 75 ft. to
48.00	Thence across top ridge, bears NE and SW.
52.00	Descend over small ledges, bears NE and SW.
56.00	Hollow, 135 ft. deep, course SW.
	Gradually ascend, 40 ft.
60.00	Low S. point of spur, bears N.
62.00	Draw, 40 ft. deep, course S 20° E.
75.30	Rocky spur, 50 ft. high, projects S.
	Descend 50 ft. to
80.00	Set an iron post, 3 ins. dia., 3 ft. long, 24 ins. in the ground, for cor. of secs. 4-5-32 and 33, marked on brass cap
	R 3 W S 33 in NE,

South boundry T 39 S., R 3 W.

chains

R 3 W S 4 in SE,

T 40 S S 5 in SW, and

T 39 S S 32 in NW. quadrant; from which

A yellow pine, 18 ins. diam., bears N 59° E., 189 lks. dist., marked T39S R3W S33 BT

A yellow pine, 5 ins. diam., bears S 48° E., 89 lks., dist., marked T 40S R3W S4 BT

A yellow pine, 8 ins. diam., bears S 38°22' W., 57 lks. dist., marked T40S R3W S5 BT

A yellow pine, 12 ins. diam., bears N 44°20' W., 126 lks. dist., marked T39S R3W S32 BT

Land, rough, and broken mountainous, general S. slope.

Soil, rocky, barren slopes and sandy; 3rd and 4th rates.

Timber, cedar, pinon and yellow pine, on mile.

Undergrowth, service, chaparral and manzanita, some oak.

Land mountainous and heavily timbered, on 80.00 chs.

May 13, 1911

May 15: Rain and snow storm, prevents field work.

May 16: At 8h 26m a.m., l.m.t., I set off 37° 22½' on the lat. arc; 18° 57¼' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 2-3-34 and 35 heretofore described.

Thence I run

N. 89° 55' W. on true line, bet. secs. 5 and 32.

Over broken mountainous land, general slope to the S., through heavy forest of cedar, pinon, and yellow pine; undergrowth of service, chaparral and some oak brush.

Soil, loose sandy and sandstone bedrock.

Descend 50 ft. to

5.50 Hollow, 100 ft. deep, course SW.

Gradually ascend SE. and E. slopes to

South boundry T 39 S., R 3 W.

chains	
16.00	Ridge, 100 ft. above hollow, bears N. and S.
	Descend land facing W.
30.00	Descend abruptly 175 ft. into canyon, bears N. and S.
35.00	Bottom of canyon, 300 ft. deep, course S.
	Ascend abruptly 200 ft. to
40.00	On steep E. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 32 on N. and S 5 on S. half; from which
	A pinon, 16 ins. diam., bears N 49° W., 36 lks., dist., marked ½ S 32 BT
	A pinon, 12 ins. diam., bears S 12¼° W., 40 lks., dist., marked ¼ S 5 BT
40.75	Top steep ascent, bears N. and S.
43.00	Spur, 300 ft. above canyon, projects S20°E. 3 chs.
44.00	Small draw, 10 ft. deep, near head, drains S 20° E.
	Note: A spring of pure water, bears down this draw about 6 chs. dist.
52.00	Ridge, 350 ft. above canyon, bears N. and S.
	Descend 75 ft. to
56.75	Draw, course S.; enter scattering cedar and pinon, heavy black sage brush and scattering oak, leave yellow pine, bears N. and S.
	Thence over hilly land, sloping S.
63.00	Ridge, 30 ft. high, bears N. and S.
66.75	Wash, 15 lks. wide, 8 ft. deep, course S 20° E.
	Gradually ascend.
68.00	Foot of ridge, bears N. and S.
	Ascend steep E. slope; enter heavier oak brush.
80.00	On steep E. slope, 200 ft. above foot.
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 5-6-31 and 32, marked on brass cap
	R 3 W S 32 in NE,

South boundry T. 39 S., R. 3 W.

chains	
	R 3 W S 5 in SE,
	T 40 S S 6 in SW. and
	T 39 S S 31 in NW. quadrant; from which
	A yellow pine, 12 ins. diam., bears N 44¾° W., 172 lks.
	dist., marked T39S R3W S31 BT
	and raise a mound of stone, 2 ft. base, 1½ ft. high
	W. of cor. Pits impracticable.
	No other trees within limits.
	Land, mountainous and hilly, having a southerly slope.
	Timber, cedar, pinon, and yellow pine, on mile
	Undergrowth, service, chaparral, oak, sage and manzanita.
	Soil, sandy and rocky on E. 56 chs. on remaining 24 chs.
	sandy loam from 1 to 2ft. deep, light, moist, on clay
	subsoil. Mountainous or heavily timbered lands, 80 chs.
	May 16: At this sec. cor. I set off 18° 59' N. on the
	decl. arc; and at 11h 56m a.m., l.m.t. observe the sun
	on the meridian; the resulting lat, is 37° 23½'.

	N. 89° 55' W. on true line bet. secs. 6 and 31.
	Over broken mountainous land, with southerly drain,
	through scattering forest of cedar, pinon and yellow
	pine; and undergrowth of oak, service, sage & chaparral.
	Soil, rocky and sandy.
	Ascend abruptly 70 ft. over E. slope.
1.50	Top sharp, rocky ridge, 300 ft. high, bears N 20° W. and
	S 20° E.
	Descend abruptly into box canyon.
4.10	Sandstone ledge, 200 ft. high, bears N & S.; forms E.
	wall of canyon.
7.30	Bottom of canyon, 250 ft. deep, course S.; thence
	across level bottom.
14.00	Leave bottom, ascend W. side over ledges, bearing
	N. and S.

South boundry of T. 39 S., R. 3 W.

chains	
17.80	Top of canyon wall, 200 ft. above bottom, bears N. and S., continue gradual ascent; enter dense forest of cedar and pinon; leave yellow pine, bears N. and S.
25.00	Ridge, 250 ft. above canyon, bears N. and S.
	Gradually descend, 25 ft. to
36.00	Head of small draw, drains NE.
	Ascend, 15 ft. to
40.00	Set antiron post, 1 in. dia., 3 ft. long, 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 31' on N. and S 6' on S. hlalf; from which
	A cedar, 12 ins. diam., bears N 37½° E. 29 lks., dist., marked ¼ S 31 BT
	A cedar, 5 ins. diam., bears S 42½° W., 19 lks., dist., marked ¼ S 6 BT
42.00	Thence over rolling hilly land, sloping W.; gradually decsend; Soil, light sandy loam and gravelly.
72.00	Descend abruptly 85 ft.
74.50	Old brush fence, bears N. and S.
76.00	Base steep descent, leave timber; enter open valley, bears N. and S.
81.00	Intersect the cor. of Tps. 39 and 40 S., Rs. 3 and 4 W., which is a sandstone 10 x 9 x 7 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General.
	Land, mountainous.
	Soil, rocky and sandy loam; on subsoil of rock; 3rd and 4th rate.
	Timber, cedar and pinon.
	Undergrowth, sage, oak, and service.
	Land, mountainous and heavily timbered, on 81.00 chs.

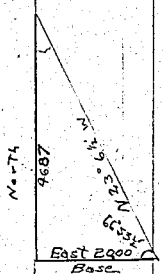
May 16, 1911.

Andrew Nelson

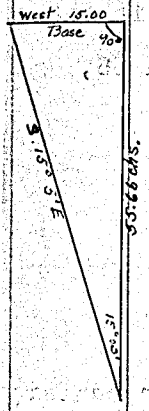
U. S. Transitman.

East boundry of T. 39 S., R. 3 W.

chains	
	May 12: At 7h 56m a.m., l.m.t., I set off 37° 22½' N. on the lat. arc; 17° 58¼' N. on the decl. arc; and determine a meridian with the solar, at the cor of Tps. 39 and 40 S., Rs. 2 and 3 W., heretofore described.
	Thence I run
	North, bet. secs. 31 and 36.
	Over rough mountainous land, through scattering cedar, pinon, and few yellow pine; general slope to the E.
	Soil, barren sandstone bedrock and loose sand.
	Ascend 100 ft. to
6.50	Ridge, bears NW. and SE.; descend.
10.00	From this point I find it impossible to chain further, on account of steep rocky, broken slopes and gulches.
	I set flag on line, on top of high spur to the N. and proceed to triangulate as follows:
	Measure a base line East, 20.00 chs. to a point, whence the flag bears N. 23° 6½' W. From the flag the E. end of the base line bears S. 23° 6½' E.; therefore, the dist. is tan. 66° 53½' x base or 2.3435x20.00 = 46.87chs.
	which added to 10.00 chs. makes 56.87 chs.
	Note: this was the longest base obtainable, with any degree of accuracy.
	About 25.00 chs. is a deep hollow, drains E.
40.00	Point for the ¼ sec. cor. falls on steep rocky S. slope, where it cannot be prepetuated.
56.87	In place of flag I set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness cor. to ¼ sec. cor., marked on brass cap T39S in N. half, R2WS31 in E. R3WS36 in W half, with WC¼.; raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. Cor. situated on top of sharp rocky spur, 800 ft. above the tp. cor, projects E.; This cor. can only be reached from the S. side.



Chains.



Being unable to chain from this point, because of sandstone ledges, slides and steep slopes, forming the E. face of break of mountain, I set flag on line, on top of cliff to the north, and from said flag measure a base line west 15.00 chs. The base subtends an angle of 15° 5' From W.end of base the witness ¼ sec.cor. bears S.15° 5'E.; therefore dist.is tan. 74° 55' x base, or 3.71046 x 15.00 chs. equals 55.66 chs., which added to 56.87 chs.makes 112.53 chs., or between secs.25 and 30, 32.53 chs.

80.00 Point for cor.of secs.25,30,31, and 36 falls on broken ledges, cannot be set.

For description of witness corner see line bet.secs. 25 and 30.

Land, rough, mountainous, general E.slope, lies underneath and to the E.of high impassable cliff.

Soil, barrensandstone bedrock and sandy throughout the mile; 5th rate.

Timber, scattering cedar, pinon and pine.

No undergrowth.

Land, mountainous.and exceptionally difficult to survey 80.00 chs.

Note: Natural obstacles to measurement and line of sight, prevented a longer base for above triangulation.

May 12, 1911.

May 13: At 8h 56m at mean.tim., I set off 37° 24¼' on the lat.arc; 18° 13¾'N.on the decl.arc; and determine a meridian with the solar at the true point for cor.of secs.19,24,25, and 30. Thence I run

North bet.secs.25 and 30,

Over rough mountainous land, E.slope; through scattering cedar and pinon pine.

Chains.

32.53 On edge of breaks and top of 500 ft.perpendicular sandstone ledge. In place of flag,

Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for witness point to secs.25,30,31, and 36, marked on brass cap

T 39 S in N.half,

R 2 W S 30 in NE.

S 31 in SE.

S 36 in SW.; and

R 3 W S 25 in NW.quadrant, with W P near center;

from which

A pinon, 6 ins.diam.,bears N.23° E. 76 lks.dist. marked T39S R2W S30 BT WP

A pinon, 8 ins.diam., bears S.41° 10'E.26 lks.dist marked T39S R2W S31 BT WP

A cedar, 7 ins.diam., bears S.68½°W., 48 lks.dist. marked T39S R3W S36 BT WP

A cedar, 5 ins.diam., bears N.37¼°W., 46 lks.dist. marked T39S R3W S25 BT WP

Corner is situated on top of mountain, near edge of break, 1400 ft.above the Tp.cor., bears N.20° E.and S. 20° W.

Thence over broken mountains; through forest of cedar and pinon; and undergrowth of buck, service and scattering oak brush. Ascend 40 ft.to

33.10 Top of ascent, bears NE. and SW.

Descend land facing NW.75 ft.to

39.35 Set an iron post, 3 ft.long, 1 in.dia., 26 ins.in the ground, for witness cor.to the ¼ sec.cor., marked on brass cap T39S in N., R2W S30 in E., and R3WS25 in W. half, with WC¼; from which

A pinon, 11 ins.diam., bears S.84½°W. 46 lks. dist., marked ¼ S 25 BT WC

No other bearing trees within limits; raise a mound of

East Boundary of T.39 S., R.3 W.

Chains. stone, 2 ft.base, 1½ ft.high W.of cor.

40.00 Point for ¼ sec.cor.falls on rough surface of ledge; corner not set.

42.60 Foot of descent, bears NE. and SW.; ascend 200 ft.over sandstone ledges, bearing NE. and SW.

48.00 Top of ledges and ridge, bearing NE. and SW. Descend 160 ft.to

79.80 Hollow, course NE.

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

T 39 S in N.half,

R 2 W S 19 in NE.

S 30 in SE.;

S 25 in SW.; and

R 3 W S 24 in NW.quadrant; from which

A pinon, 5 ins.diam.bears N.6° E. 111 lks.dist. marked T39S R2W S19 BT

A yellow pine, 12 ins.diam., bears N.61°W. 98 lks. dist., marked T39S R3W S24 BT

A pinon, 14 ins.diam., bears S.74° E. 181 lks.dist. marked T39S R2W S30 BT

A pinon, 14 ins.diam., bears S.61° W.56 lks.dist. marked T39S R3W S25 BT

Land, mountainous; general E.slope.

Soil, rocky, sandstone bedrock and loose sand; 4th rate.

Timber, cedar,pinon, and some scattering yellow pine on mile.

Undergrowth, buck, service-berry, oak and sage brush.

May 13:At this cor.I set off 18° 15' N.on the decl.arc; and at 11h56m a.m. l.m.t., observe the sun on the meridian; the resulting lat.is 37° 24'

East Boundary of T.39 S., R.3 W.

Chains.	
	North bet.secs.19 and 24
	Over mountainous land, facing SE.; through dense cedar, pinon, and scattering yellow pine timber; undergrowth, service-berry, buck brush, and chaparral. Asc.60 ft.to
8.00	Foot of ledges,bearing NE. and SW. Thence up over ledges 100 ft.
11.75	Top of ledges, bearing NE. and SW.
20.00	Spur,200 ft.above cor.,projects NE. Desc.150 ft.to
40.00	Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for ¼ sec.cor., marked on brass cap ¼ S 24 in W.half, and S 19 in E.half ; from which
	A cedar, 28 ins.diam.bears N.30°E.22 lks.dist. marked ¼ S 19 BT
	A pinon, 8 ins.diam.,bears N.60°W.,17 lks.dist., marked ¼ S 24 BT
	Descend 20 ft.
48.75	Hollow,course NE. Ascend 140 ft.over broken land.
64.00	Ridge,projects E.3 chs.,bears NE. & W.Thence along top.
70.00	East of my line 40 lks.is edge of ledges and break into Bull Valley Canyon, bears nearly N.& S.
80.00	Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for cor.of secs.13,18,19, and 24,marked on brass cap
	T 39 S in N.half,
	R 2 W S 18 in NE.
	S 19 in SE.
	S 24 in SW.; and
	R 3 W S 13 in NW.quadrant;from which
	A pinon, 7 ins.diam.bears N.79° E.135 lks.dist. marked T39S R2W S18 BT
	A pinon, 12 ins.diam., bears S.17° E.,96 lks.dist. marked T39S R2W S19 BT
	A pinon, 8 ins.diam., bears S.38° W. 120 lks.

East boundry of T. 39 S., R. 3 W.

chains	
	dist., marked T39S R3W S24 BT
	A cedar, 13 ins. diam., bears N 86° W., 57 lks.,
	dist., marked T39S R3W S13 BT
	Land, mountainous, general slope to the E.
	Soil, sandstone bedrock, rocky and loose sand; 4th rate.
	Timber, dense cedar & pinon, and scattering yellow pine.
	Undergrowth, service, buck, and oakbrush, on mile.
	Land mountainous & heavily timbered on 80.00 chs.
	May 13, 1911.
	May 16, 1911: At 7h 56m a. m., l.m.t., I set off 37° 25' on the lat. arc; 18° 57'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 13-18-19 and 24.
	Thence I run
	North, bet, secs. 13 and 18.
	Over rough mountainous land, through dense forest of cedar and pinon; undergrowth, sage, buck, service and chaparral.
	Ascend 20 ft. to
1.00	Ridge, bears SW. and NE.
	Descend 40 ft.
4.50	Hollow, course NW.
	Ascemd 100 ft.
10.00	Ridge, bears NE. and SW.
	Descend 150 ft.
32.62	Hollow, course NE.
	Ascend 40 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dai., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 13 on W. and S 18 on E. half; from which
	A cedar, 8 ins. diam., bears N 88° E., 44 lks.,

East boundry of T 39 S., R. 3 W.

chains	
	dist., marked ¼ S 18 BT
	A pinon, 14 ins. dia., bears S 58° W., 8 lks.,
	dist., marked ¼ S 13 BT
	Ascend 85 ft.
52.00	Ridge, bears NE. and SW.
	Descend 200 ft.
77.00	Hollow, course NE.
	Ascend 50 ft. to
80.00	On S. slope of ridge.
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 7-12-13 and 18, marked on brass cap
	T 39 S in N. half,
	R 2 W S 7 in NE,
	S 18 in SE,
	S 13 in SW, and
	R 3 W S 12 in NW. quadrant; from which
	A pinon, 12 ins. diam., bears N 51½° E., 19 lks.,
	dist., marked T39S R2W S7 BT
	A pinon, 10 ins. diam., bears S 14¾° E., 54 lks.,
	dist., marked T39S R2W S18 BT
	A pinon, 10 ins. diam., bears S 17¼° W., 82 lks.,
	dist., marked T39S R3W S13 BT
	A pinon, 16 ins. diam., bears N 63¼° W., 42 lks.,
	dist., marked T39S R3W S12 BT
	Land, rough mountainous, general NE. slope.
	Soil, loose sand, rocky and sandstone bedrock; 4th rate.
	Timber, dense cedar and pinon, on mile.
	Undergrowth, service, sage, buck and chaparral.
	May 16: At this sec. cor., I set off 18° 59'N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 26'.
	Land mountainous and heavily timbered, on 80. 00 chs.

East boundry of T 39 S., R. 3 W.

chains

North, bet. secs. 7 and 12.

Over mountainous land, through dense forest of cedar and pinon; undergrowth, service, buck, and chaparral.

Ascend land facing NE. 95 ft. to

7.00 Ridge, bears NE. and SW.

38.29 Edge of cliffs 600 ft. high, bears NW. 1 ch., and SE.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness cor. to the ¼ sec. cor., marked on brass cap T 39 S in N, R 2 W S 7 in E, and R 3 W S 12 in W. half, with W C ¼; from which

A pinon, 10 ins. diam., bears S 10° E., 54 lks., dist., marked ¼ S 7 BT WC

A pinon, 18 ins. diam., bears S 12° 50' W., 43 lks., dist., marked ¼ S 12 BT WC

40.00 True point for ¼ sec. cor. falls on impassible ground at foot of cliffs.

43.00 Same cliffs, bears SW 1 ch., and NE.

54.23 Edge of 600 ft. cliffs, bears NW. and SE.; impossible to chain further, therefore set flag on edge of cliffs to the N. then measure a base West, 8.10 chs., to a point whence the flag bears N. 19° 27' E. From the flag the base subtends an angle of 19° 27'; therefore dist. is tan. 70° 33' x base or 2.83176 x 8.10 chs = 22.94 CHS. which added to 54.23 chs. makes

77.17 Edge of cliffs 1000 ft. high, bears N20°E and SW.

This break or box canyon extends W. about 20 chs.

Continue along edge of ledges.

80.00 40 lks. W. of perpendicular cliffs.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 1-6-7 and 12, marked on brass cap

T 39 S in N. half,

R 2 W S 6 in NE,

S7 in SE,

East boundry of T. 39 S., R. 3 W.

chains

S 12 in SW, and

R 3 W S 1 in NW. quadrant; from which

A pinon, 4 ins. diam., bears N 49° E., 9 lks.,

dist., marked T39S R2W S6 BT

A pinon, 8 ins. diam., bears S 54½° W., 52 lks.,

dist., marked T39S R3W S12 BT

A pinon, 10 ins. diam., bears N 36¼° W., 96 lks.,

dist., marked T39S R3W S1 BT

and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. No tree in sec. 7 avaible as a bearing tree.

Land, rough mountainous, sloping NE.

Soil, loose sand, bedrock and rocky; 4th rate.

Timber, dense cedar and pinon, on mile

Undergrowth, service, chaparral and buckbrush.

The length of this line runs nearly parallel and close along the edge of a perpendicular wall of sandstone, from 1000 to 1500 ft. in height. It froms the inaccessible W. side of Bull Valley canyon.

Land mountainous and heavily timbered, on 80.00 chs.

May, 16, 1911.

May 26: At 7h 57m a.m., l.m.t., I set off 37° 26¾' on the lat. arc; 21° 01'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 1-6-7 and 12.

Thence I run

North, bet. secs. 1 and 6.

Over rough mountainous land, sloping E., through forest of dense cedar and pinon; undergrowth, buck and service brush. Soil, rocky and sandy; 4th rate.

Along edge of cliffs, over nearly level top.

East boundry of T. 39 S., R. 3 W.

chains

11.75 Edge of impassible cliff 800 ft. high, bears NW. and SE. and top S. side Bull Valley canyon, across which I cannot chain. Set flag on line, on N. side canyon; then from said flag measure a base line, East, 8.00chs. The base subtends an angle of 15° 5'. From E. end of base the flag on S. side bears S. 15° 5' W.; therefore dist. is tan. 74°55' x base or 3.71046x8.00 chs 6 — 29.68 chs., which added to 11.75 makes

41.43 To N. side of canyon and top of ledges, bears NW. & SE. Creek in bottom of canyon, flows SE.

I am unable to measure S. 24 lks. to the intersection of the S. bdy. of T 38 S R. 3 W.; therefore at this point which is 1.83 chs W. and N. 24 lks. of the cor. of secs. 1-2-35 and 36 on S. bdy of T 38 S., R 3 W, which is a sandstone 24 x 7 x 4 ins. firmly set, marked and witnessed as described by the Surveyor General. Set an iron opst, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for witness closing cor. to T. 39 S., Rs. 2 and 3 W., marked on brass cap

R 3 W S 36 in NE,

S 6 R 2 W in SE

S 1 R 3 W in SW,

T 38 S S 35 in NW. quadrant, and

T 39 S in S half, with W C C C

faise aimbund of stone, 2 ft. base, 1½ ft. high S. of cor. Pits impracticable.

I destroy all marks on old cor pertaining to secs. 1 and 6.

41.19 True point for cor.

From the cor. of secs. 35 and 36, I flag the mile East on S. bdy of sec. 36., and destroy all marks on the cor. of Tps. 38 & 39 S., Rs. 2 & 3 W., which pertain to T. 39 S., Rs. 2 and 3 W.

Land, rough mountainous.

Soil, rocky sandstone formation; 4th rate.

East boundry of T. 39 S., R. 3 W.

chains	
	Timber, cedar, pinon and few scattering yellow pine.
	Undergrowth, service and buckbrush, on mile.
	This canyon is inaccessible to man or beast. In order to reach N. side I made a detour of several miles to the NW.
	Note: No lat. observation taken this day.
	May 26, 1911.

Retracement of North Bdy. T. 39 S., R. 3 W.

chains

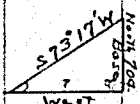
May 26, 1911: At 8h 57m a.m., l.m.t., I set off 37° 28' on the lat. arc; 21° 01'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 35 and 36 in S. bdy. of T. 38 S., R. 3 W., heretofore described. Thence I run

West, retracing along S. bdy. sec. 35.

Over rough mountainous land, through forest of cedar, pinon, and scattering yellow pine., and undergrowth of oak, sage, buck and some scrub mahogany; soil, rocky.

.16 Edge of Breaks to Bull Valley Canyon, bears NW. and SE.

Being unable to chain further, I set a flag on line, on opposite side of canyon; then measure a base line



North 7.04 chs. to a point, whence the flag bears S. 73° 17' W. From the flag the N. end of the base bears N. 73° 17' E.; therefore, the dist. is tan. 73°17' x base or 3.32965x7.04 = 23.44 chs., which added to .16, makes

23.60 West or SW. side of Bull Valley Canyon Breaks, bears NW. and SE.

Small creek in bottom of canyon, 1000 ft. deep, flows SE.

Gradually ascend

26.00 Spur, projects N.; descend 30 ft.

29.50 Hollow, course N.; ascend 40 ft.

31.60 Spur, projects N.; descend 20 ft. to

38.87 Fall 3 lks. S. of the ¼ sec. cor., which is a sandstone 7 x 5 x 5 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.

Therefore the true course of this line is N. 89° 57'W., 38.87 chs.

From my station 3 lks. S. of cor. I continue West.

39.17 Hollow, course NE.; ascend land facing NE., 126 ft.

52.90 Ridge, bears NE. and SW.; descend 90 ft.

66.90 Hollow, course NE;

chains

Ascend 100 ft. to

78.84 Fall 6 lks. S. of the cor. of secs. 34 and 35, heretofore described.

Therefore true course of this line is N. 89° 57'W., 39.97 chs.

Land, mountainous.

Soil, rocky; 4th rate.

Timber, cedar, pinon, and scattering yellow pine.

Undergrowth, oak, buck, sage, and some mahogany.

Land, mountainous and heavily timbered, on 78.84 chs.

Sky overcast at noon, lat. observation imossible this day. May 26, 1911.

May 30: At 7h 57m a.m., l.m.t., I set off 37° 28' on the lat. arc; 21° 41'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 34 and 35 in S. bdy. of T. 38 S., R. 3 W., heretofore described.

Thence I run

West, retracing along S. bdy. sec. 34.

Over mountainous land, general slope to the N., through forest of cedar and pinon, and undergrowth of sage, buck, oak and service brush.

3.11 The closing cor. of secs. 1 and 2.

4.00 Ridge, bears NE. and SW.

Descend 100 ft.

11.00 Gulch, course N.; ascend 60 ft.

19.00 Spur, projects N.; descend 75 ft.

27.20 Hollow, course NE.; ascend 100 ft. to

40.40 Fall 2 lks. S. of the ¼ sec. cor., which is a sandstone 8 x 8 x 6 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General.

chains	
	Therefore course is N. 89° 58'W., 40.40 chs.
	From my station 2 lks. S. of cor. I continue West.
44.00	Ridge, bears NE. and SW.; enter sage brush opening, bears N. and S.
50.00	Leave same and re-enter dense timber, bears N. and S.
	Descend 150 ft.
60.00	Hollow, course NE.; ascend 80 ft.
76.00	Spur, projects N. 2 chs.; descend 60 ft. to
79.86	Fall 37 lks. S. of the cor. of secs. 33 and 34, heretofore described.
	Corner situated in bottom of hollow, course NE.
	The true course of this line is N. 89° 30'W., 39.46 chs.
	May 30: At this sec. cor., I set off 21° 42'N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 28'.
	Land, mountainous, general slope to the N.
	Soil, mostly rocky with some light sandy loam; 3rd rate.
	Timber, cedar and pinon.
	Undergrowth, sage, buck, oak and service.
	Land mountainous and heavily timbered, 79.86 chs.

	West, retracing along S. bdy. sec. 33.
	Over mountainous land, sloping N., through dense forest of cedar and pinon, and undergrowth of sage, oak and service.
.50	Bottom of canyon, course NE.
	Ascend 60 ft. over sandstone ledges NE. and SW.
2.50	Top of canyon, bears NE. and SW.
	Gently ascend 30 ft.
3.37	The closing cor. of secs. 2 and 3.
10.00	Ridge, bears NE. and SW.; descend 75 ft.
19.00	Hollow, course NE.
	Gradually ascend 35 ft. to

chains	
40.13	Fall 4 lks. N. of the ¼ sec. cor., which is a sandstone 10 x 2 x 10 ins. above the ground, firmly sdt, marked and witnessed as described by the Surveyor General. Therefore true course of this line is S. 89° 57'W., 40.13 chs. From station 4 lks. N. of cor. continue West.
41.00	Descend abruptly 100 ft., bears N. and S.
48.00	Hollow, course N.; ascend 40 ft.
55.00	Spur, projects N.
61.00	Trail from Sheep Flat to Swallow Park, NE. and S., in hollow, course NE.
68.00	Spur; 40 ft. high, Projects S.
74.00	Hollow, course SE.
79.99	Fall 18 lks. S. of the cor. of secs. 32 and 33, heretofore described. Therefore true course of this line is N. 89°41'W., 39.86 chs. Land, mountainous, general slope to the N. Soil, rocky sandstone formation; 3rd rate. Timber, cedar and pinon. Undergrowth, oak, service, buck and sage brush. Land mountainous and heavily timbered, 79.99 chs. May 30,1911.

May 31: At 7h 57m a.m., l.m.t., I set off 37° 28' on the lat. arc; 21° 50'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 32 and 33 in S. bdy. of T. 38 S., R. 3 W.

Thence I run

West, retracing along S. bdy. sec. 32.

Over mountainous land, through dense forest of cedar and pinon, and undergrowth of oak, service, buck and

vchains	
	sage brush; soil, rocky.
	Ascend 20 ft.
2.00	Spur, projects NE.; descend 80 ft.
3.34	The closing cor. of secs. 3 and 4.
10.00	Hollow, course NE.; ascend 100 ft.
29.00	Ridge, bears NE. and SW.; descend 60 ft. to
34.00	Hollow, course NE.; asc. 80 ft.
39.98	Fall 28 lks. N. of the ¼ sec. cor., which is a sandstone 7 x 6 x 4 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General. Therefore true course of this line is S. 89° 36'W., 39.98 chs.
	From my station 28 lks. N. of the cor. I continue West.
	Ascend 14 ft.
41.00	Spur, projects NE.; descend 60 ft.
57.00	Hollow, course NE.; ascend 60 ft.
62.50	Spur, projects NE.; descend 40 ft.
66.00	Hollow, course NE.; ascend 30 ft.
72.00	Spur, projects NE.; descend over broken land, facing N.
78.00	Hollow, course N.
79.96	Fall 32 lks. S. of the cor. of secs. 31 and 32, heretofore described. True course of this line therefore is N. 89°08'W., 39.98 chs.
	Land, mountainous.
	Soil, rocky; 3rd rate, with some gypsum.
	Timber, cedar and pinon, on mile.
	Undergrowth, oak, service, buck and sage brush.
	Land mountainous and heavily timbered, on 79.96 chs.

West, retracing along S. bdy. sec. 31.

Over broken mountainous land, through forest of cedar and pinon, and undergrowth of service, oak and buck brush.

chains	
3.62	The closing cor. of secs. 4 and 5,
	Ascend 50 ft.
7.50	Ridge, bears N. and S.; descend 100 ft.
18.00	Hollow, course SW.; ascend 50 ft.
22.00	Spur, projects S.; descend 40 ft.
26.10	Hollow, course SW.; ascend 50 ft.
28.25	Spur, projects S.; descend 35 ft.
31.00	Hollow, course NW.; ascend 50 ft.
36.00	Gypsum spur, projects N.; descend 30 ft. to
39.80	Fall 6 lks. N. of the ¼ sec. cor., which is a gypsum stone 4 x 12 x 10 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General
	True course of this line therefore is S. 89° 55'W., 39.80 chs.
	May 31: At this ¼ sec. cor., I set off 21° 51'N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 28'.
	From my station 6 lks. N. of the cor. continue West.
	Descend 100 ft.
46.00	Hollow, course NE.; ascend 70 ft.
48.75	Spur, projects NE.; descend 100 ft.
58.00	Leave timber, bears NE. and SW.
60.00	Sage brush Hollow, course NE.
62.20	Reenter timber.; ascend 50 ft.
64.00	Spur, projects NE.; descend 50 ft.
67.00	Enter opening, bears NE. and SW.
70.00	Hollow, course NE.
72.25	Leave opening.; ascend 75 ft. to
78.51	Fall 12 lks. N. of the cor. of T. 38 S., Rs. 3 and 4 W., which is a sandstone 12 x 12 x 8 ins. above ground, properly marked and witnessed as described by the Surveyor General.
	True course of this line is S. 89°55'W., 38.71 chs.
	Land, broken mountainous.

Retracement of N.Bdy.T.39 S., R.3 W.

Soil, rocky, gypsum, and some light sandy loam; 3d rate.

Timber, dense cedar and pinon.

Undergrowth, sage, service, and oak brush.

Land, mountainous and heavily timbered on 78.51 chs.

May 31, 1911.

Boundaries of T.39 S., R.3 W.

Latitudes, Departures, and Closing Errors.

Lines Designated,	True Bearing	Dist.	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		chs.	chs.	chs.	chs.	chs.
East Bdy. of Tp.	North	441.19	441.19	.....	.....	.....
N.Bdy. :						
S.Bdy. sec.35,	N.89°57'W.	37.04	.03	.....	.....	37.04
"	N.89°57'W.	39.97	.03	.....	.....	39.97
S.Bdy. sec.34,	N.89°58'W.	40.40	.02	.....	.....	40.40
"	N.89°30'W.	39.46	.35	.....	.....	39.46
S.Bdy. sec.33,	S.89°57'W.	40.13	.....	.04	.....	40.13
"	N.89°41'W.	39.86	.22	.....	.....	39.86
S.Bdy. sec.32,	S.89°36'W.	39.98	.....	.28	.....	39.98
"	N.89°08'W.	39.98	.60	.....	.....	39.98
S.Bdy. sec.31,	S.89°55'W.	39.80	.....	.06	.....	39.80
"	S.89°55'W.	38.71	.....	.06	.....	38.71
Fracl. S.Bdy. T.38S R4W	West	86.03	.....	.....	.....	86.03
West Bdy. of Tp.	South	441.75	.....	441.75	.....	.....
South Bdy. of Tp.	S.89°55'E.	481.00	.....	.72	481.00	.....
Convergency,						.56
Totals			442.44	442.91	481.00	481.92
				442.44		481.00
Errors in lat. and dep.				0.47		0.92

For general description see notes of the subdivision of this township.

Walter A. Stanner

U.S. Transitman.

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Page

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BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of .....

or certificates of assistants see book "J" T.39 S., R. 5 W.

the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed by him, and under his direc- n; and that said survey has been, in all respects, to the best of our knowledge and belief, well and thfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2701

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitmen see Book "S" T. 39 S., R. 12 W.

_____ of the _____ Meridian, in the State of _____, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

_____
U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, June 3, 1914

The foregoing field notes of the survey of the south and east, and retracement of the north boundaries of Township No. 39 S., R. 3 W. of the Salt Lake Base and Meridian, Utah,

executed by Andrew Nelson and Walter A. Stumm
under ~~his~~ their special instructions dated March 27, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

A C Thorsen
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.

6—2761

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k/ G.N. WSH. K.F.B.

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BOOK A-397

Book "B"

C.S.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

OF

T.39 S., R.3 W.

Of the SALT LAKE BASE AND *Meridian,*

n the State of UTAH

EXECUTED BY

ANDREW NELSON AND WALTER A.STUMM

n the capacity of U. S. ~~*Surveyor*~~ Transitmen, *under instructions dated* ~~March 27~~, *1911*,

ssued by the United States Surveyor General to govern surveys included in

roup No. 6, *which were approved by the Commissioner of the General Land*

ffice, April 19, *1911*, *pursuant to authority contained in the Act of*

ongress dated ....., *191*....

Survey commenced May 17, *1911*

Survey completed May 31, *1911*.

6—151

Lic-57-52-54
18-52

BOOK A-397

INDEX DIAGRAM.

Township ....., *Range* .....

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

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Subdivisions of T. 39 S., R. 3 W.

Survey commenced May 16, 1911, and executed with a W. & L. E. Gurley light mountain and a W.&.L.E.Gurley explorer's transits. For description of instruments see book "A" of this survey.

The explorer's transit is used for the following observation on polaris.

I 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, I proceed as follows:

At the cor. of secs. 1-2-35 and 36, on the S. bdy. of the tp. heretofore described; latitude 37° 22' 31"N., longitude 112° 07' 56" W., I set of 37° 22½' on the lat. arc; 19° 03½'N. on the decl. arc; and, at 5h 27m p.m.,l.m.t.,determine with the solar a meridian and mark a point thereof, on a stake firmly set in the ground, 5 chs. N. of the cor.

May 16, 1911.

May 17: At 3h 55m a.m.,l.m.t.,by my watch which carries correct l.m.t.,I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 8h 0m a.m. l.m.t.,I lay off the azimuth of Polaris, 1° 28½' to the west, and mark the meridian thus determined, by driving a nail in the stake set May 16, on which the meridian falls 0.5 ins. E. of the mark determined by the solar.

At 8h 26m a.m.l.m.t.,I set off 37° 22½' on the lat. arc;

chains	
	19° 11' N. on the decl. arc; and mark a point in the meridian determined with the solar, by a nail driven in the stake already set 5 chs. N. of my station; this mark falls 0,3 ins. west of the meridian established by the Polaris observation.
	The solar apparatus by p.m. and a.m. observations, defines positions for meridians, respectively about 26" and 16" west of the meridian established by the Polaris observations; therefore I conclude that the adjustments are satisfactory.
	The magnetic bearing of the true meridian, at 8h 30m is N. 16° 15' W.; the angle thus determined gives the magnetic. decl. 16° 15' E.
	From the cor. of secs. 1-2-35 and 36, already described I run
	N. 0° 01' W. bet. secs. 35 and 36.
	Over rough mountainous land, through dense forest of cedar and pinon, some scattering yellow pine; undergrowth, laural, oakbrush and chaparral; soil, rocky.
	Descend 80 ft. over land, facing NW. to
8.16	Hollow, course NW. 8 chs. thence SW.
	Ascend 60 ft.
9.50	Spur, projects NW.
	Descend 60 ft.
12.50	Hollow, course SW.
	Ascend 80 ft. to
40.00	On S. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 35 on W. and S 36 on E. half; from which
	A pinon, 8 ins. diam., bears S. 83½° E., 11 lks.,

Subdivision of T. 39 S., R. 3 W.

chains

dist., marked ¼ S 36 BT

A pinon, 11 ins. daim., bears S. 74° W., 95 lks.,

dist., marked ¼ S 35 BT

Ascend 100 ft. to

68.00 Main ridge, bears NW. and SE.

Descend 60 ft. over land, facing NE.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 25-26-35 and 36, marked on brass cap

R 3 W S 25 in NE,

S 36 in SE,

S 35 in SW, and

T 39 S S 26 in NW, quadrant; from which

A pinon, 14 ins. diam., bears N. 49° E., 83 lks.,

dist., marked T39S R3W S25 BT

A cedar 22 ins. diam., bears S. 64° E., 54 lks.,

dist., marked T39S R3W S36 BT

A cedar, 12 ins. diam., bears S 37° 50' W., 74 lks.,

dist., marked T39S R3W S35 BT

A pinon, 14 ins. diam., bears N. 46¾° W., 110 lks.,

dist., marked T39S R3W S26 BT

Land, rolling mountainous; S. 68 chs. draining SW.; and N. 12 chs. having a northerly slope.

Timber, dense cedar & pinon, and scattering yellow pine, on mile; soil, rocky and stony, 4th rate.

Undergrowth, laural, oak, service and chaparral, 80chs.

May 17: At this sec. cor., I set off 19° 12¾' N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.

S. 89° 55' E., on random line, bet. secs. 25 and 36.

Subdivision of T. 39 S., R. 3 W.

chains

40.00 Set temp. ¼ sec. cor.

66.20 Set temp. witness sec. cor.

To edge of impassable cliffs. Offset as follows:

North, 32.53 chs.; then, on offset line:

S 89° 55' E., 13.84 chs. (or counting from sec. cor)

80.04 Intersect the E. bdy. of the tp. at the witness point of secs. 25-30-31 and 36, heretofore described.

Thence I run

N. 89° 55' W. on offset line, bet. secs. 25 and 36.

Over rolling mountainous land, general slight slope to the N., through dense forest of cedar and pinon; and undergrowth, service, buckbrush and some sage.

Descend 100 ft.; On offset line.

6.00 Hollow, course NE., heads 4 chs. S.

Ascend 150 ft. over land facing NE.

13.84 Ridge, bears NE. and SW.

From this point offset South,

Descend 100 ft.

12 chs. Hollow, course SE.

At 32.53 chs. intersect true line, whereat

On edge of perpendicular cliffs, bearing NE. and S20°W.

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for witness cor. to secs. 25-30-31 and 36, marked on brass cap

T 39 S in N. half,

R 2 W S 30 in NE,

S 31 in SE,

S 36 in SW. and

R 3 W S 25 in NW. quadrant, with W C near center; from which

A pinon, 8 ins. diam., bears S 87½° E., 25 lks., dist., marked T39S R2W S31 BT WC

A pinon, 14 ins. diam., bears N 56¼° W., 28 lks., dist., marked T39S R 3W S25 BT WC

A pinon,

Subdivision of T. 39 S., R. 3 W.

chains	
	and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	No other trees within limits.
	Thence I run N. 89° 55' W. 100 true line, bet. secs. 25 & 36, counting from true cor. point.
	Ascend 100 ft.
18.00	Ridge, bears NW. and S.
	Descend 60 ft. to
40.02	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 25 on N. and S 36 on S. half; from which
	A pinon, 11 ins. diam., bears N 48¼° E., 10 lks., dist., marked ¼ S 25 BT
	A pinon, 13 ins. diam., bears S 52° 51' E., 24 lks., dist., marked ¼ S 36 BT
	Gradually descend.
51.00	Leave timber, bears NW. and SE.
	Enter hollow or swale, drains NW.
54.00	Leave hollow, enter timber, bears NW. and SE.
	Gradually ascend 60 ft. to
80.04	The cor. of secs. 25-26-35 and 36.
	Land, rolling mountainous.
	Soil, light sandy loam, with subsoil of gravel, 6 to 12 ins. deep; 2nd rate, in W. ½ mile; E. ½ rocky, 4th rate.
	Timber, dense cedar and pinon, on mile, excepting along open hollow in W. ½ mile.
	Undergrowth, short service, buckbrush and sage.
	Land mountainous or heavily timbered, 80.04 chs.
	May, 17, 1911.

Subdivision of T. 39 S., R. 3 W.

chains	
	May 18: At 7h 57m a.m., l.m.t., I set off 37° 23½' on the lat. arc; 19° 24½' N. on the decl. arc; and determine with the solar a meridian, at the cor. of secs. 25-26-35 and 36.
	Thence I run
	N0°01'Wbet. secs. 25 and 26.
	Over rolling mountainous land, facing NE., through forest of cedar and pinon; undergrowth, service, buck, sage and oakbrush.
	Gradually descend.
14.50	Leave timber, bears E. and W.
	Thence through denser undergrowth, 4 to 7 ft. high.
20.70	Enter scattering timber, bears NW. and SE.
40.00	240 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 26 on W. and S 25 on E. half; from which
	A cedar, 12 ins. diam., bears S. 68½° E., 17 lks., dist., marked ¼ S 25 BT
	A pinon, 6 ins. diam., bears S 87° W., 38 lks., dist., marked ¼ S 26 BT
	Continue gradual descent.
44.00	Leave timber, bears NW. and SE.; enter more sagebrush.
47.07	Main hollow, 30 ft. below ¼ cor, drains NW.
56.00	Enter dense timber, bears NW. and SE.
64.00	Leave same, bears NE. and SW.
68.20	Same hollow, drains NE.
73.90	Enter scattering timber, bears NE. and SW.
80.00	On E. slope.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 23-24-25 and 26, marked on brass cap
	R 3 W S 24 in NE,
	S 25 in SE,

Subdivision of T. 39 S., R. 3 W.

chains

S 26 in SW. and

T 39 S S 23 in NW. quadrant; from which

A cedar 10, ins. diam., bears S 40½° W., 161 lks.,

dist., marked T39S R3W S26 BT

dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist.,

and raise a mound of earth 4 ft. base, 2 ft. high W.

of cor.

No other trees within limits.

Land, rolling mountainous, general slope to the N.

Soil, dark, moist sandy loam, with gravel, 8 ins. to

2ft. deep; gravel and rocky subsoil; 1st & 2nd rates.

Timber, cedar and pinon, along line, with several large

openings.

Undergrowth, sage, oak, service, and buckbrush, on

mile.

Land mountainous or covered with heavy timber, 80 chs.

May 18: At this sec. cor., I set off 19° 26¼' N. on the

decl. arc; and, at 11h 57m a.m., l.m.t., observe the

sun on the meridian; the resulting lat. is 37° 24¼'.

S. 89° 55' E. on random line, bet. secs. 24 and 25.

40.00 Set temp. ¼ sec. cor.

80.04 Intersect the E. bdy. of the tp. at the cor. of secs.

19-24-25 and 30, heretofore described.

Thence I run.

N. 89° 55' W. on true line, bet. secs. 24 and 25.

Over rolling mountainous land, facing N., through

dense forest of cedar and pinon; undergrowth, service,

sage and oakbrush.

Gently ascend.

6.00 Foot of sandstone ledges, bears NE. and SW.

8.00 Top of same, 80 ft. above the bottom, bears NE. & SW.

Ascend

Subdivision of T. 39 S., R. 3 W.

chains	
15.00	Ridge, bears NE. and SW., 160 ft. above sec. cor.
	Gradually descend 80 ft. to ¼ cor.
28.00	Leave dense, enter scattering timber, bears NE. & SW.
40.02	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 24 on N. and S 25 on S. half; from which
	A cedar, 14 ins. diam., bears N. 28½° E., 52 lks., dist., marked ¼ S 24 BT
	A cedar, 24 ins. diam., bears S 32½° W., 77 lks., dist., marked ¼ S 25 BT
73.00	Leave timber, bears NW. and SE.
77.00	Wash, 10 lks. wide, 10 ft. deep, in main hollow, 90 ft. below ¼ sec. cor., course N 2° W.
	Ascend 40 ft. to
80.04	The cor. of secs. 23-24-25 and 26.
	Land, mountainous, general slope to the N.
	Soil, light sandy loam, with gravel; 1 to 2ft. deep; 2nd rate, on W. ¾ mile; on E. ¼ mile soil is principally rocky and sandstone bedrock; 4th rate.
	Timber, dense cedar & pinon, on E. 28 chs., on remaining mile scattering.
	Undergrowth, considerable service, sage and buckbrush.
	Land mountainous or heavily timbered, 80.04 chs.
	May, 18, 1911.

May 23: At 7h 57m a.m., l.m.t., I set Off 37° 24¼' on the lat. arc; 20° 27½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 23-24-25 and 26.

Thence I run

N. 0° 01' W. bet. secs. 23 and 24.

Over

Subdivision of T. 39 S., R. 3 W.

chains	
	Over rolling mounyainous land, general slope to the N. and NW., through scattering cedar and pinon; dense undergrowth, oak, sage, and service. Soil, sandy loam. Descend along E. slope of ridge.
28.50	Leave timber, bears NW. and SE.
30.85	Wash, 8 lks. wide, 3 ft. deep, in hollow, 100 ft. below sec. cor., course NW.
	Gradually ascend 40 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 24 on E. and ¼ S 23 on W. half; from which
	A pinon, 8 ins. diam., bears S. 28° W., 158 lks., dist., marked ¼ S 23 BT
	dig pits 18 x 18 x 12 ins., N. and S. of post, 3½ ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
	No other trees within limits in sec. 24.
	Ascend 40 ft.
48.00	Ridge, bears NW. and SE.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 13-14-23 and 24, marked on brass cap
	R 3 W S 13 in NE,
	S 24 in SE,
	S 23 in SW. and
	T 39 S S 14 in NW. quadrant; dig pits 18 x 18 x 12 ins. in each sec. 5½ ft. dist., and raise a mound of earth 2 ft. base 2 ft. high W. of cor,.
	Land, rolling mountainous.
	Soil, sandy and gravelly loams, 1 to 3 ft. deep; on subsoil of gravel and some clay, calcarious ; 1st and 2nd rate.
	Timer, scattering cedar and pinon, on S. 28 chs.
	Undergrowth, dense sage, service, oak and buckbrush, on mile.

Subdivision of T. 39 S., R. 3 W.

chains	
	Land mountainous, 80 chs.
	- - - - - - - -
	S. 89° 55' E. on random line, bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
80.08	Intersect E. bdy. of the tp., 3 lks. N. of the cor. of secs. 13-18-19 and 24, heretofore described.
	Thence I run
	N. 89° 54' W. on true line, bet. secs. 13 and 24.
	Over mountainous land, general slope to the N., through dense forest of cedar and pinon, and undergrowth of sage, service and buckbrush. Soil, rocky.
	Ascend 20 ft.
.50	Ridge, bears N. and S.
	Descend 60 ft.
8.00	Hollow, course NW.
	Ascend 60 ft.
12.00	Spur, projects NW.
	Descend 40 ft.
16.50	Hollow, course NW.
	Ascend 100 ft.
22.00	Spur, projects NW.
	Descend 60 ft.
26.50	Hollow, course NW.
	Ascend 60 ft.
34.00	Spur, projects N 4° E.
	Descend 140 ft. to
40.04	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 13 on N. and S 24 on S. half; from which
	A cedar, 10 ins diam., bears N. 57° E., 38 lks., dist., marked ¼ S 13 BT
	A cedar, 7 ins. diam., bears S. 21½° E., 28 lks., dist., marked ¼ S 24 BT
	May 23: At this ¼ sec. cor., I set off 20° 29' N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 25'.

chains

Descend 30 ft.

40.50 Hollow, course N. 4° E.

Ascend 160 ft.

52.00 Ridge, bears N. and S.; gradually descend.

56.00 Leave timber, bears N. and S.

68.00 Hollow, 50 ft. below ridge, course N. 10° W.

Ascend 25 ft. to

80.08 The cor. of secs. 13-14-23 and 24.

Land, broken mountainous, sloping N. on E. ½ mile; W. ½ rolling hilly, facing N.

Soil, E. 56 chs. rocky and stony; 3rd and 4th rates; W. 24 chs. dark, rich sandy and gravelly loam, 1 to 2 ft. deep, 1st and 2nd rate.

Timber, cedar and pinon, on E. 56 chs.

Undergrowth, dense sage, service and buckbrush, om mile.

Land mountainous or heavily timbered, 80.08 chs.

N. 0° 01' W. bet. secs. 13 and 14.

Over rolling hilly land, slight slope to the N. & NE., through sage, buck and service brush, 2 to 6 ft. high. No timber. Gradually descend 60 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 14 on W. and S 13 on E. half; dig pits 18 x 18 x 12 ins., N. and S. of post, 3½ ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.

60.00 Low flat ridge, bears NE. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 11-12-13 and 14, marked on brass cap

R 3 W S 12 in NE,

S 13 in SE,

S 14 in SW. and

chains	
	T 39 S S 11 in NW. quadrant; dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.
	Land, rolling hilly.
	Soil, light sandy loam and sandy, 1 to 4 ft. deep; 1st and 3rd rates.
	Undergrowth, sage, service and buckbrush, on mile.
	No timber.
	May 23, 1911.

	May 24: At 7h 27m a.m., l.m.t., I set off 37° 26' on the lat. arc; 20° 39' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 11-12-13 and 14.
	Thence I run
	S. 89° 54' E. on random line, bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect E. bdy. of the tp., 5 lks. N. of cor. of secs. 7-12-13 and 18 heretofore described.
	Thence I run
	N. 89° 52' W. on true line, bet. secs. 12 and 13.
	Over rolling mountainous land, through dense forest of cedar and pinon, and undergrowth of sage, service and buckbrush. Soil, rocky.
	Ascend 40 ft.
2.00	Point of spur, projects S.
	Descend 150 ft.
8.00	Hollow, course SE.; ascend 140 ft.
26.00	Ridge, bears NE. and SW.
	Descend 100 ft. to
40.05	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground; for ¼ sec. cor., marked on brass cap ¼ S 12 on

Subdivision of T. 39 S., R. 3 W.

chains	
	N. and S 13 on S. half; from which
	A cedar, 15 ins diam., bears N. 42½° W., 11 lks., dist., marked ¼ S 12 BT
	A cedar, 14 ins., diam., bears S 25¼° W., 45 lks., dist, marked ¼ S 13 BT
	Descend 110 ft.
50.50	Hollow, course NE.; ascend 150 ft.
63.00	Leave timber, bears NE. and SW.
68.00	Ridge, bears NE. and SW.
	Gradually descend through dense brush, 40 ft.
77.04	Trail to Deer Range Spring, bears N. and SE.
80.10	The cor. of secs. 11-12-13 and 14.
	Land, rolling mountainous, general slope to the N.
	Soil, sandy, loose character and rocky; subsoil sandstone; 3rd and 4th rates.
	Timber, cedar and pinon, on E. 63 chs.
	Undergrowth, considerable sage, service and buckbrush, on mile.
	Mountainous land, 80.10 chs.

	N. 0° 01' W. bet. secs. 11 and 12.
	Over rolling hilly land, sloping N., through dense undergrowth of sage, service, and buckbrush. No timber.
14.00	Enter forest of cedar and pinon, bears NE. and SW.
18.00	Trail to Deer Range Spring, bears NW. and SE.
32.00	Hollow, 80 ft. below sec. cor., course NE.
	Ascend 40 ft. to
40.00	On point of spur, projects NE.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 11 on W. and S 12 on E. half; from which
	A cedar, 12 ins. daim., bears N 22¼° E., 125 lks., dist., marked ¼ S 12 BT

Subdivision of T. 39 S., R. 3 W.

chains

A pinon, 12 ins. diam., bears S 76° W., 26 lks., dist., marked ¼ S 11 BT

Descend 60 ft.

45.50 Hollow, course N 80° E.; ascend 160 ft.

46.00 Leave dense, enter scattering timber, bears E. & SW.

65.00 Ridge, bears NE. and SW.

Descend 140 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 1-2-11 and 12, marked on brass cap

R 3 W S 1 in NE,

S 12 in SE,

S 11 in SW. and

T 39 S S 2 in NW. quadrant; from which

A pinon, 13 ins. diam., bears N. 26½° E., 62 lks., dist., marked T39S R3W S1 BT

A pinon, 14 ins. diam., bears S 43¾° E., 70 lks., dist., marked T39S R3W S12 BT

and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

No other trees within limits.

Land, rolling hilly, general slope to the N.

Soil, sandy and rocky. 6 to 20 ins. deep; 2nd & 3rd rates

Timber, cedar and pinon; dense on S. 46 chs. and scattering on N. 34 chs.

Undergrowth, sage, oak, service and buck brush, on mile.

May 24: At this cor. I set off 20° 40½' N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 27'.

Subdivision of T. 39 S., R. 3 W.

chains	
	S. 89° 52' E. on random line, bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.08	Intersect E. bdy. of the tp., 16 lks. N. of the cor. of secs. 1-6-7-12, heretofore described.
	Thence I run
	N. 89° 45' W. on true line bet. secs. 1 and 12.
	Over rolling mountainous land, sloping N. and NE., through dense forest of cedar and pinon, and undergrowth of sage, service, oak and chaparral.
	Ascend steep E. slope 150 ft.
10.00	Ridge, bears NE. and SW.; descend 150 ft.
28.00	Hollow, course NE.
	Ascend broken land, facing NE., 70 ft. to
40.04	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 1 on N. and S 12 on S. half; from which
	A pinon, 8 ins. diam., bears N. 40° W., 60 lks., dist., marked ¼ S 1 BT
	A pinon, 10 ins. diam., bears S. 28° W., 17 lks., dist., marked ¼ S 12 BT
	Ascend 60 ft. to
64.00	Ridge, bears NE. and SW.
	Descend 170 ft.
78.85	Hollow, course N.; ascend 30 ft. to
80.08	The cor. of secs. 1-2-11 and 12.
	Land, rolling mountainous, general slope to the N.
	Soil, rocky and some light sandy loam; 3rd & 4th rates.
	Timber, cedar and pinon, on mile.
	Undergrowth, sage, oak, service and chaparral, on mile.
	Land mountainous or heavily timbered, 80.08 chs.
	May, 24, 1911.

chains	
	May 25: At 7h 57m a.m., l.m.t., I set off 37° 27' on the lat. arc; 20° 50¼' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 1-2-11 and 12.
	Knowing that closing cors. will be necessary on N. bdy. I run N. 0° 01' W. on true line bet. secs. 1 and 2.
	Over mountainous land, facing NW., through dense forest of cedar and pinon, and undergrowth of service, buck and sagebrush.
	Descend 90 ft.
8.62	Hollow, course NW.; ascend 30 ft.
10.50	Spur, projects 3 chs. W.; descend 60 ft.
18.02	Spring branch, from Deer Range Spring, 2 lks. wide, 2 ins. deep, pure water, in hollow, course NE.
	Ascend 90 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 2 on W. and S 1 on E. half; from which
	A pinon, 8 ins. diam., bears S. 27° E., 32 lks., dist., marked ¼ S 1 BT
	A pinon, 6 ins. diam., bears S. 35½° W., 41 lks., dist., marked ¼ S 2 BT
40.94	On top of spur, projects NE.
	Intersect N. bdy. of the tp. 3.11chs. N 89° 58' W. of the cor. of secs. 2-3-34 and 35 in S. bdy of Tp 38 S., R 3 W., which is a sandstone 6 x 4 x 8 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General.
	Set an iron post, 2 ins. dia. 3 ft. long, 24 ins. in the ground, for closing cor. of secs. 1 and 2, marked on brass cap
	T38S R3W S34 S35 CC on N. half,
	S 1 S 2 in S. half; from which
	A pinon, 18 ins. diam., bears S. 61° E., 43 lks.,

Subdivision of T. 39 S., R. 3 W.

chains

dist., marked T39S R3W S1 CC BT

A cedar, 7 ins. diam., bears S. 38¼° W., 41 lks.,

dist., marked T39S R3W S2 CC BT

I destroy bearing trees and marks of old cor, pertaining to this township.

Land, mountainous, general NE. slope.

Soil, rocky with sandstone bedrock subsoil; 4th rate.

Timber, dense cedar and pinon and some scattering yellow pine.

Undergrowth, service, buck and sage brush.

May 25, 1911

Walter A. Stumm,

U. S. Transitman.

May 17: At 8h 27m a.m., l.m.t., I set off 37° 22½' on the lat. arc; 19° 11' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 2-3-34 and 35 in the S. bdy. of the tp. heretofore described.

Thence I run

N. 0° 01' W. bet. secs. 34 and 35.

Over broken mountainous land, general slope to the S., through dense forest of cedar and pinon, and undergrowth of buck, service and chaparral. Soil, stony and light sandy loam.

Gradually ascend along top of ridge, 80 ft.

16.00 Thence more gentle ascent.

20.00 Top of ridge, bears W. 75 lks.

26.00 Ridge, turns N. 20° W.

Descend 75 ft. over NE. slope

chains	
32.00	Head of hollow, course SE.
	Ascend 50 ft.
36.00	Flat top of spur, projects E. 10 chs.
	Thence across top. sandy soil here.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 34 on W. and S 35 on E. half; from which
	A pinon, 6 ins. diam., bears S 54° 20' E., 55 lks., dist., marked ¼ S 35 BT
	A cedar, 5 ins. diam., bears S. 41¾° W., 53 lks., dist., marked ¼ S 34 BT
43.00	Head of draw, 10 ft. deep, course SE.
	Ascend 60 ft.
50.00	Main ridge, bears N 60° E. and S 60° W.
52.00	Leave timber, bears E. and W.; enter dense sage, buck and oakbrush, and rich sandy loam soil, bears E. and W. Thence over rolling mountain top, sloping N.
60.00	Gentle slope to the NW.
78.00	Enter timber, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 26-27-34 and 35, marked on brass cap
	R 3 W S 26 in NE,
	S 35 in SE,
	S 34 in SW. and
	T 39 S S 27 in NW. quadrant; from which
	A pinon, 6 ins. diam., bears N 36¾° E., 45 lks., dist., marked T39S R3W S26 BT
	A pinon, 8 ins. diam., bears S 19° E., 22 lks., dist., marked T39S R3W S35 BT
	A cedar, 10 ins. diam., bears S 63° 40' W., 66 lks., dist., marked T39S R3W S34 BT
	A pinon, 9 ins. diam., bears N 51° W., 58 lks., dist., marked T39S R3W S27 BT

Subdivision of T 39 S., R 3 W.

chains	
	S. 50 chs. broken moutainous, gen. S. and SE. slopes, soil, a stony with some light sandy loam, 3rd rate; timber, dense cedar and pinon: N. 30 chs. rolling top of mountain, sloping N. & NW., soil dark, rich sandy loam, 1 to 3 ft. in depth; subsoil gravel; 1st and 2nd rates.: undergrowth, sage, buck and oakbrush.
	May 17: At this sec. cor., I set off 19° 12¾' N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.
	S. 89° 55' E. on random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect N. and S. line, 12 lks. N. of the cor. of secs. 25-26-35 and 36.
	Thence I run
	N. 89° 50' W. on true line, bet. secs. 26 and 35.
	Over rolling mountainous, through dense forest of cedar and pinon, and undergrowth of service, buck, oak and chaparral.
	Gently ascend 20 ft.
8.00	Ridge, bears S 20° E. and NW.
	Descend 135 ft.
15.00	Head of hollow, course S.; ascend 25 ft.
20.00	Ridge, bears N. and S.
	Descend W. slope, 150 ft. to
37.00	Leave timber, bears NW. and SE.
39.96	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 26 on N. and S 35 on S. half; from which
	A pinon, 10 ins. dia. bears N. 3° 22' W., 107 lks., dist., marked ¼ S 26 BT

chains

A pinon, 4 ins. diam., bears S. 86° 05' E., 270 lks., dist., marked ¼ S 35 BT

Thence over rolling open land, sloping N., through sageand oakbrush.

44.00 Head of draw, course NW.

66.00 Enter dense timber, bears N. 80° E. and SW.

79.92 The cor. of secs. 26-27-34 and 35.

Land, rolling mountainous and rolling.

Soil, light sandy loam, 1 to 2 ft. deep and stony; 2nd and 3rd rates.

Timber, dense cedar and pinon, on E. 37 chs. & W. 14chs.

Undergrowth, buck, service, oak and sagebrush, on mine.

May 17, 1911.

May 18: At 7h 57m a.m., l.m.t., I set off 37° 23½' on the lat. arc; 19° 24½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 26-27-34 and 35.

Thence I run

N. 0° 01' W. bet. secs. 26 and 27

Over broken mountainous land, general NW. slope, through dense forest of cedar and pinon, and undergrowth of service, oak and chaparral.

Descend land facing N.

6.80 Draw, 25 ft. deep, course nearly N.; thence down along draw.

18.00 Draw, turns N. 20° E. to join main hollow.

Thence along E. slope; enter few yellow pine, E. & W.

40.00 On S. edge of open hollow, 250 ft. below sec. cor., bears NW. and SE., course NW.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

chains

ground, for ¼ sec. cor., marked on brass cap ¼ S 27 on W. and S 26 on E. half; from which

A yellow pine, 24 ins. diam., bears S. 44°20'E., 132, lks., dist., marked ¼ S 26 BT

A yellow pine, 18 ins. diam., bears S 23°40'W., 75 lks. dist., marked ¼ S 27 BT

Across bottom of hollow.

50.00 Leave hollow, and yellow pine, bears NW. and SE.

Ascend SW. slope 200 ft. thru heavy timber.

60.00 Ridge, bears NW. and SE.; thence over gentle N. slope

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 22-23-26 and 27, marked on brass cap

R 3 W S 23 in NE,

S 26 in SE,

S 27 in SW. and

T 39 S S 22 in NW. quadrant; from which

A pinon, 6 ins. diam., bears N 44½° E., 41 lks., dist., marked T39S R3W S23 BT

A pinon, 5 ins. diam., bears S 46°10' E., 92 lks., dist., marked T39S R3W S26 BT

A pinon, 14 ins. diam., bears S. 86¼° W., 87 lks., dist., marked T39S R3W S27 BT

A cedar, 9 ins. diam., bears N 64° W., 75½ lks., dist., marked T39S R3W S22 BT

Land, rolling mountainous, general NW slope.

Soil, gravelly, stony and some light sany loam; 2nd and 3rd rates.

Timber, cedar and pinon, on mile, some yellow pine, about the ¼ sec. cor.

Undergrowth, scattering service, oak and chaparral.

May 18: At this cor. I set off 19°26½'N. on the decl. arc; at 11h 57m am l.m.t. observe the sun on the meridian the resulting lat. is 37°24'.

chains	
	S. 89° 50' E. on random line, bet. secs. 23 and 26.
40.00	Set temp. ¼ sec. cor.
79.89	Intersect the N. and S. line, 4 lks. N. of the cor. of secs. 23-24-25 and 26.
	Thence I run
	N. 89° 48' W. on true line, bet. secs. 23 and 26.
	Over rolling mountainous land, through dense undergrowth of sage, oak and service brush. No timber.
	Gradually ascend 30 ft.
10.10	Ridge, and strip of timber, 2 chs wide, bears N. and S.
20.00	Shallow ravine, drains N.
34.00	Low flat ridge, bears N. and S; enter dense cedar & pinon N & S
39.94½	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 23 on N. and S 26 on S. half; from which
	A pinon, 8 ins. diam., bears N. 39¼° W., 37 lks., dist., marked ¼ S 23 BT
	A pinon, 7 ins. diam., bears S. 54½° E., 75 lks., dist., marked ¼ S 26 BT
	Corner on W. slope of ridge.
	Descend 275 ft.
51.50	Hollow, course NW.
56.50	Draw, 30 ft., course N.
64.00	Low flat ridge, bears N. and S.
	Descend 40 ft.
74.00	Draw, course N 20° W.
	Ascend 50 ft. to
79.89	The cor. of secs. 22-23-26 and 27.
	Land, rolling mountainous, general drain to the N.
	Soil, E. 40 chs. rich sandy loam and gravelly, 1 to 2ft. deep; W. 40 chs. gravelly loam and stony; 2nd and 3rd rates
	Timber, dense cedar and pinon, on W. 46 chs. few scattering cedars on E. ½ mile.
	Undergrowth, sage, service and oak brush, on mile.

Subdivision of T. 39 S., R. 3 W.

chains	
	N. 0° 01' W. bet. secs. 22 and 23.
	Over broken mountainous land, general slope to the W., through dense forest of cedar and pinon, and undergrowth of service, sage and oak brush.
	Along top to
8.00	Descend NE. slope, 150 ft.
16.00	Enter open hollow, bears NW. and SE.
18.00	Wash, 40 lks. wide, 6 ft. deep in hollow, course NW.
23.00	Leave same, bears NW. and SE.
	Ascend 100 ft.
27.00	Spur, projects W.; descend 50 ft.
31.25	Gulch, course W.; ascend S. slope 150 ft.
37.50	Top of mountain and flat ridge, bears NW. and SE.; enter scattering timber, bears same.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 22 on W. and S. 23 on E. half; from which
	A pinon, 4 ins. diam., bears N. 62½° E., 47 lks., dist., marked ¼ S 23 BT
	A cedar, 7 ins. diam., bears S. 87°50'W., 119 lks., dist., marked ¼ S 22 BT.
	Thence over rolling mountain top.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 14-15-22 and 23, marked on brass cap
	R 3 W S 14 in NE,
	S 23 in SE,
	S 22 in SW. and
	T 39 S B 15 in NW. quadrant; from which
	A cedar, 12 ins. diam., bears S 39° W., 115 lks., dist., marked T39S R3W S22 BT
	A cedar, 14 ins. diam., bears N 48° W., 125 lks., dist., marked T39S R3W S15 BT
	dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist.,

chains	
	and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor. No other trees within limits.
	S. 40 chs., broken mountainous, general W. slope; soil gravelly and stony, 4 to 10 ins. deep, on rocky and shale subsoil; dense forest of cedar and pinon, and undg. of service, sage and oak brush: N. 40chs., rolling mountain top, slight slope to W.; soil, rich sandyloam, 6 to 30 ins. deep, medium texture, moist, on gravely and dark clayish subsoil; scattering timber, and sage, service and clumps of oakbrush.
	May 18, 1911.
	May 25: At 7h 57m a.m., l.m.t., I set off 37° 25' on the lat. arc; 20° 50½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 14-15-22 and 23.
	Thence I run
	S. 89° 48' E. bet. secs. 14 and 23, on random line.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect the N. and S. line, 34 lks. S. of the cor. of secs. 13-14-23 and 24.
	Thence I run
	S. 89° 57' W. on true line, bet. secs. 14 ans 23.
	Over rolling mountain top or plateau, general slope to the N., through dense clumps of buck, service and oak brush, 5 to 10 ft. high; soil, sandy.
11.50	Enter dense cedar and pinon, bears N. and SW.
14.00	Flat ridge, bears N. and S.; descend W. slope.
30.00	Leave timber, bears N. and SE.
35.36	Wash, 10 lks. wide, 5 ft. deep, in hollow, 100 ft. below ridge, course N. 10° W.

chains

Ascend.

39.25 Low ridge, 25 ft. high, bears N. and S.; descend.

39.98 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked ¼ S 14 on N. and S 23 on S. half; from which

A pinon, 10 ins. diam., bears N. 77½° W., 414 lks., dist., marked ¼ S 14 BT

A cedar, 14 ins. diam., bears S. 59½° E., 325 ., dist., marked ¼ S 23 BT

42.00 Small swale, drains N.

Gradually ascend 80 ft.

68.00 Ridge, bears N. and S.

Gently descend 25 ft. to

79.96 The cor. of secs. 14-15-22 and 23.

Land, rolling mountainous, facing N.

Soil, E. 14 chs. loose sandy; W. 66 chs. ranges from a light, fine, to rich, dark sandy loams, 6 to 24 ins. deep; 2nd rate.

Timber, dense cedar and pinon, on 18½ chs. in E. ½ mile few scattering trees on remaining mile.

Undergrowth, considerable, service, sage, buck and oakbrush.

N. 0° 01' W. bet. secs. 14 and 15.

Over mountainous land, through undergrowth of buckbrush, service, sage and oakbrush; soil, sandy loam and stony.

Over slight slope to the N.

9.50 Enter dense cedar and pinon, bears NE. and S10° W.

16.00 Descend 65 ft.

18.75 Draw, course NW.

Thence along W. slope descending.

24.00 W. slope of spur, bears S E.

Nov 21: At this butt

chains	
	May 25: At this station I set off 20° 51¾' N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 26'.
	Descend NW. slope, 60 ft.
28.00	Leave timber, bears E. and W.
32.00	Wash, 40 lks. wide, 12 ft. deep, in ravine, course W.
	Gently ascend S. and SE. slopes.
37.00	Reenter timber, bears NE. and SW.
40.00	35 ft. above ravine.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 15 on W. and S 14 on E. half; from which
	A cedar, 5 ins. diam., bears N. 40¾° E., 117 lks., dist., marked ¼ S 14 BT
	A cedar, 8 ins. diam., bears S. 67° W., 74 lks., dist., marked ¼ S 15 BT
	Continue gradual ascent over SE. slope.
76.00	Ridge, 100 ft. above ¼ sec. cor., bears NW. and SE.
	Descend 35 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 10-11-14 and 15, marked on brass cap
	R 3 W S 11 in NE,
	S 14 in SE,
	S 15 in SW. and
	T 39 S S 10 in NW. quadrant; from which
	A cedar, 6 ins. diam., bears N. 36¾° E., 67 lks., dist., marked T39S R3W S11 B T
	A cedar, 7 ins. diam., bears S. 69½° E., 58 lks., dist., marked T39S R3W S14 BT
	A pinon, 8 ins. diam., bears S. 56½° W., 81 lks., dist., marked T39S R3 W S 15 BT
	A cedar, 14 ins. diam., bears N 30½° W., 30 lks., dist., marked T39S R3W S10 BT

Subdivision of T. 39 S., R. 3 W.

Chains	
	Land, rolling mountainous S. 32 chs. sloping W. and N. 42 chs. general slope to the S. and SE.
	Soil, sandy and gravelly loam, 6 to 18 ins. deep, on subsoil of clay and stony.
	Timber, cedar and pinon on S. 28 and N. 43 chs.
	Undergrowth, S. 28 chs. buck, service, oak and sage; N. 52 chs. principally sagebrush.
	Land mountainous or heavily timbered, on 80.00 chs.
	N.89°57'E. on random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
79.98	Intersect the N. and S. line, 6½ lks. S. of the cor. of secs. 11, 12, 13 and 14.
	Thence I run
	S.89°54'W. on true line bet. secs. 11 and 14.
	Over rolling mountainous land, general slope to the N. through undergrowth of sage, oak, service and chaparral.
6.00	Flat ridge, bears N. and S.
	Descend 80 ft.
26.00	Ravine, course N.20°E.
	Gently ascend 50 ft. to
39.99	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor. marked on brass cap ¼ S 11 on N. and S. 14 on S. half; from which
	A pinon, 10 ins.diam.,bears S.88¼°W., 549 lks. dist., marked ¼ S 14 BT
	and dig pits 18 x 18 x 12 ins. E. and W. of post 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high N. of cor. No other trees within limits.
46.00	Low stony ridge, 10 ft. high with dense cedar and pinon 2 chs. wide, bears N. and extends S. 3 chs.
56.00	Enter dense forest of cedar and pinon, bears N. & S.20°W.
60.00	Low ridge, bears N. and SW.

Subdivision of T. 39 S., R. 3 W.

Chains	
	Thence over low broken land, sloping nearly N.
	Descend.
77.00	Head of ravine, course NE.
79.98	The cor. of secs. 10, 11, 14 and 15.
	Land, rolling mountainous, general slope to the N.
	Soil, light sandy, 1 to 2 ft. deep, on subsoil of clay and gravel, in E. 60 chs.; W. 20 chs. stony and clayish.
	Timber, dense cedar and pinon on W. 24 chs.
	Undergrowth, sage, service, oak and chaparral.
	May 25, 1911.
	May 26: At 7h 57m a.m., l.m.t., I set off 37°26' on the lat. arc; 21°01'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10, 11, 14 and 15.
	Thence I run
	N.0°01'W. on true line bet. secs. 10 and 11.
	Over rough mountainous land, through dense forest of cedar and pinon, and undergrowth of buck, service, oak and chaparral.
	Gradually ascend over land facing nearly E.
10.00	Ravine, 20 ft. deep, course E.
	Ascend.
28.75	Top E. point of high ridge, 125 ft. above sec. cor., bears W.
	Descend NE. slope 160 ft.
38.90	Ravine, course NE.
	Ascend 30 ft. to
40.00	On E. slope.
	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor. marked on brass cap ¼ S 10 on W. and S 11 on E. half; from which
	A pinon, 6 ins. diam., bears N.36°40'E., 39½ lks. dist., marked ¼ S 11 B T

Subdivision of T 39 S., R 3 W.

chains

A pinon, 14 ins. diam., bears S. 62° 35' W., 16 lks., dist., marked ¼ S 10 BT

43.35 Head of ravine, course SE.

Ascend 50 ft.

48.00 Ridge, bears N 60° W. and NE.

Gradually descend over low broken land, facing E.

55.50 Ravine, 20 ft. deep, course NE.

70.00 Leave broken land, thence over smooth N. slope, bears E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 2-3-10 and 11, marked on brass cap

R 3 W S 2 in NE,

S 11 in SE,

S 10 in SW. and

T 39 S S 3 in NW. quadrant; from which

A cedar, 4 ins. diam., bears N. 68°40'E., 100 lks., dist., marked T39S R3W S2 BT

A pinon, 5 ins. diam., bears S. 46¾° E., 78½ lks., dist., marked T39S R3W S11 BT

A cedar, 6 ins. diam., bears S. 12¾° W., 24 lks., dist., marked T39S R3W S10 BT

A cedar, 5 ins. diam., bears N. 6¼° W., 34 lks., dist., marked T39S R3W S3 BT

Land, mountainous.

Soil, stony, gravelly and some light sandy loam; 3rd rate.

Timber, dense cedar and pinon, on mile.

Undergrowth, service, buck and chaparral.

N. 89° 54' E. on random line, bet. secs. 2 and 11.

chains	
40.00	Set temp. ¼ sec. cor.
80.05	Intersect N. and S. line, 14 lks. S. of the cor. of secs. 1-2-11 and 12.
	Thence I run
	S. 89° 48' W., on true line, bet. secs. 2 and 11.
	Over rolling mountainous land, facing N., through dense forest of cedar and pinon, and considerable of undergrowth of service, chaparral, sage and buckbrush.
	Soil, stony and gravelly.
	Ascend 30 ft.
4.00	Spur, projects N.; descend
6.40	Draw, 30 ft. deep, course NW.
12.00	Spring branch, from Deer Range Spr., 2 lks. wide, 2 ins. deep, pure water, in ravine, 85 ft. below spur, course NE.
	Ascend 75 ft.
22.00	Top N. slope of spur, bears S.
27.10	Draw, 30 ft. deep, course N.
30.25	Enter ravine, course NE.
33.10	Spring branch, 2 lks. wide, 2 ins. deep, in ravine, course NE.; ascend 45 ft.
37.00	Low spur, projects NE.
40.02½	ON NW. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 2 on N. and S 11 on S. half; from which
	A cedar, 14 ins. diam., bears N. 78° W., 55 lks., dist., marked ¼ S 2 BT
	A cedar, 8 ins., diam., bears S. 49½° W., 27 lks., dist., marked ¼ S 11 BT
	Descend 25 ft.
42.50	Ravine, course NE.
	Ascend 80 ft.
53.25	Ridge, bears NE. and SW.; descend.
56.25	Ravine, 35 ft. deep, course NE.; ascend.

chains

60.25 Ridge, 50 ft. high, bears NE. and SW. ; descend.

64.75 Ravine, 50 ft. deep, course NE.

80.05 The cor. of secs. 2-3-10 and 11.

Land, mountainous, Facing N.

Timber, dense cedar and pinon, on mile.

Undergrowth, service, sage, and chaparral.

Soil, gravelly and stony; 2nd and 3rd rates.
Land moutainous and heavily timbered, on 80.05 chs.
May 26: At this sec. cor., I set off 21°02½'N. on the decl. arc; and, at 11h 57m am l.mlt., observe the sun on the maridain; the resulting lat. is 37°27'.

N. 0° 01' W. on true line, bet. secs. 2 and 3.

Over rolling mountainous land, facing N., through dense forest of cedar and pinon, and undergrowth of sage, service and chaparral. soil, gravelly.

Gently descend N. slope.

33.00 30ft. ledge and top S. side gulch, bears NE. & SW.

Descend 75 ft. thru dense oakbrush and maple, 12 ft. high.

35.40 Bottom of gulch, course NE.; heads SW. 6chs.

Note: 5 large yellow pines, 3 to 4 ft. in diam., bears E. 1 to 2 chs.

Ascend 75 ft. over steep N. side.

37.65 Top of 25 ft. ledge and gulch, bears NE. & SW.

Thence over nearly level land, leave oak & maple.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 3 on W. and S 2 on E. half; from which

A pinon, 8 ins. diam., bears S. 42½° E., 40½ lks., dist., marked ¼ S 2 BT

A pinon, 7 ins. diam., bears S. 67½° W., 123 lks., dist., marked ¼ S 3 BT

41.58 Intersect S. bdy of T 38 S., R 3 W., 337 lks. S89°57'W. of the cor. of secs. 3-4-33 and 34, which is a sandstone

chains

25 x 13 x 8 ins. lying loose on the ground, properly marked, and witnessed by a scattered mound of stone W. of cor. I destroy all marks on this cor. pertaining to Tp. 39 S. and mark

A pinon, 10 ins. diam., bears N. 1° E., 25 lks. dist., marked T38S R3W S34 BT. and rebuild mound of stone. At point of intersection

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

T38SR3WS33S34CC on N. half,

S 2 S 3 on S. half; from which

A pinon, 8 ins. dia., Bears S. 35½° E., 104 lks., dist., marked CC T39S R3W S2 BT

A cedar, 5 ins. dia., bears S. 20¼° W., 84 lks., dist., marked CC T39S R3W S3 BT

Land, rolling, N. slope.

Soil, gravelly and stony, some light sandy loam; 2nd and 3rd rates.

Timber, dense cedar and pinon.

Undergrowth, sage, service and chaparral; oak and maple in gulch.

May 26, 1911.

Andrew Nelson.

U.S. Transitman.

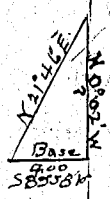
May 19: At 8h 27m a.m., l.m.t., I set off 37° 22½' on the Natl. arc; 19° 38' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 3-4-33 and 34, heretofore described, on S. bdy. of Tp.

Thence I run

Subdivision of T. 39 S., R. 3 W.

chains	
	N. 0° 02' W. bet. secs. 33 and 34.
	Over rough mountainous land, along canyon, through scattering cedar, pinon, and yellow pine, and undergrowth of scattering service, oak, and sage brush.
	Along bottom of Deer Range Canyon to
9.00	Wash, 60 lks. wide, 2 ft. deep, course SE., in bottom of canyon 600 ft. deep.
	From this point I find it impossible to continue N., because of high broken ledges, which cannot be scaled.
	Therefore I offset as follows:
	West, 13.60 chs.; then on offset line
	N. 0°02'W., 30.20 chs.; then
	East, 13.60 chs. to true line.
39.20	Point for ¼ sec. cor. will fall on ledge where it cannot be set.
	Therefore at this point which falls on ~~on~~ bedrock, cut a cross (X) 8 ins. long, ¾ in. deep in rock, with ¼ to the W.; for exact cor. point to the witness ¼ sec. cor., from which
	A yellow pine, 12ins. diam., bears S 60°E., 39 lks., dist., marked ¼ S 34 BT WC
	A yellow pine, 14ins. diam., bears N 71°W., 27 lks., dist., marked ¼ S 33 BT WC
	Note: An iron post could not be set within reasonable dist. on account of bedrock and steep slopes; cor. situated on on steep S. slope, 600 ft. above the canyon.
	May 19: At this cor., I set off 19°39½'N. on the decl. arc; and, at 11h 57m a.m.l.m.t., observe the sun on the mer. the resulting lat. is 37° 23'.
40.00	True point for ¼ sec. cor. falls on ledge.; ascend.
45.22	Top of ledges and point of spur, 700 ft. above canyon, projects W. 1 ch.; gradually descend 100 ft.
57.42	Top of ledges, bears NE. & SW.; down which I cannot chain; triangulate as follows: Set flag on line at bottom; then measure a base line S.89°58'W., 4.00 chs.,

chains



to a point whence flag bears N.21°46'E.; from the flag the base subtends an angle of 21°48'; therefore dist. is tan. 68°12' x base or 2.50018x4.00 = 10.00chs., which added to 57.42 chs. makes

67.42 Foot of ledges and bottom of Deer Range Canyon and Wash 700 ft. below top, course SE. Ascend 40 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 27-28-33 and 34, marked on brass cap

T 39 S S 28 in NW.,
R 3 W S 27 in NE.,
S 34 in SE., and
S 33 in SW. quadrant; from which

A yellow pine, 18 ins. diam., bears N 65° E., 237 lks., dist., marked T39S R3W S27 BT

A yellow pine, 30 ins. diam., bears S 77° E., 212 lks., dist., marked T39S R3W S34 BT

A yellow pine, 30 ins. diam., bears S 81° W., 196 lks., dist., marked T39S R3W S33 BT

A yellow pine, 18 ins. diam., bears N 58° W., 263 lks., dist., marked T39S R3W S28 BT

Land, rough mountainous.

Soil, rocky, bedrock, and sandy; 4th rate.

Timber, cedar, pinon, and yellow pine, on mile.

Undergrowth, oak, buck, and service brush.

Land mountainous, heavily timbered, and exceptionally difficult to survey, 80.00 chs. May 19, 1911.

May 20: At 7h57m a.m.l.m.t., I set off 37°23½' on the lat. arc; 19°51' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 27-28-33 and 34. Thence I run

S. 89° 55' E., on a random line, bet. secs. 27 and 34.

Subdivisions of T 39 S., R 3 W.

chains

It being impossible to chain E. because of high ledges on E. side of canyon, and this being the only suitable place for a base. I triangulate as follows:

Set a flag on line on top of canyon wall to the E.; then measure a base line, N. 0° 05' E., 6.00 chs., to a point whence the flag bears S. 69° 06' E. from the flag the N. end of base bears N. 69° 06' W.; therefore dist. is tan. 69° 11' x base or 2.6302x6.00 = 15.78 chs.

15.78 Top ledges, leave flag.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect the cor. of secs. 26-27-34 and 35.

Thence I run

N. 89° 55' W., on true line bet. secs. 27 and 34.

Over mountainous land, through dense forest of cedar and pinon, and undergrowth of sage, oak and service bru brush.; ascend 10 ft.

4.00 Top of ascent, bears SE. and SW.

Gradually descend.

6.00 Leave timber, bears NW. and SE; thence across sagebrush flat.

14.00 Leave same, enter dense timber, bears NW. and SE.

23.00 Enter opening, bears NE. and SW.

33.00 Leave same, bears NE. and SW.

40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap. ¼ S 27 on N. half, and S 34 on S. half; from which

A pinon, 7 ins. diam., bears N. 31½° W., 188 lks., dist., marked ¼ S 27 BT

A pinon, 6 ins. diam., bears S. 82¼° W., 113 lks., dist., marked ¼ S 34 BT

Descend 75 ft.

50.20 Ho llow, course NW.; ascend 35 ft.

54.00 Spur, prolects NW.; descend gradually.

64.28 Edge of breaks and cliffs, bears NE. and SW.

chains

Descend abruptly over W. face.

Deer Range

79.21 Canyon Wash, 50 lks. wide, 10 ft. deep, 700 ft. below top of canyon wall, course SW.

80.06 The cor. of secs. 27-28-33 and 34.

Land, E. 64 chs., rolling top of mountain, sloping W.; W. 14 chs., E. side of canyon, facing W.

Timber, cedar and pinon, on 62 chs.

Undergrowth, service, oak and sage, on mile.

May 20: At this sec. cor., I set off 19° 52½' N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.

N. 0° 02' W. bet. secs. 27 and 28.

Over mountainous land, through dense sage, oak and service brush.

Gradually ascend up along canyon.

5.10 Wash, 40 lks. wide, 10 lks. deep, course SE.

9.70 Spur, rocky. projects E. 50 lks., 40 ft. high.

24.60 Edge of sandstone cliffs, bears NW. and NE., and wash, 50 lks. wide, 2 ft. deep, course E. Mouth of canyon from NW.

Thence up precipitous S. face over ledges.

40.00 800 ft. above bottom, top of ledges, bears NE & NW.

Set an iron post, 3 ft. long, 1 in. dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼S 28 on W. half, and S 27 on E. half; from which

A cedar, 23 ins. diam., bears N. 49° W., 47 lks., dist., marked ¼ S 28 BT

A pinon, 5 ins. dia., bears S 71°45' E., 72 lks., dist., marked ¼ S 27 BT

Ascend 60 ft.

50.00 Top of mountain and spur, projects SE.

chains

Descend 50 ft.

60.00 Hollow, course SE.; ascend 50 ft.

70.50 Spur, projects SE.; descend 60 ft.

76.20 Hollow, course SE.; ascend 40 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 21-22-27 and 28, marked on brass cap

T 39 SS 21 in NW.,

R 3 W S 22 in NE.,

S 27 in SE., and

S 28 in SW. quadrant; from which

A pinon, 18 ins. diam., bears N. 30° E., 5 lks., dist., marked T39S R3W S22 BT

A pinon, 5 ins. diam., bears S 29° 45' E., 68 lks., dist., marked T39S R3W S27 BT

A cedar, 8 ins. diam., bears S 11¼° W., 40 lks., dist., marked T39S R3W S28 BT

A pinon, 10 ins. daim., bears N 18° W., 42 lks., dist., marked T39 S R3W S21 BT

Land, mountainous, gemeral slope to the S. and SE.

Soil, sandy and sandstone; 4th rate.

Timber, dense cedar and pinon, on N. 41 chs.

Undergrowth, service, oak and sagebrush.

Land mountainous or heavily timbered, on 80.00 chs.

May 20, 1911.

May 22: At 7h 57m a.m., l.m.t., I set off 37° 24¼' on the lat. arc; 20° 15½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 21-22-27 and 28.

Thence I run

chains	
	S. 89° 55' E., on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line, 16 lks. S. of the cor. of secs. 22-23-26 and 27.
	Thence I run
	S. 89° 58' W., on true line bet. secs. 22 and 27.
	Over mountainous land, facing NW., through dense forest of cedar and pinon, and undergrowth of sage, buck and service brush; soil, rocky.
	Ascend 10 ft.
2.00	Ridge, bears NW. and SE.; descend 180 ft.
16.20	Top of sandstone ledge, 60 ft. high, bears NW. & SE.
17.20	Foot of ledges, bears NW. and SE.; descend 40 ft.
18.00	Hollow, course NW.; enter scattering y. pine, bearsN & S.
	Ascend 60 ft. over ledges.
19.00	Top of ledges, bears NW. and SE.; ascend over bed-rock and small ledges.
33.00	200 ft. above hollow, spur, projects NW.
	Descend 350 ft. over series of ledges, bearing NW. and S. to
40.02	At foot of ledges, bearing NW. and S.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 22 on N. half, and S 27 on S. half; from which
	A yellow pine, 13 ins. diam., bears N 45° 20' W., 124 lks., dist., marked ¼ S 22 BT
	A yellow pine, 12ins. diam., bears S 19° 45' E., 45 lks., dist., marked ¼ S 27 BT
	Descend 140 ft.
48.00	Canyon wash, 20 lks. wide, 8 ft. deep, in bottom of Deer Range Canyon, course SW.
	Ascend over broken sandstone ledges, 600 ft. to
52.00	Top of ledges, bears NE. and SW.; gradually ascend 100 ft.

chains	
68.00	Ridge, bears NW. and SE.
	Descend 60 ft. to
80.04	The cor. of secs. 21-22-27 and 28.
	Land, rough omuntainous.
	Soil, rocky, sandy and sandstone bedrock; 4th rate.
	Timber, cedar, pinon, and yellow pine, on mile.
	Undergrowth, sage, service and buckbrush.
	May 22: At this sec. cor.,I set off 20° 17' N. on the decl. arc; and, at 11h 57m a.m.,l.m.t.,obser ve the sun on the meridian; the resulting lat. is 37° 24¼'.

	N. 0° 02' W. bet. secs. 21 and 22.
	Over mountainous land, through dense forest of cedar and pinon, and undergrowth of sage, service, and buckbrush; soil, rocky.
	Ascend 25 ft.
3.00	Ridge, bears NW. and SE.
	Gradually descend 100 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 21 on W. half, and S 22 on E. half; from which
	A pinon, 21 ins. diam.,bears S 61¼° E., 91 lks., dist.,marked ¼ S 22 BT
	A pinon, 20 ins. diam.,bears N 15° W.,64 lks., dist.,marked ¼ S 21 BT
	Gradually descend 60 ft.
59.50	Draw, course NE.; ascend 40 ft.
62.00	Spur, projects NE.; descend 60 ft. to cor.
72.00	Leave dense, enter scattering timber and more sagebrush, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. dia.,24 ins. in the

chains

ground, for cor. of secs. 15-16-21 and 22, marked on brass cap

T 39 S S 16 in NW.,

R 3 W S 15 in NE.,

S 22 in SE., and

S 21 in SW. quadrant; from which

A cedar, 16 ins. diam., bears N. 71°45'E., 316 lks., dist., marked T39S R3W S15 BT

A cedar, 15 ins. diam., bears S 48½° E., 104 lks., dist., marked T39S R3W S22 BT

A cedar, 16 ins. diam., bears S 48°40'W., 150 lks., dist., marked T39S R3W S21 BT

A cedar, 20 ins. diam., bears N 68°45'W., 63 lks., dist., mkd, T39S R3W S16 BT

Land, rolling mountainous, sloping E.

Soil, rocky, and sandstone bedrock; 3rd and 4th rate.

Timber, dense cedar and pinon, on S. 72 chs.

Undergrowth, sage, service, and buckbrush, on mile.

Land mountainous or heavily timbered, on 80.00 chs.

N. 89° 58' E., on a random line bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect the N. and S. line, 23 lks. N. of the cor., of secs. 14-15-22 and 23.

Thence I run

N. 89° 52' W., on true line bet. secs. 15 and 22.

Over mountainous land, through dense forest of cedar and pinon, and undergrwoth of sage, service, buck and horse browse.

Descend 50 ft.

4.50 Hollow, course N 5° W.; ascend 70 ft.

12.00 Spur, projects N 5° W.; descend

Subdivision of T. 39 S., R. 3 W.

chains	
20.00	Descend over sandstone ledges, 70 ft. high, bears NE. and SW.
21.90	Foot of same, bears NE. and SW.; thence gradually desc.
26.50	Canyon wash, 30 lks. wide, 8 ft. deep, in Deer Range canyon, 300 ft. below sec. cor., course S 10° W.
28.00	Foot rocky spur, beras N. and S.
28.95	Top of same. Projects S 60 lks.
29.32	W. foot of same, bears N. and S.
31.80	Wash, 10 lks. wide, 3 ft. deep, course SE.
32.10	Ascend 160 ft. over broken sandstone ledges, bearing NE. and SW.
35.10	Top of same, bears NE. and SW.; gragually ascend 25 ft.
40.05	Set an irom post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 15 on N. half, and S 22 on S. half; from which
	A pinon, 7 ins. diam., bears N 28° E., 37 lks., Dist., marked ¼ S 15 BT
	A pinon, 8 ins. diam., bears S 21° E., 18 lks., dist., marked ¼ S 22 BT
	Gradually ascend.
60.00	Leave dense timber, enter scattering, bears NE. & SW.
80.10	100 ft. above the ¼ sec. cor.,
	The cor. of secs. 15-16-21 and 22.
	Land, mountainous.
	Soil, rocky and sandy; 3rd and 4th rates.
	Timber, cedar and pinon, on mile.
	Undergrowth, sage, buck, service and horse brouse.
	Land mountainous or heavily timbered, on 80.10 chs.

May 22, 1911.

Walter A. Stevens

U.S. Transitman.

chains	
	May 22: For solar observation see line bet. secs. 20 and 21. From the cor. of secs. 15-16-21 and 22. I run
	N. 0° 02' W. bet. secs. 15 and 16.
	Over rolling mountainous land, through dense forest of cedar and pinon, and undergrowth of sage, oak and buckbrush.
6.00	Thence over gradual N. slope., soil, rich sandy loam.
40.00	Set an iron post, 3 ft. long, 1 fn. diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 16 on W. half, and S 15 on E. half; from which
	A cedar, 14 ins. diam., bears N. 2½° E., 234 lks., dist., marked ¼ S 15 BT
	A cedar, 8 ins. diam., bears N 18¼° W., 176 lks., dist., marked ¼ S 16 BT
	May 22, 1911.
	Andrew Nelson
	U.S. Transitman
	May 27: At 6h 57m a.m., l.m.t., I set off 37° 25½' on the lat. arc; 21° 11½' N. on the decl. arc; and determine a meridian with the solar, at this ¼ sec. cor.
	Thence I run N. 0° 02' W.
	Through scattering cedar and pinon.
	Descend 40 ft.
52.00	Leave timber, bears NE. and SW.
58.00	Enter hollow, course SE.
58.05	Trail, bears N 80° W. and SE.
58.44	Wash, 10 lks. wide, 4 ft. deep, course SE., and leave hollow, bears NW. and SE.
	Ascend 50 ft.
63.50	Spur, projects SE.; descend 40 ft.
68.80	Enter scattering timber, bears NW. and SE.
71.00	Hollow, course SE.
74.00	Spur, projects SE.; descend 40 ft.

Subdivision of T. 39 S., R. 3 W.

chains

78.37 Hollow, course SE.; ascend 5 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 9-10-15 and 16, marked on brass cap

T 39 S S 9 in NW.,

R 3 W S 10 in NE.,

S 15 in SE., and

S 16 in SW. quadrant; from which

A cedar, 10 ins. diam., bears N. 48½° E., 59 lks., dist., marked T39S R3W S10 BT

A cedar, 10 ins. diam., bears S. 60¼° E., 26 lks., dist., marked T39S R3W S15 BT

A cedar, 12 ins. diam., bears S 65°45'W., 291 lks., dist., marked T39S R3W S16 BT

A cedar, 4 ins. diam., bears N 13° W., 83 lks., dist., marked T39S R3W S9 BT

Land, rolling mountainous, general slope to the E.

Soil, rich, moist sandy loam, 6 ins. to 3ft. deep, and some gravelly loam; on subsoil of gravel; 1st and 2nd rate, on mile.

Timber, scattering cedar and pinon,

Undergrowth, sage, oak and service, on mile.

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

40.00 Set temp. ¼ sec. cor.,

79.96 Intersect the cor. of secs. 10-11-14 and 15.

Thence I run

N. 89° 52' W., on true line bet. secs. 10 and 15.

Over rolling mountainous land, facing NE., through dense forest of cedar and pinon, and undergrowth of sage, buck and oakbrush.

22.35 Leave timber, bears N. and S.

Subdivision of T. 39 S., R. 3 W.

chains

[illegible] Enter dense timber, bears N. and S.

[illegible] On flat ridge, 100 ft. above sec. cor.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 10 on N. half, and S 15 on S. half; from which

A pinon, 6 ins. diam., bears N. 22° W., 19 lks., dist., marked ¼ S 10 BT

A pinon, 10 ins. diam., bears S. 60¼° E., 24 lks., dist., marked ¼ S 15 BT

Gradually descend 60 ft. over land facing SW.

[illegible] Leave timber, bears NW. and SE.

[illegible] Wash, 8 lks. wide, 2 ft. deep, in hollow, course SE.

Gently ascend.

[illegible] Enter scattering timber, bears N. and S.

[illegible] The cor of secs. 9-10-15 and 16.

Land, rolling mountainous.

Soil, gravelly and stony, some rocky, 6 to 16 ins. deep.

Subsoil, rocky; 2nd and 3rd rate.

Timber, cedar and pinon, on E. 50 chs., and scattering on W. 13 chs.

Undergrowth, sage, dense oak and buckbrush, on mile.

May [illegible]: At this sec. cor., I set off 21° 13' N. on the decl. arc; and, at 11h 57m am l.m.t., observe the sun on the meridian; the resulting lat. is 37° 26'.

N. 2° 02' W. bet. secs. 9 and 10.

Over rolling mountainous land, through forest of cedar and pinon, and undergrowth of sage, and buckbrush.

Gently ascend.

[illegible] Leave timber, bears NW. and SE.

[illegible] Enter dense timber, bears NW. and SE.

Subdivision of T. 39 S., R. 3 W.

chains	
30.00	Leave timber, bears NW. and SE.
33.00	Emter " " " " "
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 9 on W. half, and S 10 on E. half; from which
	A pinon, 10 ins. dia., bears S. 40° E., 31 lks., dist., marked ¼ S 10 BT
	A pinon, 7 ins. diam., bears S. 83° W., 24 lks., dist., marked ¼ S 9 BT
	Ascend 40 ft.
48.00	Ridge, 100 ft. above sec. cor., bears NW. and SE.
	Descend 60 ft.
52.00	Head of hollow, course NW,; ascend 30 ft.
58.00	Spur, projects NW.; thence over N. slope.
	Descend abrupt 100 ft. to
62.00	Thence more gradual descent of 100 ft. to
70.00	40 ft. abrupt descent to
72.00	Gradually descend 40 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 3-4-9- and 10, marked on brass cap
	T 39 S S 4 in NW.,
	R 3 W S 3 in NE.,
	S 10 in SE, and
	S 9 in SW. quadrant; from which
	A cedar, 10 ins. diam., bears N 42½° E., 15 lks., dist., marked T39S R3W S3 BT
	A cedar, 11 ins. diam., bears S 51° E., 10 lks., dist., marked T39S R3W S10 BT
	A pinon, 16 ins. diam., bears S 77°45' W., 47 lks., dist., marked T39S R3W S9 BT
	A cedar, 8 ins. diam., bears N 40½° W., 50 lks., dist., marked T39S R3W S4 BT

chains

Land, rolling mountainous; S 48 chs. slight S. slope.
N. 32 chs. N. slope.
Soil, light sandy loam and stony; 3rd rate.
Timber, scattering cedar and pinon, on 74 chs.
Undergrowth, dense sage and buckbrush.
Land mountainous or heavily timbered, 80.00 chs.

May 27, 1911.

May 29: At 7h 57m a.,.l.m.t.,I set off 37° 27' on the lat. arc; 21° 31½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 3-4-9 and 10. Thence I run
S. 89°.52' E.,on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect the N. and S. line, 7 lks. N. of the cor. of secs. 2-3-10 and 11.

Thence I run
N. 89° 49' W.,on true line bet. secs. 3 and 10.
Over rolling mountainous land, general slope to the N. through dense forest of cedar and pinon, and undergrowth of sage and buckbrush.

2.00 Enter opening, bears N. and S.

5.50 Leave opening, bears N. and S.

Gradually descend 40 ft.

17.21 Hollow, course N.; ascend 30 ft.

22.00 Ridge, bears NE. and SW.

Descend 30 ft. over broken land, facing nearly N.

39.97 Set an iron post, 3 ft. long, 1 in. dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 3 on N. half, and S 10 on S. half; from which

A pinon,5 ins. diam.,bears N. 17½° W., 16 lks., dist.,marked ¼ S 3 BT

A pinon, 8 ins. diam.,bears S 57°45'W., 32 lks.,

chains	
	dist., marked ¼ S 10 BT
40.90	Top of 30ft. sandstone ledge and box canyon, bears N. and S.
41.90	Bottom of 40 ft. canyon, course N.
42.90	W. edge of canyon and top 20 ft. ledge, bears N. & S. Gradually ascend 50 ft.
54.00	Ridge, bears NE. and SW.; descend 80 ft. over broken land facing NW.
68.90	Hollow, course N 4° W., ascend 40 ft.
70.00	Spur, projects N.; descend 40 ft.
74.00	Hollow, course NW.; ascend 40 ft.
78.00	Spur, projects NE.; descend 15 ft. to
79.94	The cor. of secs. 3-4-9 and 10.
	Land, rolling moutainous, general N. slope.
	Soil, stony and rocky; 3rd rate.
	Timber, dense cedar and pinon, on 76.50 chs.
	Undergrowth, sage and buckbrush, on mile.
	May 29: At this sec. cor., I set off 21° 32½' N. on the decl. arc; and at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 27'.

	May 27: For solar observation see line bet. secs. 15 and 16.
	N. 0° 02' W. on true line bet. secs. 3 and 4.
	Over broken mountainous land, through dense forest of cedar and pinon, and undergrowth of sage , service, and chaparral.
	Descend 50 ft.
4.00	Hollow, course NW. ; continue descent over land , facing nearly W., 80 ft. to
18.00	Spring branch, 1 lk. wide, 1 in. deep pure water, in hollow, course N. 1° W.

chains

26.00 Same branch in hollow, course NE.

29.00 Trail, bears NE. and SW.

Ascend 40 ft.

37.50 Spur, projects E.; descend 30 ft. to

38.62 Spring branch, 1 lk. wide, 1 in. deep, in hollow, course E.; ascend 20 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 4 on W. and S 3 on E. half; from which

A pinon, 24 ins. diam., bears N 71° E., 47 lks., dist., marked ¼ S 3 BT

A cedar, 9 ins. diam., bears N 87½° W., 12 lks., dist., marked ¼ S 4 BT

Ascend 30 ft. to

41.74 Intersect S. bdy. of Tp. 38 S., R 3 W., 3.34 chs. S. 89°36'W of the cor. of secs. 4-5-32 and 33, which is a shale stone 9 x 5 x 3 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General. I destroy all marks on cor and B T's pertaining to T 39 S.

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

T38S R3W S32 CC S33 on N. half,

S 3 S 4 on S. half; from which

A pinon, 14 ins. diam., bears S 71° E., 24 lks., dist., marked T39S R3W S3 CC BT

A pinon, 10 ins. diam., bears S 85° W., 30 lks., dist., marked T39S R3W S4 CC BT

Land, mountainous.

Soil, rocky and stony; 3rd rate.

Timber, dense cedar and pinon; and some scattering yellow pine, near N. end.

Subdivision of T. 39 S., R. 3 W.

chains	
	Undergrowth, sage, buckbrush, and chaparral.
	Land mountainous and heavily timbered, on 41.74 chs.
	May 27, 1911.
	Walter A. Stumm.
	U. S. Transitman

	May 19: At 8h 27m am. l. m. tm, I set off 37° 22½' on the lat. arc; 19°38'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 4-5-32 and 33 in the S. bdy of Tp., heretofore described. Thence I run N. 0° 03' W., bet. secs. 32 and 33.
	Over broken mountainous land, general slope to the SW., through forest of yellow pine, cedar and pinon; undergrowth of scattering buck, service brush and chaparral; soil, sandstone bedrock, and sandy.
2.00	Ascend 75 ft. over S. slope.
6.00	Rocky spur, projects S. 80° W.; descend
9.00	Gulch, 50 ft. deep, course S. 80° W.; ascend
13.00	Top N. side gulch, bears E. and S 80° W.
	Continue gradual ascent over nearly W. face, 100 ft.
33.00	Descend abruptly 100 ft.
36.00	Gulch, 125 ft. deep, course W.; ascend 50 ft. to
40.00	Set an irom post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 32 on W. half, and S 33 on E. half; from which
	A pinon, 5 ins. diam., bears S. 40° E., 69½ lks., dist., marked ¼ S 33 BT
	A cedar, 6 ins. diam., bears S. 15° W., 24 lks., dist., marked ¼ S 32 BT
47.00	Top steep ascent, 85 ft. above ¼ cor., bears E. and W. Desc.
55.00	Gulch, 75 ft. deep, course W.; leave Yellow pine and bedrock, bears E. and W.
70.00	Gulch, 100 ft. deep, course W.; ascend 150 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked on

Subdivision of T. 39 S., R. 3 W.

chains

brass cap

T 39 S S 29 in NW.,

R 3 W S 28 in NE.,

S 33 in SE., and

S. 32 in SW. quadrant; from which

A pinon, 7 ins. diam., bears N 23° E., 33 lks., dist., marked T39S R3W S28 BT

A pinon, 10 ins. diam., bears S. 83° E., 12 lks., dist., marked T39S R3W S33 BT

A cedar, 12 ins. diam., bears S 62½° W., 41 lks., dist., marked T39S R3W S32 BT

A pinon, 14 ins. diam., bears N 60¼° W., 50 lks., dist., marked T39S R3W S29 BT

Land, broken mountainous, general SW. slope.

Soil, mostly rocky and sandy; 3rd and 4th rates.

Timber, yellow pine, cedar and pinon.

Undergrowth, service and chaparrral.

Land, mountainous or heavily timbered, 80.00 chs.

May 19: At this sec, cor., I set off 19°39½'N. on the decl. arc; and, at 11h57m am l.m.t., observe the sun on the maridian; the resulting lat. is 37° 23½'.

S. 89° 55' E., on a random line bet. secs. 28 and 33.

40.00 Set temp. ¼ sec. cor.

80.03 Intersect the cor. of secs. 27-28-33 and 34.

Thence I run

N. 89° 55' W., on true line bet. secs. 28 and 33.

Over rough mountainous land, general slope to the E.

5.00 Begin abrupt ascent over ledges forming W. side of canyon, bears N. and SW.

12.00 Top of canyon wall and ledges, 480 ft. above sec. cor., bears N. and SW.

Subdivision of T. 31 S., R 3 W.

chains	
	Thence gradually ascend 160 ft. over SE. slope, through dense forest of cedar and pinon, and undergrowth of buck, service and chaparral., soil, stony and gravelly.
28.00	Thence more gentle ascent, bears N. and S.
32.00	Spur, projects SE.; gradual descent.
40.01½	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 28 on N. half, and S 33 on S. half; from which
	A pinon, 10 ins. diam., bears N 79° W., 22½ lks., dist., marked ¼ S 28 BT
	A pinon, 10 ins. diam., bears S 70° E., 33½ lks., dist., marked ¼ S 33 BT
	Descend 20 ft.
43.00	Hollow near head, course SE.
	Ascend 50 ft.
49.00	Top of mountain, bears N. and SE.
	Thence over rollong mountain top, through sandy loam soil.
61.00	Leave top, bears N. and S.; descend 125 ft. over W. slope.; stony and gravelly soil.
69.00	Hollow, course SW.; ascend 40 ft. over nearly S. slope.
75.00	S. point of spur, bears N.
	Descend 20 ft. to
80.03	The cor. of secs. 28-29-32 and 33.
	Land, E. 12 chs. rough mountainous E. slope; remaining 68 chs. rolling mountainous, E. and SW. slopes.
	Soil, on top of mountain or plateau, rich sandy loam, moist, fine texture, 1 to 3 ft. deep, on subsoil of gravel; remaining mile is gravelly, stony and rocky; 3rd rate.
	Timber, dense cedar and pinon, on W. 68 chs.; E. 12 chs few scattering yellow pine.
	Undergrowth, buck, service and chaparral.
	May 19, 1911.

chains

May 20: At 7h 57m a.m., l.m.t., I set off 37° 23½' on the lat. arc; 19° 51' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 28-29-32 and 33.

Thence I run

N. 0° 03' W. bet. secs. 28 and 29.

Over mountainous land, general slope to the W., through dense forest of cedar and pinon, and undergrowth of scattering service and chaparral.

Gradually ascend 75 ft. to

15.00 Spur, 3 chs. wide, projects W.

Descend 125 ft.

24.00 Hollow, course W.; ascend 100 ft.

31.00 Spur or point of mountain, 2 chs. wide, projects W.

Descend N. slope 60 ft. to

40.00 In hollow, course W.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 29 on W. half, and S 28 on E. half; from which

A pinon, 6 ins. diam., bears N. 68° E., 19 lks., dist., marked ¼ S 28 BT

A pinon, 7 ins. diam., bears S 76° W., 24 lks., dist., marked ¼ S 29 BT

Ascend 50 ft.

48.00 Top of ascent and mountain plateau, bears NW. and SE.

Thence over rolling mountain top, through less dense timber; enter heavy black sage, 2ft. high, and rich sandy loam soil; gentle slope to the N.

74.00 Head of draw, drains E., bears E. of line 1 ch.

80.00 In small sagebrush opening.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 20-21-28 and 29, marked on brass cap

chains

brass cap

T 39 S S 20 in NW.,

R 3 W S 21 in NE.,

S 28 in SE., and

S 29 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N 25° E., 574 lks., dist., marked T39S R3W S21 BT

A pinon, 5 ins. diam., bears S 42°10'E., 240 lks., dist., marked T39S R3W S28 BT

A pinon, 5 ins. diam., bears S 55¼° W., 198½ lks., dist., marked T39S R3W S29 BT

A pinon, 7 ins. diam., bears N 21°45'W., 218 lks., dist., marked T39S R3W S20 BT

Land, mountaincus.

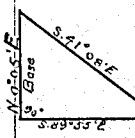
Soil, S. 48 chs. gravelly and stony; N. 32 chs. rich sandy loam, fine texture, 8 to 30 ins. deep, on subsoil of gravel and clay.

May 20: At this sec. cor., I set off 19° 52½' N. on the decl. arc; and, at 11h 57m a.m., l.m.t. observe the sun on the meridian; the resulting lat. id 37° 24¼'.

S. 89° 55' E., on a random line bet. secs. 21 and 28.

40.00 Set temp. ¼ sec. cor.

46.55 To W. side of canyon. Impossible to chain further. Set flag on line on E. side of same; then measure a base line N. 0°05' E., 11.25 chs., to a point whence the flag bears S. 41° 08' E.; from the flag the base subtends an angle of 48° 47'; therfore the dist. is tan 41° 13' x base or .87595x11.25 = 9.85 chs., which added to 46.55 chs. makes



56.40 E. side canyon.

79.95 Intersect the N. and S. line, 14 lks. N. of the cor. of

chains	
	secs. 21-22-27 and 28.
	Thence I run
	N. 89° 49' W. on true line bet. secs. 21 and 28.
	Over mountainous land, through dense forest of cedar and pinon, and undergrowth of buck, oakbrush and chaparral; soil, stony and rocky.
	Along top to
8.00	Ridge, 10 ft. above sec. cor., bears N. and S.
	Descend W. slope 100 ft.
23.55	Top of 150 ft. box canyon, course S 20° E.
33.40	Top W. side canyon, bears N. and S 20° E.
	Ascend steep E. slope over sandstone ledges.
36.00	Thence more gradual ascent, bears N. and S.
39.97½	On SE. slope 200 ft. above bottom of canyon.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground and in a mound of stone, for ¼ cor. marked on brass cap ¼ S 21 on N. half, and S 28 on S. half; from which
	A yellow pine, 12 ins. diam., bears N 31° W., 30 lks., dist., marked ¼ S 21 BT
	A yellow pine, 30 ins. daim., bears S 14½° E., 72 lks., dist., marked ¼ S 28 BT
	Note: Impossible to set post more than 12 ins. in the ground, because of natural obstacles.
	Gradually ascend 75 ft.
51.00	Ridge, bears N., and S. 6 chs.
	Descend land facing SW., 125 ft.
58.50	Hollow, course SE.
	Ascend E. slope 200ft.
74.00	Top of ascent, and leave timber, bears N. and S.
	Thence over nearly level land.
79.95	The cor. of secs. 20-21-28 ans 29.
	Land, mountainous, general drain to the S.
	Soil, gravelly, stony and rocky; 3rd and 4th rates.
	Timber, dense cedar and pinon, and scattering yellow

chains

pine, on E. 174 chs.

Undergrowth, scattering buckbrush, chaparral and sage.

May 20,1911.

May 22: At 7h 57m a.,.l.m.t.,I set off 37° 24¼' on the lat. arc; 20° 15½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 20-21-28 and 29.

Thence I run

N. 0° 03' W. bet. secs. 20 and 21.

Over rolling mountain top, slight slope to the N., through scattering cedar and pinon, and undergrowth of sage, oakbrush and chaparral.

25.00 Begin ~~xxxx~~ descent over N. slope.

37.50 Head of draw, course NW.

40.00 Set an iron post, 3 ft. long, 1 in. dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 20 on W. half, and S 21 on E. half; from which

A pinon,5 ins. diam.,bears N 18¼° E., 226 lks., dist.,marked ¼ S 21 BT

A pinon,5 ins.diam.,bears S 88°40' W., 82 lks., dist.,marked ¼ S 20 BT

Continue descent.

46.00 Enter dense timber, bears NW. and SE.

65.00 Draw, 150 ft. below sec. cor.,course nearly E.

72.00 Leave timber, bears NW. and SE.

80.00 Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for cor. of secs. 16-17-20 and 21, marked on brass cap

T 39 S S 17 in NW.,

R 3 W S 16 in NE.,

chains

S 21 in SE., and

S 20 in SW. quadrant; from which

A cedar, 16 ins. diam., bears N 27½° E., 558 lks., dist., marked T39S R3W S16 BT

A cedar, 6 ins. diam., bears S 63½° E., 364 lks., dist., marked T39S R3W S21 BT

A pinon, 8 ins. diam., bears S 22°50' W., 374 lks., dist., marked T39S R3W S20 BT

A cedar, 12 ins. diam., bears N 38° W., 121 lks., dist., marked T39S R3W S17 BT

Land, rolling mountainous, sloping N.

Soil, sandy and fine gravelly loams, 8 to 24 ins. deep, on subsoil of coarse gravel.

Timber, scattering cedar and pinon, on S. 72 chs.

Undergrowth, sage, oak and chaparral.

S. 89° 49' E., on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect the N. and S. line, 5 lks. S. of the cor. of secs. 15-16-21 and 22.

Thence I run

N. 89° 51' W. on true line bet. secs. 16 and 21.

Over rolling mountainous land, general slope to the S., through forest of cedar and pinon, and scattering undergrowth of sage, service and chaparral.

32.00 Ridge, bears N. and S.

Descend 75 ft. to

40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 16 on N. half, and S 21 on S. half; from which

A pinon, 8 ins. diam., bears N 40° E., 94 lks.,

chains	
	dist., marked ¼ S 16 BT
	A pinon, 7 ins. diam., bears S 10° W., 37 lks.,
	dist, marked ¼ S 21 BT
41.80	Wash, 10 lks. wide, 4 ft. deep, in open swale, 2 to 3chs.
	wide, course S.
	Thence gently ascend over land sloping SE.
68.00	Leave timber, bears NW. and SE.
73.50	Drain, course SE.
80.05	The cor. of secs. 16-17-20 and 21.
	Land, rolling mountainous, general S. slope.
	Soil, sandy and gravelly loams, 6 to 24 ins. deep, on
	a subsoil of decomposed sandstone and gravel.
	Timber, cedar and pinon, on E. 68 chs.
	Undergrowth, sage, scattering service and chaparral.
	May 22 : At this sec. cor., I set off 20° 17' N. on the
	decl. arc; and, at 11h 57m a.m., l.m.t., obeserve the sun
	on the meridian; the resulting lat. is 37° 25'

	N. 0° 03' W., bet. secs. 16 and 17.
	Over hilly land, general slope to the SW., through
	undergrowth of heavy sage and scattering clumps of
	service, buck and oakbrush.
4.80	Drain, course SE.
	Gradually ascend land, facing SW.
39.00	Trail, bears E. and W.
40.00	On ridge or divide, bears NW. & SE., 75 ft. above sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
	ground, for ¼ sec. cor., marked on brass cap ¼ S 17 on
	W. half, and S 16 on E. half; dig pits 18 x 18 x 12 ins.
	N. and S. of post, 3½ ft. dist., ~~of post~~, and raise a
	mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
	Gradually descend N. slope 75 ft.

chains

48.00 Enter forest of cedar and pinon, bears NE. and SW.

60.00 Ravine, course NE.

Ascend 50 ft.

77.50 Low ridge, bears N 80° W. and S 80° E.; descend 15 ft.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 8-9-16 and 17, marked on brass cap

T 39 S S 8 in NW.,

R 3 W S 9 in NE.,

S 16 in SE., and

S 17 in SW. quadrant; from which

A pinon, 7 ins. diam., bears N 30° E., 51½ lks., dist., marked T39S R3W S9 BT

A pinon, 7 ins. diam., bears S 35° E., 78½ lks., dist., marked T39S R3W S16 BT

A pinon, 8 ins. diam., bears S 14° W., 12 lks., dist., marked T39S R3W S17 BT

A pinon, 12 ins. diam., bears N. 11½° W., 41½ lks., dist., marked T39S R3W S8 BT

Land, hilly, S. 40 chs. SW. slope. and N. 40 chs., N. & NE. slopes.

Soil, light sandy loam, with gravelly loam near N. end. 1 to 3 ft. deep.

Timber, cedar and pinon, on N. 32 chs.

Undergrowth, sage, service, buckbrush and chaparral.

Note: For end of day see line bet. secs. 15 & 16.

May 22, 1911.

May 27: At 7h 57m a.m., l.m.t., I set off 37° 26' on the latl. arc; 21° 11½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 8-9-16 and 17.

Subdivision of T. 39 S., R. 3 W.

chains	
	Thence I run,
	S. 89° 51' E., on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect the N. and S. line, 7 lks. S. of the cor. of secs. 9-10-15 and 16.
	Thence I run
	N. 89° 54' W., on true line bet. secs. 9 and 16.
	Over rolling land, through few scattering cedars, and undergrowth of sage and rabbitbrush; soil, sandy loam and sandy.
28.00	Low flat ridge, bears N. and SE.
30.00	Descend 65 ft. over W. slope
39.00	Base of descent and enter hollow, bears N. and S.
39.97½	In level bottom of hollow and dense sagebrush.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 9 on N. half, and S 16 on S. half; dig pits 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	No bearing trees within limits.
40.40	Wash, 10 lks. wide, 4 ft. deep, course S. 20° E.
44.00	Leave hollow, bears N. and S.; ascend 30 ft.
49.50	Low spur, between hollows, projects N. 2 chs.
55.80	Wash, 8 lks. wide, 3 ft. deep, in swale, drains NE.
	Gently ascend E. slope.
66.00	Enter dense cedar and pinon, bears NE. and SW.
79.95	170 ft. above the ¼ sec. cor.
	The cor. of secs. 8-9-16 and 17.
	Land, rolling plateau.
	Soil, rich sandy loam, and some sandy, 10 to 36 ins. deep, fine texture, moist, on a subsoil of calcarious gravel hardpan; 1st and 2nd rates.
	Timber, some scattering cedars on E. 66 chs.; W. 14 chs. dense cedar and pinon.

chains	
	Undergrowth, sage and rabbitbrush, on mile.
	N. 0° 03' W. bet. secs. 8 and 9.
	Over rolling land, slight slope to the E., through dense forest of cedar and pinon, and undergrowth of sage and servicebrush.
	Gradually descend NE. slope.
22.00	Leave dense, enter scattering timber, bears NW. and SE.
31.80	Wash, 5 lks. wide, 2 ft. deep, in wide shallow hollow, 40 ft. below ¼ sec. cor., course SE.
	Ascend gentle S. slope, 30 ft. to cor.
36.00	Enter dense timber, bears NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 8 on W. half, and S. 9 on E. half; from which
	A cedar, 8 ins. diam., bears N 76°40' E., 42½ lks., dist., marked ¼ S 9 BT
	A pinon, 10 ins. diam., bears S 71½° W., 65½ lks., dist., marked ¼ S 8 BT
	Continue over gentle S. slope.
45.00	Enter gypsum soil and broken mountainous land, bears E. and W.
53.40	Gypsum spur, projects E.; top of table land bears W. 3chs.
	Descend 75 ft.
54.50	Head of hollow, course E.
	Ascend abruptly over SE. slope.
60.00	Top of ridge or E. point of table land, 250 ft. above ¼ sec. cor., bears NE. 5chs., and SW.
	Thence along top. to
66.50	N. point of table butte, bears SE. and SW.
	Descend abruptly N. slope, 130 ft.
70.50	Gully, course NE.

chains

Ascend.

74.75 Spur, bet. gullies, 75 ft. high, projects NE.

77.50 Ravine, course NE.

79.75 Small spur, projects E. 3chs.

80.00 On N. slope.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 4-5-8 and 9, marked on brass cap

T 39 S S 5 in NW.,

R 3 W S 4 in NE.,

S 9 in SE., and

S 8 in SW. quadrant; from which

A pinon, 13 ins. diam., bears N 36° E., 45 lks., dist., marked T39S R3W S4 BT

A cedar, 13 ins. diam., bears S 35° E., 50 lks., dist., marked T39S R3W S9 BT

A cedar, 8 ins. diam., bears S. 26½° W., 33 lks., dist., marked T39S R3W S8 BT

A cedar, 12 ins. diam., bears N 70° W., 21 lks., dist., marked T39S R3W S5 BT

Land, S. 48 chs. rolling, with rich sandy loam soil, 1 to 3 ft. deep, on gravelly and clay subsoil: N. 32chs. broken mountainous, general NE. slope, with principally gypsum soil.; 4th rate.

Timber, cedar and pinon, on mile.

Undergrowth, sage, service, and some chaparral.

May 27: At this sec. cor., I set off 21° 13' N. on the decl. arc; and, at 11h 57m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 37° 27'.

Andrew Nelson

U. S. Transitman.

chains	
	May 29: For solar observation see line bet. secs. 3 & 10.
	From the cor. of secs. 4-5-8 and 9. I run
	S. 89° 54' E., on a random line bet. secs. 4 and 9.
40.00	Set temp. ¼ sec. cor.,
80.06	Intersect the N. and S. line, 14 lks. S. of the cor. of secs. 3-4-9 and 10.
	Thence I run
	West, on true line, bet. secs. 4 and 9.
	Over broken mountainous land, general slope to the NE., through dense forest of cedar and pinon, and undergrowth of sage and buck brush.
	Ascend 30 ft.
3.35	Spur, projects N.; descend 80 ft.
10.30	Spring branch, 1 lk. wide, 1 in. deep, in main hollow, course NE.
10.90	Trail, bears NE. and SE.; ascend 100 ft.
18.50	Spur, projects NE.; descend 60 ft.
31.50	Hollow, course NE.; ascend 70 ft. to
40.03	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 4 on N. half, and S 9 on S. half; from which
	A pinon, 6 ins. diam., bears North, 16 lks., dist., marked ¼ S 4 BT
	A pinon, 5 ins. diam., bears S 65° W., 38 lks., dist., marked ¼ S 9 BT
	Ascend 40 ft.
46.00	Ridge, bears NW. and SE.
	Descend over broken land, draining SE.
72.50	Spring branch, 1 lk. wide, 1 in. deep, alkali water, in hollow, 100 ft. below ridge, course SE.
76.00	Low spur, projects NE.
78.00	Hollow, 30 ft. deep, course NW.
80.06	The cor. of secs. 4-5-8 and 9.

Subdivision of T. 39 S., R. 3 W.

chains	
	Land, broken mountainous, general drain to the NE.
	Timber, dense cedar and pinon, on mile.
	Undergrowth, sage, buck and oak brush, on mile.
	Soil, rocky and some gypsum, shallow; 3rd rate.
	May 29, 1911.
	Walter A. Sturm
	U. S. Transitman.

	May 27: For solar observation see line bet. secs. 9 & 16.
	From the cor. of secs. 4-5-8 and9. I run
	N. 0° 03' W. on true line bet. secs. 4 and 5.
	Over rough mountainous land, general slope to the NW.,
	through dense forest of cedar and pinon, and under-
	growth of service and chapparal.
	Descend 40 ft.
1.30	Gully, course E.
3.50	Gully, course SE.; acsend SE. gypsum slope.
9.50	High sharp gypsum ridge, 130 ft. above sec. cor., bears
	NE. and SW.
	Thence descend over general W. slope over series of
	spurs and gullies putting W. into a main hollow,
	course about N 30° W.
16.00	Small draw, course W.
19.00	Spur, 40 ft. high, projects SW.
21.00	Small draw, course SW.
22.50	Ridge, bears E., and W. 2 chs.
29.00	Gully, 50 ft. deep, course NE.
	Point for ¼ cor. will fall in wash.
39.80	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the
	ground, for witness ¼ sec. cor., marked on brass cap:
	T. 39 S R. 3 W on N. half, S. 4 in E., S 5 in W. half,
	with W C ¼ near center; from which

chains

A cedar, 5 ins. diam., bears N 36½° E., 41 lks., dist., marked W C ¼ S4 BT

A pinon, 10 ins. diam., bears N 51°10' W., 30 lks., dist., marked W C ¼ S5 BT

40.00 True point for ¼ sec. cor. falls in wash, 15 lks. wide, 2 ft. deep, course NE.

41.92 Intersect S. bdy of T. 38S., R. 3 W., 365 lks. S.89°55'W. of cor. of secs. 5-6-31 and 32, which is quartzite stone 10 x 5 x 4 ins. above ground, firmly set, marked and witnessed as described by the Surveyor General. I destroy all marks on cor. and deface bearing trees pertaining to T 39 S.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. to secs. 4 and 5, marked on brass cap

T38S R3W S31 CC S32 on N. half,
S 4 S 5 on S. half; from which

A pinon, 4 ins. diam., bears S 5° E., 12 lks., dist., marked T39S R3W S4 CC BT

A pinon, 8 ins. diam., bears S 70½°W., 20½ lks., dist., marked T39SR3W S5 CC BT

Land, broken mountainous, general slope to the NW.

Soil, rocky and gypsum; 3rd rate.

Timber, dense cedar and pinon, on mile.

Undergrowth, considerable service and chapparal.

May 27, 1911.

W. S

chains	
	May 23: At 8h 27m a.m., l.m.t., I set off 37° 22½' on the lat. arc; 20° 27½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 5-6-31 and 32 in the S. bdy. of the tp., heretofore described.
	Thence I run
	N. 0° 03' W. ber. secs. 31 and 32.
	Over rolling mountainous land, through scattering cedar, pinon, and yellow pine, and dense undergrowth of service, oak and chaparral; soil, rocky and gravelly.
	Descend along E. face of ridge.
15.25	Head of small draw, course E.
16.50	Spur, 30 ft. high, projects E. 4 chs.; leave timber, and rocky soil, enter sany loam, bears NW. and SE.
19.00	Head of ravine and base of high ridge, bears NW. and SE. ravine, course SE., 150 ft. below sec. cor.
	Ascend 40 ft.
23.00	Ridge and divide, bears E. and W.
	Enter open valley land, draining NW. & W. to lake; through sagebrush and some grass.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 31 on W. half, and S 32 on E. half; dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high. W. of cor.
	Thence over rolling valley land, sloping SW.; gently ascend.
51.00	Wash, 5 lks. wide, 3 ft. deep, course W.
55.25	Wash, 8 lks. wide, 4 ft. deep, course W.
77.00	Wash, 6 lks. wide, 3 ft. deep, course S 80° W.
78.25	Rail fence, bears E. and W.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 29-30-31 and 32, marked on

Subdivision of T. 39 S., R. 3 W.

chains

brass cap

T 39 S S 30 in NW.,

R 3 W S 29 in NE.,

S 32 in SE., and

S 31 in SW. quadrant; from which

A yellow pine, 20 ins. diam., bears N. 83°12'E., 438 lks.

dist., marked T39S R3W S29 BT

dig pits 18 x 18 x 12 ins., 5½ ft. dist. in each sec., and raise a mound of earth, 4ft base, 2 ft. high W. of cor. No other trees within limits.

Land, mountainous and rolling.

Soil, S. 23 chs. rocky & stony; 4th rate; N. 50 chs. Sandy loam, moist, fine texture, 8 to 30 ins. deep, on subsoil of decomposed sandstone, 1st rate.

Timber, Scattering cedar and pinon, on S. 16.50 chs.

Undergrowth, oak, chaparral and sagebrush.

Mountainous land, on 23 chs.

Geo. Adams' cabin bears N. 44° 21'W., 43 chs.

S. 89° 55' E., on a random line bet. secs. 29 and 32.

37.00 Set temp. witness ¼ sec. cor.

80.00 Intersect the cor. of secs. 28-29-32 and 33.

Thence I run

N. 89° 55' W. on true line bet secs. 29 and 32.

Over rough mountainous land, facing W., through dense forest of cedar and pinon, and undergrowth of buck and chaparral; soil, rocky.

Descend W. slope.

30.00 Top of canyon, bears N. and S.

Descend precipitous W. face over ledges, 400 ft. to

36.50 Bottom of box canyon or gulch, 700 ft. below sec cor., course S. 20° E.

Subdivision of T. 39 S., R. 3 W.

chains	
	Ascend over sandstone ledges, forming W. wall of canyon.
40.00	Point for ¼ sec. cor. falls on ledges where it cannot be set.
43.00	Top of ledges and canyon, 200 ft. above bottom.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness ¼ sec. cor., marked on brass cap T 39 S R 3 W S 29 on N. half, S 32 on S half, with W C ¼ near center; from which
	A pinon, 6 ins. diam., bears S. 30°45'E., 45 lks., dist., marked W C ¼ S 32 BT
	A yellow pine, 14 ins. diam., bears N. 85¼°W., 110 lks., dist., marked W C ¼ S 29 BT
	Ascend 80 ft.
48.25	Ridge, bears N. and S.
	Descend W. slope.
67.00	Hollow, 50 ft/ deep, course SW.
69.25	Sharp rocky spur, projects SW. 6 chs.
72.50	Mouth of gulch, 50 ft. deep, course SW.
75.75	Low.S. point of spur, bears NE.
80.00	100 ft. below sharp spur.
	The cor. of secs. 29-30-31 and 32.
	Land, rough mountainous.
	Soil, mostly rocky and stony, sandstone formation; 4th rate.
	Timber, dense cedar and pinon, on mile.
	Undergrowth, buck, chaparral and sage brush.
	Land mountainous and heavily timbered, on 80 chs.
	May 23: At this sec. cor. I set off 20° 29'N. on the decl. arc; and at 11h 57m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.

chains	
	N. 89° 55' W., on a random line bet. secs. 30 and 31.
40.00	Set temp. ¼ sec. cor.
80.99	Intersect W. bdy. of the tp., 60 lks. N. of the witness cor. to secs. 25-30-31 and 36, which is 50 lks. S. of the true point, therefore falling is 10 lks. N. (Corner is a sandstone 6x6x7 ins. mkd & witnessed as desc. by Sur. Gen.)
	Thence I run from a point 50 lks. N. of witness cor.
	S. 89° 59' E., on true line bet. secs. 30 and 31.
	Ascend gradually over open valley land, through heavy sage brush.
10.00	Road, to Adams ranch, bears N. and S.
21.50	Base of ridge, bears N. and S., enter cedars N & S.
	Ascend 100 ft. abruptly.
25.50	Top abrupt ascent, bears N. and S.
29.00	Ridge, 200 ft. above sec. cor., bears N. and S.
	Descend steep E. slope.
35.50	Base of same, 150 ft. below top, bears SE. and N80°E.
	Enter valley land.
40.99	Set an iron post. 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 30 on N. half, and S 31 on S. half; from which
	A cedar, 8 ins. diam., bears N 30½° W., 244 lks., dist., marked ¼ S 30 BT
	A cedar, 7 ins. diam., bears S 64°40' W., 197 lks., dist., marked ¼ S 31 BT
	Gently descend E. slope, and leave timber, NE & SE.
55.25	Wash, 5 lks. wide, 4 ft. deep, course N. 80° E.
68.00	Rail fence, bears N 20°W. and S 20°E.
	Enter meadow, bears same.
73.00	Drain of valley, course S.
	Gradually ascend.
75.00	Leave meadow, bears N 10° W. and S.
80.99	The cor. of secs. 29-30-31 and 32.
	Land, rolling and hilly, general drain to the S.
	Soil, sandy and gravelly loams, 6 to 24 ins. deep, rich

Subdivision of T 39 S., R 3 W.

chains

moist, fine texture, on subsoil of gravel and clay; 1st and 2nd rates, some clay soil on hilly portions.
Timber, cedar and pinon, on E. 20.50 chs. of W. ½ mile.
Undergrowth, sagebrush and some grass.
Good grazing.

May 23, 1911.

May 24: At 7h 57m a.m., l.m.t., I set off 37° 23½' on the lat. arc; 20° 39' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 29-30-31 and 32.
Thence I run
N. 0° 03' W. bet. secs. 29 and 30.
Over rolling mountainous land, facing W., through undergrowth of sage, buck and some chaparral.
12.00 Enter forest of cedar, pinon, and scattering yellow pine, bears NW. and SE.
22.50 SE. point of brush fence, bears NW.
23.75 Gulch, near mouth, 60 ft. deep, course SW.
40.00 Near top W. slope ridge, bears nearly N. and S.
Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 30 on W. half and S 29 on E. half; from which
A cedar, 10 ins. diam., bears N. 72° 45' E., 29 lks., dist., marked ¼ S 29 BT
A pinon, 10 ins. diam., bears S. 88° W., 67 lks., dist., marked ¼ S 30 BT
Gradually ascend along W. side of ridge near top.
58.00 Top of ridge, bears N. 20° W. and S 5° E., leave dense enter scattering timber, bears E. and NW.
Descend through sage and oakbrush, 125 ft.
74.89

chains	
74.80	Ravine, 25 lks. wide, course SE.
	Ascend steep slope 75 ft.
77.50	Top of ascent on SE. point of ridge, bears NW.
79.00	Descend abruptly NE. slope 25 ft. to
80.00	On W. side of canyon.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 19-20-29 and 30, marked on brass cap

T 39 S S 19 in NW.,

R 3 W S 20 in NE.,

S 29 in SE., and

S 30 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N 13½° E., 9 lks., dist., marked T39S R3W S20 BT

A pinon, 5 ins. diam., bears S. 30½° E., 19 lks., dist., marked T39S R3W S29 BT

A pinon, 11 ins. diam., bears S. 42¼° W., 42 lks., dist., marked T39S R3W S30 BT

A cedar, 12 ins. diam., bears N 67° W., 30 lks., dist., marked T39S R3W S19 BT

Land, rolling mountainous, general slope to the W.

Soil, Rocky and sandy, some light sandy loam, on subsoil of bedrock; 3rd and 4th rates.

Timber, cedar, pinon, and scattering yellow pine.

Land mountainous and heavily timbered, 80 chs.

S. 89° 55' E., on a random line bet. secs. 20 and 29.

40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line, 14 lks. N. of the cor. of secs. 20-21-28 and 29.

Subdivision of T. 39 S., R. 3 W.

chains

Thence I run

N. 89° 49' W., on true line b et. secs. 20 and 29.

Over mountain top; general slope to the SW., through sage brush.

3.00 Descend; and enter forest of cedar and pinon, bears N. and S.

Gradually descend W. slope, from mountain top.

18.00 Begin steeper descent, bears N. and S.

34.00 Wash, 10 lks. wide, 3 ft. deep, course S., and base of descent 250 ft. below sec. cor.

Ascend 50 ft. to

40.02 On top of ridge, bears N. and S.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 20 on N. half, and S 29 on S. half; from which

A pinon, 8 ins. daim., bears N 10° W., 38 lks., dist., marked ¼ S 20 BT

A pinon, 14 ins. diam., bears S 28° W., 50 lks., dist., marked ¼ S 29 BT

May 24: At this ¼ sec. cor., I set off 20° 41' N. on the decl. arc; and, at 11h 57m a.m., l.m.t. observe the sun on the meridian; the resulting lat. is 37° 24¼'.

Gradually descend.

47.00 Begin steep descent, bears N. and S.

59.30 Canyon, 200 ft. below ¼ cor., course SW.

Ascend 110 ft.

64.00 Ridge, bears N. and S.

Descend 200 ft.

78.75 Wash, 35 lks. wide, in bottom of canyon, course S 20°E.

Ascend 40 ft. to

80.04 The cor. of secs. 19-20-29 and 30.

Land mountainous; generel slope to the S. and SW.

Soil; rocky and stony; 3rd rate.

chains

Timber, dense cedar and pinon, on W. 77.04 chs.

Undergrowth, sage brush and chaparral.

Land mountainous and heavily timbered, 80.04 chs.

N. 89° 59' W., on a random line bet. secs. 19 and 30.

40.00 Set temp. ¼ sec. cor.

81.09 Intersect the W. bdy. of the tp., 12 lks. S. of the cor. of secs. 19-24-25 and 30, which is a sandstone 9 x 15 x 5, ins. marked and witnessed as described by the Surveyor General.

Thence I run

S. 89° 54' E. on true line bet. secs. 19 and 30.

Over rolling valley land, sloping SE., through scattering cedars, and undergrowth of oak, sage, and buck brush.

Soil, gravelly and sandy loams.

10.00 Road, Adams to Podunk, bears NW. and SE.

11.30 Wash, 25 lks. wide, 2 ft. deep, course SE.

15.00 Leave timber, bears N. and S.

41.09 On gentle SW. slope.

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 19 on N. half and S 30 on S. half; from which

A cedar, 5 ins. diam., bears N 85°10' E., 405 lks., dist., marked ¼ S 19 BT

A pinon, 8 ins., diam., bears S 75°39' E., 487 lks., dist., marked ¼ S 30 BT

45.00 Enter hilly land and forest of cedar and pinon, bears N. and SE. Gradually ascend.

54.00 Low ridge, 75 ft. above the ¼ sec. cor., bears N. and S.

57.00 Trail, bears N. and S., leave timber, N. & S.

58.40 Wash, 5 lks. wide, 3 ft. deep, in swale, course S.

Subdivision of T. 39 S., R. 3 W.

chains	
66.00	Enter timber, bears NW. and S 30° W.
	Gently ascend.
68.00	Low ridge, bears N. and S.
	Descend 75 ft.
76.80	Wash, 20 lks. wide, 3 ft. deep, in ravine, course S 20° E.
	Ascend 60 ft.
79.85	Ridge, bears S 20° E. and N 20° W.
	Descend 50 ft. to
81.09	The cor. of secs. 19-20-29 and 30.
	Land, rolling and hilly, general drain to the S.
	Soil, gravelly and sandy loams, 6 to 24 ins. deep, on subsoil of gravel and rock, some clay; 2nd rate.
	Timber, scattering cedar and pinon, on 42 chs.

May 24, 1911.

May 29: At 7h 27m a.m., l.m.t., I set off 37° 24¼' on the lat. arc; 21° 31½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 19-20-29 and 30.

Thence I run

N. 0° 03' W. bet. secs. 19 and 20.

Over mountainous land, general slope to the SE., through dense forest of cedar, pinon, and few scattering yellow pine; undergrowth of scattering buck, sage, and chaparral.

	Gradually descend 20 ft. along W. side of gulch.
2.00	Base of descent, gulch bears E. 40 lks.
	Gradually ascend along W. side of gulch, over series of spurs and draws, putting E.
23.15	Gully, 60 ft. deep, course SE.
30.75	Point of spur, projects E.

chains

36.00 Canyon and stream, 2 lks. wide, 1 in deep, at bend from NE. to SE. Canyon 75 ft. deep.

38.00 Same canyon, course SE.

Ascend 20 ft. to

40.00 On W. slope.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 19 on W. half and S 20 on E. half; from which

A pinon, 8 ins. diam., bears N 31° E., 65 lks., dist., marked ¼ S 20 BT

A yellow pine, 26 ins. diam., bears S. 55°45' W., 159 lks., dist., marked ¼ S 19 BT.

Ascend SW. slope 100 ft.

51.50 Spur, projects SE.

Thence along E. slope.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 17-18-19 and 20, marked on brass cap

T 39 S S 18 in NW.,
R 3 W S 17 in NE.,
S 20 in SE., and
S 19 in SW. quadrant; from which

A pinon, 10 ins. diam., bears N 51¼° E., 24 lks., dist., marked T39S R3W S17 BT

A pinon, 9 ins. daim., bears S 40° E., 55½ lks., dist., marked T39S R3W S20 BT

A pinon, 9 ins. diam., bears S 26½° W., 57 lks., dist., marked T39S R3W S19 BT

A cedar, 12 ins. diam., bears N 53°45' W., 37 lks., dist., marked T39S R3W S18 BT

Land, rolling mountainous, general SE. slope.

Soil, gravelly, stony and some light sandy loam, 6 to 18 ins. deep, on subsoil of gravel and stone; 2nd and 3rd rates.

chains

Timber, cedar, pinon, and some scattering yellow pine.
Undergrowth, buck, sage, and chapparral.

S. 89° 49' E., on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

80.00 Intersect the N. and S. line, 2 lks. S. of the cor. of secs. 16-17-20 and 21.

Thence I run

N. 89° 50' W. on true line bet. secs. 17 and 20.

Over rolling mountainous land, through few scattering cedars and undergrowth of dense sage, scattering clumps of oak, buck and service brush.

Gently ascend land, facing NE. 75 ft.

27.00 Ridge, bears N. 10° E. and S. 10° W.

Gradually descend SW. slope, 40 ft. to

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 17 on N. half, and S 20 on S. half; from which

A cedar, 7 ins. diam., bears N. 25½° W., 73 lks., dist., marked ¼ S 17 BT

A pinon, 6 ins. daim., bears S 76° W., 89½ lks., dist., marked ¼ S 20 BT

Enter dense cedar and pinon, and heavier undergrowth, bears N. and SE.

Continue over SW. slope.

50.75 Ravine, 20 ft. deep, course SW.

69.00 Descend abruptly 95 ft. to

74.00 Enter open hollow, 175 ft. below ¼ sec. cor., bears N. and S.

77.65 Wash, 30 lks. wide, 12 ft. deep, in hollow, course S.

chains

Ascend 30 ft. to cor.

79.00 Enter timber, and leave hollow, bears N. and S.

80.00 The cor. of secs. 17-18-19 and 20.

May 29: At this sec. cor., I set off 21° 32½' N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 25'.

Land, rolling mountainous, general SW. slope.

Soil, sandy and gravelly loams, 10 to 30 ins. deep, loose, fine texture, on subsoil of gravel and stone; 2nd and 3rd rates;

Timber, cedar and pinon.

Undergrowth, sage, oak, buck, and service brush, on 80chs

Land, mountainous or corvered with heavy timber, 80chs.

N. 89° 54' W., on a random line bet. secs. 18 and 19.

40.00 Set temp. ¼ sec. cor.

81.02 Intersect the W. bdy. of the tp., 14 lks. N. of cor. of secs. 13-18-19 and 24, which is a sandstone 20 x 13 x 7 ins., firmly set, marked and witnessed as described by the Surveyor General.

Thence I run

East, on true line bet. secs. 18 and 19.

Descend 15 ft.

1.00 Base of ridge, and leave timber, bears N. and SE.

Thence over open rolling land, facing nearly E., through heavy sage brush.

33.45 Wash, 15 lks. wide, 10 ft. deep, course SE., ascend

35.50 Enter cedar and pinon, bears N. and SE.

41.02 100 ft. below sec. cor.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

chains	
	ground, for ¼ sec. cor., marked onbrass cap ¼ S 18 on N. half, and S 19 on S. half; from which
	A pinon, 9 ins. diam., bears N 1¼° W., 167 lks., dist., marked ¼ S 18 BT
	A cedar, 4 ins. diam., bears S 17¼° W., 93 lks., dist., marked ¼ S 19 BT
	Ascend 50 ft.
47.00	Ridge, bears N. 20°W. and S 20° E.
	Descend E. slope.
53.00	Trail, bears N 20° E. and S 20° W, to Adams ranch.
59.00	Enter hollow, and rich sandy loam soil, bears N. & SE.
61.00	Reservior, containing about two acres, bears approximately N. 3½° W., [illegible]
68.50	Wash, 40 lks. wide, 15 ft. deep, course S.
69.52	Wash, 20 lks. wide, 10 ft. deep, small stream, 1 lks. wide, 1 in. deep, in bottom, drain from reservoir.
71.00	Leave hollow, and enter timber, bears N. and S.
73.00	Low spur, 25 ft. high, projects S.
75.70	Draw, course SW., ascend 25 ft. to
79.25	Ridge, bears N. and S.
	Descend 30 ft. to
81.02	The cor. of secs. 17-18-19 and 20.
	Land, rolling and hilly.
	Soil, Sandy and gravelly loams. 6 to 24 ins. deep, on subsoil of gravel and stone, 2nd and 3rd rates.
	Timber, cedar and pinon.
	Undergrowth, sagebrush.

N. 0° 03' W. bet. secs. 17 and 18.

Over rolling mountainous land, through dense forest of cedar and pinon, and scattering undergrowth of sage and buck brush.

chains

Ascend 30 ft.

4.00 Ridge, bears S 5° W. and N. 5° E.

Thence over land, facing SW.

20.40 Reservoir, bears N. 67½° W.

26.50 Ravine near head, course SW.

38.00 Top of ascent, 100 ft. above sec. cor., bears E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 18 on W. half, S 17 on E. half; from which

A cedar, 8 ins. diam., bears S 23°45' E., 157 lks., dist., marked ¼ S 17 BT

A cedar, 8 ins. diam., bears N 82°41' W., 203 lks., dist., marked ¼ S 18 BT

May 29, 1911.

May 30: At this ¼ sec. cor., I set off 37° 25½' on the lat. arc; 21° 41' N. on the decl. arc; and, at 7h 57m a.m., l.m.t., determine with the solar a meridian.

Thence I continue N. 0° 03' W.

Over open rolling land, facing SE., through heavy sage and grass.

51.33 Trail, bears E. and W.

78.00 Descend 15 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 7-8-17 and 18, marked on brass cap

T 39 S S 7 in NW.,

R 3 W S 8 in NE.,

S 17 in SE., and

S 18 in SW. quadrant; dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, rolling mountainous, and rolling.

Soil, sandy and fine gravelly loams, 8 to 30 ins. deep,

chains	
	on subsoil of gravel, 1st to 3rd rates.
	Timber, cedar and pinon, on S. ½ mile.
	Undergrowth, sage and buck brush.
	Land mountainous or heavily timbered, on 40 chs.
	S. 89° 50' E., on a random line, bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
79.95	Intersect the N. and S. line, 3 lks. S. of the cor. of secs. 8-9-16 and 17.
	Thence I run
	N. 89° 51' W., on true line bet. secs. 8 and 17.
	Over rolling mountainous land, through dense forest of cedar and pinon, and undergrowth of sage, oak and service brush.
	Ascend 60 ft.
12.00	Thence over top of ridge, bearing N. and S.
18.50	Descend from ridge, 65 ft.
23.00	Base of ridge, bears N. and S.
	Thence gently descend over W. slope.
39.97½	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 8 on N. half, and S 17 on S. half; from which
	A cedar, 34 ins. diam., bears N. 4° 21' W., 192 lks., dist., marked ¼ S 8 BT
	A cedar, 7 ins. diam., bears S 54°40' E., 97½ lks., dist., marked ¼ S 17 BT
	Continue descent over land, facing SE.
45.75	Swale, course SE.
52.75	Low spur, projects SW.
57.00	Leave timber, enter broad hollow or valley, with short sage and deep rich sandy loam soil, bears N. and S.

chains

60.25 Wash, 25 lks. wide, 5 ft. deep, course S.

70.00 Begin gentle ascent over land, facing NE.

79.95 The cor. of secs. 7-8-17 and 18.

Land, rolling mountainous and rolling.

Soil, E. 57 chs, gravelly and light sandy loams, 6 to 24 ins. deep, on subsoil of gravel; 2nd and 3rd rates.

W. 23 chs. rich sandy loam, about 2 to 3 ft. deep, moist, medium texture, on subsoil of gravel and clay; 1st rate.

Timber, cedar and pinon, on E. 57 chs.

Land mountainous or covered with dense timber, 57 chs.

May 30: At this sec. cor., I set off 21° 42' on the decl. arc; and, at 11h 57m a.m., l.m.t. observe the sun on the meridian; the resulting lat. is 37° 26'.

West, on a random line bet. secs. 7 and 18.

40.00 Set temp. ¼ sec. cor.

80.85 Intersect W. bdy. of the tp., 9 lks. N. of the cor. of secs. 7-12-13 and 18, which is a sandstone 14 x 10 x 6 ins., firmly set, marked and witnessed as described by the Surveyor General.

Thence I run

N. 89° 56' E., on true line bet. secs. 7 and 18.

Over rolling mountainous land, through heavy sage, and scattering oak and service brush.

Gently descend.

13.50 Enter forest of cedar and pinon, also base of descent, bears NE. and SW.

17.10 Small draw, course SW.

25.00 Base of ridge, bears NE. and SW.

Ascend 75 ft. over gravelly and stony SW. slope.

chains	
33.50	Top of ridge, and leave stony ground, bears NE. and SW., enter scattering timber, bears NW. and SE.
	Thence along top.
40.85	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 7 on N. half, and S 18 on S. half; from which
	A cedar, 12 ins. diam., bears N 53°50'E., 458 lks., dist., marked ¼ S 7 BT
	A cedar, 8 ins. diam., bears S 4° 20' E., 270 lks., dist., marked ¼ S 18 BT
	Leave timber, bears NE. and SW.
	Thence over land with a gentle slope to the NE.
44.00	Head of draw, course S., bears S. of line 75 lks.
80.85	The cor. of secs. 7-8-17 and 18.
	Land, low rolling mountainous.
	Soil, gravelly and sandy loams, 1 to 3 ft. deep, on subsoil of gravel and stone; 2nd rate.
	Timber, cedar and pinon, on 27.35 chs.
	Undergrowth, sage, and scattering oak, and service.
	Land mountainous or heavily timbered, 80.85 chs.

	N. 0° 03' W. bet. secs. 7 and 8.
	Over open rolling land, gentle slope to the NE., through dense sage brush, 1 to 3 ft. high.
6.40	Wash, 15 lks. wide, 5 ft. deep, course E.
30.00	Thence over gentle SE. slope.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 7 on W. half, and S 8 on E. half; dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
	Note: head of open valley bears NW. about 20 chs. dist.

chains	
40.16	Wash, 20 lks. wide, 6 ft. deep, course SE.
	Ascend 65 ft.
58.00	Ridge and divide, bears NW. and E.
	Enter broken mountainous land, facing NE., and gypsum soil, bears NW. and E.
	Descend abruptly 65 ft. to
61.00	Head of open hollow, 4chs. wide, course NE.
	Thence ascend broken E. slope of ridge, through dense cedar and pinon, and undergrowth of service and chaparral.
76.30	Sharp gypsum ridge, 100 ft. above hollow, bears NE. & SW.
	Descend 85 ft.
80.00	On nearly W. slope.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 5-6-7 and 8, marked on brass cap

T 39 S S 6 in NW.,
R 3 W S 5 in NE.,
S 8 in SE., and
S 7 in SW. quadrant; from which

A cedar, 6 ins. diam., bears N. 42° E., 105½ lks., dist., marked T39S R3W S5 BT

A cedar, 10 ins. diam., bears S. 56¼° E., 18 lks., dist., marked T39S R3 W S8 BT

A pinon, 5 ins. diam., bears S. 10° W., 35 lks., dist., marked T39S R3W S7 BT

A cedar, 6 ins. diam., bears N. 41½° W., 64 lks., dist., marked T39S R3W S6 BT

S. 58 chs.; rolling; general SE slope, heavy sage brush, soil, rich sandy loam, 1 to 3 ft. deep; moist, medium texture, on subsoil of gravel and clay; 1st rate: N. 22 chs., broken mountainous, with dense cedar and pinon, and undergrowth of service, and chaparral; soil, gypsum and clayish; 4th rate.

Land mountainous and heavily timbered, 22 chs.

Subdivision of T. 39 S., R. 3 W.

chains	
	May 30, 1911.
	May 31: At 7h 57m a.m., l.m.t., I set off 37° 27' on the lat. arc; 21° 50'N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 5-6-7 and 8.
	Thence I run
	S. 89° 51' E., on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect the N. and S. line, 7 lks. S. of the cor. of secs. 4-5-8 and 9.
	Thence I run
	N. 89° 54' W., on true line bet. secs. 5 and 8.
	Over broken mountainous land, gemeral slope to the N., through dense forest of cedar and pinon, and considerable undergrowth of buck, service, oak and sage brush.
1.50	Low spur, projects N.
3.00	Gully, 25 ft. deep, course NE.
11.00	High sharp ridge, 150 ft. above sec. cor., bears NE. & SW.
	Descend 60 ft.
16.70	Gulch, course NW., ascend 30 ft.
17.50	Spur, projects N.
	Descend 150 ft.
25.10	Gulch, with gypsum ledges on slopes, course N.
	Thence over broken land, draining N.
29.00	Spur, 50 ft. high, projects N. 3 chs.
33.00	Gulch, 50 ft. deep, course NE.
	Ascend 125 ft.
39.70	Sharp gypsum spur, projects N. 20° E.
40.02	On steep W. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 5 on N. half, and S 8 on S. half; from which

Subdivision of T. 39 S., R. 3 W.

chains	
	A pinon, 7 ins. diam., bears N. 40° E., 53 lks., dist., marked ¼ S 5 BT
	A pinon, 5 ins. diam., bears S. 25° W., 24 lks., dist., marked ¼ S 8 BT
	Descend 120 ft.
50.75	Enter open hollow, bears NE. and S.
	Thence across hollow, course NE.
55.00	Leave same, bears NE. and S.; ascend 75 ft.
58.00	Ridge, bears NE. and S 20° W.; descend 110 ft.
68.25	Wash, 10 lks. wide, 3 ft. deep, in open hollow, 4 chs. wide, course NE.
	Ascend 85 ft.
78.00	Sharp ridge, bears N. 10° E., and S. 1 ch., thence SW.
	Descend 40 ft. to
80.04	The cor. of secs. 5-6-7 and 8.
	Land, broken mountainous, general slope to the N.
	Soil, gypsum, clayish, and gravelly ; 3rd and 4th rate.
	Timber, cedar and pinon.
	Undergrowth, buck, service, oak and sage br ush.
	Land mountainous and heavily timbered, on 80.04 chs.
	S. 89° 56' W., on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ sec. cor.
80.67	Intersect W. bdy. of the tp., 23 lks. N. of the cor. of secs. 1-6-7 and 12, which is a sandstone 18 x 14 x 5 ins., firmly set, marked and witnessed as described by the Surveyor General.
	Thence I run
	N. 89° 46' E., on true line bet. secs. 6 and 7.
	Over rolling mountainous land, sloping SE., thruogh scattering forest of cedar and pinon, and undergrowth

chains	
	of sage, and some oak brush; soil, sandy loam.
	Descend 60 ft.
10.00	Base of descent, bears NW. and SE.
16.90	Wash, 5 lks. wide, 2 ft. deep, course SE., in swale.
25.70	Low ridge, 25 ft. high, bet. swales, bears NW. and SE.
34.50	Swale, course SE.
40.67	On gentle SW. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 6 on N. half, and S. 7 on S. half; from which
	A cedar, 5 ins. diam., bears N. 2¼° E., 33 lks., dist., marked ¼ S 6 BT
	A pinon, 7 ins. diam., bears S. 57° E., 96½ lks., dist., marked ¼ S 7 BT
	May 31: At this ¼ sec. cor., I set off 21° 51' N. on the decl. arc; and, at 11h 57m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 27'.
	Ascend 30 ft.
46.50	Ridge, bears N. and SE.
	Descend 60 ft.
55.00	Head of hollow, course NE., bears N. 2 chs. of line.
61.50	Low ridge, bears N. 20° E., and S.
67.70	Gully near head, 50 ft. deep, course N. 20° E.
	Thence over broken land, facing NE.
71.00	Spur, projects NE., 3 chs.
	Descend 100 ft.
79.60	Draw, course N. 20° W.; ascend 15 ft. to
80.67	The cor. of secs. 5-6-7 and 8.
	Land, rolling mountainous.
	Soil, sandy and gravelly loams, 6 to 24 ins. deep, on subsoil of gravel and rock, on W. 60 chs.; E. 20 chs. soil is shale and gypsum; 4th rate.
	Timber, cedar and pinon.

chains	
	Undergrowth, sage and scattering oak brush.
	Land mountainous or heavily timbered, on 80.67 chs.
	N. 0° 03' W., on true line bet. secs. 5 and 6.
	Over broken mountainous land, general slope to the N., through dense forest of cedar and pinon, and undergrowth of service, oak, and sage brush.
	Descend over land, draining W. to hollow, over series of small spurs and draws, putting W.
13.50	Hollow, 50 ft. deep, 1 ch. wide, course NE.
36.50	Ridge, 75 ft. high, bears NE. and SW.
	Gradually descend NW. slope.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 6 on W. half, and S. 5 on E. half; from which
	A pinon, 8 ins. diam., bears S. 66° E., 29 lks., dist., marked ¼ S 5 BT
	A cedar, 6 ins. diam., bears S. 58°40' W., 70 lks., dist., marked ¼ S 6 BT
41.42	Intersect N. bdy. of the tp., 5.35 chs., W. of cor. of Tps. 38 & 39 S., Rs. 3 and 4 W., which is a sandstone 12 x 12 x 8 ins. firmly set, marked and witnessed as described by the Surveyor General.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 5 and 6, marked on brass cap
	T38S R4W S36 CC S31 on N. half,
	S 5 in SE., and
	S 6 in SW. quadrant; from which
	A cedar, 7 ins. diam., bears S. 3° E., 86½ lks.,

Subdivision of T. 39 S., R. 3 W.

Chains

dist., marked T39S R3W S5 CC BT

A. cedar, 16 ins. diam., bears S. 29½° W., 78½ lks.,

dist., marked T39S R3W S6 CC BT.

I destroy all marks and deface bearing trees on old cor. pertaining to T.39 S., R. 3 W.

Land, broken mountainous, general slope to the N.

Timber, dense cedar and pinon.

Undergrowth, service, oak and sage brush.

Land mountainous and heavily timbered, on 41.42 chs.

May 31, 1911.

Andrew Nelson

U. S. Transitman.

GENERAL DESCRIPTION.

This township contains principally rolling, broken, and rough mountainous lands Some rolling and hilly is found along the W. boundry. It is cut by serveral deep canyons and gulches, whose walls are generally sandstone ledges and are impassable at many points.

The soil ranges from rocky in the rough portions to rich sandy loam along the open swales and small valleys.

Gypsum and clayish soils are found along the N. boundry in the broken lands that drain north easterly.

The township has a sandstone formation throughout, therefore the subsoil is mainly rocky & gravelly of sandstone.

Timber of scrub cedar and pinon, with scattering yellow pine in the main canyons, and considerable undergrowth of sage, service, oak, manzanita and buck brush are found throughout the township. The timber is of no commercial value.

General Description.

The township is watered by several small springs of pure water. Deer Range spring is situated near center of sec. 11, not seen from line. A small reservior used for watering stock, is located in Bull Rush hollow in sec. 18. A natural lake containing about 10 acres is situated at the S. end of valley in sec. 31. The general drain of the Tp. is in a southerly direction.

George Adams the only settler in the township lives near center of sec. 30. Improvements consits of house, stable, corrals and about 50 acres of cultivated land and meadow. The land is irrigated from a spring near center of the sec. This land has produced abundant crops.

There are no mineral nor oil indications in the township. It is well adapted to grazing, having considerable growth of nutritious grasses.

Andrew Nelson
Walter A. Sturm,
U. S. Transitmen.

BOOK A-397

4—680

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of .....

certificate of assistants see book "J" T.39 S., R. 5 W.

he ..... Meridian, in the State of .....

ich are represented in the foregoing field notes as having been executed by him, and under his direc-
; and that said survey has been, in all respects, to the best of our knowledge and belief, well and hfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuan of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and trul in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of transitmen see book "S" T. 39 S., R. 12 W.

..... of the .....

..... Meridian, in the State of ....., which are represented i the foregoing field notes as having been executed by me, and under my direction; and I do furth solemnly swear that all the corners of said survey have been established and perpetuated in strict accor ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyo General for ..... and in the specific manner described in the field notes, and th the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 1914

The foregoing field notes of the survey of the subdivisional lines of Township No. 39 South, Range No. 3 West of the Salt Lake Base and Meridian, Utah

executed by Andrew Nelson and Walter A. Stumm under ~~his~~ their special instructions dated March 27, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

N. C. Thorsen

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.

6—2761

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4—679

BOOK "C"

BOOK A-397

FILED
MAR 2 1912

FIELD NOTES

OF THE SURVEY OF THE

~~Resurvey of Eight~~ Standard Parallel South, R. 4½ W.

Resurvey of West Boundary,

Survey of North Boundary and

Retracement of East Boundary

O F

T. 40 S., R. 4½ W.

Of the Salt Lake Base and Meridian,

the State of Utah.

EXECUTED BY

Andrew Nelson and

Walter A. Stumm.

Transitmen

the capacity of U. S. ~~Surveyor~~, *under instructions dated* March 27, *191*1,

sued by the United States Surveyor General to govern surveys included in

roup No. 6, *which were approved by the Commissioner of the General Land*

fice, April 19, *191*1, *pursuant to authority contained in the Act of*

ongress dated ....., *191*..

Survey commenced June 5, 1911, ~~*191*~~

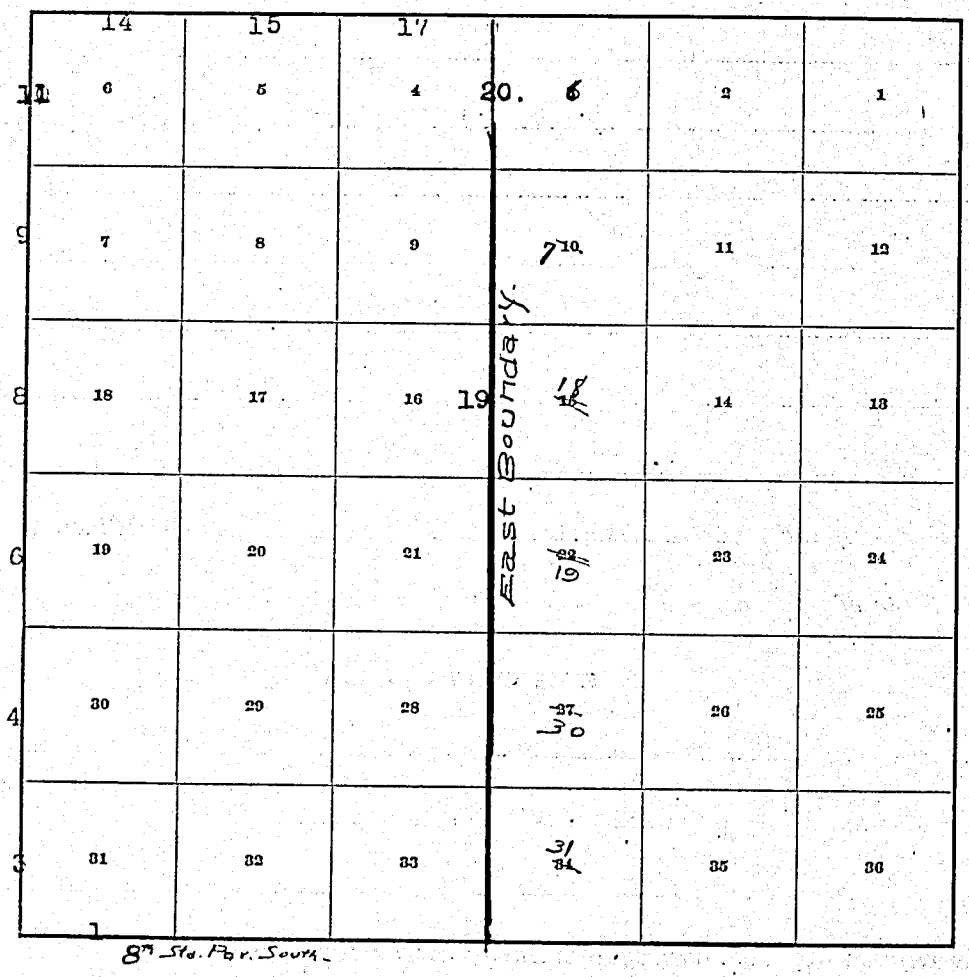
Survey completed June 16, 1911, ~~*191*~~

6—151

Ses. 8th lt. 00-79-73 ✓
Ses. 10 sp. line 4-79-04
Ret. " " 0-79-64
Ret. E. 1-79-4

INDEX DIAGRAM.

Township 40 South, *Range* 4½ West.



6—151

Resurvey Eight Standard Parallel South, Range 4½ West.

Chains

Survey commenced June 13, 1911 and executed with a W. & L. E. Gurley light mountain transit with solar attachment, No. 9624, for description and test of instrument see book "D" of this survey. I know my instrument to be in adjustment from observations on Polaris June 3rd.

June 13: At 8h 00m a.m., l.m.t., I set off 39° 17¼'N. on the lat. arc; 23° 11½'N. on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 31 and 32 in the S. bdy. of T40 S., R4½W., which is a sandstone 12 x 14 x 7 ins., heretofore described.

Thence I run

West, retracing along S. bdy. sec. 31.

40.00 After a careful search I am unable to find any trace of the old ¼ sec. cor.

79.23 Intersect W. bdy. of tp., 5 lks. S. of the standard cor. of T. 40 S., Rs. 4½ and 5 W., which is a decayed post, 4 ins. square, plainly marked as described by the surveyor general, lying on the ground, unwitnessed.

Re-establish cor. at same point as follows:

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for standard cor. of T. 40 S., Rs. 4½ & 5 W., marked on brass cap

T 40 S on N. half,

R 5 W S 36 in NW., and

R 4½ W S 31 in NE. quadrant; dig pits 30 x 24 x 12 ins. crosswise on each line, E. and W. 4 ft. and N. 8 ft. dist. of post and raise a mound of earth 4 ft. base 2 ft. high N. of cor.

Thence I run

S. 89° 58' E., resurveying S. bdy. sec. 31.

Over rolling hilly land, general slope to the E. & NE., through dense sage brush about 3 ft. high.

9.95 The old closing cor. of T. 41 S., Rs. 4½ & 5 W.

22.00 Wash, 10 lks. wide, 4 ft. deep, course NE.

Chains	
26.75	Old road from Kanab, bears NE. and SW.
30.00	Descend through few scattering cedars; enter gypsum soil and land facing SE., bears NE. and SW.
34.50	Leave gypsum soil, enter hollow, bears NE. and SW.
35.35	Wash, 15 lks. wide, 2 ft. deep, course NE.
39.61½	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for standard ¼ sec. cor., marked on brass cap S 31 ¼ on N. half; from which
	A cedar, 7 ins. diam., bears N. 82° E., 340 lks., dist., marked ¼ S 31 BT; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist.; , and raise a mound of earth 3½ ft. base 1½ ft. high N. of cor.
	No other trees within limits.
42.50	Leave hollow and base of ridge, bears NE. and SW.
47.25	Top of N. point of ridge, 60 ft. high, bears S.
	Descend NE. slope 75 ft. to
56.00	Enter Thompsons hollow, bears NW. and S.
57.75	Thompson's Creek, 5 lks. wide, 3 ins. deep in wash, 20 lks. wide, 5ft. deep, course SE.
65.70	Road from Skumpah to Thompson's ranch, bears nearly N. & S.
67.88	Stake and rider fence, bears NE. and SW., and leave hollow
	Ascend 50 ft. to
71.00	Top of bench, bears N. and S.
78.50	Small draw, course S.
79.23	The standard cor. of secs. 31 and 32.
	Land, hilly.
	Soil, light sandy loam and fine gravelly; 2nd rate.
	Timber, few scattering cedars.
	Undergrowth, dense black sage brush.

Resurvey West Boundry of T. 40 S., R. 4½ West.

Chains	
	June 13: For solar observation see S. bdy. sec. 31;
	From the standard cor. of T. 40 S., Rs. 4½ and 5 W.,
	heretofore described I run
	North, retracing bet. secs. 31 and 36.
	Over open rollings low hills, sloping E. to Thompsons'
	creek, through dense sage brush.
2.64	Small wash in swale, drains E.
39.89	Fall 2½ lks. W. of the ¼ sec. cor., which is a sandstone
	11 x 8 x 5 ins. above the ground, firmly set and
	marked ¼ on W. face: I dig pits 18 x 18 x 12 ins. N. and
	S. 3 ft. dist. of stone and raise a mound of earth
	3½ ft. base 1½ ft. high W. of cor.
	True course of this half mile is N.0°02'E., 39.89 chs.
	From my transit station 2½ lks. W. of cor. continue
	North.
73.40	Wash, 10 lks. wide, 4 ft. deep, in hollow 30 ft. deep,
	course S. 80° E.
76.00	Wash, 8 lks. wide, 4 ft. deep, course SE.
79.64	Fall 5 lks. W. of the cor. of secs. 25, 30, 31 and 36,
	heretofore described.
	True course and distance of N. half mile id N.0°02'E.,
	39.75 chs.
	Land, low hills, sloping E.
	Soil, rich sandy loam and fine gravelly, 1 to 3 ft.
	deep, on subsoil of gravel; 2nd rate.
	Undergrowth, dense sage brush and some grass.
	Timber, few cedars near N. end.
	June 13, 1911

June 5: At 7h 58m a.m., l.m.t., I set off 37° 18' on the lat. arc; 22° 29'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36 heretofore described.

Chains

Thence I run

North, retracing bet. secs. 25 and 30.

40.00 After a careful search I am unable to find any trace of the old ¼ sec. cor.

79.06 Full 78 lks. E. of the old cor. of secs. 19, 24, 25 and 30, which is a sandstone 15 x 12 x 6 ins. above the ground, firmly set, properly marked and witnessed by two bearing trees. As closing cors. will be necessary for the subdivisional line to the E., I re-establish this cor. at the same point for secs. 24 and 25 as follows:

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for cor. of secs. 24 and 25, marked on brass cap T 40 S on N. half,

R 4½ W in E. half,

S24 R5W in NW., and

S 25 in SW. qaudrant; from which

(orignal) Cedar, 7 ins. diam., bears S. 83°W., 21½ lks., dist., marked T40S R5W S25 BT

A cedar, 4 ins. diam., bears N. 48½° W., 18½ lks., dist., marked T40S R5W S24 BT

Note: I destroy old bearing tree to the NW., and all traces of the old cor.

Thence I run

S. 0° 33' E., resurveying bet. secs. 25 and 30.

Over rolling mountainous land, sloping E. to hollow, through dense forest of cedar and pinon; undergrowth of sage, service and buck brush.

Descend 40 ft. to

2.25 Gully, course E.

Ascend 75 ft.

13.30 Spur, projects E.

Thence over general E. slope over series of small spurs and draws, putting E.

19.75 Head of draw, 30 ft. deep, course E.

Resurvey of West Boundry of T40S., R.4½ W.

Chains	
20.25	Spur from main mountain, projects E.
27.00	Draw, 50 ft. deep, course E.
34.00	Top of spur, 110 ft. high, projects SE.
	Descend steep SW. slope 55 ft. to
39.53	On SW. slope.
	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 25 on W. half and S 30 on E. half; from which
	A pinon,5 ins.diam.,bears S. 64° E., 65 lks., dist.,marked ¼ S 30 BT
	A cedar,5 ins.diam.,bears N. 79° W., 33 lks., dist.,marked ¼ S 25 BT
	Again make search for old ¼ sec. cor.,but unable to find any trace.
41.00	Base of spur, 110 ft. below top, bears E. and SW.
43.00	Leave timber, enter open flat or wide hollow, E. & W.
49.85	Wash, 8 lks. wide, 4 ft. deep, course S. 70° E.
63.00	Re-enter timber, bears E. and W.; gently ascend.
66.50	Low spur, projects E.; thence through scattering timber.
70.50	Swale, drains SE.
79.06	The cor. of sdcs. 25. 30, 31 and 36.
	Land, rolling mountainous E. slope.
	Soil, stony, gravelly and some sandy loam; 2nd & 3rd rate.
	Timber, cedar and pinon, on mile.
	Undergrowth, sage, service and buck brush.
	Land mountainous or heavily timbered, 79.06 chs.
	June 5: At this sec. cor., I set off 22° 30'N. on the decl. arc; and at 11h 58m a. m. l.m.t.,observe the sun on the meridia; the resulting lat. id 37° 18'.

Resurvey of West Boundry of T. 40 S., R. 4½ W.

Chains	
	Preliminary to commencing the survey of the N. 4 miles of range line bet. Rs. 4½ and 5 W., which have no subdivisions dependent upon them I run North on a blank line bet. secs. 19 and 24; At 40.00 and 80.00 chs. I was unable to find any trace of old corners; therefore I continued North, find no part of line within limits as to measurement, and that many of the cors. are missing. At 3 miles 74.25 chs. intersect the cor. of Tps. 39 and 40 S., Rs. 4½ and 5 W.; knowing that closing corners will be necessary for the township to the E., I resurvey the range line setting cors. for T. 40 S., R. 5 W., as follows:
	From the re-established cor. of secs. 24 and 25 in E. bdy. T40S R5W., heretofore described I run
	North, resurveying E. bdy. sec. 24.
	Over rolling mountainous land, facing NE., through dense forest of cedar and pinon; undergrowth of service, buck and sage brush.
3.50	Gully, 30 ft. deep, course E.
16.00	Low spur, projects E.
	Descend 40 ft.
21.40	Leave timber, enter Thompsons' hollow, bears NW. and SE.
	Thence over sandy loam soil and dense sage brush.
28.75	Thompsons'creek, 4 lks. wide, 3 ins. deep, muddy water, contains some alkali, in wash, 1 ch. wide, 40 ft. deep, course S. 60° E.
	Thence gently ascend across hollow.
35.25	Road, Skumpah to Thompsons ranch, bears N.70 W. & S.70°E.
39.00	Leave hollow, enter dense timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 24 on W. half and S 19 on E. half; from which
	A cedar,4 ins.diam.,bears N. 32° E., 22 lks., dist.,marked ¼ S 19 BT

Resurvey of West Boundry of T. 40 S., R. 4½ W.

Chains

A cedar, 4 ins. diam., bears N. 50° W., 6 lks., dist., marked ¼ S 24 BT

Ascend abruptly over rocky S. face of mountain 300 ft.

50.00 Top of mountain or plateau, bears E. and W.

Thence over rolling mountain top, through heavy timber.

62.00 Small ravine, course E.

74.00 Low ridge or raise, bears NE. and SW.; descend 20 ft. to

80.00 On gentle W. slope in scattering timber.

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for cor. of secs. 13 and 24, marked on brass cap T 40 S in N. half,

R 4½ W in E. half,

S13 R5W in NW., and

S 24 in SW. quadrant; from which

A cedar, 5 ins. diam., bears S. 83½°W., 197 lks., dist., marked T40S R5W S24 BT

A cedar, 14 ins. diam., bears N. 37°45'W., 192 lks., dist., marked T40S R5W S13 BT

S. 21 chs. rolling mountainous, sloping to the NE., with gravelly and stony soil, washed on slopes: next 18 chs open hollow, with rich sandy loam soil, 2 to 4 ft. deep, on gravel subsoil; 1st rate: N. 41 chs. S. face and top of moutain; soil, rocky, stony and gravelly; 2nd and 3rd rate.

Timber, dense cedar and pinon, on S. 21 and N. 41 chs.

Undergrowth, sage, service and buck brush

Land mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.

No trace of old cor. could be found.

June 5, 1911.

June 6: At 7h 28m a.m., l.m.t., I set off 37° 20' on the lat. arc; 22° 36'N. on the decl. arc; and determine a

Resurvey of West Boundry of T. 40 S., R. 4½ W.

Chains	
	a meridian with the solar at the cor. of secs. 13 and 24.
	Thence I run
	North, on resurvey line bet. secs. 13 and 18.
	Over rolling mountainous land, through scattering cedar and pinon; undergrowth dense sage brush.
9.00	Dry sink or pond about 6 chs. in dia., bears E. 6 chs. dist. of line.
10.00	Enter opening, bears E. and NW.
19.00	Leave opening, enter dense timber, and scattering oak, and service brush, bears N. 65°E. and S.70°W.
	Begin gradual ascent over S. slope; gravelly slope.
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 13 on W. half and S 18 on E. half; from which
	A pinon, 8 ins.diam., bears N. 76° E., 67½ lks., dist., marked ¼ S 18 BT
	A cedar, 12 ins.dim., bears N. 24½° W., 54½ lks., dist., marked ¼ S 13 BT
	After a careful search over a 4 ch. radius was unable to find any trace of the old ¼ sec. cor.
55.00	Spur ridge, 125 ft. above sec. cor., projects E.
57.00	Draw, 25 ft. deep, course N. 70° E.
59.00	Small spur, projects E.
61.75	Ravine, 60 ft. deep, course S. 60° E.
	Ascend steep S. and SE. slopes of high ridge, 225 ft.
74.00	Top of high ridge, 525 ft. above sec. cor., bears N.20° E. and S. 20° W.
	Thence along top to
76.00	Begin gradual descent along W. slope.
80.00	On gentle NW. slope.
	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 12 and 13, marked on brass cap
	T 40 S in N. half,

Resurvey of West Boundry of T. 40 S., R. 4½ W.

Chains	
	R 4½ W in E. half,
	S12 R5W in NW., and
	S 13 in SW. quadrant ; from which
	A pinon, 4 ins.diam., bears S. 34½° W., 22 lks.,
	dist., marked T40S R5W S13 BT
	A pinon, 4 ins.diam., bears N.22°45'W., 10 lks.,
	dist., marked T40S R5W S12 BT
	Note: The old cor. of secs. 7,12,13 and 18, bears S.6° W.,
	5.06 chs. dist. I destroy all trace of same.
	Land; mountainous, general SE. face.
	Soil, gravelly and stony with some light sandy loam;
	2nd and 3rd rates.
	Timber, cedar and pinon.
	Undergrowth, sage, service and buck brush.
	Land mountainous, heavily timbered or covered with
	dense undergrowth, 80.00 chs.
	North, resurveying bet. secs. 7 and 12.
	Over rough mountainous land, general W. slope, through
	dense forest of cedar and pinon; undergrowth of dense
	service, chaparral and chokecherry brush.
	Gradually descend.
9.25	Leave real top of high ridge, bears N.25°E. & S.25°W.
	Descend NW. slope.
13.00	Draw, 50 ft. deep, course NW.
14.25	Spur, projects NW.; leave timber, thence through heavy
	brush, average 10 ft. high.
	Descend 100 ft.
19.00	Hollow near head, course N.60°W.
	Ascend SW. slope; leave heavy brush and enter scattering
	timber, bears E. and W.
26.00	Spur, projects W.; thence over broken NW. slope, enter
	heavier timber and brush.
	June 6: At this station, I set off 22°36½'N. on the decl. arc;

Resurvey of West Boundry of T. 40 S., R. 5½ W.

Chains	
	and, at 11h 28m am l.m.t., observe the sun on the meridian; the resulting lat. is 37° 21¼'.
34.75	East 3 lks. of my line is the old ¼ sec. cor. I destroy all trace of same.
40.00	400 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 12 on W. half and S 7 on E. half; from which
	A cedar, 8 ins. diam., bears N. 55° E., 5½ lks., dist., marked ¼ S 7 BT
	A cedar, 12 ins. diam., bears N. 56° W., 21 lks., dist., marked ¼ S 12 BT
50.00	Top of small spur, projects W.
52.00	Road, Thompsons to Tenny ranch, bears E. and W.
52.50	Wash, 12 lks. wide, 4 ft. deep, in small hollow, 1 ch. wide, course W.
58.00	Thence across flat bench, ~~bears~~, bears E. and W.
61.50	Descend N. slope 50 ft. to
63.50	Enter open hollow and base of descend, 550 ft. below sec. cor., bears NE. and SW.
73.50	Creek, 1 lk. wide, 1 in. deep, pure water, course SW.
74.00	Leave hollow, enter low hills, bears E. and W. Ascend 30 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground, for cor. of secs. 1 and 12, marked on brass cap T 40 S in N. half, R 4½ W in E. half, S1 R5W Sn NW., and S 12 in SW. quadrant; from which
	A pinon, 6 ins. diam., bears S. 80¼° W., 190 lks., dist., marked T40S R5 W S12 BT
	A pinon, 7 ins. diam., bears N. 36° W., 125½ lks., dist., marked T40S R5W S1 BT
	Land, rough mountainous, general NW. and W. slopes.
	Soil, stony, clayish and gravel; 3rd rate.
	Timber, cedar and pinon.

Chains	
	Undergrowth, service, chaparral and chokesherry and sage brush.
	Land mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.
	No trace of the old sec. cor. could be found.
	North, resurveying bet. secs. 1 and 6.
	Over rolling mountainous land, through scattering cedar and pinon; undergrowth, of service, buck and chokcherry.
	Ascend 35 ft.
4.25	Spur ridge, bears NE. and projects SW. about 25 chs.
	Descend 50 ft.
8.00	Base of ridge, leave timber, bears E. and W.
	Thence gradual ascend along E. side of hollow and land facing nearly W.
24.50	Wash, 8 lks. wide, 4 ft. deep, course SW.
28.25	Wash, 10 lks. wide, 4 ft. deep, course SW.
32.00	Enter dense timber, bears NW. and SE.
	Ascend 50 ft.
36.00	W. 12 lks. of line I find old ¼ sec. cor. Destroy all trace of same.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 1 on W. half and S 6 on E. half; from which
	A pinon, 7 ins. diam., bears S. 84° E., 26 lks., dist., marked ¼ S 6 BT
	A pinon, 8 ins. diam., bears S 32¼° W., 64 lks., dist., marked ¼ S 1 BT
	Ascend steep SW. slope of ridge.
47.00	Sharp ridge, 285 ft. above sec. cor., bears NW. & SE.
	Descend steep NE. slope 60 ft.

Resurvey of West Boundry of T. 40 S., R. 4¼ W.

chains	
54.00	Base of ridge, leave, timber, bears NW. and SE.
	Thence along W. side of ravine, through dense oak, buck, rose and chaparral, 5 to 12 ft. high.
56.00	Creek, 1 lk. wide, 1 in. deep, pure water, bears E. of line 25 lks. dist., course SE.
66.66	Draw, from W. 30 ft. deep, course E.
	Gradually ascend.
74.25	The cor. of tps. 39 and 40 S., Rs. 4½ and 5 W., which is a snadstone 8 x 10 x 4 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	June 6, 1911.
	June 15: From my resurvey of the N. bdy. of T.40S., R. 5 W. I destroyed all trace of the old tp. cor. and at
76.79	Established the cor. of tps. 39 and 40 S., R. 5½ W. 5 W., for description see N. bdy. of T.40S., R.5W.

Land, rolling mountainous.

Soil, gravelly and sandy loam, 1 to 3 ft. deep; on gravel subsoil; 2nd rate.

Timber, cedar and pinon.

Undergrowth, sage, oak, chaparral and rose brush.

Land mountainous, heavily timbered or covered with dense undergrowth, 76.79 chs.

Andrew Nelson

U. S. Transitman.

North Boundry of T. 40 S., R. 4½ W.

Chains

Survey commenced June 10, 1911 and executed with transit No. 9211 as described in book "D" of this survey. I know the instrument to be in adjustment from recent observations on Polaris.

At 8h 59m a.m., l.m.t., I set off 37° 22½' on the lat. arc. 22° 58½'N. on the decl. arc; and determine a meridian with the solar at the cor. of tps. 39 and 40 S. RS. 4 and 4½ W., which is a porphyry stone 6 x 10 x 7 ins. above the ground, firmly set, properly marked witnessed by

A cedar, 12 ins. diam., bears S. 27° E., 167 lks., dist., properly marked.

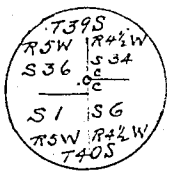
A cedar, 8 ins. diam., bears S. 61° W., 203 lks., dist., properly marked

and a mound of stone S. of cor.

Thence I run

West, on a random line, along S. bdy. of T. 39 S., R. 4½ W., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.; and, at 239.97 chs. intersect the W. bdy. of the tp., 6.70 chs. N. of the old cor. of tps., 39 and 40 S., Rs. 4½ and 5 W., heretofore described. Since the falling answers to a correction of more than 21' of arc., at point of intersection

Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for closing cor. of tps. 39 and 40 S., R. 4½ W., marked on brass cap



from which

A cedar, 5 ins. diam., bears N. 57°45'E., 99 lks., dist., marked T39S R4½W S32 BT

A cedar, 6 ins. diam., bears S. 65°45'E., 124 lks., dist., marked T40S R4½W S6 BT

North Boundry of T. 40 S., R. 4½ W.

Chains

I destroy all marks on bdd tp. cor. pertaining to R.4½ W

Note: For reasons as explained in the survey of N. bdy. of T40S R5W, the old cor. of tps/ 39 & 40 S., R. 5 W. was re-established at a point 2.54 chs. N. of its former site, making the dist. between the reestablished tp. and the closing tp. cors. 4.16 chs.

June 10. 1011.

June 16: At 8h 0m a.m., l.m.t., I set off 37°22½' on the lat. arc; 23°20½'N. on the decl'n arc; and determine a meridian with the solar at the closing cor. of tps. 39 and 40 S., R. 4½ W., established by me June 10.

Thence I run

East on true line, on S. bdy. of sec. 34.

Over mountainous land, facing SE., through scattering forest of cedar and pinon, and dense undergrowth of oak, buck and service brush; soil, gravelly and rocky.

Descend 100 ft. to

5.50 Stream 1 lk. wide, 1 in. deep, clear, pure water, in hollow, course S.

Ascend abruptly.

9.20 50ft. perpendicular sandstone ledge, bears NW. and SE.

20.00 Spur, 250 ft. above hollow, projects SE.

Descend abruptly 240 ft.

32.00 Hollow, course SE.

Ascend 35 ft. to

39.97 Set an iron post, 1 in.dia., 3 ft. long, 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 31 on N. half and S 6 on S. half; from which

A pinon, 18 ins.diam., bears S. 31° E., 42 lks., dist., marked ¼ S 6 BT

A cedar, 12 ins.diam., bears N. 86½° W., 54 lks., dist., marked ¼ S 31 BT

40.45 Top of perpendicular sandstone ledge, 80 ft. high, bears NW. and SE.

43.25 Spur, 120 ft. above ¼ sec. cor., projects SW.

North Boundry of T. 40 S., R. 4½ W.

Chains	
	Descend abruptly 100 ft.
46.00	Foot of abrupt descent, bears N. and S.; thence gradual descent to creek; leave timber, bears N. and S.
63.00	Road to Skumpah, bears NW. and SE.
68.58	Mill creek, 5 lks. wide, 4 ins. deep, clear, pure water, in wash, 50 lks. wide, 15 ft. deep, course S. 10° E. Gently ascend 20 ft. to
79.97	Set an iron post, 3 ft. long, 3 ins.dia.,24 ins. in the ground, for cor. of secs. 34 and 35, marked on brass cap T39S S34 in NW., R4½W S35 in NE., quadrant; from which A pinon, 20 ins.diam.,bears N. 24½° E., 352 lks., dist.,marked T39S R4½W S35 BT A cedar,22 ins.diam.,bears N. 45½° W., 165 lks., dist.,marked T39S R4½W S34 BT
	Land, rough and rolling mountainous, general slope to the SE.
	Soil, rocky and gravelly; 3rd and 2nd rates; subsoil sandstone and gravel.
	Timber, cedar and pinon, on W. 46 chs.
	Undergrowth, oak, buck and service, some sage brush.
	Land mountainous, heavily timbered or covered with dense undergrowth, 79.97 chs.

East on true line, on S. bdy. secs 35.

	Over mountainous land, general slope to the SW., through scattering cedar and pinon; sparse undergrowth of sage and oak brush.
	Ascend 100 ft.
8.00	Spur, projects SW.
	Descend 150 ft.
18.00	Hollow, course SW.

North Boundry of T. 40 S., R. 4½ W.

Chains	
	Ascend abruptly over rocky SW. slope 180 ft. to
30.00	Ridge, bears NE. and SW.
	Descend 100 ft. to
35.35	Hollow, course NE.; enter dense timber, bears N. and S. Ascend 60 ft.
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 35 on N. half and S 5 on S. half; from which
	A cedar, 30 ins.diam., bears N. 37° E., 27 lks., dist., marked ¼ S 35 BT
	A pinon, 7 ins.diam., bears S. 15° W., 42 lks., diat., marked ¼ S 5 BT
	Ascend 30 ft.
40.75	Spur, projects SE.; descend abruptly 150 ft.
44.78	Same hollow, course SE.
	Ascend abruptly 100 ft.
48.25	Spur, projects SE. 2 chs. dist.; descend.
49.00	Leave dense, continue through scattering timber, bears N. and S.
63.53	Road, from Thompsons to Tenny ranch, bears NE. & SW.
65.35	Small stream, 1 lk. wide, 1 in. deep, contains alkali, in wash, 50 lks. wide, 12 ft. deep, 75 ft. below, spur, course S. 10° W.
	Ascend gradually 60 ft. to
80.00	Set an iron post, 3 ft. long, 3 inss dia., 24 ins. in the ground, for cor. of secs. 35 and 36, marked on brass cap T39S S35 in NW., and R4½W S36 in NE. quadrant; from which
	A cedar, 8 ins.diam., bears N. 78° E., 64½ lks., dist, marked T39S R4½ W S36 BT
	A cedar, 7 ins.diam., bears N. 50¼° W., 31½ lks., dist., marked T39S R4½ W S35 BT
	Land, mountainous, general slope to the SW. & SE. Soil, E. 30 chs. sandy and gravelly, 8 to 24 ins. deep, on subsoil of gravel; 1 and 2 rate; W. 50 chs. rocky and gypsum; 3rd and 4th rates. sandstone and gypsum subsoils.

North Boundry of T. 40 S., R. 4½ W.

Chains	
	Timber, cedar and pinon.
	Undergrowth, sage, scattering oak and buck brush.
	Land mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.
	June 16: At this sec. cor., I set off 22° 20½' N. on the decl. arc; and, at 12h 0m L.m.t., observe the sun on the meridian; the resulting lat. is 37° 22½'.
	East on true line, on S. bdy. sec. 36.
	Over rough mountainous land, through dense forest of cedar and pinon; undergrowth of oak, sage, service and buck brush.
	Ascend 40 ft.
4.00	Spur, projects S.; descend 40 ft.
6.00	Hollow, course SW.
	Ascend abruptly over rocky W. face of ridge, 200 ft.
34.00	Ridge, and leave dense timber, bears N. and S.15°E.
	Thence through scattering timber and dense brush.
	Descend 80 ft. to
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 36 on N. half and S 4 on S. half; from which
	A cedar, 30 ins.diam., bears S.75°45'W., 104 lks., dist., marked ¼ S 4 BT
	and raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor. No suitable bearing tree in sec. 36.
	Descend 400 ft.
57.50	Hollow with small spring branch, course SE.
	Ascend 80 ft.
63.50	Spur, projects S.; descend 80 ft.
77.40	Stream, 1 lk. wide, 1 in.deep, clear, pure water, in wash, 50 lks. wide, 12 ft. deep, in hollow, course S.

North Boundry of T. 40 S., R. 4½ W.

Chains	
80.00	The cor. of tps. 39 and 40 S., Rs. 4 and 4½ W.,
	Land, mountainous, general drain to the S.
	Soil, rocky and stony; 4th rate.
	Timber, cedar and pinon.
	Undergrowth, sage, buck and service.
	Land, mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.
	June 16, 1911 ,

Retracement of E. bdy. T. 40 S., R. 4½ W.

Chains	
	June 18: At 8h 29m am l.m.t., I set off 37° 20' on the lat. arc; 22° 48'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 18, 19 and 21, heretofore described.
	Thence I run
	North, retracing bet. secs. 16 and 18.
	Over mountainous land, through scattering cedar and pinon; undergrowth of dense oak, buck and service.
	Ascend 20 ft.
3.00	Ridge, bears NW. and SE.
	Descend E. slope of same, 200 ft.
34.00	Wash, 110 lks. wide, 30 ft. deep, course NE.
36.32	Wash, 100 lks. wide, 15 ft. deep, in hollow, course SE.
40.01	Fall 15 lks. E. of the ¼ sec. cor., which is a sandstone 5 x 10 x 9 ins. above the ground, marked and witnessed as described by the surveyor general.
	True course and dist. of this half mile id N. 0°13'W., 40.01 chs. From transit station continue North.
	Ascend through dense timber; 100 ft.
59.00	Ridge, bears NW. and SE.
	Descend over broken land facing E., 100 ft.
75.00	Hollow, course N. 80° E.; ascend 40 ft. to
81.01	Fall 15 lks. W. of the cor. of secs. 7 and 18, heretofore described.
	True course and dist. of this half mile is N.0° 25'E., 41.00 chs.
	Land, mountainous.
	Soil, rocky and stony; 3rd rates.
	Timber, cedar and pinon.
	Undergrowth, oak, buck and service brush.
	Land mountainous, heavily timbered or covered with dense undergrowth, 81.01 chs.
	June 8, 1911.

Retracement of East bdy. T. 40 S., R. 4½ W.

Chains	
	June 16: At 3h 0m p.m., l.m.t., I set off 37° 21½' on the lat. arc; 23° 21'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 6 and 7 in the E. bdy. heretofore described.
	Thence I run
	North, retracing, bet secs. 4 and 6.
	Over mountainous land, through dense forest of cedar and pinon; undergrowth of dense sage, oak and buck brush
	Ascend 50 ft. to
4.00	Spur, projects NW.
	Descend abruptly 140 ft. over gypsum slope.
11.65	Hollow, course NW.
	Ascend 180 ft.
18.00	Spur, projects NW.; descend 250 ft.
30.25	Hollow, course NW.; ascend 50 ft. to
38.43	Fall 9 lks. W. of the ¼ sec. cor., which is a basalt stone 6 x 12 x 12 ins. above ground, marked and witnessed as described by the surveyor general.
	True course and dist. of this half mile id N. 0° 08' E., 38.43 chs.
	From transit station 9 lks. W. of cor. continue North.
	Ascend 50 ft.
43.00	Spur, projects SW.
	Descend 50 ft.
45.35	Hollow, course SW.
	Ascend 80 ft. to
56.35	Spur, projects SW.; descend 60 ft.
65.56	Hollow, course SW.; ascend 140 ft. to
68.00	Spur, projects SW.; descend 80 ft.
78.43	Fall 3 lks. E. of the cor. of tps. 39 and 40 S., Rs. 4 and 4½ W., heretofore described.
	True course and dist. of this N. half mile is. N.0°10'W., 40.00 chs.
	Land, rough mountainous, general slope to SW & W.

Retracement of East Bdy. of T.40 S., R.4½ W.

Soil, adobe clay, gypsum and rocky; 3d rate.

Timber, cedar and pinon.

Undergrowth, sage, oak, and buck brush.

Land, mountainous, heavily timbered or covered with dense undergrowth 78.43 chs.

June 16, 1911.

For general description of boundaries see book "D" of this survey.

Boundaries of T.40 S., R.4½ W.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes, Departures. N.	S.	E.	W.
		chs.	chs.	chs.	chs.	chs.
W.Bdy. sec.31	N. 0°02'E.	79.64	79.64	.....	.05	.....
W.Bdy. sec.30	N. 0°33'W.	79.06	79.06	.....	.....	.78
N.4 mi. W.bdy.	North	320.95	320.95	.....	.....	.....
N.Bdy. of Tp.	East	239.97	.....	.....	239.97	.....
E.Bdy. of Tp. :						
Sec.4	S. 0°10'E.	40.00	.....	40.00	.12	.....
	S. 0°08'W.	38.43	.....	38.43	.....	.09
Sec.9	South	80.00	.....	80.00	.....	.....
Sec.16	S. 0°25'W.	41.00	.....	41.00	.....	.30
	S. 0°13'E.	40.01	.....	40.01	.15	.....
S.3 mi. of E.Bdy.	South	240.00	.....	240.00	.....	.....
S.Bdy. of Tp. :						
Sec.33	West	80.00	.....	.....	.....	80.00
Sec.32	N.89°31'W.	39.75	.33	.....	.....	39.75
	S.89°48'W.	39.70	.....	.14	.....	39.70
Sec.31	S.89°58'E.	79.23	.....	.05	.....	79.23
Comvergency					.27	
	Totals,		479.98	479.63	240.56	239.85
			479.63		239.85	
Errors in lat. and dep.			.35		.71	

Walter A. Stumm

U.S. Transitman.

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BOOK A·397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "J" T.39 S., R.5 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

6—2761 *U. S. Surveyor.*

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuan
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and trul
in my own proper person, and in strict conformity with said instructions, the Manual of Surveyi
Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oaths of transitmen see book "S" T.39 S., R.12 W.

..... of the .....
..... Meridian, in the State of ....., which are represented
the foregoing field notes as having been executed by me, and under my direction; and I do furth
solemnly swear that all the corners of said survey have been established and perpetuated in strict accor
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey
General for ..... and in the specific manner described in the field notes, and th
the foregoing are the original field notes of such survey.

.....
U. S. Surveyor.

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 1914.

The foregoing field notes of the re survey of the eighth standard parallel south, through range 4½ W.; retracement and resurvey of the west boundary; retracement of fractional east boundary; and survey of the north boundary of Township No.40 South, Range No.4½ West of the Salt Lake Base and Meridian, Utah,

executed by Andrew Nelson and Walter A.Stumm
under their special instructions dated March 27, 191 1, having bee
critically examined, and the necessary corrections and explanations made, the said field notes, and th
retracements, resurveys, and
surveys they describe, are hereby approved.

.....
U. S. Surveyor General.

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

.....
U. S. Surveyor General.

6—2761

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Ex.G.N. K.F.B.

4—679

Filed Mar.2, 1912.
WSH.

BOOK A-397

Book "D"

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISIONS

OF

T.40 S., R.4½ W.

Of the SALT LAKE BASE AND *Meridian,*

In the State of UTAH

EXECUTED BY

ANDREW NELSON AND WALTER A.STUMM

In the capacity of U. S. ~~Surveyor~~ Transitmen *, under instructions dated* March 27, *1911,*

issued by the United States Surveyor General to govern surveys included in

Group No. 6 *, which were approved by the Commissioner of the General Land*

Office, April 19 *, 191*1*, pursuant to authority contained in the Act of*

Congress dated ....., *191*....

Survey commenced June 2 *, 191*1

Survey completed June 23 *, 191*1.

6—151

Subs - 70-78-46 ✓ Closings subs 00-4-6
Retr - 3-79-64 ✓
Dep - 2-79-64

INDEX DIAGRAM.

Township ....., *Range* .....

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Retracement and resurvey of Subdivisions T.40 S., R.4½ W.

Survey commenced June 2, 1911, and executed with a W. & L. E. Gurly light mountain and W.& L.E.Gurley explorers' transtis Nos. 9624 and 9211 respectively. The horizontal limb on both transits is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the verniers of the latitude arcs and the declination arc of the Explorers' transit. The least count of the declination arc of the light mountain transit is 30".

The instruments were examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the Surveyor General for Utah, April 21,1911.

I examine the adjustments of the transits 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, I proceed as follows:

At the standard cor. of secs. 32 and 33 in the S. bdy. of Tp., 40 S., R. 4½ W.; latitude 37° 17' 18" N.; longitude 112° 21' W.; I set off 37° 17¼' on the lat. arc; 22° 09'N. on the decl. arc; and at 3h 58m p.m., l.m.t., determine with the solar a meridian and mark a point thereof, on a stake firmly driven in the ground, 5 chs. N. of the cor.

June 2, 1911.

Note: The following Polaris observation is taken with the Explorers' transit, the solar observations being checked by both instruments.

June 3: At 2h 49m a.m., by my watch which carries correct l.m.t.,I observe Polaris at eastern elongation,

Chains

in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5chs. N. of my station.

At 7h 30m a.m., l.m.t., I lay off the azimuth of Polaris 1° 28' to the west, this mark agrees with that determin by the solar June 2.

At 7h 58m a.m., l.m.t., I set off 37° 17¼'N. on the lat. arc; 22° 14½'N. on the decl. arc; and mark a point in the meridian determined with the solar, by a nail driven in the stake already set 5 chs. N. of my station this mark falls 0.3 ins. east of the meridain establish by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, very closely agrees with the meridian established by observations on Polaris; therefor, I conclude that the adjustments of the instruments are satisfactory.

The megnetic bearing of the true meridian, at 8h 30m a.m., is 16° 30' W., the angle thus determined gives the mag. decl. 16° 30' E.

Preliminary to commencing survey of this fractional township, I retrace and resurvey all old subdivisional lines as follows:

From the St.cor.secs. 32 and 33, which is a gypsum ston 8 x 8 x 8 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General. I run

North, retracing bet. secs. 32 and 33.

Over nearly level land, through dense sage brush.

.15 Wash, 15 lks. wide, 7 ft. deep, course SW.

4.92 Road, Adams' to Skumpah, bears NE. and SW.

5.50 Wash, 30 lks. wide, 8 ft. deep, course SW.

Retracement and resurvey of subdivisions of T.40 S., R.4½W.

Chains

16.00 Enter hills and dense forest of cedar and pinon, bears NW. and SE.

Gradually ascend over broken gypsum hills, 60 ft. to

39.89 Fall 18 lks. W. of the ¼ sec. cor., which is a broken gypsum stone 18 x 12 x 3 ins. lying on the ground, properly marked, but unwitnessed.

I destroy all traces of the old cor., and reestablish it at same point as follows:

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 32 on W. half, and S 33 on E. half; from which

A cedar, 20 ins. diam., bears N. 7°45' E., 16 lks., dist., marked ¼ S 33 BT

A cedar, 24 ins. diam., bears N. 85½° W., 145 lks., dist., marked ¼ S 32 BT

True course of this line is N. 0° 15' E., 39.89 chs.

From the ¼ sec. cor. I run North.

Ascend 30 ft.

6.00 Spur, projects SE.; descend 40 ft.

12.50 Hollow, course SE.; ascend 60 ft.

25.00 Ridge, bears NE. and SW.; descend 30 ft.

35.00 Draw, course SW.; ascend gently 20 ft. to

40.29 Fall 22 lks. E. of the cor. of secs. 28-29-32 and 33, which is a limestone 6 x 8 x 4 ins. above ground, properly marked, and unwitnessed. I destroy all traces of old cor. and re-establish it at same point as follows:

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked on brass cap

T 40 S S 29 in NW.,

R 4½ W S 28 in NE.,

S 33 in SE., and

S 32 in SW. quadrant; from which

Retracement and resurvey of subdivisions T.40 S., R.4½W.

Chains	
	A cedar, 7 ins. diam., bears N. 7°40' E., 64 lks., dist., marked T40S R4½ W S28 BT
	A cedar, 24 ins. diam., bears S. 47° E., 49 lks., dist., marked T40S R4½W S33 BT
	A cedar, 6 ins. diam., bears S. 31¾° W., 127 lks., dist., marked T40S R4½W S32 BT
	A cedar, 14 ins. diam., bears N. 60¾° W., 49 lks., dist., marked T40S R4½W S29 BT
	Note: cuttings have been made about the cor. and I was unable to find any trace of bearing trees as given in old notes.
	True course of this line is. N. 19' W., 40.29 chs.
	S. 16chs., rolling, with dense sage brush; soil, rich sandy loam, 3 ft. deep, on subsoil of gravel; 1st rate.
	N. 64 chs., gypsum hills, general slope to the S.; soil, gypsum and clayish; 3rd rate; timber dense cedar and pinon.
	Land, mountainous or heavily timbered, on 64.18 chs.
	— — — — — — — — — — — — — — — —
	East, retracing bet. secs. 28 and 33.
40.00	After a careful search am unable to find any trace of the old ¼ sec. cor.
79.96	Fall 5 lks. N. of the cor. of secs. 28-30-31 and 33 in E. bdy. of Tp., which is a cedar post, 1 ft. high, 4 ins. square., marked and witnessed as described by the Surveyor General.
	Thence I run
	N. 89°58' W., resurveying bet, secs. 28 and 33.
	Over rolling land across open hollow, through heavy sagebrush; gradually descend 20 ft.
3.19	Road, Adams' to Skumpah, bears NE. and SW.
3.74	Wash, 30 lks. wide, 8 ft. deep, in hollow, course SW.

Retracement and resurvey of subdivision T 40 S., R 4½ W.

Chains	
	Gently ascend E. slope.
30.00	Leave hollow, enter hilly land and forest of cedar and pinon, bears NE. and SW.; ascend 100 ft.
39.00	Ridge, bears N. and S.
39.98	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 28 on N. half, and S 33 on S. half; from which
	A pinon, 6 ins. diam., bears N. 58° E., 35 lks., dist., marked ¼ S 28 BT
	A pinon, 8 ins. diam., bears S. 72½° W., 29 lks., dist., marked ¼ S 33 BT
	Again make search for old cor., but find no trace.
	Descend broken W. face 150 ft.
56.00	Head of sage brush hollow, course SW.
63.00	Wash, 25 lks. wide, 8 ft. deep, course S.
	Ascend 75 ft.
75.00	Ridge, bears N. and S.
	Gently descend 10 ft. to
79.96	The cor. of secs. 28-29-32 and 33.
	Land, hilly and rolling, general slope to the S.
	Soil, E. 30chs., rich sandy loam, 3 ft. deep, on subsoil of hard gravel, 1st rate; W. 50 chs., gravelly and gypsum, 3rd rate.
	Timber, cedar and pinon, on W. 50 chs.
	Undergrowth, sage brush, on mile.
	Land, mountainous or heavily timbered, 69.96 chs.
	June 3: At this sec. cor., I set off 22° 15½' N. on the decl. arc; and, at 11h 58m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 18'.

North, retracing bet. secs. 28 and 29.

Retracement and resurvey of subdivisions T.40 S., R.4½W.

Chains	
40.00	After a careful search am unable to find any trace of the old ¼ sec. cor.
	Therefore I return to cor. of secs. 28-29-32 and 33. and from it run
	North; resurveying bet. secs. 28 and 29.
	Over rolling mountainous land, general slope to the W., through forest of cedar and pinon, and undergrowth of heavy sage and scattering oak brush.
	Ascend 20 ft.
6.30	Spur, projects nearly W.; descend through scattering timber, bears E. and W., 50 ft. to
18.00	Hollow, course SW.; ascend 30 ft.
29.00	Spur, projects SW.; descend 45 ft.
32.00	Leave timber, bears NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 29 on W. half, and S 28 on E. half; dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth 3½ ft. base, 1½ ft. high W. of cor.
	Land, rolling mountainous.
	Timber, cedar and pinon; undergrowth, sage and oak brush.
	Land mountainous or heavily timbered, 40 chs.

Walter A. Stumm

U. S. Transitman.

June 3: At 7h 58m am.l.m.t., I set off 37° 17¼' on the lat. arc; 22° 14½' N. on the decl. arc; and determine a meridian with the solar, at the standard cor. of secs. 31 and 32 in S. bdy. of Tp., which is a sandstone 12 x 14 7 ins. above the ground, firmly set,

Retracement and resurvey of subdivision of T.40 S., R 4½ W.

Chains	
	marked and witnessed as described by the Surveyor General.
	Thence I run
	North, retracing bet. secs. 31 and32.
	Over rolling land, sloping S., through heavy sagebrush, 2 to 3 ft. high.; soil, sandy loam.
17.75	Stake and rider fence, bears E. and SW.
39.86	Fall 3 lks. E. of the ¼ sec. cor., wich is a sandstone 12 x 10 x 9 ins. above ground; firmly set; marked as described by the surveyor general, unwitnessed. I destroy all traces of old cor., and re-establish it at same point as folllows:
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 31 on W. half, and S 32 on E. half; dig pite 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
	Course of line N.0°02'W., and dist. is 39.86 chs.
	From my transit station 3 lks. E. of cor. I continue North.
57.00	Begin ~~more~~ ascent, bears E. and NW.
57.50	Enter scattering cedar and pinon, bears NW. and SE.
61.00	Ridge, 50 ft. high, bears NW. and SE.; descend 50 ft.
64.00	Leave timber, bears NW. and SE.
65.00	Enter hollow, NW. & SE.; thence up along same.
69.25	Wash, 10 lks. wide, 3 ft. deep, course SE.
76.00	Same wash, course S 5° W.
80.02	Fall 5 lks. E. of evident remains of old sec. cor. I re-establish cor. at same point as follows:
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 29-30-31 and 32, marked on brass cap
	T 40 S S 30 in NW.,
	R 4½ W S 29 in NE.,

Retracement and resurvey of subdivision T.40 S.,R.4½ W.

Chains

S 32 in SE.,and

S 31 in SW. quadrant; from which

A cedar,6 ins.diam.,bears N. 85½° E., 335 lks., dist.,marked T40S R4½W S29 BT

A cedar,12 ins.diam.,bears S. 68° E., 355 lks., dist.,marked T40S R4½W S32 BT

No other trees available; dig pits 18 x 18x12 ins. in each sec.,5½ ft. dist.,and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, rolling and hilly, general slope to the S.

Soil, mostly sandy loam with some gravel, 2 to 3 ft. deep, on subsoil of gravel; 1st rate.

Timber, cedar and pinon.

Undergrowth, sage brush.

True course of this line is N.0°02'W., 40.16 chs.

- -

S.89°56'E.,retracing bet. secs. 29 and 32.

39.60 After diligent search I am unable to find any trace of the old ¼ sec. cor.

79.79 Fall 2 lks. S. of the re-established cor. of secs. 28-29-32 and 33.

Thence I run

N.89°57' W.,resurveying bet. secs. 29 and 32.

Over rolling mountainous land, general slope to the S., through forest of cedar and pinon, and undergrowth of sage and clumps of oak brush.

Along gentle S. slope of spur.

21.30 Spur, bears Nearly E. and S 80° W.

Gradulally descend along N. slope.

25.00 Top of same, projects N.85°W,4 chs.

33.15 Trail, Skumpah to Tenny ranch, bears N. and S.

34.65 Skumpah creek, 4 lks. wide, 3 ins. deep, pure water,

Retracement and resurvey of subdivision T.40 S., R.4½ W.

Chains	
	125 ft. below sec. cor., course S. 20° W.; enter open hollow, nearly N. and S.
39.89½	Point for ¼ sec. cor. falls on steep bank of wash, cannot be set; therefore at
38.89½	On top E. bank wash.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness cor. to the ¼ sec. cor., marked on brass cap T40S R4½W S29 on N. half, S 32 on S. half, with W C ¼ near center; from which
	A cedar, 5 ins. diam., bears N. 74°50' E., 500 lks., dist., marked W C ¼ S 29 BT
	A cedar, 9 ins. diam., bears S. 70°5' E., 495 lks., dist., marked W C ¼ S 32 BT
	Again make search for old cor, but find no trace.
	June 3: At this ¼ sec. cor., I set off 22° 15½' N. on the decl. arc; and, at 11h 58m am. l. m. t., observe the sun on the meridian; the resulting lat. is 37° 18'.
40.40	Bottom of wash, 30 ft. deep, 40 lks. wide at botttom, course S.; this is old channel of Skumpah creek.
51.00	Leave open hollow, and base of ridge, bears N. & S.
	Ascend 70 ft.
53.50	Spur, projects S. 10 chs.; descend 30 ft.
56.20	Ravine, course S.; ascend 60 ft.
68.50	Ridge, bears N., and S. about 15 chs.
	Descend 50 ft.
73.70	Draw, course SW.; ascend 40 ft.
75.00	Spur, projects S. 20° W., 8 chs.
	Descend 35 ft. to
76.60	Enter open hollow, bears N. and S.
79.12	Wash, 20 lks. wide, 5 ft. deep, course S. 10° W.
79.89	The cor. of secs. 29-30-31 and 32.
	Land, rolling mountainous, general slope to the S.
	Soil, gravelly with sandy loam, 6 to 24 ins. deep, on gravel hardpan, 2 and 3rd rates, except along hollows

Chains

where deep rich, moist sandy loam, 1st rate is found.
Timber, cedar and pinon.
Undergrowth, sage and scattering oak brush.
Land mountainous or heavily timbered, 79.39 chs.

N. 89° 56' W., retracing bet. secs. 30 and 31.

40.00 After a diligent search am unable to find any trace of old ¼ sec. cor.

79.11 Intersect W. bdy, of Tp., 45 lks. N. of a broken sandstone, on which am unable to find any marks, witnessed by two bearing trees. I re-establish cor. at same point as follows:

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

T 40 S in N. half,
R 5 W S 25 in NW.,
R 4½W S 30 in NE.,
S 31 in SE., and
S 36 in SW. quadrant; from which

Original cedar, 20 ins. diam., bears S. 70° E., 7 lks., dist., properly marked T40S R4½W S31 BT

Original cedar, 14 ins. diam., bears N. 80° W., 27 lks., dist., properly mkd. T40S R5 W S25 BT

also raise a mound of stone 2 ft. base, 1½ ft. high W. of cor. No other trees available in remaining secs.

Thence I run

N. 89° 45' E., resurveying bet. secs. 30 and 31.

Over hilly land, sloping E., through scattering cedar and pinon, heavy sage brush., soil, gravelly.

Retracement and resurvey of subdivision T.40 S., R.4½ W.

Chains	
10.60	Wash, 25 lks. wide, 6 ft. deep, course S.
17.00	Leave timber, bears N. and S.; descend 35 ft. to
19.00	Enter Thompson's hollow, drains S., and high sage, soil, rich dark loam.
30.75	Thompson's creek, 3 lks. wide, 3 ins. deep, muddy water in wash, 30 ft. deep, 80 lks. wide, course S.
39.11	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 30 on N. half, and S 31 on S. half; from which
	A cedar, 12 ins. diam., bears S 42°55' E., 303 lks., dist., marked ¼ S 31 BT. dig pits 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	No other trees available.
41.20	Road, Skumpah to Thompson's, bears N. and S.
45.50	Leave hollow, enter hilly land, with few scattering cedar and pinon, bears N. and S.20° E.
	Ascend W. slope.
52.00	Top of bench, 75 ft. above ¼ cor., bears N. and S 20°E.
	Thence across bench, gentle slope to the SE.
71.00	Leave same; descend 80 ft.
75.00	Enter hollow, bears N.30° W. and S.30° E.
79.11	The cor. of secs. 29-30-31 and 32.
	Land, hilly and nearly level, general drain to the S.
	Soil, rich dark, moist sandy loam, 2 to 3 ft. deep, on subsoil of gravel; 1st rate, some gravelly on slopes of hilly land, 2nd and 3rd rates.
	Timber, some scattering cedar and pinon.
	Undergrowth, sage brush.

June 3, 1911.

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Retracement and resurvey of subdivision T.40 S., R.44 W.

Chains	
	June 8: At 7h 29m a.m., l.m.t., I set off 37° 18' on the lat. arc; 22° 48' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 29-30-31 and 32.
	Thence I run
	North, retracing bet. secs. 29 and 30.
40.00	After a careful search I am unable to find any trace of the ¼ sec. cor.; therefore I return to the cor. of secs. 29-30-31 and 32. and run
	North, resurveying bet. secs. 29 and 30.
	Up along hollow, through heavy sage brush.
7.05	Wash, 40 lks. wide, 8 ft. deep, course S. 30° E.
13.75	Leave hollow, bears NW. and NE.; Junction of hollows from NW. and NE.
15.50	Enter rolling mountainous land, and dense forest of cedar and pinon.; ascend SE. slope of ridge, 175 ft.
37.50	Top of ridge, bears N. 10° E. and S. 20° W.
	Descend 45 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 30 on W. half, and S 29 on E. half; from which
	A cedar, 4 ins. diam., bears N. 55° 20' E., 44½ lks., dist., marked ¼ S 29 BT
	A cedar, 20 ins. diam., bears S. 88¼° W., 35 lks., dist., marked ¼ S 30 BT
	Land, rolling mountainous and level.
	Soil, gravelly and rich sandy loam; 1st to 3rd rates.
	Timber, dense cedar and pinon, on N. 24.50 chs.
	Undergrowth, sage and scattering clumps of oak brush.
	Land mountainous and heavily timbered, 24.50 chs.

Andrew Nelson

U. S. Transitman.

Subdivision of T. 49 S., R. 4½ W.

Chains	
	Survey commenced June 3, 1911, and executed with same instruments as used in retracements and resurveys of subdivisions in this township. Knowing the instruments to be in adjustments from observations on Polaris this a.m. taken at the standard cor. of secs. 32 and 33 in S. bdy. of the Tp. I begin at the ¼ sec. cor. bet. secs. 28 and 29, heretofore described.
	Thence I run
	N. 0° 01' W. bet. secs. 28 and 29.
	Over rolling mountainous land, through undergrowth of sage, scattering oak and service.
	Descend 20 ft.
4.00	Wash, 10 lks. wide, 4 ft. deep, in hollow, course SW.
	Ascend 40 ft.
19.40	Spur, projects S. 80° W.; enter scattering cedar and pinon.; descend 40 ft.
30.00	Hollow, course W.; ascend 30 ft.
33.00	Spur, projects W.
36.00	Leave timber, bears E. and W.
40.00	In hollow.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 20-21-28 and 29, marked on brass cap
	T 40 S S 20 in NW.,
	R 4½ W S 21 in NE.,
	S 28 in SE., and
	S 29 in SW. quadrant; dig pits 18 x 18 x 12 ins. in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.
	Land, rolling mountainous, general slope to the SW.
	Soil, rich sandy loam, 2ft. deep, on subsoil of gypsum formation; 1st and 2nd rates.
	Timber, cedar and pinon scattering.
	Undergrowth, sage, and scattering oak and service.
	Land mountainous on, 40 chs.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	S. 89° 58' E., on a random line bet. secs. 21 & 28.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect E. bdy. of Tp., 21 lks. S. of the cor. of secs. 19-21-28 and 30, which is a sandstone 6 x 9 x 3 ins. above the ground, firmly set, marked and witnessed as described by the Surveyor General.
	Thence I run
	S. 89°53' W., on true line bet. secs. 21 and 28.
	Over rough broken land, draining SE., through dense cedar and pinon, and some undergrowth of sage brush.
	Ascend 5 ft.
.15	Ridge, bears NW. and SE.; descend 75 ft.
4.00	Hollow, course SE.; ascend 70 ft.
8.00	Spur, projects SE.; descend 100 ft.
12.00	Hollow, course SE.; ascend broken S. slope 150 ft.
18.00	Ridge, bears NE. and SW.; descend 100 ft. along N. slope
26.00	Base of descent, bears NE. and NW.; ascend braken slope.
36.50	Same ridge, bears NW. and SE.
	Descend abruptly 60 ft. to
40.06	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 21 on N. half, and S 28 on S. half; from which
	A cedar, 7 ins. diam., bears N. 59° W., 45 lks., dist., marked ¼ S 21 BT
	A pinon, 6 ins. diam., bears S. 45° E., 27 lks., dist., marked ¼ S 28 BT
	Descend 25 ft.
42.00	Foot of ridge, bears N. 10° E. and S 30° W.
	Continue gentle descent.
48.00	Enter sage brush hollow, and leave timber, bears NE. and SW.
	Thence geadually descend along hollow.
70.40	Wash, 15 lks. wide, 4 ft. deep, course SW.

Subdivision of T. 40 S., R. 4½ W.

Chains	
80.12	The cor. of secs. 20-21-28 and 29.
	Land; E. 42 chs. rough, and W. 38 chs. rolling mountainous.
	Soil, E. 42 chs.; rocky and some gravelly and gypsum; 3rd rate; W. 38 chs. sandy loam, light, 2 to 3 ft. deep; on subsoil, of gravel; 1st rate.
	Timber, cedar and pinon, on E. 48 chs.
	Undergrowth, sage brush.
	June 3, 1911.

June 5: At 7h 59m a.m., l.m.t., I set off 37° 19' on the lat. arc; 22° 29' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 20-21-28 and 29.

Thence I run

N. 0° 01' W. bet. secs. 20 and 21.

Over gentle rolling land, sloping SW., through undergrowth of tall sage, oak and buck brush.

Ascend 25 ft.

21.00 Spur, projects SW.; descend 30 ft.

32.00 Enter scattering cedar and pinon, bears NE. and SW.

40.00 In small hollow, course SW.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 20 on W. half, and S 21 on E. half; from which

A cedar, 7 ins. diam., bears S. 12°10' E., 158 lks., dist., marked ¼ S 21 BT

A cedar, 12 ins. diam., bears N. 68° W., 332 lks., dist., marked ¼ S 20 BT

Gradually ascend.

56.00 Enter dense cedar and pinon, bears NE. and SW.

Ascend abruptly 150 ft.

Subdivision of T. 40 S., R. 4½ W.

Chains

65.00 Spur, projects SW.; descend along steep W. slopes of hills, 100 ft.

79.00 Hollow, near head, course SW.; ascend 20 ft. to

80.00 On steep S. slope.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 16-17-20 and 21, marked on brass cap

T 40 S S 17 in NW.,

R 4½ W S 16 in NE.,

S 21 in SE., and

S 20 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N. 19° E., 101½ lks., dist., marked T40S R4½W S16 BT

A pinon, 18 ins. diam., bears S 75½° E., 113 lks., dist., marked T40S R4½W S21 BT

A pinon, 6 ins. diam., bears S 43° W., 64 lks., dist., marked T40S R4½W S20 BT

A pinon, 10 ins. diam., bears N. 62¼° W., 53 lks., dist., marked T40S R4½W S17 BT

Land, gently rolling, general W. slope, with rich sandy loam, 1st rate, on S. 56 chs.; N. 24 chs., rough broken with gypsum and clayish soil; 3rd rate.; timber, dense cedar and pinon.

Undergrowth, sage, oak and service, on mile.

Land, mountainous and heavily timbered, on 24 chs.

June 5: At this sec. cor., I set off 22°30'N. on the decl. arc; and at 11h59m am l.m.t. observe the sun on the mer.; the resulting lat. is 37° 20'. which is the proper lat.

N. 89°53'E., on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ sec. cor.

80.24 Intersect E. bdy of Tp., at the cor. of secs. 16-18-19 and 21, which is a sandstone 12 x 10 x 5 ins. above ground, firmly set, marked and witnessed as described

Chains

by the surveyor general.

Thence I run

S. 89°53' W., on true line bet. secs. 16 and 21.

Over rolling mountainous land, thorugh dense cedar and pinon, and undergrowth of sage, oak and service.

Descend 40 ft.

5.00 Hollow, course NW.; ascend gradually, 60 ft.

8.00 Leave timber, bears NW. and SE.

18.00 Ridge, bears NE. 8 chs., thence NW. and SW.

30.00 Enter scattering timber, bears NW. and SE.

40.12 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 16 on N. and S 21 on S. half; from which

A cedar, 7 ins. diam., bears N. 70°40' W., 481 lks., dist., marked ¼ S 16 BT

A cedar, 6 ins. diam., bears S 11° W., 143 lks., dist., marked ¼ S 21 BT

45.50 Enter dense timber, bears NW. and SE.

73.00 Descend abruptly 240 ft. over W. slope of gypsum hills.

80.24 500 ft. below ridge.

The cor. of secs. 16-17-20 and 21.

Land mountainous.

Soil, sandy loam and rocky, and gypsum; 1st to 3rd rates.

Timber, cedar and pinon.

Undergrowth, sage, oak, and service.

Land, mountainous or heavily timbered, 80.24 chs.

June 5, 1911.

June 6: At 8h 59m am., l.m.t., I set off 37° 20' on the lat. arc; 22° 36' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 16-17-

Chains	
	20 and 21.
	Thence I run
	N. 0° 01' W. bet. secs. 16 and 17.
	Over broken mountainous land, facing W., through forest ofcedar and pinon, and undergrowth of oak, service and buck brush.
	Ascend 50 ft.
2.00	Spur, projects W.; descend 100 ft.
5.00	Hollow, course S. 80° W.; ascend 125 ft.
9.50	Spur, projects W.; descend 180 ft. abruptly.
15.30	Hollow, course W.; ascend 100 ft.
23.75	Spur, projects W.; descend 150 ft.
28.00	Hollow, course W.; ascend 70 ft.
31.70	Spur, projects W.; descend 100 ft.
36.60	Wash, 2 chs. wide, 30 ft. deep, course W.; thence over rolling land, bears E. and W.
38.00	Leave dense, thence through scattering timber, and heavy sage brush, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 17 on W. half, and S 16 on E. half; from which
	A cedar,4 ins.diam.,bears N. 37°45' E., 40 lks., dist.,marked ¼ S 16 BT
	A pinon,6 ins.diam.,bears N. 13°10' W., 145 lks., dist.,marked ¼ S 17 BT
51.57	Wash, 10 lks. wide, 10 ft. deep, course W.
64.00	Wash, 50 lks. wide, 15 ft. deep, course S. 80° W.
65.00	Foot of low spur, and enter dense timber, bears E. & W. Ascend 40 ft.
72.00	Spur, projects W. 1 ch.; descend broken land, facing nearly W. 20 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for cor. of secs. 8-9-16 and 17, marked on brass cap

Subdivision of T. 40 S., R. 4½ W.

Chains

T 40 S S 8 in NW.,

R 4½ W S 9 in NE.,

S 16 in SE., and

S 17 in SW. quadrant; from which

A pinon, 14 ins. diam., bears N. 28¼° E., 103 lks., dist., marked T40 S R4½W S9 BT

A cedar, 12 ins. diam., bears S. 26° E., 75 lks., dist., marked T40S R4½W S16 BT

A cedar, 12 ins. diam., bears S. 26°40'W., 43 lks., dist., marked T40S R4½W S17 BT

A cedar, 8 ins. diam., bears N. 65° W., 104 lks., dist., marked T40S R4½W S8 BT

Land, rolling and broken moutainous, general slope to the W.

Soil, light sandy loam, about 12 ins. deep, and rocky, 3rd rate on S. 38 chs.

Timber, cedar and pinon, on mile.

Land mountainous or heavily timbered, 80.00 chs.

Sky overcast at noon hour, lat. obsn. impossible.

N. 89° 53' E., on a random line bet. secs. 9 and 16.

40.00 Set temp. ¼ sec. cor.,

80.32 Intersect E. bdy. of tp., 108 lks. S. of the cor. of secs. 7-9-16 and 18, which is a sandstone 12 x 10 x 8 ins. above the ground, firmly set marked and witnessed as described by the Surveyor General.

Since my falling is out of limits I establish my random line as true line and at point of intersection

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 9 and 16, marked on brass cap

T 40 S in N. half,

Subdivision of T. 40 S., R. 4½ W.

Chains	
	S7 CC S18 R4 W in E. half,
	S16 R4½W in SW., and
	S9 in NW. quadrant, from which
	A cedar, 10 ins. diam., bears S. 26° W., 42 lks., dist., marked T40S R4½W S16 BT
	A pinon, 7 ins. diam., bears N. 54¾° W., 17 lks., dist., marked T40S R4½W S9 BT
	Note: I destroy all marks on old cor. pertaining to secs. 9 and 16.
	Thence I run
	S. 89° 53' W., on true line bet. secs. 9 and 16.
	Over moutainous land, facing NW., through forest of cedar and pinon, and undergrowth of sage, oak, service and buck brush.
	Descend 150 ft.
13.50	Hollow, course NW.; ascend 60 ft.
18.00	Spur, projects NW.; descend 100 ft.
33.50	Hollow, course NW.; ascend 60 ft. to
40.16	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 9 on N. half and S 16 on S. half; from which
	A cedar, 12 ins. diam., bears S. 33½° W., 12 lks., dist., marked ¼ S 16 BT
	A cedar, 12 ins. diam., bears N. 28½° W., 23 lks., dist., marked ¼ S 9 BT
	Ascend 10 ft.
42.00	Spur, projects N.; descend steep W. slope 280 ft.
52.40	Hollow, course SW.; ascend abruptly 200 ft.
62.20	Coal outcroppings, bear NE. and SW.
66.00	Spur, projects S. 80° W.
	Descend 100 ft. to
80.32	The cor. of secs. 8-9-16 and 17.
	Land, mountainous.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Soil, rocky 3rd rate. subsoil, shale and sandstone bedrock.
	Timber, dense cedar and pinon, on 80.32 chs.
	Undergrowth, sage, oak, service, and buck brush.
	Land mountainous and heavily timbered, 80.32 chs.
	June 6, 1911.

	June 7: Storms prevent field work this day.
	June 8: At 1h 59m p.m., l.m.t., I set off 37° 21' on the lat. arc; 22° 49' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8-9-16 and 17 heretofore described. Thence I run
	N. 0° 01' W. bet. secs. 8 and 9.
	Over rolling mountainous land, facing SW., through dense cedar and pinon, and undergrowth of sage and scattering oak and service brush.
	Descend 25 ft.
4.90	Enter E. fork Skumpah hollow, bears NE. and SW.
11.90	Stream 1 lk. wide, 1 in. deep, in wash, 20 lks. wide, 10 ft. deep, course SW.; water contains alkali.
	Leave hollow, ascend 40 ft.
19.00	Leave dense, enter scattering timber, bears E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 8 on W. and S 9 on E. half; from which
	A cedar, 6 ins. diam., bears N. 2° 01' E., .516 lks dist., marked ¼ S 9 BT
	A cedar, 7 ins. diam., bears S. 82½° W., 245½ lks., dist., marked ¼ S 8 BT
52.50	Top of ascent, enter dense cedar and pinon, bears NE. and SW.; Descend land facing SW. 100 ft.

Subdivision of T. 40 S., R. 4½ W.

Chains

74.00 Hollow, course S. 80° W.; ascend 50 ft. to

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 4-5-8 and 9, marked on brass cap

T 40 S S 5 in NW,

R 4½ W S 4 in NE.,

S 9 in SE., and

S 8 in SW. quadrant; from which

A cedar, 5 ins. diam., bears N. 51° E., 49 lks., dist., marked T40S R4½W S4 BT

A cedar, 8 ins. diam., bears S. 60° E., 62 lks., dist., marked T40S R4½W S9 BT

A pinon, 8 ins. diam., bears S 27¼° W., 57 lks., dist., marked T40S R4½W S8 BT

A cedar, 10 ins. diam., bears N. 11° 20' W., 19 lks., dist., marked T40S R4½W S5 BT

Land, rolling mountainous, general W. slope.

Soil, sandy loam 12 ins. deep, on subsoil of gravel and stones; some scattering rocky soil along mile; 2nd rate.

Timber, cedar and pinon, on mile.

Undergrowth, dense sage, scattering oak and service, on 80 chs.

June 8, 1911.

June 9: At 8h 59m a.m.l.m.t., I set off 37° 21½' on the lat. arc; 22° 53½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 4, 5, 8 and 9 heretofore described.

Thence I run

N. 89° 53' E., on a random line bet. secs. 4 and 9.

40.00 Set temp. ¼ sec. cor.

Subdivision of T. 40 S., R. 4½ W.

Chains	
80.30	Intersect E. bdy. of tp., 105 lks. S. of the cor. of secs. 4-6-7 and 9, which is a sandstone 5 x 10 x 10 ins. above ground, firmlt set, marked and witnessed as described by the surveyor general.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 4 and 9, marked on brass cap
	T 40 S in N. half,
	S6 CC S7 R4W in E. half,
	R4½W S9 in SW. and
	S 4 in NW. quadrant; from which
	A cedar, 8 ins. diam., bears S. 65° W., 96 lks., dist., marked T40S R4½W S9 BT
	A pinon, 6 ins. diam., bears N. 20½° W., 27 lks., dist., marked T40S R4½W S4 BT
	Note: I destroy all marks and deface bearing trees on old cor. pertaining to secs. 4 and 9.
	Thence I run
	S. 89° 53' W., on true line bet. secs. 4 and 9.
	Over mountainous land, facing NW.; through forest of cedar and pinon, and undergrowth of sage, oak and service.
	Descend 250 ft.
38.25	E. fork Skumpah creek, 1 in. wide, 1 in. deep, alakli water, in hollow, course SW.; ascend 40 ft. to
40.15	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 4 on N. half and S 9 on S. half; from which
	A cedar, 14 ins. diam., bears S. 5° W., 57 lks., dist., marked ¼ S 9 BT
	A pinon, 8 ins. diam., bears N. 17°10' E., 50 lks., dist., marked ¼ S 4 BT
	Ascend abruptly 200 ft.

Chains	
48.00	Ridge, bears NE. and SW.; gradually descend land facing W. 100 ft. to
73.50	Hollow, course S.; ascend 30 ft.
77.00	Spur, projects S. 2 chs.
	Descend 75 ft. to
80.30	The cor. of secs. 4-5-8 and 9.
	Land mountainous, general SW. face.
	Soil, rocky, subsoil volcanic formation; 3rd rate.
	Timber, cedar and pinon, on mile.
	Undergrowth, sage, oak, and service.
	June 9: At this sec. cor., I set off 22° 54' N. on the decl. arc; and at 11h 59m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 37° 21½'.

N. 0° 01' W., bet. secs. 4 and 5.

Over rolling mountainous land, draining W., through forest of cedar and pinon, and undergrowth of sage, oak, and service brush.

Descend along W. slope of spur 100 ft.

13.00	Hollow, course SW.; ascend 100 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked con brass cap ¼ S 5 on W. half, and S 4 on E. half; from which
	A cedar, 5 ins. diam., bears S. 45° E., 3½ lks., dist., marked ¼ S 44BT
	A cedar, 6 ins. diam., bears N. 45° W., 2½ lks., dist., marked ¼ S 5 BT
	Ascend 30 ft.
44.00	Ridge bears NE. and SW.; descend.
45.00	Enter scattering timber, bears E. and W.
66.00	Thence through dense undergrowth.

Subdivision of T. 40 S., R. 4½ W.

Chains	
73.30	Hollow, 75 ft. below ridge, course W.
76.00	As N. bdy. is not run cease work at this point. Set temp. stake. June 9,1911.
	June 16: I continue the line from a back sight.
	From my temp. stake set at 76.00 chs. continue N.0°01'W.
79.47	Intersect N. bdy. of tp., 44 lks. W. of the cor. of secs. 35 and 36 as established by me, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 4 and 5, marked on brass cap
	T39S R4½W S35 CC S36 on N. half,
	S 4 in SE., and
	S5 in SW. quadrant; from which
	A pinon.12 ins. dia.,bears S.64°45'E.,90 lks., dist.,marked T40S R4½W S4 BT
	A cedar,14 ins.diam.,bears S. 39¾° W., 367 lks., dist.,marked T40S R4½W S5 BT
	Land, rolling mountainous, general slope to the W.
	Soil, rocky and gravelly on subsoil of volcanic formation; 3rd rate.
	Timber, cedar and pinon.
	Undergrowth, sage, oak and service brush.
	Land mountainous or heavily timbered, 79.47 chs.

Walter A. Shumm

U. S. Transitman.

June 8: For solar observation see resurvey of line bet. secs. 29 and 30.

From the ¼ sec. cor.,bet. secs. 29 and 30, heretofore described I run,counting from cor.of secs.29,30,31 & 32.

N. 0° 01' W., bet. secs. 29 and 30.

Over rolling mountainous land, through dense forest of cedar and pinon, and undergrowth of sage and service.

Descend 50 ft.

Subdivision of T. 40 S., R. 4½ W.

Chains	
53.75	Center open sage brush hollow, 4 chs. wide, course SW.
61.25	Gypsum ridge, 50 ft. high, bears NE., and SW. 4 chs.
63.50	Enter open hollow, course SW. [illegible]
66.25	Wash, 15 lks. wide, 4 ft. deep, course SW.
70.00	N. side hollow and SW/ point of spur, bears NE. and N.
	Thence along E. side of a small hollow, course S.
76.00	N. end of hollow and base of mountain, bears S. and W.
	Ascend steep S. slope 75 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 19-20- 29 and 30, marked on brass cap

T40S S19 in NW.,

R4½W S20 in NE.,

S 29 in SE , and

S 30 in SW. quadrant; from which

A pinon, 10 ins. diam., bears N. 70° E., 111 lks., dist., marked T40S R4½W S20 BT

A pinon, 8 ins. diam., bears S. 13½° E., 44 lks., dist., marked T40S R4½W S29 BT

A pinon, 9 ins. diam., bears S. 19½° W., 45 lks., dist., marked T40S R4½W S30 BT

A pinon, 12 ins. diam., bears N. 32½° W., 25½ lks., dist., marked T40S R4½W S19 BT

Land, rolling mountainous, general drain to the W.

Soil, gypsum and adobe clay; 3rd rate, except along bottoms of hollows where rich sandy loam soil, 1 to 3ft. deep is found; 1st rate.

Timber, cedar and pinon.

Undergrowth, sage and service brush.

Land mountainous or heavily timbered, 40.00 chs.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	S. 89°57' E., on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ sec. cor.
79.72	Intersect the N. and S. line, 21 lks. S. of the cor. of secs. 20-21-28 and 29.
	Thence I run
	S. 89°54' W., on true line bet. secs. 20 and 29.
	Over rolling mountainous land, through dense undergrowth of sage and scattering clumps of oak and buck brush.
	Across Skumpah hollow.
8.17	Wash, 20 lks. wide, 6 ft. deep, course SW.
9.40	Trail, bears N. and S.
16.90	Skumpah creek, 3 lks. wide, 2 ins. deep, good water, in wash, 10 ft. deep, 70 lks. wide, course S.
18.70	Leave hollow, bears N. and S.; ascend 50 ft.
21.50	Thence across gravelly bench, enter forest of cedar and pinon, bears N. and S.
33.00	Leave same; descend 50 ft.
35.70	Sage brush hollow, 2 chs. wide, course SE.
	Ascend general E. slope, through dense timber, 20 ft. to
39.86	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 20 on N. half and S 29 on S. half; from which
	A cedar, 5 ins. diam., bears S. 47½°W., 45 lks dist., marked ¼ S 29 B T.
	A cedar, 10 ins. diam., bears N. 65¾°E. ? 58½ lks. dist., marked ¼ S 20 B T.
	Continue over E. slope.
54.00	Ridge, 125 ft. above ¼ sec. cor., bears NW. and S.
	Descend
57.20	Head of hollow, 25 ft. deep, drains SW.
	Ascend.
61.30	Spur, projects SW.
	Note: Sky overcast atnoon; observation for latitude Impossible.

chains

Thence over land having a general drain to the SW.

Descen d 60 ft.

66.00 Enter open hollow which heads NE. 3 chs. and drains SW.

71.00 Leave same, bears NE. and SW.

Thence over S. slope of high gypsum peak

Ascend 90 ft. to

77.60 Top. of sharp spur, descends S. 10° W.

Descend 40 ft. to

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

Land, mountainous.

Soil, E. 54 chs. sandy loam and gravelly, 1 to 3 ft. deep, 2 nd. rate: W 26 chs. gypsum and clayish; 3 rd. rate.

Timber, cedar and pinon on W 58.22 chs.

Undergrowth , sage, oak and some service.

Land, mountainous or heavily timbered 79.72 chains.....

Having resurveyed the W. bdy. of sec. 30, and knowing that closing cors. will be necessary on W. bdy. I run

S. 89°45' W., on true line bet. secs. 19 and 30.

Over rolling mountainous land, general slope to the S., through dense forest of cedar and pinon, and undergrowth of sage and buck.

1.25 Head of small draw, course S.

Ascend 30 ft.

4.40 Spur, projects SW.

Descend 100 ft. over NW. slope.

16.50 Enter open hollow, bears N. and S.

19.40 Wash, 20 lks. wide, 8 ft. deep, course S.

20.00 Leave hollow, bears N. and S.

Ascend 75 ft.

25.00 Ridge, bears N. and S.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Descend 25 ft.
31.50	Ravine, course SW.
	Ascend 35 ft.
36.75	Spur, projects S.
	Descend 50 ft. to
40,00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 19 on N. hlaf and S 30 on S. half; dig pits 18 x 18 x 12 ins., E. and W. of post 3 ft. dist.,and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	Note: No trees within limits.
	Thence gradually descend across open hollow.
51.20	Road, Skumaph to Thompsons' ranch, bears N. and S.
58.50	Thompsons' creek, 2 lks. wide, 1 in. deep, muddy water, in wash, 40 ft. deep, 3 chs. wide, coufse S.
	Gradually ascend.
61.50	Leave hollow, enter dense timber, bears N.20°W. & S.10°E.
79.96	50 ft. above creek.
	Intersect W. bdy. of tp.,130 lks. N. of the cor.,of secs. 24 and 25, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. 24 ins. in the ground, for closing cor. of secs. 19 and 30, marked on brass cap
	T 40 S in N. half,
	S24 CC S25 R5W in W. half,
	S 19 in NE.,and
	S 30 R4½W in SE. quadrant; from which
	A pinon,14 ins.diam.,bears N 59½° E., 47 lks., dist.,marked T40S R4½W S19 BT
	A pinon,12 ins.diam.,bears S. 73½° E., 33 lks., dist.,marked T40S R4½W S30 BT
	Land, mountainous and rolling, general slope to the S.
	Soil, E. 40 chs.,gravellywith some gypsum and stony

Chains	
	W. 40 chs. sandy loam with fine gravel, 1 to 3 ft. deep, on subsoil of hard gravel; 1st and 2nd rates.
	Timber, cedar and pinon, on E. 40 and W. 19.50 chs.
	Undergrowth, sage and scattering service.
	Land mountainous or heavily timbered, 79.96 chs.
	June 8, 1911.
	June 9: At 7h 59m a.m.l.m.t., I set off 37° 19' on the lat. arc; 22° 53½' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 19-20-29 and 30, heretofore described.
	Thence I run
	N. 0° 01' W., bet. secs. 19 and 20.
	Over broken mountainous land, facing W., through dense forest of cedar and pinon, and undergrowth of buck and sage brush; soil, gypsum and clayish.
	Ascend steep S. slope 40 ft.
6.00	Spur, projects W.
7.25	Gully, 25 ft. deep, course W.
12.00	Top of high spur, projects W. 1 ch.
	Descend abruptly 140 ft.
15.60	Gulch, course W.
	Ascend 110 ft.
17.65	Gypsum spur, projects W.
	Descend 75 ft.
22.10	Gully, course S. 75° W.
	Ascend 100 ft.
24.00	Top of gully and mountain, bears E. and W.
	Thence over land facing W.
31.00	Draw, 50 ft. deep, course W.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Ascend 150 ft. to
40.00	On top of ascent, bearing E. and W.
	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked onbrass cap ¼ S 19 on W. half and S 20 on E. half; from which
	A pinon, 18 ins.diam., bears S. 34°10' E., 90 lks., dist., marked ¼ S 20 BT
	A pinon, 12 ins.diam., bears N. 50° W., 23 lks., dist., marked ¼ S 19 BT
	Leave gypsum soil, bears SE. and W.
	Continue over W. slope of mountain.
64.00	Spur, sprojects W.; descend.
70.75	Ravine, 75 ft. deep, course W.
	Ascend 125 ft.
77.50	NW. point of spur, bears SE.
	Descend 30 ft. to
80.00	On NW. slope.
	Set an iron post, 3 ft. long, 2 ins., dia., 24 ins. in the ground, for cor. of secs. 17-18-19 and 20, marked on brass cap
	T40S S18 in NW.,
	R4½W S17 in NE.,
	S 20 in SE., and
	S 19 in SW. quadrant; from which
	A pinon, 9 ins.diam., bears N. 53½° E., 75 lks., dist., marked T40S R4½W S17 BT
	A pinon, 9 ins.diam., bears S. 26°45' E., 55 lks., dist., marked T40S R4½W S20 BT
	A pinon, 8 ins.diam., bears S 11°45'W., 93½ lks., dist., marked T40S R4½W S19 BT
	A pinon, 8 ins.diam., bears N. 40½° W., 52 lks., dist., marked T40S R4½W S18 BT
	Land, rough broken mountainous, facing W.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Soil, S 40 chs. gypsum and clayish with some stony; N. 40 chs. gravelly and stony; 3rd rate.
	Timber, cedar and pinon, on mile.
	Undergrowth, buck and sage brush on mile.
	Land mountainous and heavily timbered, 80.00 chs.
	June 9: At this sec. cor., I set off 22° 54'N. on the decl. arc; and at 11h 59m a.m., l.m.t. observe the sun on the meridian; the resulting lat. is 37° 20'.
	— — — — — — — — — — — — — — — — — — — —
	N. 89°54' E., on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
79.60	Intersect the N. and S. line, 2 lks. N. of the cor. of secs. 16-17-20 and 21.
	Thence I run
	S. 89° 55' W., on true line bet. secs. 17 and 20.
	Over mountainous land, through scattering forest of cedar and pinon, and undergrowth of buck, service and oak brush.
	Ascend steep SE. slope 65 ft. to
3.00	Gypsum spur, projects SW.
	Descend 175 ft. to
9.75	Base of mountainous land, enter open hollow, bears N. and S.
	Thence gently descend through heavy sage brush 4 to 5 ft. high.
11.76	Trail, bears N. and S.
20.70	Skumpah creek, 4 lks. wide, 3 ins. deep, good water, in wash 40 lks. wide, 8 ft. deep, course S. 10° E.
21.00	Leave hollow, re-enter scattering timber, N. and S.
	Ascend 50 ft.
25.50	Flat top spur, projects S. 8 chs.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Descend 40 ft.
27.90	Wash, 15 lks. wide, 4 ft. deep, and enter open hollow, course S.
29.50	Wash, 20 lks. wide, 10 ft. deep, and leave open hollow, course S. 20° E.
30.00	Enter dense timber, bears N. and S.
	Ascend E. slope.
39.80	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 17 on N. and S 20 on S half; from which
	A cedar, 5 ins. diam., bears S. 59¼° E., 9½ lks., dist., marked ¼ S 20 BT
	A pinon, 6 ins. diam., bears N. 28½° W., 71 lks., dist., marked ¼ S 17 BT
	Continue ascent over NE. slope.
57.50	Small ravine, course NE.
61.75	Ridge, 250 above creek, bears N. and S.
	Gradually descend land draining NW. 50 ft. to
79.60	The cor. of secs. 17-18-19 and 20.
	Land, mountainous.
	Soil, gravelly with some light sandy loam, 12 ins. deep, on subsoil of hard gravel and stone; 2nd rate.
	some gypsum near E. end of mile.
	Timber, cedar and pinon.
	Undergrowth, buck, service, oak and sage brush.
	Land mountainous or heavily timbered, 79.60 chs.

June 9, 1911.

June 10: At 7h 59m a.m., l.m.t., I set off 37° 20' on the lat. arc; 22° 58½' N. on the decl. arc; and determine

Chains	
	a meridian with the solar, at the cor. of secs. 17-18-19 and 20, heretofore described.
	Thence I run
	S. 89°45'W., on true line bet. secs. 18 and 19.
	Over mountainous land, through dense forest of cedar and pinon, and undergrowth of scattering oak, buck, service and sage brush.; soil, gravelly, stony and shale of volcanic formation.
	Descend NW. slope 85 ft. to
7.00	Gulch, course S. 15° W.
7.50	Coal outcrppings, bears N. and S. along gulch.
	Ascend 75 ft.
14.50	Spur, near S. point, bears N.
	Descend 125 ft. to
24.85	Wash, 15 lks. wide, 8 ft. deep, in hollow, course S. 20° E.
	Ascend E. and NE. slope 125 ft. to
40.00	On E. slope near top.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 18 on N. half and S 19 on S. half; from which
	A pinon, 11 ins. diam., bears S. 89° W., 34½ lks., dist., marked ¼ S 19 BT
	A pinon, 8 ins. diam., bears N. 8° E., 17 lks., dist., marked ¼ S 18 BT
43.00	Ridge, 25 ft. above ¼ sec. cor., bears N. and S. 10chs.
	Descend.
55.00	Gulch, 100 ft. deep, course SE.
	Ascend .
65.00	Top of ascent, bears N. and S.
	Thence over rolling top of mountain, through scattering timber and dense sage brush.
79.99	Intersect W. bdy. of tp., 95 lks. N. of cor. of secs.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	13 and 24, heretofore described.
	Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for closing cor. of secs. 18 and 19, marked on brass cap
	T 40 S in N. half,
	S 13 S24 CC R5 W in W. half,
	S 18 in NE.,and
	S 19 in SE. quadrant; from which
	A cedar,6 ins.diam.,bears N. 21° E., 163 lks., dist.,marked T40S R4½W S18 BT
	A cedar,8 ins.diam.,bears S.89°58'E., 159 lks., dist.,marked T40S R4½ W.S19 BT
	Land mountainous, with dense cedar and pinon on E. 65 chs.: W. 15 chs. rolling with scattering timber, soil light sandy loam and gravelly 12 ins. deep, on subsoil of hard clay.
	Soil, on E. 65 chs. stony and gravelly, volcanic formation.
	Undergrowth, oak, service, buck and sga brush.
	Land mountainous or heavily timbered, 79.99 chs.

	N. 0° 01' W. bet. secs. 17 and 18.
	Over mountainous land, through dense forest of cedar and pinon, and scattering undergrowth of oak, buck and sage brush.
	Descend 30 ft.
2.25	Draw, course W.
	Ascend 70 ft.
5.50	Flat top of spur, projects W.
	Gradually [illegible]

Chains	
16.00	Head of hollow, course W.; gently ascend.
23.50	Top of ascent, bears SE. and W.
	Thence along top.
33.50	Descend 75 ft. to
40.00	On N. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 18 on W. half and S 17 on E. half; from which
	A pinon, 5 ins. diam., bears N. 88½° E., 20 lks., dist., marked ¼ S 17 BT
	A cedar, 4 ins. diam., bears S. 45½° W., 12 lks., dist., marked ¼ S 18 BT
26.00	Open swale, 10 ft. deep, drains E.
	Thence gently ascend.
70.00	Enter scattering timber and heavy sage brush, bears NW. and SE. Thence over bench land with slight slope to the S.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 7-8-17 and 18, marked on brass cap
	T40S S7 in NW.,
	R4½W S8 in NE.,
	S 17 in SE., and
	S 18 in SW. quadrant; from which
	A cedar, 6 ins. diam., bears N. 13½° E., 67 lks., dist., marked T40S R4½W S8 BT
	A cedar, 4 ins. diam., bears S. 10½° E., 33 lks., dist., marked T40S R4½W S17 BT
	A cedar, 6 ins. diam., bears S. 40°40' W., 71½ lks., dist., marked T40S R4½W S18 BT
	A cedar, 9 ins. diam., bears N. 68°45' W., 43 lks., dist., marked T40S R4½W S7 BT
	Land, rolling mountainous, general slope to the S.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Soil, gravelly, stony and some light sandy loam near N. end; 2nd rate.
	Timber, cedar and pinon, on mile.
	Undergrowth, sage, service and oak brush.
	Land mountainous or heavily timbered, 80.00 chs.

	N. 89°55'E., on a random line bet. secs. 8 and 17.
40.00	Set temp. ¼ sec. cor.
	Cease work June 10, 1911.
	June 12: At this temp. ¼ sec. cor., I set off 37° 2[illegible]' on the lat. arc; 23° 07½'N. on the decl. arc; and at 8h 0m a.m., l.m.t., determine a meridian with the solar. at the
	Thence I cotinue N. 89°55'E.
79.64	Intersect N. and S. line, 21 lks. S. of the cor. of secs. 8-9-16 and 17.
	Thence I run
	S. 89°46' W., on true line bet. secs. 8 and 17.
	Over rolling mountainous land, through dense undergrowth of sage, service and oak brush.
	Descend 30 ft. to
1.60	Enter Skumpah hollow, bears N. and S.
3.70	Wash, 25 lks. wide, 5 ft. deep, course S. 80°W.
4.60	Recross same, course N.80° W.
6.65	Recross same, course S.
7.74	Skumpah creek, 5 lks. wide, 3 ins. deep, course S.
	Note: Few cottonwoods on creek bottom.
13.00	Leave hollow, bears N. and S.; enter cedar and pinon.
	Ascend 85 ft.
21.10	Ridge, bears NW. and S. 80° E.
	Descend 50 ft.
26.50	Enter open swale, bears N. and SE.

Chains	
31.64	Small wash, course SE.
35.50	Leave swale and enter timber, bears NW. and SE.
38.00	Low ridge, 20 ft. high, bears N. 20°W., and SE. 6 chs.
39.82	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 8 on N. half and S 17 on S. half; from which
	A pinon,7 ins. diam.,bears S. 22° E., 33 lks., dist.,marked ¼ S 17 BT
	A cedar, 6 ins.diam.,bears N. 10¼° W., 25 lks., dist.,marked ¼ S 8 BT
58.14	Small wash, 6 lks. wide, 1 ft. deep, in hollow, drains S.
	Ascend 90 ft. to
72.50	Leave timber, thence over bench, bears N. and S.
79.64	The cor. of secs. 7-8-17 and 18.
	Land, rolling mountainous and hilly.
	Timber, cedar and pinon, on 59.50 chs.
	Undergrowth, sage, oak and service.
	Land mountainous or heavily timbered, 79.64 chs.
	June 12, 1911.

June 10, 1911:

S. 89°45'W.,on true line bet. secs. 7 and 18

Over rolling mountainous land, through cedar and pinon, and undergrowth of sage, oak and buck brush.

2.00	Leave bench; descend 75 ft. to
9.25	Wash, 25 lks. wide, 10 ft. deep, in main hollow, 5 chs. wide, course S.
	Ascend 100 ft.
22.00	Thence over rolling bench land, through scattering timber.
35.00	Leave same and begin descent over W. slope, 50 ft. to
40.00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the grpund, for ¼ sec. cor.,marked on brass cap ¼ S 7 on

Subdivision of T. 40 S., R. 4½ W.

Chains	
	N. half and S 18 on S. half; from which
	A pinon, 6 ins. diam., bears S. 1° E., 32 lks., dist., marked ¼ S 18 BT
	A pinon, 7 ins. diam., bears N. 6° W., 42½ lks., dist., marked ¼ S 7 BT
	Descend 20 ft.
42.40	Wash, 5 lks. wide, 2 ft. deep, course S.; enter hollow.
46.00	Leave hollow, bears N. and S.
	Ascend E. and SE. slopes of mountain.
65.00	Thence more abrupt ascent.
75.00	Top of mountain and ridge, 375 ft. above ¼ sec. cor., bears N. and S. 10° W.
	Thence across top.
79.85	Intersect W. bdy. of tp., 94 lks. N. of the cor. of secs. 12 and 13, heretofore described.
	Land, hilly and mountainous.
	Soil, gravelly and stony, on gravel hardpan subsoil.
	Timber, cedar and pinon.
	Undergrowth, sage, oak and service.
	Land mountainous or heavily timbered, 79.85 chs.
	June 10, 1911.

June 12: At the cor. of secs. 7-8-17 and 18, I set off 23° 08' N. on the decl. arc; and at 12h 0m m. l.m.t., observe the sun on the meridian; the resulting lat. is 37° 21'.

Thence I run

N. 0° 01' W. bet. secs. 7 and 8.

Over rolling bench land, general slope to the S., through few scattering cedar and heavy sage, 2 to 3 ft. high.; soil, gravelly and sandy loam.

Subdivision of T. 40 S., R. 4½ W.

Chains	
22.00	Enter dence cedars, bears NE. and SW.
35.00	Leave all but few scattering cedars, bears E. and NW.
40.00	On N. edge of timber, bearing NW. and SE.
	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 7 on W. half and S 8 on E. half; from which
	A cedar, 6 ins.diam., bears S. 48°11' E., 136 lks., dist., marked ¼ S 8 BT
	A cedar, 7 ins.diam., bears S. 25°20' W., 164½ lks., dist., marked ¼ S 7 BT
	Thence over gently rolling open bench land.
80.00	Set an iron post, 3 ft. long, 2 ins.dia., 24 ins. in the ground, for cor. of secs. 5-6-7 and 8, marked on brass cap
	T40S S6 in NW.,
	R4½W S5 in NE.,
	S 8 in SE., and
	S 7 in SW. quadrant; dig pits 18 x 18 x 12 ins., in each sec., 5½ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.
	Land, gently rolling bench, slope to the S.
	Soil, gravelly and sandy loams, 1 to 3 ft. deep, on gravel subsoil; 1st and 2nd rates.
	Timber, cedar and pinon.
	Undergrowth, dense sage and scattering oak and service.

	N. 89°46'E., on a random line bet. secs. 5 and 8.
40.00	Set temp. ¼ sec. cor.
79.66	Intersect N. and S. line, 7 lks. N. of the cor. of secs. 4-5-8 and 9.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Thence I run
	S. 89°49' W., on true line bet. secs. 5 and 8.
	Over low hilly and rolling land, general drain to the S., through dense forest of cedar and pinon, and undergrowth of sage and scattering oak brush.
	Descend 55 ft. to
3.75	Wash, 80 lks. wide, 25 ft. deep, some alkali water, course S.
	Ascend 100 ft.
7.50	Flat ride, bears N. and S.
	Descend 90 ft. to creek.
16.50	Leave timber, bears N. and SW.
	Thence through heavy sage brush.
37.50	Skumpah creek, 5 lks. wide, 3 ind. deep, in wash, 50 lks. wide, 10 ft. deep, course S. 20° E.
	Ascend 50 ft. to
39.83	On steep NE. slope of bench.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 5 on N. half and S 8 on S. half; from which
	A cedar, 5 ins. diam., bears S. 40½° W., 33 lks., dist., marked ¼ S 8 BT
	A yellow pine, 28 ins. dia., bears N. 10° W., 459 lks., dist., marked ¼ S 5 B T
	Ascend 20 ft.
41.00	Thence over bench, bears NW. and SE.
48.00	Leave same, enter timber, bears N. and S.
	Ascend 75 ft.
57.00	Ridge, bears N. and S.
60.00	Leave timber, bears N. and S.
	Descend 40 ft.
62.90	Wash, 6 lks. wide, 2 ft. deep, in swale, drains S.
75.00	Top flat bench, bears N. and S.

Chains	
79.66	The cor. of secs. 5-6-7 and 8.
	Land, hilly and rolling, general slope to the S.
	Soil, gravelly and light sandy loams, 1 to 2 ft. deep, on subsoil of hard gravel; 1st rate.
	Timber, cedar and pinon.
	Undergrowth, sage and scattering oak brush.
	June 12, 1911.
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	June 23: At 8h 02m a.m., l.m.t., I set off 37° 21½' on the lat. arc; 23° 27½'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5-6-7 and 8.
	Thence I run
	N. 0° 01' W., on true line bet. secs. 5 and 6.
	Over gently rolling bench land, slope to the S., through heavy sage brush, 1 ft. high.
12.00	Enter, scattering cedars, bears E. and W.
25.50	Leave bench, bears NW. and SE.
	Descend 100 ft. over NE. slope towards creek.
36.00	Base of descend and enter creek bottom; leave all but few scattering trees, bears NW. and SE.
40.00	True point for ¼ sec. cor. falls in old channel of creek.
40.75	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness to the ¼ sec. cor., marked on brass c cap T40S R4½W on N. half, S 5 in E. and S 6 in W. half, with W C ¼ to the S. of center; from which
	A cottonwood, 7 ins. dia., bears S. 29°E., 119½ lks., dist., marked W C ¼ S 5 B T
	A cedar, 8 ins. diam., bears N. 40° W., 43 lks., dist., marked W C ¼ S 6 B T
	Note: scattering cottonwoods on creek bottom.

Subdivision of T. 40 S., R. 4½ W.

Chains	
42.43	Mill creek, 5 lks. wide, 3 ins. deep, pure water, swift current, rocky bottom, course S. 20° E.
44.94	Same at bend, from N. 10° W. to S. 10° W.
45.00	Dim trace of raod, Thompson's to Tenny's ranch, bears SE. and W.
	Gradually ascend along E. side of creek, over nearly level land.
54.90	Wash, 10 lks. wide, 3 ft. deep, course W.
61.70	Wash, 10 lks. wide, 2 ft. deep, course W.
67.00	Enter dense cedar and pinon, bears E. and W.
78.00	Leave same, NE. and SW.
79.65	Intersect N. bdy. of tp., 6 lks. W. of the cor. of secs. 34 and 35, in S. bdy. T. 39 S., R. 4½ W., heretofore described.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 5 and 6, marked on brass cap
	T40S R4½W S34 CC S35 in N. half,
	S 5 in SE., and
	S 6 in SW. quadrant; from which
	A pinon, 7 ins. diam., bears S. 11°25'E., 100 lks., dist., marked T40S R4½W S5 BT
	A pinon, 6 ins. diam., bears S. 65°40'W., 160 lks., dist., marked T40S R4½W S6 BT
	Land, rolling and nearly level.
	Soil, gravelly and light sandy loam; 1st and 2nd rates; on subsoil of gravel.
	Timber, cedar and pinon, on 35 chs.
	Undergrowth, sage and scattering oak and service.
	June 23, 1911.

Chains	
	June 12: From the cor. of secs. 5-6-7 and 8.
	I run
	S. 89°45'W., on true line bet. secs. 6 and 7.
	Over gently rolling bench land, with slope to the S., and SW., through sage brush; soil, gravelly and sandy loam.
16.00	Descend 50 ft. from bench, bears N. and S.
18.50	Base of descent. Scattering timber along slope.
20.73	Wash, 20 lks. wide, 7 ft. deep, course S.
	Thence gradually ascend gentle slope to the E., through few scattering cedars.
34.35	Road, Thompson's to Tenny, bears NE. and SW.
38.00	Enter heavier timber, bears N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 6 on N. half and S 7 on S. half; from which
	A cedar, 9 ins. diam., bears S. 43° W., 37½ lks., dist., marked ¼ S 7 BT
	A cedar, 6 ins. diam., bears N. 46¼° E., 13 lks., dist., marked ¼ S 6 B T
47.00	Descend 50 ft. to lower bench, bears N. and S.
49.50	Base of slope, thence across bench through scattering timber, N. and S.
58.50	Descend 40 ft. to
60.00	Enter open sage brush hollow, with rich sandy loam soil, bears NE. and S. 70° W.
70.50	Stream, 1 lk. wide, 2 ins. deep, alkali water, course SW.
72.00	Leave hollow, bears NE. and SW.
	Thence over S. slope of low adobe hills.
79.94	Intersect W. bdy. of tp., 97 lks. N. of the cor. of secs. 1 and 12, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the

Subdivision of T. 40 S., R. 4½ W.

Chains

ground, for closing cor. of secs. 5 and 6, marked on brass cap

T 40 S on N. half,

S 1 CC S 12 R 5 W on W. half,

S 6 in NE., and

S 7 in SE. quadrant; from which

A pinon, 14 ins. diam., bears N. 70°10'E., 97 lks., dist., marked T40S R4½W S6 B T

A cedar, 8 ins. diam., bears S. 74°40'E., 109 lks., dist., marked T40S R4½W S7 BT

Land, rolling and hilly.

Soil, E. 72 chs. sandy loam and fine gravelly, 1 to 3 ft. deep, on subsoil of gravel; 1st & 2nd rates.

Timber, cedar and pinon.

Undergrowth, sage and some scattering oak and service.

June 12, 1911.

Andrew Nelson

U. S. Transitman.

GENERAL DESCRIPTION.

This fractional township consists mainly of rolling mountainous land having a general face and drain to the south, traversed by long ridges and hollows with a northerly and southerly trend. It is covered with a growth of scrub cedar and pinon pine and considerable undergrowth of black sage, service, oak and chaparral. The timber is of no commercial value.

The township is well watered by Thompson creek, which flows through secs. 19, 30 and 31 in a southerly

General Description.

direction. The water in this stream id muddy. And Skumpah creek with its tributaries, flowing south through the center of the township. The water in both streams contains some alkali.

The soil along these creeks and portions of secs. 7 and 8 is generally a deep, rich sandy and fine gravelly loams 1st rate. In the rough portions the soil ranges from gravelly, stony, gypsum to clayish and some rocky; 3rd and 4th rates. The formation is af sandstone with volcanic blowouts about the cor. of secs. 17, 18, 19 and 20.

On line bet. secs. 9 and 16 and bet. 18 & 19 coal outcroppings were found. The veins being about 3 ft. thick. The SE$\frac{1}{4}$ sec.18, NE$\frac{1}{4}$ sec.19, SW$\frac{1}{4}$ sec.9 and NW$\frac{1}{4}$ sec.16 are returned as coal lands.
No mineral nor oil indications were discovered in the tp. There are no settlers living in the township.

Andrew Nelson
Walter A. Stumm,

U. S. Transitmen.

4—680

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of .....

.....

or certificate of assistants see book "J" T.39 S., R. 5 W.

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f the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and aithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursu
of special instructions received from the U. S. Surveyor General for .....
bearing date of the ..... day of ....., 191 , I have well, faithfully, and t
in my own proper person, and in strict conformity with said instructions, the Manual of Surve
Instructions, and the laws of the United States, surveyed all those parts or portions of .....
.....

For final oath of transitmen see book "J" T. 39 S., R. 5 W.

.....
..... of the .....
..... Meridian, in the State of ....., which are represent
the foregoing field notes as having been executed by me, and under my direction; and I do fu
solemnly swear that all the corners of said survey have been established and perpetuated in strict acc
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surv
General for ..... and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey.

.....
U. S. Surveyo

Subscribed by said ....., and sworn to before me
this ..... day of ....., 191

SEAL

.....
.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 5, 191

The foregoing field notes of the survey of the subdivisional lines of Townshi
No.40 South, Range No.4½ West of the Salt Lake Base and Meridian,
Utah,

executed by their Andrew Nelson and Walter A. Sturm
under special instructions dated March 27, 1911, having b
critically examined, and the necessary corrections and explanations made, the said field notes, and
surveys they describe, are hereby approved.

A. O. Thorsen
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

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Filed March 2, 1912.

4—679

BOOK A-397

Book "E"

C.M. 8.

FIELD NOTES

OF THE SURVEY OF THE

NORTH BOUNDARY OF TOWNSHIP NO. 39 SOUTH, RANGE NO. 4½ WEST, and

Resurvey of the

WEST BOUNDARY OF TOWNSHIP NO. 39 SOUTH, RANGE NO. 4½ WEST,

Of the Salt Lake Base and *Meridian,*

In the State of Utah.

EXECUTED BY

Andrew Nelson and Walter A. Stumm,

In the capacity of U. S. ~~Surveyor~~ Transitmen, *under instructions dated* March 27, *191*1, *issued by the United States Surveyor General to govern surveys included in Group No.* 6, *which were approved by the Commissioner of the General Land Office,* April 19, *191*1, *pursuant to authority contained in the Act of Congress dated* , *191*

Survey commenced June 21, *191*1

Survey completed June 29, *191*1

6—151

Res. W. Bdy. - 6-00-69
closing - 03-02
No. Bdy. - 3-00-17

BOOK A-397

INDEX DIAGRAM.

Township 39 South, *Range* 4½ West

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West Boundary

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Survey commenced June 21, 1911, and executed with the instrument described in book "A",of this survey.
I 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,I proceed as follows:
At the cor.of Tps.39 and 40 S.,R.5 W.,heretofore described in approximate latitude 37°22'31"N.,longitude 112°23'10"W.,I set off 37°22'30"N.on lat.arc,23°28'N.on decl.arc,and at4h.01m.,p.m.,l.m.t.,determine with the solar a meridian and mark a point thereof,on a stone firmly set in the ground,5 chs.N.of the cor.

June 21, 1911

June 22: At 1h.34m.,a.m.,l.m.t.,I observe Polaris,at eastern elongation in accordance with Manual of Instructions,and amrk a point in the line thus determined on a peg,driven in the ground,5 chs.N.of my station.
At 7h.30m.,a.m.,I lay off the azimuth of Polaris,1°28' to the west,and mark the meridian thus determined,by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins.east of the mark determined by the solar.
At 8h.02m.,a.m.,l.m.t.,I set off 37°22'30"N.on lat.arc, 23°28'N.on decl.arc,and mark a point in the meridian determined with the solar,by a cross on the stone already set 5 chs.N.of my station; this mark falls 0.3 ins.east of the meridian determined by the Polaris observation.
The solar apparatus, by p.m.and a.m.observations,defines positions for meridians,respectively about 0'16" west and east of the meridian established by the Polaris observations;therefore, I conclude that the adjustments of the instrument are satisfactory.

RESURVEY OF THE WEST BOUNDARY OF T.39 S.,R.4½ W.

CHAINS	
	The magnetic bearing of the true meridian at 8h.30m.,a.m.is N.16°20'W.,the angle thus determined gives the mag. decl. 16° 30' E.
	Knowing from the resurvey of the N.bdy.of T.40 S.,R.5 W. that the W.bdy.of T.39 S.,R.4½ W.,will have to be resurveyed,as the Tp.cor.originally set for Tps.39 and 40 S.,Rs.4½ and 5 W.,was shifted in position and the original work being greatly defective.
	The range line bet.ranges 4½ and 5 W. will have to be run for range 5 W.,only,and I know from the length of the S.bdy.of T.39 S.,R.5 W.,that the line will not fall within limits of 0°21' of arc on the cor.of Tps. 38 and 39 S.,Rs.4½ and 5 W., therefore I begin at the cor.of Tps.39 and 40 S.,R.5 W.,and resurvey this line there being no subdivisions dependent upon this line, I proceed as follows:
	North,resurveying on E.bdy.of sec.36.
	Ascend over mountainous land,through scattering timber and dense undergrowth.
4.16	Intersect the closing cor.of Tps.39 and 40 S.,R.4½ W., heretofore described.
5.25	Spur,90 ft.above Tp.cor.,projects E.
	Descend.
	Descend over broken land,sloping E.
7.50	Draw,50 ft.deep,course E.
	Ascend.
11.00	Spur,projects E.
	Descend.
14.50	Draw,25 ft.deep,course E.
	Ascend.
18.50	Spur,projects E.
	Descend.
39.25	Spring branch,1 lk.wide,1 in.deep,in bottom of main hollow.50 ft.below spur,course S.70°E.
	Ascend.

RESURVEY OF THE WEST BOUNDARY OF T.39 S.,R.4½ W.

CHAINS	
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for re-established ¼ sec.cor.for sec.36,T.39 S., R.5 W.,marked on brass cap,¼ S 36 on W.half,from which
	An oak,3 ins.diam.,bears S.68°30'W.,38 lks. dist.,marked ¼ S 36 BT.
	After diligent search no trace can be found of the old ¼ sec.cor.
41.00	Top of ascent,25 ft.above ¼ sec.cor.
	Begin gradual ascent over bench.
49.00	A spring of pure water bears W.,2.00 chs.,springs drains S.
58.00	Enter heavy timber, bears E.and W. Ascend steep SW.slope.
74.00	Spur,projecting from peak,which bears NE.15.00 chs.dist. spur,projects W.and is 400 ft.above ¼ sec.cor.
	Descend along steep west slope,50 ft.to
80.00	On steep west slope. Set an iron post,3 ft.long,3 ins.dia., 24 ins.in the ground,for re-established cor.of secs.25 and 36,T.39 S.,R. 5 W.,marked on brass cap,
	T 39 S on N.half,
	R 5 W S 25 in NW.,and
	S 36 in SW.quadrant, from which
	A pinon,12 ina.diam.,bears S.36°30'W.,81½ lks. dist.,marked T 39 S R 5 W S 36 BT.
	A cedar,12 ina.dia .,bears N.27°30'W.,237 lks. dist.,marked T 39 S R 5 W S 25 BT.
	After diligent search no trace can be found of the old sec.cor.
	Land,mountainous.
	Soil,rocky,gravelly and clay, 3rd.and 4th.rate.
	Timber,cedar and pinon.
	Undergrowth,sage and oak brush.
	Mountainous land on 80.00 chs.
	June 22: At this cor.I set off 23°28'N.on decl.arc,and at 0h.02m.,p.m.,l.m.t.,observe the sun on the meridian, the resulting lat.is 37° 23'N.

RESURVEY OF THE WEST BOUNDARY OF T.39 S.,R.4½ W.

CHAINS	
	North,resurveying on E.bdy.of sec.25.
	Descend over rocky and mountainous land along steep, west slope,through scattering timber and dense under growth.
27.00	Ravine,125 ft.below cor.,course SW.
	Ascend.
34.50	Top of ascent on west slope of spur,150 ft.above ravine, bears NE.to ridge.
	Descend.
40.00	Set an iron pst,3 ft.long,1 in.dia.,26 ins.in the ground,for re-established ¼ sec.cor.for sec.25,T.39 S., R.5 W.,marked on brass cap,¼ S 25 on W.half,from which
	A pinon,6 ins.diam.,bears S.3°W.,420 lks.dist., marked ¼ S 25 BT.
	After diligent search no trace can be found of the old ¼ sec.cor.
42.10	Draw,25 ft.deep,heads 4.00 chs.NE.,course SW.
	Abrupt ascent.
45.50	Top of abrupt ascent,bears NW.and SE.
	Thence along west slope of ridge,near top,ascending.
47.00	Enter scattering yellow pine.
58.00	Top of ridge,bears N.and S.10°E.
	Thence along top of ridge.
63.00	Leave ridge,bears N.10°W.,and S.
	Descend along east slope.
72.00	Draw,75 ft.below ridge,course E.
	Ascend.
77.00	Begin descent.
78.30	Draw,20 ft.deep,course SE.
	Ascend.
80.00	Set an iron post,3 ft.long,3 ins.dia.,24 ins.in the ground,for re-established cor.of secs.24 and 25,T.39 S., R.5 W.,marked on brass cap,
	T 39 S on N.half,
	R 5 W S 24 in NW.,and
	S 25 in SW.quadrant, from which

CHAINS	
	A yellow pine,14 ins.diam.,bears S. 25° W.,340 lks.dist.,marked T 39 S R 5 W S 25 BT.
	No other trees within limits and raise a mound of stone, 2 ft.base,1½ ft.high,W.of cor.
	Pits impracticable.
	After diligent search no trace can be found of the old sec.cor.
	Land,mountainous.
	Soil,rocky,gravelly and clay, 3rd.rate.
	Timber,cedar,pinon and yellow pine.
	Undergrowth, dense oak,sage and sevice berry brush.
	Mountainous land on 80.00 chs.
	North,resurveying on E.bdy.of sec.24.
	Ascend over rocky and mountainous land,through scattering timber and dense undergrowth.
3.00	Spur,projecting NE.,40 ft.above cor.
	Descend.
7.50	Draw,40 ft.deep,course S.80°E.
	Ascend.
16.50	Begin abrupt descent bears NW.and SE.
	Enter heavy timber,bearing NW.and SE.
23.00	Mill Creek,2 lks.wide,2 ins.deep,pure water,in bottom of Canyon,195 ft.below top of descent,course SE.
	Abrupt ascent.
26.40	Spur,100 ft.above creek,projects W.2.00 chs.
	Descend,along steep west slope.
30.00	Head of hollow,75 ft.below spur,course SW.
	Ascend.
37.80	Sharp spur,180 ft.above hollow,projects SW.
	Along steep west slope.
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for re-established ¼ sec.cor.for sec.24,T.39 S., R.5 W.,marked on brass cap,¼ S 24 on W.half,from which
	A red cedar,4 ins.diam.,bears N.88°W.,9 lks.dist., marked ¼ S 24 BT.

CHAINS	
	After diligent search no trace can be found of the old ¼ sec.cor.
	June 22, 1911
	June 24: At 8h.02m.,a.m.,l.m.t.,I set off 37°24'30"N.,on lat.arc,23°27'N.on decl.arc,and determine a meridian with the solar at the re-established ¼ sec.cor.on E.bdy. of sec.24.
	Thence I continue north,along E.bdy.of sec.24.
	Ascend abruptly over broken and solid sandstone ledges.
65.31	Top of Pink Cliffs,800 ft.above ¼ sec.cor.,bearing E.and SW.
	Ascend.
66.00	Divide bet.the Salt Lake Basin and the Colorado River, bears NW.and SE.
	Descend along west slope.
80.00	Set an iron post,3 ft.long,3 ins.dia.,24 ins.in the ground,for re-established cor.of secs.13 and 24,T.39 S., R.5 W.,marked on brass cap,
	T 39 S on N.half,
	R 5 W S 13 in NW., and
	S 24 in SW.quadrant, from which
	An aspen,8 ins.diam.,bears S.31°30'W.,35½ lks. dist.,marked T 39 S R 5 W S 24 BT.
	A fir,4 ins.diam.,bears N.23°W.,55 lks.dist., marked T 39 S R 5 W S 13 BT.
	After diligent search no trace can be found of the old sec.cor.
	Land,mountainous,extremely rough.
	Soil,rocky ,gravelly and solid ledges,4th.rate.
	Timber,cedar,pinon,fir,pine and aspen.
	Undergrowth,oak,manzanita and service berry brush.
	Mountainous land on 80.00 chs.
	June 24: At this cor.I set off 23°26'N.on decl.arc,and at 0h.02m.,p.m.,l.m.t.,observe the sun on the meridian, the resulting lat.is 37°25'N.

CHAINS	
	North,resurveying on E.bdy.of sec.13.
	Descend over mountainous land,along west slope,through heavy timber,through sparse undergrowth.
25.35	Draw,325 ft.below cor,course W. Ascend.
26.00	Begin descent.
37.75	Leave timber,bears NE.and SW.
	Enter short willows and grass,in bottom of branch of Sevier River Canyon.
39.40	Stream,4 lks.wide,6 ins.deep,in bottom of canyon,425 ft. below sec.cor.,course NE.
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for re-established ¼ sec.cor.for sec.13,T.39 S., R.5 W.,marked on brass cap,¼ S 13 on W.half,from which
	A pine,16 ins.diam.,bears N.63°50'W.,143 lks. dist.,marked ¼ S 13 BT.
	After diligent search no trace can be found of the old ¼ sec.cor.
	Leave bottom of canyon. Ascend.
41.00	Enter heavy timber,bears NE.and SW.
67.50	Top of flat spur,150 ft.above ¼ sec.cor.,projects E.
	Descend.
71.00	Ravine 135 ft.below spur,course E.
	Abrupt ascent.
80.00	200 ft.above ravine.
	Set an iron post,3 ft.long,3 ins.dia.,24 ins.in the ground,for re-established cor.of secs.12 and 13,T 39 S., R.5 W.,marked on brass cap,
	T 39 S on N.half,
	R 5 W S 12 in NW.,and
	S 13 in SW.quadrant, from which
	A pine,12 ins.diam.,bears S.84°W.,59 lks.dist., marked T 39 S R 5 W S 13 BT.
	A pine,9 ins.diam.,bears N.31°W.,32 lks.dist., marked T 39 S R 5 W S 12 BT.
	After diligent search no trace can be found of the old sec.cor.

RESURVEY OF THE WEST BOUNDARY OF T.39 S.,R.4½W.

CHAINS

Land,mountainous.

Soil,gravelly and loam, 2nd.rate.

Timber, heavy fir,pine,spruce and aspen.

Undergrowth,sparse manzanita and young timber.

Mountainous land and heavily timbered land on 80.00 chs.

June 24, 1911

June 26: At 8h.02m.,a.m.,l.m.t.,I set off 37°26'N.on lat. arc,23°24½'N.on decl.arc,and determine a meridian with the solar at the re-established cor.of secs.12 and 13.

Thence I run

North,resurveying on E.bdy.of sec.12.

Ascend over mountainous land,through heavy timber and sparse undergrowth.

3.00 Top of flat spur,70 ft.above cor.,projects E.

Thence across top to

17.75 Begin abrupt descent,bears E.and W.

24.60 Ravine,110 ft.below top, course E.

Abrupt ascent.

34.00 Spur,175 ft.above ravine,projects NE.

Descend.

37.80 Begin abrupt descent,bears NW.and SE.

40.00 Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for re-established ¼ sec.cor.for sec.12,marked on brass cap,¼ S 12 on W.half,from which

A fir,9 ins.diam.,bears N.74°W.,14 lks.dist., marked ¼ S 12 BT.

After diligent search no trace can be found of the old ¼ sec.cor.

61.80 Enter bottom of a fork of Sevier River canyon,bears N.60°W.,and S.60°E.,400 ft.below spur.

Over level bottom land,in meadow.

63.50 Stream 5 lks.wide,12 ins.deep,course SE.

66.35 Trail,N.60°W.and S.60°E.

66.70 Leave canyon bottom,bears NW.and SE.

Begin abrupt ascent.

CHAINS	
80.00	410 ft.above canyon bottom.
	Set an iron post,3 ft.long,3 ins.dia.,24 ins.in the ground,for re-established cor.of secs.1 and 12,T.39 S., R.5 W.,marked on brass cap,
	T 39 S on N.half,
	R 5 W S 1 in NW.,and
	S 12 in SW.quadrant, from which
	A fir,14 ins.diam.,bears S.61°45'W.,21 lks.dist., marked T 39 S R 5 W S 12 BT.
	A pine,9 ins.diam.bears N.25°30'W.,78½ lks.dist., marked T 39 S R 5 W S 1 BT.
	After diligent search no trace can be found of the old sec.cor.
	Land,mountainous.
	Soil,gravelly and black loam,2nd.and 3rd.rate.
	Timber,heavy fir,spruce,pine,balsam and aspen.
	Undergrowth,sparse manzanita.
	Mountainous land and heavily timbered on 80.00 chs.
	Sky over cast, lat. observation impossible.
	North,resurveying on E.bdy.of sec.1.
	Ascend over mountainous land,through heavy timber.
8.00	Gradual ascent along west slope.
34.00	Leave heavy fir timber, enter heavy aspen and pine, bears NW.and SE.
35.25	Ridge,600 ftabove cor.,bears NW.and SE.
	Ascend along east slope.
40.00	Set an iron post,3 ft.long,1 in.dia., 26 ins.in the ground,for re-established ¼ sec.cor.for sec.1,T.39 S., R.5 W.,marked on brass cap,¼ S 1 on W.half,from which
	A pine,11 ins.diam.,bears N.74°20'W.,75 lks.dist., marked ¼ S 1 BT.
	After diligent search no trace can be found of the old ¼ sec.cor.
46.00	Enter dense undergrowth.
62.00	Base of ridge. Ascend.
74.00	Top of high ridge,350 ft.above ¼ sec.cor.,bears E.and W.
	Descend.

CHAINS

76.40 Begin abrupt descent,100 ft.to

80.69 Fall 302 lks.East of the cor.of Tps.38 and 39 S.,Rs.4½ and 5 W.,which is a sandstone 8 x 10 x 6 ins. above ground,marked and witnessed as described by the surveyor general.

Set an iron post,3 ft.long, 3 ins.dia.,24 ins.in the ground,for NE.cor.of T.39 S.,R.5 W.,marked on brass cap, T 39 S R 5 W S 1 in SW.quadrant,from which

A pine,20 ins.diam.,bears S. 50½° W., 16 lks. dist.,marked T 39 S R 5 W S 1 BT.

I destroy all marks on the cor.of Tps.38 and 39 S.,Rs. 4½ and 5 W.,pertaining to T.39 S.,R.5 W.

Land,mountainous.

Soil,gravelly and rocky,3rd.rate.

Timber,fir,pine,aspen,spruce and balsam.

Undergrowth,manzanita.

Mountainous land and heavily timbered on 80.69 chs.

June 26, 1911

Andrew Nelson
U.S.Transitman

NORTH BOUNDARY OF T.39 S.,R.4½ W.

Survey commenced June 27,1911, and executed with the instrument described in book "A",of this survey.
I 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, I proceed as follows:
At the cor.of Tps.38 and 39 S.,Rs.4 and 4½ W.,which is a limestone,10x12x5 ins.above ground,marked and witnessed as described by the surveyor general,in approximate latitude 37°28'N.,longitude 112°20'W.,I set off 37°28'N. on lat.arc, 23°22'N.on decl.arc,and at 4h.03m.,p.m.,l.m.t. determine with the solar a meridian and mark a point thereof,on a stone firmly set in the ground,5 chs.N.of the cor.

June 27 , 1911

June 28 : At 1h. 1m.,a.m.,l.m.t.,I observe Polaris at eastern elongation,in accordance with Manual of Instructions,and mark a point in the line thus determined,on a peg driven in the ground,5 chs.N.of my station.
At 7h.30m.,a.m.,I lay off the azimuth of Polaris,1°28'to the west,and mark the meridian thus determined,by cutting a small groove in the stone set last evening,on which the meridian falls 0.4 ins.east of the mark determined by the solar.
At 8h.03m.,a.m.,l.m.t.,I set off 37°28'N.on lat.arc, 23° 20' N.on decl.arc,and mark a point in the meridian determined with the solar,by a cross on the stone already set 5 chs.N.of my station;this mark falls 0.4 ins.east of the meridian established by the Polaris observation.
The solar apparatus,by p.m.and a.m.observations,defines positions for meridians,respectively about 0'21" west and 0'21" east of the meridian established by the Polaris observations;therefore,I conclude that the adjustments of the instrument are satisfactory.

NORTH BOUNDARY OF T.39 S.,R.4½ W.

CHAINS	
	The magnetic bearing of the true meridian at 8h.30m.,a.m., is N.16°10'W.,the angle thus determined gives the mag. decl.16°10'E.
	From the Tp.cor.already described, I run
	West, on a true line,bet.secs. 1 and 36.
	Ascend over mountainous land,through heavy timber.
14.00	Ridge,225 ft.above Tp.cor.,bears NE.and SW.
	Descend 200 ft.to
40.00	Set an iron post,3 ft.long,1 in.dia.,26 ins.in the ground,for ¼ sec.cor.,marked on brass cap,¼ S 36 on N. S 1 on S.half,from which
	A yellow pine,20 ins.diam.,bears N.38°E.,56 lks. dist.,marked ¼ S 36 BT.
	A balsam,13 ins.diam.,bears S.23°E.,31½ lks.dist., marked ¼ S 1 BT.
72.00	Leave timber,bears NW.and SE.
72.90	Crawford Creek,3 lkswide, 3 ins.deep,in hollow,200 ft. below ¼ sec.cor.,course NW.
	Ascend.
74.00	Enter heavy timber,bears NW.and SE.
80.00	100 ft.above creek. Set an iron post,3 ft.long,3 ins.dia., 24 ins.in the ground,for cor.of secs.1-2-35 and 36,marked on brass cap,T 38 S S 35 in NW.,
	R 4½ W S 36 in NE.,
	R 4½ W S 1 in SE.,and
	T 39 S S 2 in SW.quadrant, from which
	A balsom,14 ins.diam.,bears N. 56½° E., 49 lks., dist.,marked T38S R4½W S36 BT
	An aspen,8 ins.diam.,bears S. 86½° E., 118 lks., dist.,marked T39S R4½W S1 BT
	A fir,12 ins.diam.,bears S. 50° W., 36 lks., dist.,marked T39S R4½W S2 BT
	A spruc,13 ins.diam.,bears N. 70° W., 33 lks., dist.,marked T38S R4½W S35 BT

NORTH BOUNDARY OF T.39 S., R.4½ W.

CHAINS	
	Land, mountainous.
	Soil, rocky and black mountain loam; 2nd and 3rd rate.
	Subsoil, sandstone formation.
	Timber, fir, spruce, aspen and scattering yellow pine.
	Mountainous land and heavily timbered land on 80.00 chs.
	June 28, 1911.

	June 29: At 8h 3m a.m.l.m.t, I set off 37° 28'N. on the lat. arc; 23° 17½'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1-2-35 and 36.
	Thence I run
	West, bet. secs. 2 and 35.
	Ascend over mountainous land, through heavy timber.
10.00	Spur, 125 ft. above sec. cor., projects N.
	Descend.
22.00	Head of spring branch, course NW.
24.00	Leave timber, bears NE. and SW.
	Thence across grassy meadow in hollow.
33.75	Mill Creek, 8 lks. wide, 1 ft. deep, in hollow, 250 ft. below spur, course NE.
38.75	Trail, bears NE. and SW.
	Ascend 30 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 35 on N. half and S 2 on S. half; from which
	A fir, 24 ins. diam., bears B.82°45'W., 178 lks., dist., marked ¼S 2 BT
	A fir, 5 ins. diam., bears N.78°30'W., 136 lks., dist., marked ¼ S 35 BT
41.50	Enter heavy timber, bears NE. and SW.
	Ascend 220 ft.
65.00	Spur, projects S.
	Descend 90 ft. to

NORHT BOUNDARY OF T. 39 S., R. 4½ W.

CHAINS	
74.50	Hollow, coufse SE.; ascend abruptly 150 ft. to
80.00	Set an iron post, 3 ft. long, 3 ins.diam.,24 ins. in the ground, for cor. of secs. 2-3-34-and 35, marked on brass cap T38S S34 in NW., R4½W S35 in NE., R4½W S2 in SE.,and T39S S3 in SW. quadrant; from which
	A spruce,11 ins.diam.,bears N. 76° E., 93 lks., dist.,marked T38S R4½W S35 BT
	A yellow pine,15 ins.diam.,bears S.78°E., 60 lks., dist.,marked T39S R4½W S2 BT
	A fir,36 ins.diam.,bears S. 3° W., 79 lks., dist.,marked T39S R4½W S3 BT
	A spruce,24 ins.diam.,bears N. 9° W., 44 lks., dist.,marked T38S R4½W S34 BT
	Land, mountainous and nearly level bottom land.
	Soil, rocky and mountain loam on 55.50 chs.,balance rich black loam on bottom land, 1st rate.
	Subsoil, sandstone formation.
	Timber, heavy fir, spruce, aspen and scattering yellow pine.
	Land mountainous or heavily timbered on 60,50 chs.
	June 29: At this sec. cor.,I set off 23° 16½'N. on the decl. arc; and,at 6h 3m p.m.,l.m.t.,observe the sun on the meridian; the resulting lat. is 37° 28'N.

West, bet. secs. 3 and 34.

	Over rough mountainous land, facing SE., through heavy timber and scattering undergrowth.
	Ascend 100 ft.
8.50	Ridge, bears NE. and SW.
	Descend 80 ft.
18.00	Hollow, course SE.
	Ascend 200 ft. to

North Boundary of T. 39 S., R. 4½ W.

CHAINS	
40.00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 34 on N. half and S 3 on S. half; from which
	A balsom,6 ins.diam.,bears S. 7° E., 31 lks., dist.,marked ¼ S 3 BT
	An aspen,8 ins.diam.,bears N. 27½° W., 33 lks., dist.,marked ¼ S 34 BT
	Ascend 150 ft.
47.00	Ridge, bears NE. and SW.
	Descend 350 ft. to
80.17	Intersect the W. bdy. of tp., 7.70 chs. N. of the ¼ sec. cor. in E. bdy. of T.39 S.,R. 5 W., heretofofe described. Set an iron post, 3 ft. long, 3 ins.dia.,24 ins. in the ground, for closing township cor. of Ts.38 and 39 S., R. 4½ W., marked on brass cap
	T38S R4½W S34 CC and T39S R4½W S3 on E. half and T 39 S R 5 W S 1 in W. half;
	from which
	An aspen,6 ins.diam.,bears N.43°12'E., 178 lks., dist.,marked T38S R4½W S34 BT
	An aspen,6 ins.diam.,bears S.23°22'E., 87 lks., dist.,marked T39S R4½W S3 BT
	Land, mountainous, general slope to the S.
	Soil, rocky, gravelly and mountain loam; 2nd and 3rd rates.
	Timber, heavy fir, spruce, aspen and pine.
	Undergrowth, wild currant brush and manzanita.
	Land mountainous, heavily timbered or covered with dense undergrowth on 80.17 chs.

June 29, 1911.

Walter A. Stuman
U. S. Transitman.

BOUNDRIES OF T. 39 S., R. 4½ W.

Latitudes, departures and closing errors.

Line Designated	True Bearing	Distance	Latitudes N.	Latitudes S.	Departures E.	Departures W.
		Chs.	Chs.	Chs.	Chs.	Chs.
East Bdy.	South	443.00		443.00		
South Bdy.	West	239.97				239.97
West Bdy.	North	443.54	443.54			
North Bdy.	East	240.17			240.17	
Convergency					.26	
Totals - - - - - - - -			443.54	443.00	240.43	239.97
Errors in lat.& dep.			443.00		239.97	
			.54		.46	

For General Description see Subdivisions of this township.

Andrew Nelson
Walter A. Stumes
U. S. Transitmen.

4—680

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of .....

or certificate of assistants see book "J" T. 39 S., R. 5 W.

the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed by him, and under his direc- on; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuanc of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of transitmen see book "S" T. 39 S., R. 12 W.

..... of the .....

..... Meridian, in the State of ....., which are represented the foregoing field notes as having been executed by me, and under my direction; and I do furthi solemnly swear that all the corners of said survey have been established and perpetuated in strict accor ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Survey General for ..... and in the specific manner described in the field notes, and th the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 191 4.

The foregoing field notes of the survey of the north and resurvey of the west boundaries of Township No. 39 South, Range No. 4½ West of the Salt Lake Base and Meridian, Utah,

executed by Andrew Nelson and Walter A. Sturm

under ~~his~~ their special instructions dated March 27, 191 1, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....

U. S. Surveyor General.

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

.....

U. S. Surveyor General.

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K.F.B.

Filed March 2, 1912.

WSH.

G.N.

4—679

BOOK A-397

BOOK "F"

M.S.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

T. 39 S., R. 4½ W.

Of the Salt Lake Base and *Meridian,*

In the State of Utah.

EXECUTED BY

Andrew Nelson and Walter A. Sturm.

In the capacity of U. S. ~~Surveyor~~ Transitmen, *under instructions dated* March 27, *1911,*

Issued by the United States Surveyor General to govern surveys included in

Group No. 6, *which were approved by the Commissioner of the General Land*

Office, April 19, *1911, pursuant to authority contained in the Act of*

Congress dated ....., *191*....

Survey commenced June 21, 1911, *191*....

Survey completed July 1, 1911, *191*....

6—151

Lab - 26-06-49

Clas - 15-98

INDEX DIAGRAM.

Township 39 S, *Range* 4½W

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6—151

Chains Subdivision of T. 39 S., R. 4½ W.

Survey commenced June 21, 1911, and executed with a W. & L. E. Gurley light mountain and a W.& L.E. Gurley explorers' transits Nos. 9624 and 9211 respectively. For description and test of instruments see book "D" of this survey.

The following Polaris observation is taken with transit No. 9211.

I 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, I proceed as follows:

At the cor. of secs. 35 and 36 in the S. bdy. of the tp., heretofore described; latitude 37°22'31" N.; longitude 112°21' 00" W.; I set off 37° 22½' on the lat. arc; 23° 29'N. on the decl. arc; and at 5h 32m p.m.,l.m.t., determine with the solar a meridian and mark a point thereof, on a stake firmly driven in the ground, 5 chs. N. of the cor.

June 21, 1911

- - - - - - - - - - - - - - - - - -

June 22: At 1h 34m a.m., by my watch which carries correct l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7h 32m a.m.,l.m.t.,I lay off the azimuth of Polaris 1° 28' to the west, this mark agrees with that determined with the solar of June 21.

At 8h 02m a.m.,l.m.t.,I set off 37° 22½' on the lat. arc; 23° 28'N. on the decl. arc; and mark a point in the line determined with the solar, this mark also

Chains	
	coincides with the meridian established by the obervation on Polaris; therefore I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian, at 8h 25m a.m., is 16° 20' W., the angle thus determined gives the mag. decl. 16° 20' E.
	- -
	From the cor. of secs. 35 and 36 heretofore described. I run,
	N. 0° 01' W. bet. secs. 35 and 36.
	Over rough mountainous land, facing W., through dense forest of cedar and pinon, and undergowth of sage brush.
	Note: Corral bears N. 32° 26' W. about 26 chs.
	Descend rocky W. slope 75 ft.
12.00	Hollow, course W.
	Ascend over large volcanic boulders and W. face of high peak, 200 ft.
26.51	Brush fence, bears N. 80° W. and S. 80° E.
28.00	Spur, projects W. 10 chs.
	Descend broken W. face, 50 ft.
34.00	Leave dense, enter scattering timber, bears NE. and SW.
	Enter short oak brush.
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 35 on W. half and S 36 on E. half; from whish
	A pinon, 4 ins.diam., bears N. 4½° E., 11½ lks., dist., marked ¼ S 36 BT
	A cedar, 7 ins.diam., bears S. 16½° W., 135 lks., dist., marked ¼ S 35 BT
	Thence along W. slope.
80.00	80 ft. below ¼ sec. cor.
	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the

Chains

ground, for cor. of secs. 25-26-35 and 36, marked on brass cap

T39S S26 in NW.,

R4½W S25 in NE.,

S36 in SE., and

S35 in SW. quadrant; raise a mound of stone, 2 ft. base, 1½ ft, high W. of cor. Pits impracticable.

Land, mountainous, general W. slope.

Soil, rocky volcanic formation; 3rd rate.

Timber, cedar and pinon.

Undergrowth, sage and oak brush.

Land moutainous, heavily timbered or covered with dense undergrowth, 80.00 chs.

- -

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

40.00 Set temp. ¼ sec. cor.

79.90 Intersect E. bdy. of the tp., 16 lks. S. of the cor. of sections 25 and 36, which is a sandstone 10 x 4 x 10 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.

Thence I run

S. 89°53'W., on true line bet. secs. 25 and 36.

Over rough mountainous land, through dense oak and buck brush. Few scattering cedars.

Ascend E. and NE. slopes, 440 ft. to

39.95 Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 25 on N. half and S 36 on S. half; raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.

Ascend 40 ft.

Chains	
43.00	Ridge, bears nearly N. and S.; this is also top of a high volcanic peak, 1000ft. high.
	Descend gradually.
61.00	Top of basalt ledge, 100 ft. high, bears NE. and S.
62.00	Bottom of same.
	Descend abruptly W. face over boulders.
79.90	958 ft. below ridge.
	The cor. of secs. 25-26-35 and 36.
	Land, rough mountainous, general E. and W. slopes of high volcanic peak.
	Soil, rocky volcanic and lava formations,
	Timber, few scattering cedars.
	Undergorwth, oak, sage and buck brush.
	Land mountainous or covered with dense undergrowth, 79.90 chs.
	June 22: At this sec. cor., I set off 23° 27½'N. on the decl. arc; and, at 12h 02m pm l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.
	- - - - - - - - - - - - - - - - - - - -
	N. 0° 01' W. bet. secs. 25 and 26.
	Over mountainous land, facing W., through dense oak, and sage brush.
	Ascend 30 ft. over lava boulders.
6.00	Top of ascent projects W. 4 chs.
	Descend 50 ft.
10.60	Leave dense undergrowth, thence across mounth of hollow,
11.69	Small spring of clear, pure water, bears E. 1 ch. dist.
15.62	Stake and rider fence, bears NE. and SW.
	Thence across meadow (Tenny's).
23.94	Leave meadow and same fence, bears NW. 6 chs., and SE.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Enter dense undergrowth, and scattering cedar and pinon.
	Ascend 40 ft.
30.00	Spur, projects W. 3 chs.; descend 70 ft.
36.85	Mouth of hollow, course W.
	Ascend 10 ft. to
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 26 on W. half and S 25 on E. half; from which
	An oak, 6 ins.diam., bears S. 18¼° E., 137 lks., dist., marked ¼ S 25 BT
	A cedar, 4 ins.diam., bears N. 69°45'W., 105 lks., dist., marked ¼ S 26 BT
	Ascend 75 ft.
53.00	Spur, projects W. 5 chs.; descend 60 ft.
59.00	Hollow, and small stream, 1 lk. wide, 1 in. deep, muddy water, course SW. thence S.
	Ascend abruptly rocky ground, 200 ft.
75.00	S. point of ridge, bears NW.
	Descend steep NE. slope 100 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 23-24-25 and 26, marked on brass cap
	T39S S23 in NW.,
	R4½W S24 in NE.,
	S25 in SE., and
	S26 in SW. quadrant; raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. No trees within limits.
	Note: Forest reserve bdy. post, bears N. 1 ch.
	Land, mountainous, general slope to the W.
	Soil, rocky, volcanic formation; 3rd rate; except along the bottoms of the hollows, where dark rich sandy loam 1st rate id found.

Chains	
	Timber, scattering cedar and pinon, on N. 56 chs.
	Undergrowth, oak, sage and buck brush.
	Good grass along meadow.
	Land mountainous or covered with dense undergrowth,
	80.00 chs.
	June 22, 1911.
	- -
	June 23: At 8h 02m a.m., l.m.t., I set off 37° 24' on the lat. arc; 23° 27½'N. on the decl. arc; and determnine a meridian with the solar, at the cor. of secs. 23-24-25 and 26.
	Thence I run
	N. 89°53'E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
79.92	Intersect E. bdy. of tp., at the cor. of sections 24-25 and 25, which is a sandstone 5 x 7 x 6 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	Thence I run
	S. 89°53' W., on true line bet. secs. 24 and 25.
	Over rough mountainous land, through dense undergrowth of oak, sage, buck and service brush.
	Descend 100 ft.
4.25	Stream, 1 lk. wide, 1 in. deep, clear, pure water, in Slide Canyon, course S.
	Ascend 50 ft.
10.00	Spur, projects S. 5 chs.; descend 60 ft.
18.28	Small spring branch, pure water, course SE.
24.70	Small stream, 1 lk. wide, ½ in. deep, course SE.
	Ascend 300 ft. to

Subdivision of T. 39 S., R. 4½ W.

Chains	
39.96	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 24 on N. half and S 25 on S. half; raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Ascend 70 ft.
44.00	Ridge, and enter scattering spruce and yellow pine, bears NW. and SW.
	Descend abruptly rocky W. slope.
48.50	Leave timber, bears N. and S.
68.80	Stream, 1 lk. wide, 1 in.deep, pure water, in hollow, 460 ft. below ridge, course SW.
72.00	Spur, 50 ft. high, between hollows, projects S. 5chs.
75.50	Small stream, in hollow, course S.
	Ascend 60 ft. to
79.92	The cor. of secs. 23-24-25 and 26.
	Land, mountainous. general SE. and SW. slopes.
	Soil, rocky, sandstone formation; 3rd rate.
	Timber, scattering spruce and yellow pine, on 4½ chs.
	Undergrowth, oak, sage, buck and service brush.
	Land mountainous or covered with dense undergrowth, 79.92 chs.
	June 23 : At this sec. cor., I set off 23° 27'N. on the decl. arc; and at 12h 02m p.m., l.m.t., oberve the sun on the meridian; the resulting lat. is 37° 24¼'.

N. 0° 01' W., bet. secs. 23 and 24.

	Over mountainous land, general slope to the SE., through dense undergrowth of sage, oak, service and buck brush.
	Descend 50 ft. to
18.00	Hollow, course SE; Small spring heads SE. 4 chs.

Subdivision of T. 40 S., R. 4½ W.

Chains	
	Ascend.
32.00	Enter scattering cedar and pinon, bears NE. and SW.
40.00	528 ft. above hollow.
	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 23 on W. half;and S 24 on E. half; from which
	A cedar, 24 ins.diam.,bears S. 27° E., 10½ lks., dist.,marked ¼ S 24 BT
	A pinon,8 ins.diam.,bears S. 52° W., 88 lks., dist.,marked ¼ S 23 BT
	Ascend 50 ft.
42.70	Ridge, bears NW. and SE.; leave timber,
	Descend rocky NE. slope, 200 ft.,through scattering fir, maple and aspen timber.
56.00	Hollow, course SE.
	Ascend abruptly 7000ft. to cor.
73.80	40ft. sandstone ledge, bears NW. and SE.
	Ascend more gradual.
80.00	Set an iron post, 3 ft. long, 2 ins. dia.,24 ins. in the ground, for cor. of secs. 13 - 14 - 23 and 24, marked on brass cap
	T39S S14 in NW.,
	R4½W S13 in NE.,
	S24 in SE., and
	S23 in SW. quadrant; from which
	A spruce,8 ins.diam.,bears N. 40° E., 75 lks., dist.,marked T39S R4½W S13 BT
	A spruce,5 ins.diam.,bears S. 37½° E., 14 lks., dist.,marked T39S R4½W S24 BT
	A spruce,10 ins.diam.,bears S. 12½° W., 26 lks., dist.,marked T39S R4½W S23 BT
	A balsom,10 ins.diam.,bears N. 12½° W., 144 lks., dist.,marked T39S R4½W S14 BT
	Land, rough mountainous, general slope to the SE.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Soil, rocky sandstone formation; 3rd rate.
	Timber, cedar, pinon, yellow pine, fir, aspen and some maple.
	Undergrowth, dense oak, sage, buck, service and laurel.
	Land moutainous, heavily timbered or covered with dense undergrowth, 80.00 chs.
	June 23, 1911.
	- -
	June 24: At 9h 04m a.m., l.m.t., I set off 37° 25' on the lat. arc; 23° 26½' N. on the decl. arc; and determine a merdian with the solar, at the cor. of secs. 13 - 14 - 23 and 24.
	Thence I run
	N. 89° 53' E., on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
79.96	Intersect E. bdy. of tp., 14 lks. S. of the cor. of sections 13 and 24, which is a sandstone 6 x 8 x 13 ins. above ground, firmly set, marked and witnessed as described by the surveyor general.
	Thence I run
	S 89° 47' W., on true line bet. secs. 13 and 24.
	Over moutainous land, general slope to the SE., through scattering fir, spruce and pine, and undergrowth of oak, buck and service.
	Descend 20 ft.
2.00	Hollow, course SE.
	Ascend abruptly 500 ft.
21.30	Ridge and divide between Slide and Meadow canyons, bears NW. and SE.
	Descend 200 ft.

Subdivision of T. 39 S., R. 4½ W.

Chains	
36.50	Stream of pure water, 1 lk. wide, 1 in.deep, in head of Slide canyon, coufse SE.
	Ascend 75 ft. to
39.98	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 13 on N. half and S 24 on S. half; from which
	A spruce,6 ins.diam.,bears S. 76°45' E., 76 lks., dist.,marked ¼ S 24 BT
	A spruce,10 ins.diam.,bears N. 58½° E., 38 lks., dist.,marked ¼ S 13 BT
	Ascend abruptly 400 ft.
55.70	Ridge, and top of 30 ft. sandstone ledges, which bears NW., and S. 1ch., ridge bears NW. and SE.
	Descend 400 ft.
70.00	Hollow, course SE.
	Ascend 350 ft. to
79.00	Ridge, bears NW. and SE.
	Descend 30 ft. over sandstone boulders to
79,96	The cor. of secs. 13 - 14 - 23 and 24.
	Land, mountainous, general slope to the SE.
	Soil, rocky of sandstone formation; 3rd rate.
	Timber, scattering fir, spruce and pine.
	Undergrowth, oak, buck and service brush.
	Land mountainous, heavily timbered, or covered with dense undergrowth, 79.96 chs.
	June 24: At this sec. cor.,I set off 23° 26'N. on the decl. arc; and, at 12h 02m a.m., l.m.t.,observe the sun on the meridian; the resulting lat. is 37° 25'.

- -

N. 0° 01' W. bet. secs. 13 and 14.

Subdivision of T. 39 S., R. 4½ W.

Chains

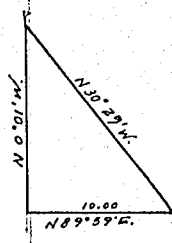
Over rough mountainous land, through scattering pine and fir, and undergrowth of manzanita.

Ascend over talus of Pink Cliffs.

1.00 Ridge spur, projects SE.

10.00 Foot of nearly perpendicular wall of Pink Cliffs, bears nearly N. and NW.

Impossible to continue line further; therefore offset East, 3.00 chs; from this point, I triangulate as follows: I set a flag N. 0°01'W. on top of cliffs; then measure a base line, N. 89°59'E. 10.00 chs. to a point, whence the flag bears N. 30° 29' W. From the flag the E. end of base bears S. 30° 29' E.; therefore dist. is tan. 59°32' X base or 1.69992 x 10.00 = 17.00 chs. which added to 10.00 chs. makes



27.00 chs.; top of cliffs, 650 ft. high.

offset West, 3.00 chs. to true line,

27.00 Thence over breaks to

35.00 Top of high divide between the Colorado and Salt Lake basins, bears SW. and nearly East, thence NE.

Note: Mc.Clellans point or peak, elevation 9000 ft. above sea level, bears E. 8 chs. This was the Geological triangulation station.

40.00 Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 14 on W. half and S 13 on E. half; from which

A fir,14 ins.diam.,bears S. 83½° E., 16 lks., dist.,marked ¼ S 13 B T

A spruce,10 ins.diam.,bears S. 81° W., 107 lks., dist.,marked ¼ S 14 B T

Thence gradually descend over land, facing nearly W., through dense forest of spruce and fir.

80.00 On W. slope.

Set an iron post, 3 ft. long, 2 ins. dia.,24 ins. in the ground, for cor. of secs. 11 - 12 - 13 and 14, marked on brass cap

Subdivision of T. 39 S., R. 4½ W.

Chains

T39S S11 in NW.,

R4½W S12 in NE.,

S 13 in SE., and

S 14 in SW. quadrant; from which

A balsam,10 ins.diam.,bears N. 38½° E., 25 lks., dist.,marked T39S R4½W S12 BT

A balsam,12 ins.diam.,bears S. 58½° E., 20 lks., dist.,marked T39S R4½W S13 BT

A balsam,5 ins.diam.,bears S. 45°45'W., 20 lks., dist.,marked T39S R4½W S14 BT

A balsam,6 ins.diam.,bears N. 37° W., 10 lks., dist.,marked T39S R4½W S11 BT

Land, S. 35 chs. rough moutainous, S. slope, scattering pine and fir timber, and undergrowth of manzanita; soil, rocky, porphyry and sandstone formation: N. 55 chs. rolling mountainous, slope to the NE., dense forest of spruce and fir; soil, gravelly and stony; 3rd rate. Land mountainous and heavily timbered, 80.00 chs.

June 24, 1911.

June 26: At 8h 32m a.m.,l.m.t.,I set off 37° 26' on the lat. arc; 23° 24'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11-12-13 and 14.

Thence I run

N. 89°47' E.,on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

79.92 Intersect E. bdy. of tp., 16 lks. N. of the cor. of secs. -12- and 13, which is a quartzite 10 x 10 x 8 ins. above the ground, firmly set, marked and witnessed as described by the surveyor general.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Thence I run
	S. 89° 54' W., on true line bet. secs. 12 and 13.
	Over mountainous land, through forest of aspen, spruce, fir and scattering yellow pine, and undergrowth of manzanita.
	Descend 20 ft.
1.00	Enter hollow, course SE.
	Thence up along hollow.
8.60	Leave same to the NW.
	Ascend general E. slope, 600 ft. to
39.96	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 12 on N. half and S 13 on S. half; from which
	A fir, 8 ins. diam., bears N. 79° E., 15 lks., dist., marked ¼ S 12 BT
	A fir, 10 ins. diam., bears S. 39° W., 26½ lks., dist., marked ¼ S 13 BT
	Continue ascent of 550 ft.
78.20	Top of ridge and divide, bears NE. and S.
	Descend 25 ft. to
79.92	The cor. of secs. 11-12-13 and 14.
	Land, mountainous, general slope to the E.
	Timber, aspen, fir, spruce and pine,
	Undergrowth, manzanita and wild currant.
	June 26: AT this sec. cor., I set off 23° 24' N. on the decl. arc; and, at 12h 2m p.m.l.m.t., observe the sun on the meridian; the resulting lat. is 37° 26'.
	Land mountainous, heavily timbered or covered with dense undergrowth, 79.92 chs.

N. 0° 01' W., bet. secs. 11 and 12.

Over mountainous land, through dense forest of spruce, fir and aspen, and undergrowth of manzanita.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Descend gradually W. slope, 300 ft. to
28.80	Hollow, course SW.; leave timber, bears NE. and SW.
	Ascend.
36.00	Enter dense timber, bears NW. and SE.
40.00	150 ft. above hollow.
	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 11 on W. half and S 12 on E. half; from which
	A fir, 9 ins.dia., bears S. 76°45'E., 19 lks., dist., marked ¼ S 12 BT
	A balsom, 8 ins.diam., bears S. 70° W., 14 lks., dist., marked ¼ S 11 BT
	Thence along W. slope.
80.00	On ridge, bearing N. 4°W., and S. 10°E.
	Set an iron post, 3 ft. long, 2 ind. dia., 24 ins. in the ground, for cor. of secs. 1 - 2-11 and 12, marked on brass cap
	T39S S2 in NW.,
	R4½W S1 in NE.,
	S 12 in SE., and
	S 11 in SW. quadrant; from which
	A spruce, 10 ins.diam., bears N. 36½° E., 40 lks., dist., marked T39S R4½W S1 BT
	A fir, 8 ins.diam., bears S. 76°45'E., 33 lks., dist., marked T39S R4½W S12 BT
	A spruce, 14 ins.diam., bears S. 34¼° W., 84 lks., dist., marked T39S R4½W S11 BT
	A spruce, 6 ins.diam. bears N. 37°45'W., 30 lks., dist., marked T39S R4½W S2 BT
	Land, mountainous, general slope to the N. and NW.
	Soil, rocky, with black loam scattered throughout; 2nd and 3rd rates.
	Timber, fir, balsom, spruce and aspen.
	Undergrowth, scattering manzanita and young aspen.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Land mountainous and heavily timbered, 80.00 chs.
	June 26, 1911.
	June 27: At 8h32m a.m., l.m.t., I set off 37°27' on the lat. arc; 23°22'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1 - 2 - 11 and 12.
	Thence I run
	N. 89°54'E., on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
52.10	To top of divide and edge of cliffs; impossible to continue further. Offset as follows:
	North, 7.70 chs.; then, on offset line:
	N. 89°54'E.; 68.10 chs. (counted from sec. cor.)
	South, 7.70 chs. then to random line, on which, at
80.00	Intersect E. bdy. of tp., 5 lks. S. of the cor. of sections 1 and 12, which is a phorphyry stone 6 x 10 x 9 ins. above the ground, firmly set, marked and witnessed as described by the surveyor general.
	Thence I run
	S. 89°52' W., on true line bet. secs. 1 and 12.
	Over rough mountainous land, through forest of aspen, fir, spruce and scattering pine, and undergrowth of manzanita and young timber.
	Ascend abruptly over rocky slope, 350 ft. to
11.90	Edge of cliffs, bears NW. and SE.
	Thence offset, North., 7.70 chs., then run on offset line S. 89°52'W.
27.90	Offset south 7.70 chs., to true line
	Descend abruptly 160 ft. to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 1 on N. half and S 12 on S. half; from which
	A balsam, 12 ins. diam., bears S. 36° E., 19 lks.

Chains	
	dist., marked ¼ S 12 BT
	A balsam, 6 ins. diam., bears N. 30° W., 32 lks.,
	dist., marked ¼ S 1 BT
	Descend 360 ft. to
58.95	Crawford Creek, 4 lks. wide, 4 ins. deep, pure water,
	in hollow, course N. 10° W.
	Ascend 400 ft. to
80.00	The cor. of secs. 1-2-11 and 12.
	Land mountainous.
	Soil, rocky and gravelly; 2nd and 3rd rates.
	Timber, dense aspen, fir, spruce and pine,
	Undergrowth, manzanita and young timber.
	Land mountainous and heavily timbered, 80.00 chs.
	June 27: At this sec. cor., I set off 23° 22'N. on the
	decl. arc; and, at 12h 2m pm l.m.t., observe the sun
	on the meridian; the resulting lat. is 37° 27'.
	June 27, 1911.
	Note: No further field work done this day, I having
	received a serious cut from an ax which necessitied
	my leaving the field.
	- -
	June 28: At 2h 3m p.m.l.m.t, I set off 37°27' on the lat.
	arc; 23° 19'N. on the decl. arc; and determine a
	meridian with the solar at the cor. of secs. 1-2-11 and
	12.
	Thence I run
	N. 0°01'W., on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
43.27	Intersect N. bdy. of tp., 3 lks. E. of the cor. of secs.
	1-2-35 and 36, heretofore described.
	Thence I run

Subdivision of T. 39 S., R. 4½ W.

Chains	
	S. 0° 03' E., on true line bet. secs. 1 and 2.
	Over mountainous land, slope to the E., through heavy forest of balsom, pine, fir, spruce and aspen; undergrowth of manzanita and fallen timber.
3.29	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 2 on W. half and S 1 on E. half; from which
	An aspen, 11 ins.diam., bears N. 13° E., 5 lks., dist., marked ¼ S 1 BT
	An aspen, 13 ins.diam., bears N. 86° W., 27 lks., dist., marked ¼ S 2 BT
	Ascend 400 ft. to
43.29	The cor. of secs. 1 - 2 - 11 and 12.
	Land, mountainous, E. slope.
	Soil, stony with black loam of decayed vegetation; 2nd rate.
	Timber, dense balsom, pine, fir, spruce and aspen.
	Undergrowth, manzanita and fallen timber.
	Land mountainous and heavily timbered, 43.29 chs.

June 28, 1911.

Walter A. Sturm,

U. S. Transitman.

June 23: For solar observation see line bet. secs. 5 and 6, T. 40 S., R. 4½ W.

From the cor. of secs. 34 and 35 in the S. bdy. of the tp., heretofore described.

I run

N. 0° 01' W. bet. secs. 34 and 35.

Over broken mountainous land, general slope the SW. and W.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Through forest of ~~xxxxxxxx~~ cedar and pinon, and undergrowth of oak, service and chaparral.
	Gradually ascend through scattering timber.
6.00	Enter dense timber, bears E. and W.
7.00	Base of mountain, bears W. and SE.; ascend steep S. slope
11.75	Draw, 25 ft. deep, course SW.
20.00	Top of peak on ridge, 335 ft. above sec. cor., bears NE. and SE.
	Descend NW. slope, 75 ft.
25.75	Draw, course W.; ascend 60 ft.
30.00	Top W. slope spur, bears E. to ridge.
	Descend 80 ft.
37.00	Hollow, course SW.; heads NE. 3 chs.
	Ascend 55 ft. to
40.00	On top of spur, projects S. 60°W.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 34 on W. half and S 35 on E. half; from which
	A pinon, 9 ins. diam., bears N. 65¼° E., 39 lks., dist., marked ¼ S 35 BT
	A cedar, 14 ins. diam., bears N. 74¼° W., 22 lks., dist., marked ¼ S 34 BT
	Descend 70 ft.
46.20	Gully, course S. 70° W.
	Ascend steep, rocky S. slope, 310 ft.
56.75	Top of high spur, projects SW.
	June 23: At this station I set off 23° 27'N. on the decl. arc; and, at 12h 02m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23'.
	Descend over nearly W. slope of mountain.
62.00	Draw, 90 ft. below spur, course W.
69.00	Top of W. slope spur, bears E.
78.00	Leave timber, bears E. and W.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 26-27-34 and 35, marked on brass cap T39S S 27 in NW., R4½W S26 in NE., S 35 in SE., and S 34 in SW. quadrant; from which A cedar, 8 ins. diam., bears S. 5° E., 198 lks., dist., marked T39S R4½W S35 BT A pinon, 10 ins. diam., bears S. 41° W., 175 lks., dist., marked T39S R4½W S34 BT and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. No other trees within limits. Land, mountainous, general W. slope, forming E. side canyon. Soil, stony, gravelly and rocky on subsoil of clayish and rocky sandstone formation; 3rd rate. Timber, dense cedar and pinon, on 72 chs. Undergrowth, oak, buck, service and chaparral. Land mountainous, heavily timbered and covered with dense undergrowth, 80.00 chs.
	- -
	East, on a random line bet. secs. 26 and 35.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 25-26-35 and 36. Thence I run S. 89°58' W., on true line bet. secs. 26 and 35. Over Mountainous land, through dense undergrowth

Subdivision of T. 39 S. R. 4½ W.

Chains	
	of oak brush, 10 ft. high.
	Descend 50.ft.
2.75	Trail, bears N. and S.
2.84	Rail fence, bears N. and S. 10° W.
4.60	Leave brush, enter Tenny's meadow, bears N. and S.
6.46	Stake and rider fence, and leave meadow, bears N. 10° E. and S. 10° W.
	Thence ascend over general E. slope of mountain.
16.50	Reenter heavy oak brush.
17.50	Enter forest of cedar and pinon, bears N. and S.
22.00	Spur, projects SE.
26.50	Ravine, 50 ft. deep, course SE.
34.00	Top of high ridge, 450 ft. above meadow, bears NW. to peak and S. 10 chs. to low saddle.
	Descend over rocky SW. slope, 200 ft. to
40.00	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 26 on N. half and S 35 on S. half; from which
	A pinon,16 ins. dia.,bears S. 6° E.,43 lks., dist.,marked ¼ S 35 BT
	A pinon,15 ins.diam.,bears N. 52° E.,26½ lks., dist.,marked ¼ S 26 BT
	Continue descent through heavy timber.
48.50	Hollow, 100 ft. below ½ sec. cor.,course S. 20° E.
	Ascend abruptly SE. slope, 350 ft.
65.50	High sharp ridge, bears N. 20°E. and S.
	Leave timber, thence through dense oak, service and chapparral, 6 to 15 ft. high.
	Descend abruptly 375 ft. to
80.00	The cor. of secs. 26-27-34 and 35.
	Land, mountainous, general drain to the S.
	Soil, rocky, stony and gravelly, sandstone formation; except in Tenny's meadow, where rich black loam is found; 3rd and 1st rates.

Subdivision of T. 39 S., R. $4\frac{1}{2}$ W.

Chains	
	Timber, cedar and pinon, on 48 chs.
	Undergrowth, oak, service and chaparral.
	Land mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.
	June 23, 1911.

	June 27: At 8h 02m am l.m.t., I set off 37° $23\frac{1}{2}$' on the lat. arc; 23° $22\frac{1}{2}$'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 26-27-34 and 35.
	Knowing that closing cors. are necessary upon the W. bdy. of the tp. I run
	West, on true line bet. secs. 27 and 34.
	Over mountainous land, through dense undergrowth of oak, service and buck brush, average height 12 ft.
	Descend W. slope towards canyon.
6.50	A small spring of pure water, bears S. 50 lks. of line, runs W.
7.60	Base of descent, enter canyon bottom, bears N.20°E. and S.20°W.; road, bears N. and SW.
8.85	Pole sheep corral, on line, extends S. 40 lks. and N. 1 ch.
10.00	Same road, at bend bears SW. and SE.
13.80	Canyon wash, 30 lks. wide, 8 ft. deep, 180 ft. below sec. cor., course S. 10° W.
	Ascend 100 ft.
20.00	S. point of spur, bet. canyons, bears N.
	Along S. slope to
24.75	Descend 100 ft. to
28.75	Mill Creek, 5 lks. wide, 4 ins. deep, pure water, swift current, rocky bottom, course SE.

Subdivision of T. 39 S. R. 4½ W.

Chains	
	Thence across bottom.
32.25	Old channel of creek, 40 lks. wide, course SE.
	Ascend 225 ft. over E. slope.
38.00	Enter cedar and pinon, bears NW. and S.
40.00	On E. slope.
	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 27 on N. half and S 34 on S. half; from which
	A cedar,9 ins.diam.,bears S. 8½° W., 12½ lks., dist.,marked ¼ S 34 BT
	A pinon,16 ins.diam.,bears N. 44½° W.,17½ lks., dist.,marked ¼ S 27 BT
	Continue over E. slope, through scattering timber, and dense undergowth.
52.50	Ridge, 550 ft. above creek, bears N.15°W. and S.
	Descend abruptly W. slope 200 ft.
59.80	Ravine, course S. 20° W.
	Ascend 225 ft.
71.60	High ridge, bears N. and S.
	Descend W. slope 180 ft. to
79.80	Intersect W. bdy. of tp., 3.84 chs. N. of the cor. of secs. 25 and 36 in E. bdy T.39 S.,R.5 W. as established by me,heretofore described.
	Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for closing cor. of secs. 27 and 34, marked on brass cap
	T 39 S in N. half,
	S25 CC S36 R5W in W. half,
	S 27 iR 4½ W., in NE., and
	S 34 in SE. quadrant; from which
	A pinon,16 ins.diam.,bears S. 26°45'E., 97 lks. dist.,marked T39S R4½W S34 BT
	and raise a mound of stone, 2 ft. base, 1½ ft. high E. of cor.

Chains	
	No other trees within limits.
	Land, mountainous, general drain to the S.
	Soil, rocky and gravelly; on subsoil of rocks and hard clay, some black loam of decayed vegetation, mixed with the rocky soil; 2nd and 3rd erates.
	Timber, scattering cedar and pinon, on W. 42 chs.
	Undergrowth, dense oak, service, buck and chaparral.
	Land mountainous, heavily timbered or covered with dense undergrowth, 79.80 chs.
	June 27: At this cor., I set off 23° 22'N. on the decl. arc; and, at 12h 2m pm l.m.t., observe the sun on the meridian; the resulting lat. is 37° 23½'.
	- -
	N. 0° 01' W., bet. secs. 26 and 27.
	Over mountainous land, facing NW., through dense undergrowth of oak brush, 6 to 20 ft. high.
	Descend 100 ft.
15.00	Enter canyon bottom, bears NE. and SW.
	Thence along E. side canyon, gentle slope to the W.
30.00	W. edge of timber and mountain, bears SE. and NE.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 27 on W. half and S 26 on E. half; raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.
47.75	Road, from Thompson's to head of canyon, bears N.10°E. and S20°W.
52.50	Wash, 10 lks. wide, 4 ft. deep, course W.
	Enter scattering large yellow pine, bears NE. and SW.
56.00	Road and base of mountian, bears E. 1 ch. of line.
60.00	Main wash, 30 lks. wide, 8 ft. deep, course SW.
62.00	Brush sheep corral, bears 1 ch. W. of line.

Chains	
63.00	Thence up along main wash of canyon, crossing and re-crossing.
70.00	Wash, turns N. 20°E.
80.00	On W. edge canyon bottom.

Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for cor. of secs. 22-23-26 and 27, marked on brass cap

T39S S22 in NW.,
R4½W S23 in NE.,
S 26 in SE.,and
S 27 in SW. quadrant; from which

A yellow. pine,40 ins.diam.,bears S. 51½° E., 104 lks., dist.,marked T39S R4½W S26 BT

and raise a mound, of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.

No other trees within limits.

Land, mountainous and rolling.

Soil, stony& gravelly mixed with some black loam; 2nd rate.

Timber, scattering yellow pine, on N. 27 chs.

Undergrowth, dense oak brush.

Land mountainous, heavily timbered or covered with dense undergrowth, 80.00 chs.

June 27, 1911.

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June 28: At 8h 03m a.m.,l.m.t.,I set off 37° 24' on the lat. arc; 23° 20' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22-23-26 and 27.

Thence I run

N. 89°58'E.,on a random line bet. secs. 23 and 26.

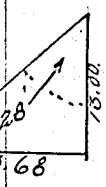
Subdivision of T. 39 S., R. 4½ W.

Chains	
40.00	Set temp. ¼ sec. cor.
80.07	Intersect the N. and S. line, 2 lks. S. of the cor. of secs. 23-24-25 and 26.
	Thence I run
	S. 89°57' W., on true line bet. secs. 23 and 26.
	Over mountainous land, through dense undergrowth of oak, service, chaparral and maple, 6 to 15 ft. high.
	Soil, rocky and gravelly.
	Ascend, 50 ft.
2.50	Spur, projects SE.
	Descend SW. slope 170 ft.
12.50	Ravine, course SE.
	Ascend 180 ft.
20.00	Spur, projects SE. about 20 chs.
	Descend 100 ft. over S. and SW. slopes.
34.00	Hollow, course S. 50° E.
	Ascend gradually.
40.03½	On NE. slope in dense oak brush.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 23 on N. half and S 26 on S. half; raise a mound of stone, 2 ft. base, 1½ ft. high N. of cor.
	Ascend 200 ft.
47.55	Forest bdy. post, which marks the S. bdy. of the Sevier National Forest Reserve, bears N. 68 lks. of line.
47.60	High ridge, 260 ft. above hollow, bears N. and S.
	A high peak bears S. about 10 chs.
	Descend steep W. slope, through Douglas fir and balsom.
56.15	Head of draw, course NW.
61.00	Leave timber, bears N. and S.
71.00	Base of moutain, bears NE. and S.15°W.
	Thence across canyon bottom.

Chains	
77.45	Road, bears N. and S.; enter scattering yellow pine.
78.70	Wash, 40 lks. wide, 10 ft. deep, coufse S.
80.07	The cor. of secs. 22-23-26 and 27.
	Land, mountainous, general drain to the SE. and SW.
	Soil, rocky, and gravelly with some black loam of decayed vegetation; 2nd and 3rd rates.
	Timber, fir and balsom on 12½ chs. and yellow pine, on 2.60 chs.
	Undergrowth, dense oak, service, buck, chapparal and some maple.
	Land mountainous, heavily timbered, or covered with dense undergrowth, 80.07 chs.
	June 28: At this sec. cor., I set off 23° 19½'N. on the decl. arc; and, at 12h 03m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 24¼'.
	- -
	West, on true line bet. secs. 22 and 27.
	Over rough mountainous land, general drain to the S., through dense oak brush, 6 to 15 ft. high.
	Ascend steep E. slope 270 ft. to
7.50	Enter scattering cedar and pinon, bears N. and S.
10.50	Ridge, bears N.20°W. and S.20°E.
	Note: From this point a high peak bears N.49°E., about 1¼ of a mile.
	Gradually descend over ridge.
16.00	Begin abrupt descent and leave timber, bears N. and S.
27.80	Wash, 70 lks. wide, 15 ft. deep, in canyon, 300 ft. below ridge, course S. 15° E.
	Scattering yellow pine in bottom of canyon.
28.75	Forest bdy. post, bears N. 45 lks. of line.

Subdivision of T. 39 S., R. 4½ W.

Chains	
29.25	Ascend E. slope, 270 ft.
39.50	Ridge, bears N. and S.; thence over top of same.
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 22 on N. half and S 27 on S. half; from which
	A cedar, 6 ins.diam., bears S. 55¼° E., 79 lks., dist., marked ¼ S 27 BT
	A yellow pine, 8 ins.dia., bears N.43½°W., 99 lks., dist., marked ¼ S 22 BT
43.00	Descend SW. slope 75 ft.
47.20	Hollow, course S.
	Ascend 270 ft.
56.50	Ridge, bears N. and S., and E. side of Mill Creek Canyon, about 500 ft. deep with precipitous walls.
	Impracticable to chain across; therefore I triangulate as follows: Set a flag on line on W. side of canyon; then maesure a base line North, 13.00 chs. to a point, from which the flag bears S. 46°28' W.; from the flag the N. end of base bears N. 46°28' E.; therefore, the dist. is tan. 46°28'x base or 1.05255 x 13.00 = 13.68 chs., which added to 56.50 chs. makes
70.18	W. side of canyon, bears N. 20° W. and S.20°E.
	Mill Creek in bottom of canyon flows S.20°E.
	Gradually ascend E. slope through oak brush.
79.90	Intersect W. bdy. of tp., 3.94 chs. N. of the cor. of secs. 24 and 25, heretofore decsribed.
	Set an iron post, 3 ft. long, 2 ins.dia., 24 ins. in the ground, for closing cor. od secs. 22 and 27, marked on brass cap
	T 39 S in N. half,
	S24 CC S25 R5W in W. half,
	S 22 R 4½ W., in NE., and
	S 27 in SE. quadrant; from which



Subdivision of T. 39 S., R. 4½ W.

Chains

A yellow pine, 18 ins. diam., bears N. 32° E., 450 lks., dist., marked T39S R4½W S22 BT

A cedar, 12 ins. diam., bears S. 47° E., 195 lks., dist., marked T39S R4½W S27 BT

Land mountainous, general drain to the S.

Soil, stony, gravelly and rocky, with some light sandy loam, on subsoil of rocky and clay; 3rd rate.

Timber, scattering cedar and pinon.

Undergrowth, dense oak, service, buck and chaparral.

Land mountainous and covered with dense undergrowth, 79.90 chs.

June 28, 1911.

June 29: At 7h 03m am l.m.t., I set off 37° 24' on the lat. arc; 23° 18' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 22-23-26 and 27.

Thence I run

N. 0° 01' W., bet. secs. 22 and 23.

Over mountainous land, along W. side of canyon, through dense undergrowth of oak and buck brush, 6 to 15 ft. high, and manzanita; some scattering yellow pine.

7.25 Main wash, 30 lks. wide, 8 ft. deep, course S.10°E.

9.20 Recross same, course SW.

14.00 Leave yellow pi ne, bears NE. and nearly S.

34.00 Base of moutain, bears S.5°W. and E.10 chs. thence N. Ascend S. slope.

40.00 280 ft. above sec. cor.

Set an iron post, 3ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked ¼ S 22 on W. half and S 23 on E. half; from which

Subdivision of T. 39 S., R. 4½ W.

Chains	
	A cedar, 8 ins. diam., bears N. 18°5'E., 122 lks., dist., marked ¼ S 23 B T
	and raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable. No other trees within limits.
	Continue up steep S. and SW. slopes.
51.00	Thence over SE. slope.
58.00	Top of peak on high ridge, bears SW., and NE. for 4 chs. thence N., 900 ft. above the sec. cor.
	Descend NW. slope.
70.00	Base of descent on W. slope.
	Ascend 150 ft. along side of ridge, through scattering fir and pine.
80.00	On W. slope.
	Set an iron post, 3 ft. long, 2 ins. dia., 26 ins. in the ground, for cor. of secs. 14 - 15 - 22 and 23, marked on brass cap
	T39S B15 in NW.,
	R4½W S14 in NE.,
	S 23 in SE., and
	S 22 in SW. quadrant; from which
	A fir, 4 ins. diam., bears N. 41½° E., 36 lks., dist., marked T39S R4½W S14 B T
	A red cedar, 6 ins. diam., bears S. 25¼°E., 42½ lks., dist., marked T39S R4½W S23 B T
	A fir, 11 ins. diam., bears S. 19° W., 41½ lks., dist., marked T39S R4½W S22 BT
	A fir, 18 ins. diam., bears N. 69° W., 14 lks., dist., marked T39S R4½W S15 B T
	Land, rough mountainous, general drain to the S.
	Soil, stony and gravelly with some light sandy loam; 3rd and 4th rates.
	Timber, yellow pine, on S. 14 chs., on N. 66 chs., few

Subdivision of T. 39 S., R. 4½ W.

Chains

scattering cedar, balsam fir and jack pine.

Undergrowth, dense oak, buck, manzanita and maple, from 5 to 16 ft. in height.

Land mountainous, covered with dense undergrowth and exceptionally difficult to survey, 80.00 chs.

June 29: At this sec. cor., I set off 23° 16½'N. on the decl. arc; and, at 12h 03m p.m., l.m.t., observe the sun on the meridian; the resulting lat. id 37° 25' .

- -

N. 89°57' E., on a random line bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 13-14-23 and 24.

Thence I run

West, W., on true line bet. secs. 14 and 23.

Over rough mountainous land, through scattering forest of fir, spruce, pine and aspen; undergrowth of dense oak, chaparral and manzanita.

Descend 100 ft.

6.00 Gully, course S. 20° E.

Ascend steep E. slope, 175 ft.

16.00 Top of point of pink cliff, 100 ft. high, 1 ch. wide, extends S. 5 chs., on high ridge, bears N. and S.

Descend W. and NW. slope, through heavy timber, 600 ft.

35.00 Enter canyon bottom, bears NE. and SW.

Thence across rocky bottom.

40.04 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 14 on N. half and S 23 on S. half; from which

A fir, 22 ins. diam., bears S. 46½°W., 10½ lks.,

dist., marked ¼ S 23 BT

Subdivision of T. 39 S., R. 4½ W.

Chains	
	A fir, 9 ins. diam., bears N. 61° W., 21 lks., dist., marked ¼ S 14 BT
42.50	Leave canyon and heavy timber, bears NE. and SW.
	Ascend E. slope, through few scattering fir and dense undergrowth.
52.35	High spur, 360 ft. above ¼ sec. cor., projects S.
	Descend 400 ft., to
63.00	Enter canyon bottom, with dense aspen and pine, bears N. and S.
64.85	Wash, 25 lks. wide, 15 ft. deep, course S.
66.15	Trail, bears N. and S., leads to top of mountain.
68.20	Leave canyon, ascend E. face of ridge, 425 ft. to
79.60	High ridge, bears N. and S.
	Descend 25 ft. to
80.08	The cor. of secs. 14-15-22 and 23.
	Land rough mountainous, general drain to the S.
	Soil, rocky, stony and gravelly; 4th rate.
	Timber, fir, spruce, pine and aspen.
	Undergrowth, dense oak, chaparral and manzanita.
	Land, mountainous, heavily timbered, covered with dense undergrowth and exceptionally difficult to survey,
	80.08 chs. to survey
	June 29, 1911.

June 30: At 7h 03m a.m., l.m.t., I set off 37° 25' on the lat. arc; 23° 15'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 14-15-22 and 23.

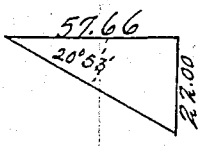
Thence I run

West, on true line bet. secs. 15 and 22.

Over rough, broken mountainous land, facing S., through

Chains

dense undergrowth of oak, buck and manzanita, 6 to 12 ft. high, and scattering fir, balsam and pine.



It is impracticable to chain this line as it passes over broken country at foot of pink cliffs and passes over two deep canyons with precipitous slopes; therefore I triangulate as follows: Set a flag on line on top of cliffs; then measure a base line South, 22.00 chs., to a point from which the flag bears N. 69° 07' W., from the flag the S. end of base bears S. 69° 07' E.; therefore, the dist. is cot. 20° 53' x base or 2.62103 x 22.00 = 57.66 chs.

40.00 Point for ¼ sec. cor. falls on inaccessible ground

55.66 Top of cliffs 600 ft. high, and about 1000ft. above canyon to the E., bears NE. and SE.

57.00 On SE. slope, 505 ft. above sec. cor.

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for witness cor. to the ¼ sec. cor., marked on brass cap T39S R4½W S15 on N. half,

S 22 on S. half, with W C ¼ to the E. of center; from which

A jack pine, 15 ins. diam., bears S. 26¾°W., 76½ lks., dist., marked W C ¼ S 22 B T

A jack pine, 7 ins. diam., bears N. 71½°W., 58½ lks., dist., marked W C ¼ S 15 B T

Gradually ascend 60 ft.

58.75 Top of mountain and divide between Colorado and Salt Lake basins, elevation 9000 ft., bears NE. and SW. Thence gradually descend W. slope through heavy forest of fir, and undergrowth of manzanita.

77.50 Thence steeper descend, bears N. and S.

79.84 125 ft. below top.

Intersect W. bdy. of tp., 4.10 chs., N. of the cor. of secs. 13 and 24, heretofore described.

Subdivision of T. 39 S., R. 4½ W.

Chains

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 15 and 22, marked on brass cap

T 39 S in N. half,

S13 CC S24 R5W in W. half,

S 15 R4½W, in NE., and

S 22 in SE. quadrant; from which

A yellow pine, 5 ins. diam., bears N. 55½°E., 47 lks., dist., marked T39S R4½W S15 BT

A fir, 9 ins. diam., bears S. 43° E., 26½ lks., dist., marked T39S R4½W S22 BT

Land, mountainous, general slope to the S. on E. 59 chs. and NW. on W. 21 chs.

Soil, rocky and gravelly; porphyry and sandstone formation 4th rate.

Timber, scattering fir and pine an E. 59 chs., and dense on W. 21 chs.

Undergrowth, oak, chaparral and manzanita.

Land mountainous, heavily timbered, covered with dense undergrowth and exceptionally difficult to survey, 79.84 chs.

June 30: At this cor. I set off 23° 13½'N. on the decl. arc; and, at 12h 03m p.m., l.m.t., observe the sun on the meridian; the resulting lat. is 37° 25'.

Andrew Nelson

U.S. Transitman.

June 30: At 7h 03m am l.m.t., I set off 37° 25' on the lat. arc; 23° 15'N. on the decl. arc; and determine a meridian with solar transit no. 9211, at the cor. of secs. 14-15-22 and 23.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Thence I run
	N. 0° 01' W., bet. secs. 14 and 15.
	Over mountainous land, facing S., through scattering fir and pine and dense oak, chaparral and manzanita.
3.00	Ridge, bears SE. and N. 10°W.
	Thence ascend along E. slope.
20.00	Talus of pink Cliffs, bears SW. and E.
	Ascend over cliffs 300 ft. high.
29.96	Top of ledges and divide bet. Colorado and Salt Lake basins, 600 ft. above sec. cor., bears SW. and N. 80° E.
	Thence descend 180 ft. over Nearly E. slope, through heavy forest of fir, spruce and aspen.
40.00	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 15 on W. half and S 14 on E. half; from which
	A spruce, 14 ins.diam., bears N. 30° E., 23 lks., dist., marked ¼ S 14 BT
	A fir, 12 ins.diam., bears S. 69°W., 13 lks., dist., marked ¼ S 15 BT
40.10	Hollow, course S. 80° E.
	Ascend 185 ft.
64.00	Spur, projects E.; descend N. slope 125ft. to
80.00	Set an iron post, 3 ft. long, 2 ins.dia., 24 ins. in the ground, for cor. of secs. 10-11-14 and 15, marked on brass cap
	T39S S10 in NW.,
	R4½W S11 in NE.,
	S 14 in SE., and
	S 15 in SW. quadrant; from which
	A fir, 13 ins.diam., beats N. 41½° E., 17 lks., dist., marked T39S R4½W S11 BT
	A spruce, 9 ins.diam., bears S. 8° E., 48 lks., dist., marked T39S R4½W S14 BT

Subdivision of T. 39 S., R. 4½ W.

Chains	
	A spruce, 8 ins. diam., bears S. 30° W. 40 lks., dist., marked T39S R4½W S15 BT
	An aspen, 6 ins. diam., bears N. 37½° W., 18 lks., dist., marked T39S R4½W S10 BT
	S. 30 chs., steep S. face of mountain, covered with a scattering forest of fir and pine, and dense undergrowth of oak, chaparral and manzanita; soil, rocky and barren slopes of porphyry and hard sandstone. 4th rate: N. 50 chs. N. and NE. slope of mountain, dense, heavy forest of fir, spruce, pine and aspen; undergrowth of manzanita; soil, gravelly stony with black loam of decayed vegetation. 2nd rate.
	Land mountainous, heavily timbered, or covered with dense undergrowth, 80.00 chs.
	June 30: At this cor., I set off 23°13½'N on the decl. arc; and, at 12h 3m pm l m t., observe the sun on the mer.; the resulting lat. is 37° 26'.
	- -
	S. East, E., on a random line bet. secs. 11 and 14.
40.00	Set temp. ¼ sec. cor.
80.18	Intersect the N. and S. line, 14 lks. N. of cor. of secs. 11-12 13 and 14.
	Thence I run
	N. 89°54'W., on true line bet. secs. 11 and 14.
	Over mountainous land, through dense forest of aspen; undergrowth of manzanita and young timber.
	Gradually descend over NW. slope towards creek.
24.00	Leave timber, bears N. and S. thence through heavy undergrowth.
39.50	Enter fir, spruce, aspen and scattering pine.
40.09	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 11 on N. half and S 14 on S. half; from which
	A fir, 8 ins. diam., bears S. 60° W., 28 lks., dist., marked ¼ S 14 BT

Subdivision of T. 39 S., R. 4½ W.

Chains	
	A spruce, 6 ins. diam., bears N. 11° E., 38 lks., dist., marked ¼ S 11 BT
	Descend 200 ft.
58.00	Enter open hollow, bears N.10°W. and S.10°E.
	Thence across open grassy hollow.
61.68	Mill Creek a branch of East fork Sevier river, 3 lks. wide 6 ins. deep, pure water, course N. 10° W.
65.00	Leave hollow, enter heavy timber, bears N. and S.
	Ascend 120 ft. to
80.18	The cor. of secs. 10-11-14 and 15.
	Land, mountainous, general slope to the W.
	Soil, gravelly and black loam of decayed vegetation; oh subsoil of gravel and rocky, sandstone formation; 2nd rate.
	Timber, aspen. fir, spruce and pine.
	Undergrwoth, manzanita and young timber.
	Land mountainous, heavily timbered or covered with dense undergrowth, 80.18 chs.

June 30, 1911.

Walter A. Stimm

U.S. Transitman.

June 30: For solar see line bet. secs. 15 and 22. From the cor. of secs. 10-11-14 and 15.

I run

West, on true line bet. secs. 10 and 15.

Chains	
	Over mountainous land, through dense forest of heavy fir, spruce, balsom, yellow pine, and aspen; undergrowth of manzanita and young timber.
	Ascend abruptly 50 ft.
4.50	Ridge, bears N. and S.
	Descend along NW. slope.

Subdivision of T. 39 S., R. 4½ W.

Chains	
22.00	Ravine, 50 ft. deep, course NW.
38.00	Enter aspen groves with scattering fir and pine, bears N. and S.
40.00	400 ft. below ridge, on N. slope.
	Set an iron post, 3 ft. long, 1 in.dia.,26 ins. in the ground, for ¼ sec. cor.,marked on brass cap ¼ S 10 on N. half and S 15 on S. half; from which
	A balsam fir,6 ins.diam.,bears S38°W.,55 lks., dist.,marked ¼ S 15 BT
	A balsam fir,5 ins.diam.,bears N.36°20'E.,19 lks., dist.,marked ¼ S 10 BT
44.00	Leave timber, bears NE. and SW.
46.25	Enter open hollow, and meadow, bears N. and S.
51.25	Creek, 4 lks. wide,6 ins.deep, pure water, course N. 10° E.
54.40	Trail, and leave meadow, bears N. and S.20°W.
	Ascend E. slope through dense timber, 260 ft.
75.50	Top of ascent, bears NE. and SW.
	Thence along top of ridge.
80.04	Intersect W. bdy. of tp.,4.10 chs. N. of the cor. of secs. 12 and 13, heretofore described.
	Set an iron post, 3 ft. long, 2 ins.dia.,24 ins.in the ground, for closing cor. of secs. 10 and 15, marked on brass cap
	T 39 S in N. half,
	S12 CC S13 R5W in W. half,
	S 10 R4½W in NE., and
	S 15 in SE. quadrant; from which
	A Balsam fir,7 ins.diam.,bears N.35°E.,31 lks., dist.,marked T39S R4½W S10 BT
	A fir,8 ins.diam.,bears S.70¼°E., 37 lks., dist.,marked T39S R4½W S15 BT

Subdivision of T 39 S., R 4½ W.

Chains	
	Land, mountainous, general slope to the N.
	Soil, gravell and stony with some light sany loam, on subsoil of gravel and rocks; 2nd and 3rd rates.
	Timber, dense fir, spruce, balsom, pine and aspen.
	Undergrowth, manzanita and young timber.
	Land mountainous, heavily timbered or covered with dense undergrowth, 80.04 chs.
	June 30, 1911.
	Andrew Nelson
	U. S. Transitman.
	July 1: At 7h 03m a.m.l., m.t., I set off 37° 26' on the lat. arc; 23° 11½' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 10-11-14 and 15.
	Thence I run
	N. 0° 01' W., bet. secs. 10 and 11.
	Over rolling mountainous land, facing NE., through dense aspen, scattering fir, and spurce.
	Descend 200 ft.
30.00	Leave timber, bears NW. and SE.
35.00	Enter Mill Creek hollow and meadow, bears NW. & SE.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 10 on W. and S 11 on E. half; from which
	A fir, 18 ins. diam., bears N. 67¼° E., 404 lks., dist., marked ¼ S 11 BT
	An aspen, 10 ins. diam., bears S. 31° 45' W., 404½ lks., dist., marked ¼ S 10 BT
41.20	Mill creek, 3 lks. wide, 3 ins. deep, course NW.
	Ascend 20 ft.

Subdivision of T. 39 S., R. 4½ W.

Chains	
48.00	Point of spur, projects W. 3 chs.
	Descend 35 ft.
56.87	Mill Creek, 8 lks. wide, 1 ft. deep, swift current, pure water, gravelly bottom, course NE.
65.60	Leave hollow, and enter scattering timber, bears NE. and SW.
	Ascend 50 ft. to
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 2-3-10 and 11, marked on brass cap
	T39S S3 in NW.,
	R4½W S2 in NE.,
	S 11 in SE., and
	S 10 in SW., quadrant; from which
	A spruce, 14 ins. diam., bears N. 42° E., 108 lks., dist., marked T39S R4½W S2 BT
	A pine, 18 ins. diam., bears S. 54° E., 115 lks., dist., marked T39S R4½W S11 BT
	A balsam, 24 ins. diam., bears S. 68°45'W., 15½ lks., dist., marked T39S R4½W S10 BT
	A balsam, 6 ins. diam., bears N. 41° W., 37 lks., dist., marked T39S R4½W S3 BT
	Land, rolling mountainous, N. slope.
	Soil, rich black loam of decayed vegetation, 1 to 2 ft. deep, on gravel subsoil, along the hollows; 1st rate: on the slopes gravelly soil is found; 2nd rate.
	Timber, aspen, fir, spruce and pine, on 44.40 chs.
	Undergrowth, some scattering manzanita.
	Good grass along hollows.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	S. 89°54' E., on a random line bet. secs. 2 and 11.
40.00	Set temp. ¼ sec. cor.
80.26	Intersect the cor. of secs. 1 - 2 - 11 and 12.
	Thence I run
	N. 89°54' W., on true line bet. secs. 2 and 11.
	Over rolling mountainous land, facing NW., through heavy forest of fir, spruce, aaspen and pine.
	Descend.
40.13	400 ft. below sec. cor.
	Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 2 on N. half and S 11 on S. half; from which
	A fir, 18 ins.diam., bears S. 83½° E., 29 lks., dist., marked ¼ S 11 BT
	A fir, 5 ins.diam., bears N. 24¼° W., 54 lks., dist., marked ¼ S 2 BT
	Sky overcast, lat. obsn. impossible.
56.25	Leave timber, enter open hollow and meadow, bears NE. and SW., 160 ft. below ¼ sec. cor.
61.57	Trail, bears NE. and SW.
64.20	Mill Creek, 8 lks. wide, 1 ft. deep, course NE.
69.50	Leave hollow, enter scattering timber, bears NE. & SW.
	Ascend 50 ft. to
80.26	The cor. of secs. 2 - 3 - 10 and 11.
	Land, rolling mountainous, general NW. slope on E. 56 chs., and E. slope on W. 10 chs.
	Soil, gravelly with some black loam; 2nd rate; except along hollow, where rich black loam, on gravell sub-soil, 1st rate is found.
	Timber, dense fir, spruce, aspen and pine.
	Good grass along hollow.
	Land mountainous and heavily timbered, 80.26 chs.
	July 1, 1911.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Walter A. Sturm U. S. Transitman.
	July 1: AT 7h 03m a.m., l.m.t., I set off 37° 26' on the lat. arc; 23° 11½' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2-3-10 and 11.
	Thence I run
	West, on true line bet. secs. 3 and 10.
	Over mountainous land, through dense forest of fir, spruce, balsom, aspen and yellow pine.
	Ascend along SE. slope.
4.00	Small ravine, 20 ft. deep, course S. 20° E.
38.00	Top of ascent, 625 ft. above sec. cor., bears N. and S.
	Thence along top.
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 3 on N. half and S 10 on S. half; from which
	A balsam, 6 ins. diam., bears S. 13° W., 12 lks., dist., marked ¼ S 10 BT
	A balsam, 8 ins. diam., bears N. 8°20' W., 32 lks., dist., marked ¼ S 3 BT
	Enter manzanita, juniper and wild currant undergrowth.
	bears N. and S.
41.50	Thence gradually descend along S. slope.
49.50	Descend steeper SW. slope.
54.50	Thence over W. slope.
59.65	Hollow, 100 ft. below ¼ sec. cor., course SW.
75.00	Ridge, 200 ft. above hollow, bears N. and S.
	Descend 60 ft. over W. slope to.
79.97	Intersect W. bdy. of tp., 4.10 chs. N. of the cor. of secs. 1 and 12, heretofore described.

Subdivision of T. 39 S., R. 4½ W.

Chains

Set an iron post, 3 ft. long, 2 ins.dia.,24 ins. in the ground, for closing cof. of secs. 3 and 10, marked on brass cap

T 39 S in N. half,

S1 CC S12 R5W in W. half,

S 3 R 4½ W, in NE., and

S 10 in SE. quadrant; from which

A pine,30 ins.diam.,bears N. 13° E., 65 lks., dist.,marked T39S R4½W S3 BT

A fir,6 ins.diam.,bears S. 28° E., 14½ lks., dist.,marked T39S R4½W S10 BT

Land, mountainous, general drain th the SE. and SW.

Soil, gravelly and stony with some black loam of decayed vegetation and sandy loam; subsoil, coarse gravel; 2nd and 3rd rates.

Timber, dense large, fir, spruce, balsom, pine and aspen, on mile.

Undergrowth, manzanita, juniper and currant.

Land, mountainous, heavily timbered or covered with dense undergrowth, 79.97 chs.

July 1: AT this cor. I set off 23° 10'N. on the decl. arc; and, at 12h 03m p.m.,l.m.t.,I observe the sun on the meridian; the resulting lat. is 37° 26'.

N. 0° 01'W.,on a random line bet. secs. 2 and 3.

40.00 Set temp. ¼ sec. cor.

43.38 Intersect N. bdy. of tp., 18 lks. W. of cor. of secs. 2 - 3- 34 and 35, heretofore described.

Thence I run

S. 0°13' W.,on true line bet. secs. 2 and 3.

Subdivision of T. 39 S., R. 4½ W.

Chains	
	Over mountainous land, general slope to the E. and SE., through heavy forest of fir, spruce, pine and aspen and undergrowth of manzanita and juniper.
2.30	Spur, projects SE.
	Descend 25. ft. to
3.35	On S. slope.
	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 3 on W. half and S 2 on E. half; from which
	A spruce, 20 ins. diam., bears S. 16½° E., 30½ lks., dist., marked ¼ S 2 BT
	A spruce, 6 ins. diam., bears N. 24° W., 53 lks., dist., marked ¼ S 3 BT
	Descend 240 ft.
16.00	Ravine, course nearly E.
	Ascend 80 ft.
20.00	Spur, projects E. 5 chs. dist.
	Descend 75 ft.
35.50	Ravine, course N.; dense aspen along bottom.
	Ascend abruptly 45 ft.
36.50	Spur, projects SE.
	Descend 165 ft. to
43.38	The cor. of secs. 2, 3, 10 and 11.
	Land, mountainouum general slope & drain to the E.
	Soil, gravelly and stony with some light sandy loam; 2nd and 3rd rates.
	Timber, heavy fir, spruce, pine, aspen and balsam.
	Undergrowth, manzanita and juniper.
	Land mountainous, heavily timbered ob covered with dense undergrowth, 43;38 chs.

July 1, 1911.

Andrew Nelson

U. S. Transitman.

GENERAL DESCRIPTION.

T. 39 S., R. 4½ W.

This township cosists of rough and rolling mountainous land. It is traversed by a high divide of 9000 ft. elevation, extending in a north easterly direction from sec. 22 to sec. 1 in the NE. This divide forms the rim of the Great Salt Lake Basin and the Colorado river. From this divide the land to the N. is rolling mountainous sloping and draining NE. Several streams of pure water, forming the head waters of the Sevier river drain this portion of the tp.; these streams flow through open hollows 10 to 20 chs. wide, which have a deep, rich gravelly and black loam soil, is covered with an abundant growth of rich and nutritious grasses. It is covered with heavy forests of fir, pine, spruce, aspen and balsom timber of good commercial value.
The soil except along the hollows can be classed as 2nd and 3rd rates and is mainly gravelly and stony.

Sandstone and porphyry Pink Cliffs and ledges; varying in height from 100 to 500 ft. forms the S. face of the divide or rim. The tp. to the S. of this is rough mountainous facing S., traversed by long, high ridges and deep canyons, putting S.; it is covered with a dense undergrowth of oak, service, buck, chaparral manzanita and sage brush, average height about 6 ft. Scattering timber of scrub cedar & pinon and some fir & pine cover this portion.
The soil is principally rocky, stony, gravelly and some black loam of decayed vegetation; 3rd and 4th rates.

In secs. 26 and 35 is Tennys' ranch, which consists of about 50 acres of fenced meadow land. The soil along the bottom of this hollow is deep, rich sandy and black mountain loam; 1st rate.

This township the greater portion of which is in

General Description of T.39 S., R.4½ W.

the Sevier National Forest Reserve is grazing land. No mineral nor oil indications were found in the township. There are no settlers in the tp.

Andrew Nelson
Walter A. Stumm
U. S. Transitmen.

Volume
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BOOK A-397

4—680

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities ated opposite our several signatures, in surveying all those parts or portions of .....

r certificate of assistants see book "J" T. 38 S., R. 5 W.

the ..... Meridian, in the State of .....

hich are represented in the foregoing field notes as having been executed by him, and under his direc-on; and that said survey has been, in all respects, to the best of our knowledge and belief, well and ithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, _____, U. S. Surveyor, do solemnly swear that, in pursuanc of special instructions received from the U. S. Surveyor General for _____ bearing date of the _____ day of _____, 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of _____

For final oath of transitmen see book "S" T. 39 S., R. 12 W.

_____ of the _____ Meridian, in the State of _____, which are represented i the foregoing field notes as having been executed by me, and under my direction; and I do furth solemnly swear that all the corners of said survey have been established and perpetuated in strict accor ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyo General for _____ and in the specific manner described in the field notes, and th the foregoing are the original field notes of such survey.

_____
U. S. Surveyor.

Subscribed by said _____, and sworn to before me this _____ day of _____, 191

SEAL

_____

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 191 4

The foregoing field notes of the survey of the subdivisional lines of Township No. 39 South, Range No. 4½ West of the Salt Lake Base and Meridian, Utah,

executed by Andrew Nelson and Walter A. Stumm under their special instructions dated March 27, 191 1; having bee critically examined, and the necessary corrections and explanations made, the said field notes, and th surveys they describe, are hereby approved.

_____
U. S. Surveyor General.

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

_____
U. S. Surveyor General.

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Book 2
Ex 9.N.

4—670

BOOK A-397

FILED
FEB 6 1912

FIELD NOTES

OF THE SURVEY OF THE

North Boundary of
T 40 S., R. 5 W.

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Walter A. Stumme

In the capacity of U. S. Transitman Surveyor, under instructions dated March 27, 1911, issued by the United States Surveyor General to govern surveys included in Group No. 6, which were approved by the Commissioner of the General Land Office, April 19, 1911, pursuant to authority contained in the Act of Congress dated ....., 191...

Survey commenced June 11, 1911

Survey completed June 15, 1911

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BOOK A-397

INDEX DIAGRAM.

Township 40 South, Range 5 West

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Resurvey of the N. bdy. of T. 40 S., R 5 W.

Chains. Survey commenced June 11, 1911 and executed with a W. and L. E. Gurley Explorers Transit No. 9211.
For description of instrument see Book "A" of this survey.
I 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. I proceed as follows: At the Cor. of Tps. 39 and 40 S. R 5 W. which is a sandstone 28 X 15 X 4 ins. heretofore described; latitude 37°22'31" N., longitude 112°23'10" W.; I set off 37°22½' on the lat. arc, 23°05' N. on the decl. arc, and at 3h 59m P.M. l.m.t., determine with the solar a meridian and mark a point thereof, on a stake firmly set in the ground, 5 chs. N. of the Cor. June 11, 1911.

June 12 At 2h 13m A.M. by my watch which carries correct l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

June 12: At 7h 30m a.m. l.m.t. I lay off the azimuth of Polaris, 1°28½' to the West, and mark the meridian thus determined, by driving a tack in the stake set June 11, on which the meridian falls 0.2 ins. East of the mark determined by the solar

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains. At 7h 59m A.M. l.m.t., I set off 37° 22½' on the lat. arc, 23° 07½' N. on the decl. arc. and mark a point in the meridian determined with the solar, by a tack, driven in the stake already set. 5 chs. N. of my station; this mark falls 0.3 lks. east of the meridian established by the Polaris observation.

The solar apparatus by P.M. and A.M. observations defines positions for meridians respectively about 0' 11" West and 16" east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8h 15m A.M. is N 16° W; the angle thus determined gives the mag. decl. 16° E.

From the Tp. cor. heretofore described I retrace S 89° 40' W.

bet sec. 1 and 36.

38.24 N. of my line, 13 chs. dist. is the ¼ sec. cor. which is a sandstone, mkd. and witnessed as described by the Surveyor General.

From the ¼ cor. I continue S 89° 40' W.

39.41. N. of my line, 66 chs. dist. is the cor. of sec. 1, 2, 35 and 36 which is a sandstone 18 x 14 x 4 ins; mkd. and witnessed as described by the Surveyor General.

June 12: at this cor. I set off 23° 08' N. in the decl. arc and at 11h 59m l.m.t. observe the sun on the mer; the resulting lat. is 37° 22½'.

Resurvey of the N. bdy. of T. 40 S., R. 5-W.

Chains.	
	From cor., I retrace S 89° 40' W. bet secs. 2 and 35.
40.00	I make a careful search but fail to find any trace of the 1/4 sec. cor.
75.13	N. of my line 4. 7. lks. dist. is the cor. of secs. 2, 3, 34 and 35, which is a sandstone 12 x 3 x 17 ins., mkd. and witnessed as described by the Surveyor General.
	June 12. 1911.
	June 13: At 9h 0m a.m. l.m.t. I sex. ⊙ 37° 22½' on the lat. arc, 23° 11½' N. on the decl. arc. and determine a mer. with the solar at the cor. of secs. 2, 3, 34 and 35. Then I retrace S 89° 40' W. bet secs. 3 and 34.
40.00	I make a careful search but fail to find any trace of the 1/4 sec. cor.
	June 13: at this station I sex. ⊙ 23° 11½' N. on the decl. arc and at 12h m. l.m.t. observe the sun on the mer. the resulting lat. is 37° 22'.
77.22	N. of my line, 65 lks. dist. is the cor. of secs. 3, 4, 33 and 34 which is a sandstone, 12 x 8 x 5 ins., mkd. and witnessed as described by the Surveyor General.
	S 89° 40' W; retracing bet. secs. 4 and 33.
40.00	I fail to find any trace of the 1/4 sec. cor.
80.00	I fail to find any trace of the cor. of secs. 4, 5, 32 and 33. Set temp. sec. cor.
	June 13. 1911

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Thence June 14: Intermittent showers and sky very cloudy all day. Preventing field work.

June 14, 1911.

June 15: At 7h 30m. a. m. l. mt. I set up at 37° 22½' on the lat. arc, 23° 18' N. on the decl. arc. and determine a mer. with the solar at the temp. cor. of secs. 4, 5, 32 and 33.

Thence I retrace,

S 89° 40' W.

bet. secs. 5 and 32.

40.00 I make a careful search but fail to find any trace of the ¼ sec. cor.

78.96 North of my line 2.54 chs. is the cor. of secs. 5, 6, 31 and 32. Which is a sandstone 18 x 12 x 4 ins. lying on the ground. mkd. with 1 notch on edge and 5 notches on opposite edge.

I reestablish this cor. at the same point as follows:

Set an iron post 3 ft. long, 3 ins. dia; 24 ins. in the ground for reestablishing cor. of secs. 5, 6, 31 and 32, mkd. on brass cap.

T 39 S S 31 in NW.
R 5 W S 32 in NE.
R 5 W S 5 in SE and
T 40 S S 6 in SW quadrant.

from which

a cedar 6 ins. dia; bears S 84° 49' W, 3.96 chs. dist; mkd.
T 40 S R 5 W S 6 BT

a cedar 6 ins. dia; bears N 60° 57' W, 4.35 chs. dist; mkd
T 39 S R 5 W S 31 BT.

No other bearing trees available

Resurvey of the N. bdy. of T. 40 S., R. 5-W.

Chains	
	Dig pits, 18 X 18 X 12 ins., in each sec., 5½ ft. dist; and raise a Mound of earth, 4 ft. base, 2 ft. high; W. of cor. Subdivision being dependent on the N. bdy. of sec. 5. I resurvey N 89° 46' E, on a true line, bet. secs. 5 and 32.
	Over marsh and land. ~~through~~ Since undergrowth of sage brush
.10	Wash, 10 lks. wide, 4 ft. deep, Course S 10° E.
2.35	Sink Valley creek, 3 lks. wide, 1 in. deep. Clear water. Course S 10° W.
3.45	Old road branches, bears N. and S.
10.00	Foot of mountainous land and cutted timber, bears N. and S.
13.14	Brush thick, bears N. and S.
18.00	Ridge 100 feet above Creek, bears S 10° E and N 10° W.
	Here, 40 feet to
24.00	Hollow, Course S 10° E.
	Rises 30 ft. to
30.00	Spur, trees S.
34.00	Heavy timber, bears N. and S.
36.36	50 feet below a spur.
	Hollow, Course S 10° W.
40.00	On edge of timber, bearing N. and S.

I again make a search and find the ¼ sec. cor. which is a sandstone 10 X 10 X 9 ins. M.D. and witnessed as described by the Surveyor General. I destroy all traces of this cor. and reestablish it at the same point as follows:

Set an iron post, 3 ft. long, 1 in. dia; 26 ins. in the ground for reestablishing ¼ sec. cor.

Mound brass cap.

¼ S, 32 on N. half.

S 5 on S. half.

from which

Resurvey of the N. bdy. of T. 40 S., R. 5 W.,

Chains	
	a pinion pine 5 ins. dia.; bears S 18° 52' E., 20 lks. dist.; mkd 1/4 S 5 BT
	a pinion pine 5 ins. dia.; bears N 48½° W., 20 lks. dist.; mkd 1/4 S 32 BT.
41.10	Spur, 50 feet above hollow, projects South.
54.00	Leave timber, bears N. and S.
59.50	150 feet below spur, Hollow, course S.
61.00	Enter timber, bears N. and S.
64.00	Spur, 90 feet above hollow, projects S.
80.00	I w. hollow, course S W.

I again make a careful search but failed to find any trace of the sec. cor. Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground for reestablishing cor. of secs. 4, 5, 32 and 33, mkd on brass cap.

T 39 S S 32 in N W
R 5 W S 33 in N E
R 5 W S 4 in S E and
T 40 S S 5 in S W quadrant.

raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable and no suitable bearing trees available.

Land, rolling mountainous.
Soil, gravelly, 2nd rate.
Subsoil, gravel and sandstone.
Timber, cedar and pinion pine.
Undergrowth, sage brush.
Land timbered 37.00 chs.
Land, rolling mountainous 80.00 chains.

From the retracement of the N. bdy. I find it is defective

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains	in alignment and measurement to subdivisions being dependent upon this portion of the boundary I commence at the reestablished cor. of secs. 4, 5, 32 and 33. and run East, on a true line, I find the length of this portion of the bdy. to be 38.96 chains. I place the fractional distance in the West half mile and destroy all trace of the old cor's and their accessories.
	East, resurveying,
	the secs. 4 and 33.
	Over rolling mountainous land, ~~through~~ scattering forest of cedar and fir, fine, dense under-growth of oak, sage and service brush.
41	Wash 15 lks. wide, 8 ft. deep, in hollow. Course S W.
38.96	150 feet above sec. cor.
	Set an iron post, 3 ft. long, 1 in. dia; 26 ins. in the ground for 1/4 sec. cor: Mkd on brass cap:
	1/4 S 330 on N half.
	S 4 on S half.
	dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist; and raise a mound of earth. 3 1/2 ft. base, 1 1/2 ft high N. of cor.
	Ascend 40 feet to
56.00	Ridge, bears N E. and S W.
	Ascend 100 feet to
70.50	Hollow, Course S 30° W;
	Ascend through heavy brush, 250 feet to
78.96	I destroy all trace of the old sec. cor. and at this point I set an iron post, 3 ft. long, 3 ins.

dia.; 24 ins. in the ground for
Cor. of secs. 3, 4, 33 and 34;
Mkd. on brass cap.
T 39 S S 33 in NW.
R 5 W S 34 in NE.
R 5 W S 3 in SE and
T 40 S S 4 in SW. quadrants
From which
a pinon pine, 6 ins. dia., bears N 24 3/4° E;
70 lks. dist.; mkd
T 39 S R 5 W S 34 BT
a pinon pine 10 ins. dia; bears N 24° W;
110 lks. dist.; mkd
T 39 S R 5 W S 33 BT.
No other bearing trees available.
Raise a mound of stone, 2 ft.
base, 1½ ft. high W. of Cor.
Pits impracticable.
Land rolling. mountainous.
Soil, rocky, 2nd rate.
Subsoil, gravel and sandstone
formation.
Timber, cedar and pinon pine.
Undergrowth, oak, service and
sage brush.
Land mountainous and timbered
78.96 Chains.
June 15: At this Cor. I set off
23°18' N. on the decl arc and at
12h M. l. m. t. observe the sun on
the mer, the resulting lat. is
37° 22½'.

East. resurveying
bet. secs. 3 and 34
Over rough mountainous land
through scattering forest of cedar
and pinon pine, dense undergrowth
of oak, service and buck brush.
Ascend
10.00 Enter dense timber, bears N, and S

Resurvey of the N. bdy. of T. 40 S., R 5 W.

Chains.	
24.00	Ridge, bears N. and S., 350 feet above sec. cor.
	Descend through dense timber.
40.00	I destroy all trace of the old 1/4 sec. cor. and at this point I set an iron post, 3 ft. long, 1 in. dia; 26 ins. in the ground for 1/4 sec. cor.; mkd. on brass cap. 1/4 S 3 4 on N half. S 3 on S half.
	Dig pits 18 X 18 X 12 ins. E and West of post, 3 ft. dist.; and raise a mound of earth, 3 1/2 ft. base, 1 1/2 feet high west of corner.
	Descend 100 feet to
49.24	Hollow. course S 10° W.
	Ascend 400 feet to
70.00	Ridge, bears N. and S 25° E.
	Leave dense timber, bears N. and S.
	Descend through scattering timber 150 feet to
80.00	I destroy all trace of the old sec. cor. and at this point I set an iron post, 3 ft. long, 3 ins. dia; 24 ins. in the ground for cor. of secs. 2, 3, 34 and 35; mkd. on brass cap. T 39 S S 34 in N W. R 5 W S 35 in N E. R 5 W S 2 in S E, and T 40 S S 3 in S W. quadrant. from which
	a cedar 11 ins. dia. bears N 42° E; 87 lks. dist; mkd T 39 S R 5 W S 35 BT
	a cedar, 6 ins. dia; bears S 57° E; 42 lks. dist. mkd T 40 S R 5 W S 2 BT.

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains	a pinion pine, 6 ins. dia., bears S 45° W., 239 lks. dist., mkd T 40 S R 5 W S 3 BT.
	a cedar, 8 ins. dia., bears N 52° W., 83 lks. dist., mkd T 39 S R 5 W S 3 4 BT.
	Land rough mountainous, slopes to the South.
	Soil rocky, 3rd rate.
	Subsoil sandstone formation.
	Timber, cedar and pinion pine
	Undergrowth, oak, service and buck brush.
	Land rough mountainous, heavily timbered or covered with dense undergrowth 80.00 Chains.
	East, resurveying bet. secs. 2 and 35.
	Over rough mountainous land through dense forest of cedar and pinion pine, dense under-growth of oak, buck, service and Manzanita brush.
	Ascend 25 feet to
4.55	Hollow Course S.
	Ascend 175 feet to
20.50	Spur, projects S.
	Descend 95 feet to
22.55	Head of hollow, course S.
	ascend 95 feet to
29.50	Spur, projects S.
	Descend 200 feet to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. Cor., mkd. on brass cap. 1/4 S 35 on N half. S 2 on S half. From which a pinion pine, 12 ins. dia., bears S 2½° E., 31 lks. dist., mkd 1/4 S 2 BT.

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains.	
	a pinion pine 18 ins. dia, bears N 71½° E, 23 lks. dist; mkd 1/4 S 1/35 BT.
	Ascend 200 feet to
48.80	Thompson Creek, 5 lks. wide, 3 ins. deep, in wash, 50 lks. wide, 25 feet deep in Thompson's Canyon, Course S 10° E.
49.10	Trace of old wagon road, bears N. and S 10° E.
	Ascend 500 feet to
74.00	Ridge, bears N. and S.
	Desc. abrupt, 290 feet to
80.00	On steep S E. slope.
	I destroy all trace of the sec. cor. and at this point I set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for cor. of secs. 1, 2, 35 and 36. mkd., on brass cap.
	T 39 S S 1/35 in N W.
	R 5 W S 36 in N E.
	R 5 W S 1/1 in S E. and
	T 40 S S 1/2 in S W quadrant.
	from which
	a cedar, 6 ins. dia; bears N 48¼° E, 94 lks. dist; mkd T 39 S R 5 W S 36 BT.
	a pinion pine, 13 ins. dia; bears S 24¼° E, 124 lks. dist; mkd T 40 S R 5 W S 1 BT
	a pinion pine, 10 ins. dia; bears S 18° W, 73 lks. dist; mkd T 40 S R 5 W S 2 BT.
	a cedar, 4 ins. dia; bears N 42° W, 49 lks. dist; mkd. T 39 S R 5 W S 1/35 BT.
	Land, rough mountainous.
	Soil, rocky, 3rd rate.
	Subsoil, sandstone.
	Timber, cedar and pinion pine

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains	Undergrowth, buck, service and manzanita brush. Land, rough mountainous, timbered and corked with dense undergrowth. 80 00 Chains.
	East, resurveying bet. secs. 1 and 36. Over rough mountainous land through scattering forest of cedar and pinion pine, dense undergrowth of oak, buck, service, manzanita and sage brush. Descend, over land facing S.E., 90 ft. to
6.10	Rocky gulch, course South. Ascend 40 ft. to
15.50	Spur, projects South, 4.50 chains. Descend over broken E. slope, 160 ft. to
21.00	Hollow, course S.W. Ascend 200 feet to
33.50	Ridge, bears N. and S. Descend, through dense timber, 75 feet to
40.00	I destroy all trace of the old 1/4 sec. cor. and at this point I set an iron post, 3 ft. long, 1 in. dia., 26 inch. in the ground for 1/4 sec. cor., mkd. on brass cap, 1/4 S 36 on N. bkg, S1 on S. bkg. from which a cedar, 18 ins. dia. bears S 28 1/2° E., 22 lks. dist., mkd 1/4 S 1 BT. a pinion pine, 6 ins. dia., bears N 22° W., 23 lks. dist., mkd 1/4 S 36 BT.
42.13	Desc. over perpendicular sandstone ledge, 50 feet high, bears N 10° E. and S.W.
44.50	Leave dense timber bears N. and S.
52.43	365 feet below 1/4 sec. cor.

Resurvey of the N. bdy. of T. 40 S., R. 5 W.

Chains.	
	Hollow. Course S. 10° E.
59.00	Ascend abruptly through dense cedar and pinion pine timber, bears NW and SE.
66.25	280 feet above hollow, ridge. bears NW. and SE.
	Descend 150 feet to
80.00	Intersect N. and S. line. 2.54 chs. N. of the M., Cor of TPS. 39 and 40 S. R. 5 W. heretofore described. I destroy all trace of the old Cor. and at this point I set an iron post 3 ft. long, 3 ins. dia; 24 ins. in the ground for Cor. of TPS 39 and 40 S., R 5 W:
	Pibd. on brass cap.
	T 39 S on N half.
	R 5 W S 36 in NW. quadrant.
	R 4½ W in S half.
	T 40 S on S half.
	R 5 W S 1 in SW quadrant.
	from which
	a cedar, 6 ins. dia; bears S 23° W; 230 lbs. dist; mkd
	T 40 S R 5 W S 1 BT.
	raise a mound of stone 2 ft. base 1½ ft. high. W. of cor.
	Pits impracticable. No other trees within limits
	Land rough Mountainous.
	Soil, rocky. Sandstone
	Timber, Cedar and pinion pine.
	Undergrowth, buck, sage, scrub Manzanita and sage brush.
	Land rough Mountainous, heavily timbered or covered with dense undergrowth 80.00 Chains.
	June 15. 1911.

Boundaries of T. 40 S., R. 5 W.

Line Designated	True bearing	Distance	Latitudes North	Latitudes South	Departures East	Departures West
		Chains	Chains	Chains	Chains	Chains
East bdy	North	316.79	316.79			
N. bdy	West	318.96				318.96
N. bdy						
	S89°40'W	80.00		.46		80.00
W bdy Secs. 5 & 8	S2°40'E	76.70		76.62	3.57	
Sec. 8	S0°02'E	40.16		40.16	.02	
" 8	S0°20'W	39.40		39.40		.23
S. bdy Sec 8	S89°51'E	79.46		.21	79.46	
" " Sec. 9	S89°50'E	39.87		.11	39.87	
" " " 9	N89°40'E	39.54	.23		39.54	
" " Sec 10	N89°43'E	80.17	.40		80.17	
W. bdy Sec 14	South	39.67		39.67		
" " " 14	S0°27'E	39.98		39.98	.31	
" " " 23	S0°18'W	80.31		80.31		.42
S bdy Sec 23	N89°50'E	37.65	.11		37.65	
" " " 23	East	40.63			40.63	
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" " " 24	S89°49'E	39.47		.12	39.47	
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			317.53	317.45	400.39	399.82
			317.45		399.82	
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For General Description see Subdivisions of this Tp.

Walter A. Stumm
U. S. Transitman

June 15, 1911.

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BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "J" T. 39 S., R. 5 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuanc of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveyin Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of transitman see book "S" T. 39 S., R. 12 W.

..... of the ..... Meridian, in the State of ....., which are represented i the foregoing field notes as having been executed by me, and under my direction; and I do furthe solemnly swear that all the corners of said survey have been established and perpetuated in strict accord ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyo General for ..... and in the specific manner described in the field notes, and tha the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 1914

The foregoing field notes of the survey of the North Boundary of Township No. 40 South, Range No. 5 West of the Salt Lake Base and Meridian, Utah,

executed by Walter A. Stumm under his special instructions dated March 27, 191 1, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

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

U. S. Surveyor General.

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Book H

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BOOK A-397

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FEB 6 1912

FIELD NOTES

OF THE SURVEY OF THE

Subdivision and Resurveys and Retracements of the Subdivision lines of T. 4 S., R. 5 W.

Of the Salt Lake Base and Meridian,

In the State of Utah.

EXECUTED BY

Andrew Nelson and Walter A. Stevens

In the capacity of U. S. ~~Surveyor~~ Transitman, under instructions dated March 27, 1911, issued by the United States Surveyor General to govern surveys included in Group No. 6, which were approved by the Commissioner of the General Land Office, April 19, 1911, pursuant to authority contained in the Act of Congress dated ....., 191....

Survey commenced June 15, 1911

Survey completed June 21, 1911

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BOOK A-397

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Resurvey of Subdivision lines of T. 40 S., R. 5 W.

Survey commenced June 15, 1911
and executed with a W. and S. E. Gurley
light mountain transit No. 92 6 F
and a W. and S. E. Gurley Explorers
transit No. 9211.

For description of instruments
see Book "A" of this survey.

I know the instruments to be
in adjustment from observations
on Polaris, made June 11, 1911.
and recorded in Book G. of this survey
At 8 h. 0 m. A. M. I set off
37°19' on the lat. arc, 23°18' N. on the
decl. arc, and determine a mer.
with the solar at the cor. of secs. 24
and 25 in the E. bdy. of the T. P.
heretofore described.

Thence I retrace
West, bet. secs. 24 and 25-
Over rolling mountainous land
through dense forest of cedar and
pinion pine, scattering undergrowth
of buck, service, oak and sagebrush.

Ascend over land sloping E.

11.00 Swale, 25 feet deep, course N. E.
Continue ascent.

21.50 Ridge, 300 feet above sec. cor.,
bears N. and S.
Descend 40 feet to

29.00 Ravine, Course North
Ascend 20 feet to

31.50 Ridge, bears South and N.
10 chs. thence N. W.,
Descend 30 feet.

39.20 Ravine course N. W.

39.47 Fall 13 lks. S. of the 1/4 sec. cor.
which is a sandstone 8 X 15 X 9 ins.
above ground, firmly set; mkd 1/4
on W. face, from which
a pinion pine 6 ins. dia., bears N. 83° E.,
18 lks. dist.; mkd
1/4 S 24 B.T.

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a cedar, 9 ins. dia., bears N. 49° E.;
14 lks. dist.; mkd
1/4 S 24 BT.
Course of this 1/2 mile is N 89° 49' W.
From the 1/4 cor., I retrace West; asc. 30 ft. to
41.50 Spur, projects N. 3 chains.
52.00 Gulch, course S.;
Ascend 250 ft. to
73.50 Ridge, bears N. and S.,
Descend 75 ft. to
77.50 Hollow, course S.E.;
Ascend 15 ft. to
79.17 Fall 41 lks. S. of the cor. of secs. 23, 24, 25 and 26, which is a sandstone 14 x 10 x 8 ins. above ground, fairly sev., Mkd., as described by the Surveyor General. From which
a cedar, 18 ins. dia., bears N 42 1/2° E.;
65 lks. dist.; mkd
T 40 S R 5 W S 24 BT.
a pinion pine, 7 ins. dia., bears S 87° E.;
52 lks. dist.; mkd
T 40 S R 5 W S 25 BT.
a pinion pine, 5 ins. dia., bears S 65° W.;
70 lks. dist.; mkd
T 40 S R 5 W S 26 BT. raise
a mound of stone. 2 ft. base, 1 1/2 ft. high, W. of cor.
Pits impracticable.
Course of West 1/2 mile is N 89° 25' W. 39.70 chs.
Land rolling mountainous.
Soil, gravelly and stony. 2nd rate.
Subsoil. Gravel formation.
Undergrowth of oak, sage, oak and service brush.
Land mountainous, timbered and covered with undergrowth. 79.17 chs.
June 15: At this Cor. I set off 23° 18' N. on the decl. and find at 1 h. M.L.M.T. observe the sun on the mer., the resulting lat. is 37° 19'

Resurvey of the Subdivision of T. 40 S., R. 5 W.

Chains.	
	West, retracing bet. secs. 23 and 26. Over mountainous land, through dense forest of cedar and pinion pine, scattering undergrowth of service, buck and oak brush.
	Ascend 75 lks. to
7.75	Ridge bears N. and S.
20.00	Leave timber bears N.W. and S. 80° E.
25.00	Enter, hollow, bears N. and S.
28.40	Wash, 15 lks. wide, 3 ft. deep in hollow, 115 feet below ridge, course S.
31.00	Leave hollow and enter timber, bears N. and S.
	Ascend 50 feet to
40.63	The 1/4 sec. cor. which is a sandstone 5 X 13 X 4 ins. above ground, MKS 1/4 on N. face, from which
	a pinion pine, 5 ins. dia., bears South, 85 lks. dist., mkd 1/4 S 26 BT.
	a cedar, 7 ins. dia., bears N 75° E., 14 lks. dist., mkd 1/4 S 23 BT.
	Course of this 1/4 sec. mile is West
	Ascend 250 feet to
57.00	Ridge, bears N. and S.
	Descend 40 feet to
78.28	Fall 12 lks. N. of the cor. of secs. 22, 23, 26 and 27 which is a sandstone 12 X 12 X 7 ins. above ground, firmly set., mkd as described by the Surveyor General: from which
	a cedar 20 ins. dia., bears S 57½° W., 60 lks. dist., mkd T 40 S R 5 W S 27 BT.
	No other suitable bearing trees available; raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	Course of the West ½ mile is S 89° 50' W. 37.65 chs.

Description of Township T. 4 S. R. 5 E.

Land, rolling mountainous, with
a South
soil, gravelly and clay 230 acres
cultivated, rural population.
Timber, cedar and minor pine,
Underwood, service, huckleberry
and oregon.
Land nearly timbered 6900 chains.
Land rolling Mountainous
77.25 Chains.

June 15. 1911.

[illegible] at 5h 0m A.M. M.T. Lat. 44° [illegible]
on the lat. arc, 23° 20½' N.
on the dec. arc and determine a
meridian with the solar of the
Cor. of Secs. 22. 23. 26 and 27.
Thence I retrace
[illegible] (4) sec. 22 and 23.
[illegible] I failed to find any trace of the
4 sec. Cor.
[illegible] I found no any trace of the sec. Cor.
[illegible]
[illegible] Fd. 4 x 2 lbs. W. of a point which
was [illegible] 36 lbs. dist. stone
2 ft on a trachyte boulder in place, as described for the Survey Gen'l.
At this corner I set the stone post
5 ft. long 5 in. dia. 24 in. in the
ground for identification Cor. of Secs.
[illegible] 22 and 23, with the base cap.
70 S 15 in N.W.
[illegible] S 7 in N.E.
S 23 in S.E. and
S 22 in S.W. quadrant.

[illegible] Auto
[illegible] in each sec. 5½ x 4 x 4
feet [illegible] stone [illegible]
[illegible] 2 ft. with W. of Cor.

Resurvey of the subdivision lines of T. 40 S., R. 5 W.

Chains	Thence I run S 0° 8' W; resurveying bet. secs. 22 and 23. Over rolling land, through dense undergrowth of sage brush.
22.00	Enter cedar and pinion pine timber, bears N E. and S W.
40.15½	Set an iron post, 3 ft. long, 1 in. dia; 26 ins. in the ground for reestablishing ¼ sec. cor. mkd on base cap. ¼ S 22 on W half. S 23 on E. half. No suitable bearing trees available. Raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
46.50	Draw, course N W. Ascend gradually, through dense timber, 40 feet to
80.31	The cor. of secs. 22, 23, 26 and 27. Land rolling, gentle slope to W. Soil, rocky 2nd rate. Subsoil, volcanic formation. Timber, cedar and pinion pine. Undergrowth, sage brush. Land heavily timbered 68.31 chs. Andrew Nelson U. S. Transitman.
	June 19, At 2h 01m A. M. L. M. T. I set off 37° 30' on the lat. arc. 23° 26' N. on the decl. arc. and determine a mer. with the solar at the reestablished cor. of secs. 14, 15, 22 and 23. Thence I retrace East, bet. secs. 14 and 23. Over rolling mountainous land through dense undergrowth of sage brush.
4.00	Enter dense cedar and pinion pine

Resurvey of the subdivision lines of T. 40 S., R. 8 E.

Chains.	Timber bears N. and S.
11.57	Wash, 20 lks. wide, 2 ft. deep, course N.
25.50	Wash, 8 lks wide, 1 ft. deep, course N.
32.00	80 feet above sec. cor. Ridge, bears N 15 chs. and S.
	Ascend 75 feet.
38.50	Hollow, course N; ascend 60 feet.
40.10	Fall 57 lks. N. of the 1/4 sec. cor. which is a soft sandstone 4 x 7 x 4 ins. above ground loosely set, chisel mkd 1/4 on N. face. I destroy all trace of this cor. and reestablish it at the same point as follows,
	Drive iron post 3 ft. long, 1 in. dia; 26 ins. in the ground for reestablished 1/4 sec. cor., mkd. on brass cap,
	1/4 S 14 on N half.
	S 23 on S half.
	From which
	a pinion pine, 20 ins. dia., bears S 14 3/4° E, 21 lks. dist; mkd
	1/4 S 23 BT.
	a pinion pine, 12 ins. dia., bears N 25° 20' E., 31 lks. dist; mkd
	1/4 S 14 BT.
	Course of this 1/2 mile is S 89° 11' E.
	Land, rolling mountainous; slopes to the North.
	~~Soil, rocky and rate.~~
	Subsoil, volcanic formation.
	Timber, cedar and pinion pine.
	Undergrowth, sage brush
	Land heavily timbered 36.10 chs.
	Land, rolling mountainous 40.10 chs.
	Walter A. Stumm.
	U.S. Transitman

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains	June 16: For solar observation see line bet. secs. 22 and 23. North, retracing bet. secs. 14 and 15. Over rolling land, through heavy undergrowth of sage brush. Gradually descend over land, draining N. and N.E.	
20.60	Wash, 125 lks. wide, 30 feet deep. Course N 80° E.	
24.00	Wash, 10 lks. wide, 8 feet deep, course East.	
27.20	Wash, 2 chs. wide 40 feet deep, Course S 80° E.	
30.00	A clump of cedars on line.	
39.98	Foot of ridge, bears N 70° W & S 70° E. Set 3 lks. E. of the 1/4 sec. cor. which is a sandstone, 8 x 12 x 8 ins. above ground, firmly set, Mkd as described by the Surveyor General. From which a cedar, 16 ins. dia; bears S 80° W., 25 lks. dist; mkd 1/4 S 15 B.T.; raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.	
	June 16: at this cor. I set ⊙ 23° 20½' on the dell. arc and at 12h 0m M.M.T. observe the sun on the mer.; the resulting lat. is 37° 20½' from cor. I continue North Ascend through dense Cedar and pinion pine timber, bears N W & S E.	
46.50	910 feet above 1/4 sec. cor. Spur, projects W. Descend over land facing N W; 125 lks	
67.00	Hollow, course W.	
73.50	Base of hills, bears N E and S W. Thence across sage brush hollow	
75.55	Wash, 6 lks. wide, 2 feet deep, course S W.	

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains.

79.65 On North side of hollow.
The cor. of secs. 10, 11, 14 and 15 which is a sandstone 6 x 10 x 4 ins. above ground mkd. and witnessed as described by the Surveyor General, I destroy all trace of this cor. and reestablish it at the same point as follows.
Set an iron post 3 ft. long 2 ins. dia. 24 ins. in the ground, for reestablished Cor. of secs. 10, 11, 14 and 15 mkd. on brass cap.
T 40 S S 10' in NW.
R 5 W S 11' in NE.
S 14' in SE. and
S 15' in SW. quadrant.
From which
a cedar, 4 ins. dia., bears S 71 3/4 E., 150 lks. dist., mkd
T 40 S R 5 W S 14' BT.
a cedar, 7 ins. dia., bears S 64 1/2° W., 120 lks. dist., mkd
T 40 S R 5 W S 15' BT.
a cedar, 30 ins. dia., bears N 81° W., 38 lks. dist., mkd.
T 40 S R 5 W S 10' BT.
No suitable bearing tree available in sec. 11; raise a mound of stone 2 ft. base, 1 1/2 ft. high W. of Cor. Pits impracticable.
Land rolling mountainous.
Soil, gravelly and stony, 2nd rate
Subsoil, gravel formation.
Timber, cedar and junior fine on 3 4 50 chs.
Land rolling mountainous.
79.65 Chains.
Course of S 1/2 mile is N 0° 27' W. 39.98 chs. N 1/2 mile is North 39.67 chs.

West, retracing
bet. secs. 15 and 15.
40.00 I fail to find any trace of the 1/4 sec. cor.

Chains.	
80.17	Fall 40 lks. N. of the cor. of secs. 9, 10, 15 and 16.
	Thence is a sandstone 15X13X4 ins. legally set; Trees and rocks are marked to the surveyed lines.
	I selected all trees of this cor. and established it as the same stand as follows: set one iron post, 3 ft. long, 2 ins. dia; 2 ins. in the ground for establishing cor. of secs. 9, 10, 15 and 16; mkd. on trees as follows,
	T 40 S B 9 in N 1/4 S.
	T 40 S B 10 in N E,
	S 15 in S E and
	S 16 in S W quadrant.
	Dig pits 8X8X2 ins. in each sec. 6 ft. dist; and raise a mound of earth, 4 ft. base, 2 ft. high. M. of Cos.
	Time 8 min
	N. 50 1/2° E. Elevating
	Det. 200, 10 and 10
	Set sighting and through line midwaypoint of case block.
1.11	Pole, bears N 10° E. and S 10° W.
10.27	Wash, 12 lks. wide, 4 feet deep, Course S.
30.00	Wash, 30 lks. wide, 8 feet deep, in hollow, Course S.
40.08 1/2	Set an iron post, 3 ft. long, 1 in. dia; 26 ins. in the ground for reestablished 1/4 sec. cor. mkd. on trees as
	1/4 S 15 on N. leaf.
	1/4 S 15 on S. leaf.
	from which
	a cedar, 4 ins. dia; bears S 60 1/4° W. 154 lks. dist; mkd. 1/4 S 15 BT
	a cedar, 5 ins. dia; bears N 62 3/4° W. 179 lks. dist; mkd.

Resurvey of the Subdivision lines of T. 4 S., R. 5 W.

Chains.	
	1/4 S 15 BT.
46.00	Enter cedar and pinion pine timber, bears N. and S.
47.30	Enter Hollow, drains S.E.
49.20	Leave hollow, drains S.E.
54.00	Ridge, bears N. and S.
58.00	Leave timber, bears N. and S.
61.50	Thence across hollow, bears N. & S.
76.75	Wash, 30 lks. wide, 15 feet deep. Course S.
77.27	Road to Thompsons ranch, bears N.E. and S 10° W.
78.75	Spur, projects S.W. 2 chs.
80.17	The cor. of secs. 10, 11, 14 and 15.
	Land rolling, hilly, gentle slope to the S.
	Soil, gravelly, 2nd rate.
	Subsoil, gravelly.
	Timber, cedar and pinion pine on 12 chs.
	Undergrowth, Sage brush.
	Land rolling 80.17 chs.
	June 16, 1911.

June 20: at 10h. 1m. A. M. l. m. t. I set off 37° 20 3/4' on the lat. arc. 23° 26 3/4' N. on the decl. arc. and determine a mer. with the solar at the reestablished cor. of secs. 9, 10, 15 and 16.

Thence I retrace,

North, bet secs. 9 and 10.

40.00 I make a careful search but fail to find any trace of the 1/4 sec. cor. I return to the cor. of secs. 9, 10, 15 and 16 and run

North, resurveying bet. secs. 9 and 10.

Over rolling land, through dense undergrowth of sage, oak and serviceberry brush.

Resurvey of the subdivision lines, of T. 40 S.; R. 5 W.

Chains.	
	Ascend gradually.
17.00	Enter cedar and pinion pine timber, bears N.W. and S.E.
22.00	Leave timber, bears N.W. and S.E.
40.00	20 feet above sec. cor. set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for reestablishing 1/4 sec. cor.; mkd. on brass cap. 1/4 S. 9 on W. half. S. 10 on E. half. dig pits 18 X 18 X 12 ins.; N. and S. of post, 3 ft. distt., and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
	Land, rolling.
	Soil, gravelly, 2nd rate.
	Subsoil gravel.
	Timber cedar and pinion pine on 5.00 chains.
	Undergrowth, sage, oak and service brush.
	Land, rolling 40.00 chs.
	June 20: At this cor. I set off 23° 26 3/4' N. on the decl. arc and at 12h 01m 4s P.M., M.T. observe the sun on the mer.; the resulting lat. is 37° 21 1/4'.
	West, retracing line bet. secs. 9 and 16.
	Over rolling mountainous land, through dense sage and oak brush.
	Gradually ascend over land facing S.
8.50	Enter timber, bears N. and S.
	Thence along broken S. face of mountain.
18.00	Spur, projects S.E.
	Ascend 30 feet to
21.55	Gulch, course S.
	Ascend 70 feet to
24.00	Spur, projects S.

Resurvey of the subdivision lines of T. 40 S., R. 5 W.

Chains	
	descend 90 feet to
39.54	Fall 23 lks. N. of the 1/4 sec. cor. Which is a sandstone 13 x 16 x 6 ins. above ground, firmly set, and mkd. as described by the Surveyor General, I mark
	a pinion pine, 9 ins. dia., bears S 30° W, 28 lks. dist., mkd 1/4 S 16 BT.
	a cedar, 8 ins. dia., bears N 25° W, 81 1/2 lks. dist., mkd 1/4 S 9 BT.
	Course of this half mile is S 89° 40' W.
	Case work, June 20, 1911.
	June 21. At 8h 21m A.M. l.m.t. I set off 37° 20 3/4' on the lat. arc, 23° 27 1/2 N. on the decl. arc and determine a mer. with the solar at this 1/4 sec. cor.
	Thence I run West, retracing bet. secs. 9 and 16.
42.50	Scare timber, bears N. and S.
45.30	Road, Kanab to Alton and Mayzvale, bears N. and S.
49.07	Wash, 10 lks. wide, 5 feet deep, in hollow, course S.
	Ascend 65 feet to
67.00	Ridge, bears N. and S.
	Descend 30 feet to
74.00	Swale, course NW.
	Ascend 20 feet to
79.41	Fall 11 lks. S. of the cor. of secs. 8, 9, 16 and 17. Which is a trachyte 6 x 20 x 6 ins. above ground loosely set, mkd and witnessed as described by the Surveyor General. I destroy all trace of this cor. and reestablish it at the same point

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains	as follows: set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground for reestablished cor. of secs. 8, 9, 16 and 17. Mkd. on brass cap. T 40 S S 8 in NW. R 5 W S 9 in NE. S 16 in SE. and S 17 in SW. quadrants. from which A cedar, 6 ins. dia. bears S 10½° W., 127½ lks. dist.; mkd T 40 S R 5 W S 17 BT. No other suitable trees available. Raise a mound of stone, 2 ft. base, 1½ ft. high. W. of cor. Pits impracticable.
	3rd course of this half mile is the line N. 89°50' W., 33.87 chs.
	Land, rolling, mountainous. Soil, rocky, 2nd rate. Subsoil, sandstone and gravel. Timber, cedar and pinion pine on 34.00 Chains. Undergrowth, sage and oak brush. Land rolling, mountainous. 79.41 Chains.
	North, retracing bet. secs. 8 and 9.
40.00	I fail to find any trace of the ¼ sec. cor.
	I return to the cor. of secs. 8, 9, 16 and 17 and run North, resurveying bet. secs. 8 and 9. Over rolling mountainous land through dense undergrowth of sage, oak, buck and service brush, dense cedar and pine timber. Ascend over land sloping NW. 90 feet to
11.66	Small course NW.

Resurvey of the subdivision lines. T. 40 S., R. 5 W.

Chains.	
13.60	Wash, 8 lks. wide, 3 feet deep, course West;
	Ascend 30 feet to
34.50	Low spur, projects W;
	Descend 65 feet to
40.00	Set an iron post, 5 ft. long, 1 in. dia., 26 ins. in the ground for reestablished 1/4 sec. cor. mkd. on brass cap.
	1/4 S 8 on W bkg.
	S 9 on E bkg.
	from which
	a pinion pine, 8 ins. dia., bears N 49½° E, 9 lks. dist., mkd
	1/4 S 9 B.T.
	a pinion pine, 24 ins. dia., bears N 83° W, 30 lks. dist. mkd
	1/4 S 8 B.T.
	Land, rolling mountainous.
	Soil, gravelly, 2nd rate
	Subsoil, gravelly.
	Timber cedar and pinion pine.
	Undergrowth, sage, oak, buck and service brush.
	Land, rolling Mountainous. heavily timbered and covered with dense undergrowth 40.00 chs.
	West, retracing line bet. secs. 8 and 17.
	Over rolling mountainous land through dense undergrowth of oak, buck, sage and service brush. Ascend 3 feet to
1.00	Ridge, bears N W, and S E.
	Descend 30 feet to
5.20	Swale, course N W.
18.10	Wash, 6 lks. wide, 3 feet deep, course N W.
25.00	Low spur, 20 feet above wash, projects N. enter dense cedar and

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains.	
26.75	Jurnion pine timber, bears N. and S.; desc. 20 ft.
	Draw. course N.
	Ascend 30 ft.
29.00	Ridge. bears N. and S.
	Leave timber, bears N. and S.
39.81	Fall 11 lks. S. of the 1/4 sec. cor. which is a sandstone 8 x 8 x 6 ins. above ground, firmly set; mkd and wit. As described by the Surveyor General I destroy all trace of this cor. and restablish it at the same point as follows: Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for restablished 1/4 sec. cor. mkd on brass cap. 1/4 S, 8 on N half. S 17 on S half. Raise a mound of stone, 2 ft. base, 1 1/2 ft. high, N. of cor. Pits impracticable
	June 21, at this cor. I set off 23° 27 1/2' N. on the decl. arc and at 12h 01m P.M., M.T. observe the sun on the mer; the resulting lat. is 37° 20 3/4'.
	From the 1/4 cor. I continue West.
46.00	Descend, steep land facing N.W., 150 feet to
57.75	Base of mountain, bears N.E. and S.W.
	Thence across mouth of hollow
62.30	Wash, 100 lks. wide, 40 feet deep. Course S.W.
65.25	Wash, 25 lks. wide, 12 ft. deep. Course S 20° W.
	Ascend.
68.85	Road, Kanab to Alton and Marysvale, bears N.E. and S.W.
	Ascend over mountainous land, sloping S.

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Chains	
71.50	Enter dense timber, bears N. and S.,
79.46	100 feet above wash.
	Fall 11 lks. S. of the cor. of secs. 7, 8, 17 and 18 which is a volcanic rock, 18 x 10 x 8 ins. above ground, mkd. as described by the Surveyor General. I mark a pinion pine, 5 ins. dia., bears N 54° E., 50 lks. dist., mkd. T 40 S R 5 W S 8 1/13 T
	a cedar, 6 ins. dia., bears S 73½° E., 40 lks. dist., mkd. T 40 S R 5 W S 17 1/13 T
	a pinion pine, 8 ins. dia., bears S 8° W., 6.9 lks. dist., mkd., T 40 S R 5 W S 18 1/13 T.
	a cedar, 7 ins. dia., bears N 31° W., 79 lks. dist. mkd. T 40 S R 5 W S 7 1/13 T.
	Land rolling mountainous.
	Soil, clay and gravelly, 2nd rate.
	Subsoil gravel.
	Timber, cedar and pinion pine on 12.00 chains.
	Undergrowth, oak, sage, buck and service bush.
	Land rolling mountainous 79.46 chs.
	Course of this mile is N 89° 51' W.

	North, retracing bet. secs. 7 and 8.
	Area rolling mountainous land, through dense forest of cedar and pinion pine, dense undergrowth of sage, buck and service brush, ascend 30 feet to
4.00	S W. point of spur, bears N E. Here, open land facing N W.
30.00	Leave dense timber, bears N E and S W.

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains	
38.00	150 feet below spur. Leave mountainous land, bear N E and S W. hence over nearly level land.
39.40	Fall 23 lks. W. of the 1/4 sec. cor. Which is a soft sandstone 16x8x6 ins. above ground, loosely set; mkd, and not described by the Surveyor General. I destroy all trace of this cor. and reestablish it at the same point as follows: Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for reestablished 1/4 sec. cor.; mkd. on brass cap. 1/4 S, 7 on W, hat. S 8 on E, hat. From which a cedar, 3 ins. dia., bears S 52° 40' E., 76 1/2 lks. dist.; mkd 1/4 S 8 BT. a pinion pine, 7 ins. dia., bears S 14° W., 337 lks. dist.; mkd. 1/4 S 7 BT. Course of this 1/2 mile is N 0° 20' E., 7 rom cor. I continue North.
61.43	Road, Kanab, to Alton and Marysvale bears N E. and S 20° W.
63.00	Wash, 60 lks. wide, 30 feet deep, Course S W.
66.80	Road, Kanab, to Alton and Marysvale, bears N W. and S E.
79.56	Fall 2 lks. E. of the cor. of secs. 5, 6, 7 and 8, which is a soft sandstone, 7x12x4 ins above ground, mkd as described by the Surveyor General. I destroy all trace of this cor. and reestablish it at the same point as follows: Set an iron post, 3 ft. long, 2 in. in dia

Resurvey of the Subdivision Lines of T. 40 S., R. 5 W.

Chains	24 ins. in the ground for reestablished Cor. of secs. 5, 6, 7 and 8, M.D.M. on brass cap: T40S S6 in NW. R5W S5 in NE. S8 in SE. and S7 in SW quadrant; dig pits 18x18x12 ins. in each sec., 5½ ft. dist; and raise a mound of earth, 4 ft. base, 2 ft. high. W. of cor.
	Course of this ½ mile is N. 0° 02' W. 40.16 chs.
	Land rolling mountainous and nearly level.
	Soil, South, 38.00 chs, rocky 3rd rate, North 41.56 chs; gravelly, 2nd rate.
	Subsoil, gravel formation.
	Timber Cedar and Jeffrey pine on South 30.00 chs.
	Undergrowth, sage, buck and service brush.
	Land rolling mountainous 38.00 chs.
	Andrew Nelson.
June 21, 1911.	U.S. Transitman
	June 21, at 2h 01m P.M. L.M.T. I set off 37° 21½' on the lat. arc; 23° 27½' N. on the decl. arc. and determine a mer. with the solar at the reestablished cor. of secs. 5, 6, 7 and 8.
	Thence I retrace East, bet secs. 5 and 8; over rolling land through dense undergrowth of sage brush.
	Ascend 80 feet to
11.36	Crest of ridge bears N. and projects S. 6 chs. desc. gradually 20 feet to
22.36	Wash, 60 lks. wide, 25 ft. deep. Course S. 20° W.
23.36	Enter dense Cedar and Jeffrey pine timber bears N. and S.

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains.
38.88 Ascend 220 ft to
Fall 14 lks. S. of the 1/4 sec. cor. which is a sandstone 10 x 9 x 6 ins. above ground, loosely set, marked as described by the Surveyor General. I destroy all trace of this cor. and reestablish it at the same point as follows:

Set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for reestablished 1/4 sec. cor.; Marked on brass cap.

1/4 S 5 on N. half.
S 5 on S. half.

from which

a cedar, 33 ins. dia.; bears S 4 2 3/4° E., 30 1/2 lks. dist.; mkd.
1/4 S 5 BT.

a cedar, 32 ins. dia.; bears N 2 6 1/4° W., 55 lks. dist.; mkd.
1/4 S 5 BT.

Land rolling and rolling Mountainous
Soil, Mod 20:36 chs. Gravelly 2nd rate, Sod 13.52 chs. rocky 3rd rate.
Timber. Cedar and pinion pine.
Undergrowth. sage brush.
Land rolling Mountainous and heavily timbered 13.52 chs.
Course of this 1/2 mile N 89° 48' E.

North.
retracing bet. secs. 5 and 6.
40.00 I fail to find any trace of the 1/4 sec. cor.
76.67 Fall 3.37 chains E. of the cor. of secs. 5, 6, 31 and 32 on the N. bdy. of the Tp. which is an iron post hereinafore described.
From cor. I run S° 2° 40' E, resurveying bet secs. 5 and 6.

Resurvey of the Subdivision lines of T. 40 S., R. 5 W.

Chains. Over gently rolling land through sparse undergrowth of sage brush.

4.62 Silk Valley creek, 4 lks. wide, 4 ins. deep. Course S. W.

7.10 Pole fence, bears E. and W.

16.62 Foot of mountainous land and enter dense cedar and pinion pine timber bears N.E. & S.W.

38.35 Set an iron post, 3 ft. long, 1½ in. dia., 26 ins. in the ground for restablished ¼ sec. cor., mkd. on brass cap.
¼ S 6 on W. half.
S 5 on E half.
from which
a pinion pine, 11 ins. dia., bears N 85° E., 54 lks. dist.; mkd.
¼ S 5 BT.
a pinion pine, 11 ins. dia., bears N. 53° W. 8 lks dist.; mkd.
¼ S 6 BT.

48.62 130 ft above foot of mountain Spur, projects S. & W.
Descend, rocky 150 ft. to

56.72 Foot of mountainous land, bears N.E. and S.W.
Descend over nearly level land through dense sage brush.

76.70 The restablished cor. of secs. 5, 6, 7 and 8
Land, nearly level and rolling Mountainous
Soil, S. 20 chs. and N. 16.62 chs. rich clay and gravelly Soils, 1st rate.
40.08 chs. rocky, 3rd rate.
Timber cedar and pinion pine.
Undergrowth, sage brush.
Land rolling Mountainous and heavily timbered 76.70 Chains.

June 21-1911

Walter A. Stimm
U.S. Transitman.

Subdivision of T. 40 S., R. 5 W.

Chains	
	Note:- From the retracements and recoveries of the subdivision boundary lines I find that if the subdivisions of this fractional Tp. are completed from the cor. of secs. 23. 24. 25 and 26, it will be necessary to establish closing cors. on the E. and N. boundaries and causing fractional sections throughout its subdivision. To avoid this I subdivide this Tp. as follows:
	June 17: at 7h 30m. A. M. lmt, I set off 37° 21½' on the lat. arc, 23° 23' N. on the decl. arc, and determine a meridian with the solar. at the Cor. of secs. 1 and 12, on the E. bdy. of the Tp. which is an iron post. heretofore described.
	Thence I run
	West, on a sectional correction line between secs. 1 and 12.
	Over rolling mountainous land, through dense forest of cedar and hemlock fine, dense undergrowth of buck, service and sage brush.
	Ascend 20 feet to
2.75	Ridge bears NE. and SW.
	Descend 50 feet to
7.75	Leave timber and enter hollow. bears NE. and SW.
9.50	Wash, 40 lks. wide, 15 feet deep in bottom of hollow. Course SW.
14.75	Leave hollow and enter timber bears. NE. and SW.
	Ascend 20 feet to
16.75	Low spur, projects South, 5 chs.
22.25	Hollow. Course South.
	Ascend 50 feet to.

Subdivision of T. 40 S., R. 5 W.

Chains	
37.00	Spur, projects South.
	descend 45 feet to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor.; mkd. on brass cap.
	1/4 S 1 on N. half.
	S 1/2 on S. half.
	from which
	a cedar, 6 ins. dia., bears S 68 1/4° W., 65 1/2 lks. dist.; mkd.
	1/4 S 1/2 BT.
	a cedar, 4 ins. dia., bears N 53 1/4° E., 55 lks. dist.; mkd.
	1/4 S 1 BT.
40.50	Scarg timber and enter hollow, which heads NE. about 5 chs., bears NE. and SW.
44.00	Leave hollow and enter timber, bears N. and S.
	Ascend 10 feet to
45.10	Low spur, projects S. 6 chs.
	descend 40 feet to
54.65	Hollow course S 30° E.
	Ascend over steep land facing E.
69.00	Top of 30 ft. perpendicular sandstone ledge, bears NE. and SW.
75.80	450 feet above 1/4 sec. cor.
	Ridge, bears N 10° E. and S 10° W.
	descend 60 feet to
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 1, 2, 11 and 12. Mkd. on brass cap.
	T 40 S S 2 in NW.
	R 5 W S 1 in NE.
	S 1/2 in SE. and
	S 11 in SW quadrant.
	from which
	a pinion pine 16 ins. dia., bears N 62 3/4° E., 38 1/2 lks. dist.; mkd.
	T 40 S R 5 W S 1 BT.

Subdivision of T. 40 S.; R. 5 W.

Chains.	a pinion pine. 8 ins. dia.; bears S 36° E.; 79 lks. dist; mkd T 40 S R 5 W S 12 B.T.
	a pinion pine. 8 ins. dia; bears S 58½° W.; 58 lks. dist; mkd T 40 S R 5 W S 11 B.T.
	a pinion pine. 12 ins. dia.; bears N 11½° W.; 40 lks. dist; mkd. T 40 S R 5 W S 2 B.T.
	Land, rolling mountainous, general slope to South and S E.
	Soil, rocky and clay, 2nd rate
	Subsoil, sandstone and gypsum.
	Timber, cedar and pinion pine.
	Undergrowth, service, sage and buck brush.
	Land mountainous, timbered or covered with dense undergrowth
	80.00 chains.
	West, on a sectional correction line, bet. secs. 2 and 11.
	Over rough mountainous land, through dense forest of cedar and pinion pine; dense undergrowth of buck, service and oak brush.
	Ascend, abruptly, over broken W. face of mountain.
3.90.	a perpendicular sandstone ledge, 15 ft. high, bears N. and S.
13.00	200 feet below sec. cor.
	Enter Thompsons hollow, bears N. and S.
13.50	Old road to ranches, bears N. and S.
15.30	Thompsons Creek, 4 lks. wide, 3 ins. deep, course S 10° E.
	Enter dense willow and rose brush, bears N. and S.
18.30	Rail fence, bears N. and S. and leave hollow, bears N. and S.
	Ascend gradually.
24.00	Enter dense yellow birch, bears N. and S.

Subdivision of T. 40 S., R. 5 W.

Chains	
27.00	Small ravine, course S.E.
30.00	Leave willow and enter dense maple and oak brush, bears N. and S.
34.35	Brush fence, bears N. and S 15° W.
40.00	275 ft. above creek. Set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for 1/4 sec. cor.; mkd. on brass cap: 1/4 S 2 on N. half S 11 on S half. from which a cedar, 14 ins. dia.; bears S 55 3/4° W.; 20 lks. dist.; mkd. 1/4 S 11 BT. a pinion pine, 14 ins. dia.; bears N 43° E.; 68 1/2 lks. dist.; mkd. 1/4 S 2 BT. June 17: at this cor I set off 23° 23' N. on the decl. arc. and at 12 h 0 m. 1. M.T. observe the Sun on the mer. the resulting lat. is 37° 21 1/2'. Ascend 50 feet to
44.00	Ridge, bears N 20° W. and S 20° E.;
51.10	Descend abruptly 275 feet to
60.00	Small stream in bottom of Canyon, course S W. Ascend 225 feet to
67.25	Spur of ridge projects South and bears N. Descend 50 feet to
70.00	Draw, course S W. Ascend 15 feet to
72.50	Spur, projects S. Descend abruptly 125 feet to
78.50	Wash, 15 lks. wide, 4 ft. deep, in hollow, course S. Ascend 20 feet to
80.00	On step E. slope.

Subdivision of T. 40 S., R. 5 W.

Chains

Set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground for Cor. of Secs. 2, 3, 10 and 11.
Mkd. on brass cap.
T40SS 3' in NW.
R5WS 2' in NE.
S11' in SE and
S10' in SW quadrant.
From which
a pinion pine, 14 ins. dia., bears N69°55'E., 208 lks. dist.; mkd.
T40S R5W S 2' BT.
a cedar, 6 ins. dia.; bears S43°30'E., 106 lks. dist.; mkd
T40S R5W S 11 BT.
a pinion pine, 4 ins. dia.; bears N48°25'W. 119 lks. dist.; mkd
T40S R5W S 3 BT.
No suitable bearing tree available in sec. 10; raise a mound of stone, 2 ft. base 1½ ft. high, W. of cor.
Pits impracticable.
Land rough mountainous, slopes to the South.
Soil, rocky, 3rd rate.
Subsoil, sandstone.
Timber cedar and pinion pine.
Undergrowth, oak, service, maple, buck, rose and willow brush.
Land rough mountainous, heavily timbered or covered with dense undergrowth 80.00 chains.
June 17, 1911.

June 20: at 8h 01m A.M. L.M.T. I set off 37°21½' on the lat. arc, 23°27' N. on the decl. arc, and determine a Mer. with the solar at the Cor. of secs. 2, 3, 10 and 11.
Thence I run
West, on a sectional correction line

Subdivision of T. 4 S., R. 5 W.

Chains — West sec. 3 and 10.
Over rough mountainous land
through dence stand of cedar and lignum
pine. dence undergrowth of buck, service
and oak brush.
Ascend steep E. slope. 180 feet to
7.70 Ridge. bears NE and SE.
Descend 200 feet to
20.20 Scare timber and enter hollow. bears
N. and S.
21.40 Wash. 6 lks wide. 4 ft deep. course S.
22.70 Ascend over steep E. slope. 160 feet to
36.90 Ridge. bears N. and S.
Descend 60 feet to
38.00 Enter scattering timber. bears N. and S.
40.00 Set an iron post. 3 ft. long. 1 in. dia, 26
ins. in the ground, for 1/4 sec. cor:
Nkd. on faces bas.
1/4 S 30 on N. half.
S 10 on S half.
from which
a cedar. 12 ins. dia; bears S 42° 45' E.;
204 lks. dist: mkd
1/4 S 10 BT.
a lignum pine. 10 ins. dia, bears N 47° W.;
218 lks. dist; mkd
1/4 S 3 BT.
40.50 20 feet below 1/4 Cor.
Arch. 3 lks wide. 1 ft deep in
hollow. course S.
42.80 Main track. 20 lks. wide. 3 ft. deep.
Course S.
43.10 Track. 3 lks wide. 1 ft deep. Course SE.
Enter dense timber bears N. & S.
Ascend over E. slope 290 feet to
50.00 Ridge. bears N W and S 30° E.
Descend, over land facing S. 25 feet to
50.00 W. slope.
Set an iron post. 3 ft. long. 2 ins.
dia; 24 ins in the ground for
Cor of sec. 3, 4, 9 and 10.

Subdivision of T. 40 S., R. 5 W.

Chains.	Mkd. on brass cap. T40SS4'in N4W. R5WS3'in NE. S10'in SE. and S9'in SW quadrant. From which a cedar 12 ins. dia.; bears N33½°E.; 62 lks. dist.; mkd T40S R5W S3'BT. a pinion pine 10 ins. dia; bears N21°W.; 84 lks. dist.; mkd. T40S R5W S4'BT. Raise a mound of stone 2 ft. base, 1½ ft. high W. of Cor Pits impracticable Land, rolling mountainous. Slopes to the South. Soil, rocky, 3rd rate. Subsoil, sandstone formation. Timber, cedar and pinion pine. Undergrowth, oak, service, sage and buck brush. Land rough mountainous, heavily timbered or covered with dense undergrowth 80.00 chains. Andrew Nelson U. S. Transitman
	June 20: For solar observation see line bet. secs. 3 and 4. West on a section al correction line bet. secs. 4 and 9. Over rough mountainous land, through dense forest of cedar and pinion pine timber, dense undergrowth of sage, oak, buck and service brush. Descend 80 feet.
6.50	Follow course S., Ascend 160 feet &
18.00	Ridge, bears S. W and N. E.

[illegible]

Subdivision of T. 40 S., R. 5 W.

Chains.	24 ins. in the ground for cor of secs. 4, 5, 8 and 9. Subd. on brass cap. T 40 S S 5 in N W. R 5 W S 4 in N E S 9 in S E. and S 8 in S W. quadrant from which a cedar, 6 ins. dia. bears N 31¾° E., 38½ lbs. dist., mkd T 40 S R 5 W S 4 B T a cedar, 5 ins. dia., bears N 15° W., 38½ lbs. dist., mkd. T 40 S R 5 W S 5 B T, raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor. Pits impracticable.
	Land, mountainous, slope to the S. Soil, gravelly and rocky, 2nd qual 32 rates. Subsoil, sandstone. Timber, cedar and pinion pine. Undergrowth, sage, oak, buck-brush and service berry. Land, mountainous, timbered or covered with dense undergrowth. 80.00 Chains.
	West, on a random line bet. secs. 5 and 8.
36.48	Fall 2 lks. N. of the reestablished ¼ sec. cor.
	Thence I run N 89° 40' E., on a true line bet. secs. 5 and 8. Over rolling mountainous land, through dense forest of cedar and pinion pine timber, dense undergrowth of sage, oak, buck and service brush. Descend 100 feet to
13.00	Leave timber, bears N. and S.

Subdivision of T. 40 S., R. 5 W.

Chains.	
26.50	Enter dense timber bears N. and S.
36.48	The cor. of secs. 4, 5, 8 and 9.
	Land rolling mountainous.
	Soil, stony, 2nd rate.
	Subsoil Sandstone.
	Timber, cedar and pinion pine on 23.50 chs.
	Undergrowth, sage, oak, buck and service brush.
	Land rolling, mountainous 36.48 chs.
	June 21, 1911.
	June 17: at 10h. 0m. A.M. l.m.t. I set off 37°21½' on the lat. arc. 23°22¾' N. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12. Thence I run North 0°01' W. on a random line. bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
	June 17: at this cor. I set off 23°23' N. on the decl. arc, and at 12h. 0m. l.m.t. observe the sun on the mer; the resulting lat. is 37°22'.
76.90	Intersect N. bdy. of the Tp. 2 chs. E. of the cor. of secs. 1, 2, 35 and 36, heretofore described. Thence I run S. 0°02' E. on a true line bet. secs. 1 and 2. Crossing rough mountainous land through dense forest of cedar and pinion pine timber, dense undergrowth of oak, service, buck and sage brush. Descend, abrupt 180 feet to
2.90	Hollow, course S.E. Ascend, over broken land facing E. 290 feet to
12.90	Spur, projects S.E.

Subdivision of T. 40 S., R. 5 W.

Chains.	Rock, abruptly, new series of sand stone ledges, bearing N.W. and S.E.
30.90	Scarr timber, bears N.E. and S.W.
34.50	400 feet below spring.
	Small stream of pure water, 1 lb. trail, 1 in. deep, in hollow, course S.W.
36.90	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor.; Mkd. on brass cap. 1/4 S 2 on W bnd. S1 on E bnd. dig pits. 8x18x12 ins., N. and S. of post, 3 ft. deep, and raise a mound of earth, 3 1/2 ft. base, 1 1/2 ft. high, W. of cor.
41.40	Entire timber, bears N.E. and S.W.
	Course 100 feet to
46.10	Spur, projects W.
	Measured 100 feet to
51.90	Gulch, course W.
	Course 80 feet to
53.00	Spur, projects W.
	Measured, new broken W. 20 pu, 70 ft to
56.50	Hollow, course W.
	Course 170 feet to
66.15	Spur, projects W.
	Measured 150 feet to
73.15	Gulch, course W.
	Course 100 feet to
76.90	The cor. of secs. 1, 2, 11, and 12.
	Land, rough mountainous.
	Soil, rocky, 3rd rate
	Subsoil, sandstone
	Timber, cedar and pinon, fine
	Undergrowth, oak, buck, service berry and sage brush.
	Sec. heavily timbered 65.40 chs.
	Land, rough mountainous.
	76.90 chs.

Note.

Subdivision of T. 40 S., R. 5 W.

Chains	S. 0° 01' E. bet. secs. 11 and 12.
	Over rough mountainous land, through dense undergrowth of beech, oak and sage brush, dense forest of cedar and fir and fine timber.
	Along broken W. slope.
9.50	Top of 40 ft. perpendicular sandstone ledge, bears N.W. and S.E.
	Descend abruptly 250 feet to
19.75	Hollow. Course S.W.
	Ascend 75 feet to
20.50	Spur, projects West.
	Descend 60 ft. to
23.60	Hollow. Course S.W.
	Ascend 50 feet to
26.00	Spur, projects W.
	Descend 60 ft. to
27.70	Hollow. Course S.W.
	Ascend 65 feet to
32.90	Spur, projects W.
	Descend 60 feet to
40.00	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for 1/4 sec. cor. Mkd. on brass cap.
	1/4 S 11 on W. half
	S 12 on E. half;
	from which
	a pinion pine, 5 ins. dia.; bears N. 49° E.; 60 lbs. dist.; mkd.
	1/4 S 12 BT.
	a pinion pine, 22 ins. dia.; bears N 65° 15' W. 28 lbs. dist.; mkd.
	1/4 S 11 BT.
42.00	Leave timber, bears N.W. and S.E.
	Thence across Thompson's hollow
44.00	Road, to Skumpah, bears N.W. and S.E.
	Thompson's house, bears West 2.60 ch.
44.18	Stake and rider fence, bears N.W. and S.E.
46.34	The South corner of a barn, on line
	Thence across meadow.

Subdivision of T. 40 S., R. 5 W.

Chains.	
50.50	Enter dense willow brush, bears N.W. and S.E.
54.15	Leave willows, bears N.W. and S.E.
55.72	Leave meadow and ascend abrupt. through scattering timber, bears N.W. and S.E.
61.74	Road, Alton to Thompson's Ranch bears N.E. and S.W.
64.00	100 feet above meadow. Top of ascent and mesa, bears N.W. and S.E. Thence over rolling bench land
68.94	Brush fence, bears N.W. and S.E.
80.00	Set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground for Cor. of secs. 11, 12, 13 and 14, mkd. on brass cap: T40S S 11 in N.W. R5W S 12 in N.E. S 13 in S.E. and S 14 in S.W. quadrant. from which a cedar, 12 ins. dia., bears N 58° E.; 198 lks. dist.; mkd.; T40S R5W S 12 B.T. a cedar 24 ins. dia.; bears S 18° E.; 98 lks. dist.; mkd. T40S R5W S 13 B.T. a cedar, 6 ins. dia.; bears S 29° W.; 164 lks. dist.; mkd.; T40S R5W S 14 B.T. a cedar, 18 ins. dia.; bears N 44° W.; 134 lks. dist.; mkd. T40S R5W S 11 B.T. Land, North 42.50 chs. rough mountainous Soil rocky, 3rd rate South. 24.22 chs. rolling mountainous, gravelly soil. 2nd rate. Land in Thompsons Hollow, nearly level, soil, Clayloam, 1st rate. Timber cedar and pinion pine on 66.72 chs.

Subdivision of T. 4 S., R. 5 W.

Chains	
	Undergrowth, oak, service, sage and willow brush. Land, mountainous 66.72 chs.
	East, on a random line, bet. secs. 12 and 13.
40.00	Set temp. 1/4 sec. cor.
80.14	Intersect E. bdy. of the Tp. 2 lks. N. of the Cor. of secs. 12 and 13, heretofore described.
	Thence I run N 89°59' W., on a true line, bet. secs. 12 and 13.
	Over rough, mountainous land through dense forest of cedar and pinion pine, and dense undergrowth of sage and oak brush.
	Descend gradually, 200 feet to
40.07	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for 1/4 sec. cor.; mkd. on brass cap, 1/4 S 12 on N half, S 13 on S half.
	From which a pinion pine, 11 ins. dia., bears S 72° W., 69 lks. dist.; mkd 1/4 S 13 BT.
	a pinion pine, 8 ins. dia., bears N 20° W., 45 lks. dist.; mkd. 1/4 S 12 BT.
	Descend 80 feet to
49.33	Leave dense timber and enter Thompsons hollow, bears N. E. and South.
	Road to Spumpah, bears N. E. and S. W.
51.00	Thompson's creek 5 lks. wide, 6 ins. deep in wash, 1 ch. wide, 15 feet deep. Course S 10° W.
52.00	Pole fence, and enter meadow, bears N. and S.
60.64	Leave meadow, and ascend over

Subdivision of T. 40 S.; R. 5 W.

Chains.	Step E. slope, through scattering timber, bears N. and S.
74.65	Pole fence, bears N 10° W. and S 30° E; and top of ascent bears N W. and S E: Thence rev. rolling mesa,
83.14	To cor. of secs. 11, 12, 13 and 14. Land, rough mountainous, nearly level and rolling mountainous. Soil of mountainous land rocky, 3rd rate. Soil in Thompsons hollow, clay loam, 1st rate. Timber, cedar and pinion pine on 69.00 chains. Undergrowth sage and oak brush. Land rough mountainous. East. 49.33 chains. June 17, 1911.
	June 19; at 8h 01m a.m. l.m.t. I set of 37° 20 3/4' on the lat. arc, 23° 26' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14. Thence I run S 0° 01' E.
	Set secs. 13 and 14. Over rolling mesa, through scattering cedar and pinion pine timber; dense undergrowth of sage brush.
40.00	Descend gradually 38 feet to set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for 1/4 sec. cor.; mkd. on brass cap. 1/4 S 14 on W. half. S 13 on E. half. From which a pinion pine, 5 ins. dia., bears S 13° 36' E.; 129 lks. dist.; mkd 1/4 S 13 BT.

Subdivision of T. 40 S., R. 5 W.

Chains	
	A cedar, 5 ins. dia.; bears N. 55° 20' W.; 282 lbs. dist.; mkd 1/4 S 1/4 B.T.
58.25	Leave mesa, bears N.W. and N.E.
	Descend steep S. face of mesa.
64.00	Leave timber, bears N.W. and S.E.
65.10	150 feet below mesa.
	Wash, 2 chs. wide, 30 ft. deep, in hollow. Course East.
	Ascend.
74.00	Enter timber, bears E. and W.
79.00	85 feet above hollow.
	Spur, projects East.
	Descend 5 feet to
80.00	Set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground for Cor. of secs. 13, 14, 23 and 24.
	Mkd. on brass cap.
	T 40 S S 14 in N.W.
	R 5 W S 13 in N.E.
	S 24 in S.E. and
	S 23 in S.W., quadrant;
	From which
	a pinion pine, 10 ins. dia.; bears N 25° 25' E.; 43 lbs. dist.; mkd. T 40 S R 5 W S 13 B.T.
	a pinion pine, 9 ins. dia.; bears S 73½° E.; 229 lbs. dist.; mkd T 40 S R 5 W S 24 B.T.
	a cedar, 10 ins. dia.; bears S 78° 40' W.; 27 lbs. dist.; mkd T 40 S R 5 W S 23 B.T.
	a pinion pine, 8 ins. dia.; bears N 31½° W.; 61 lbs. dist.; mkd T 40 S R 5 W S 14 B.T.
	Land, rolling mountainous.
	Soil, gravelly and stony, 2nd rate.
	Subsoil, gravel.
	Timber, cedar and pinion pine on 70.00 chains.
	Undergrowth, sage brush.

Subdivision of T. 40 S., R. 5 W.

Chains.	Land rolling mountainous.
	80.00 Chains.
	June 19: at this cor. I set off 23°26' N. on the decl. arc. and at 12h 01m. l.m.t. observe the sun on the mer. the resulting latitude is 37°20'.
	Walter A. Stumm.
	U.S. Transitman.
	June 19: at 10h 01m. a.m. l.m.t. I set off 37°20' on the lat. arc, 23°25¾' N. on the decl. arc. and determine a Mer. with the solar at the cor. of secs. 13, 14, 23 and 24.
	Thence I run
	S 89°59' E. on a random line, bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
80.20	Intersect E. bdy of the T. 2 chs. S. of the cor. of secs. 13 and 24, which is an iron post. heretofore described.
June 19:	at this cor. I set off 23°26' N. on the decl. arc. and at 12h 01m. l.m.t. observe the sun on the mer. the resulting lat. is 37°20'.
	Thence I run
	West on a true line bet. secs. 13 and 24.
	Over mountainous land through scattering forest of cedar and pinion pine. dense undergrowth of sage brush
	Ascend 10 feet
1.00	Ridge, bears N W and S E;
8.00	Enter dense timber, bears S E. and N E;
	Continue through scattering sage brush.
33.25	150 feet below ridge, enter hollow, bears N E. and S W.
33.84	Road, to Shumpah, bears S. and N E. 4 chs, thence S W.
35.10	Wash, 120 lks wide, 35 feet deep, course S W.

Subdivision of T. 40 S., R. 5 W.

Chains.	
35.80	Road to Skumpah, bears NE. and SW.
	Ascend 40 feet to
38.00	Spur projects SW. 75 lks.
40.10	On E. edge of Thompsons hollow. Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for
	1/4 sec. cor: rubble stone cap.
	1/4 S 13 on N. half.
	S 24 on S half; from which
	a cedar, 28 ins. dia., bears S 66 1/2° E.; 135 1/2 lks. dist.; rubd
	1/4 S 24 BT.
	a cedar, 4 ins. dia., bears N 79 1/2° E.; 4.2 1/2 lks. dist.; rubd. 1/4 S 13 BT.
40.36	Road to Skumpah, bears NW. and SE.
41.15	Wash, 50 lks. wide, 25 feet deep, course S.
45.50	Wash, 1 chain wide, 30 feet deep, course S.
49.60	Thompson creek, 3 lks. wide, 4 ins. deep, in wash, 2 chs. wide, 45 feet deep. Course S. 20° E.
54.15	Wash, 1 chain wide, 60 feet deep, course S 60 E.
65.00	Spur, projects N.
	Ascend 30 feet to
70.00	Draw, course N E.
75.40	Draw, course N E.
80.20	The cor. of secs. 13, 14, 23 and 24.
	Land, rolling mountainous.
	Soil, gravelly, 2nd rate.
	Subsoil, gravel.
	Timber, cedar and pinion pine.
	Undergrowth, sage and rabbit brush.
	Land rolling mountainous.
	80.20 chains.

Note: From the retracement of the S. bdy. of secs. 23 and 24 I find that it is necessary to establish a closing cor. for secs. 23 and 24

Subdivision of T. 40 S., R. 5 W.

Chains	
	at my intersection.
	S 0° 01' E. on a true line
	bet. secs. 23 and 24
	Over mountainous land, through
	dense forest of cedar and fir, pine,
	dense undergrowth of buck, service
	and sage brush
	descend 35 feet to
1.00	Stream, course N E;
	ascend 170 feet to
26.00	Ridge, bears E. and W.
34.00	Wash, 10 lks. wide, 3 ft. deep, course
	S E;
37.00	Sure timber, bears E. and W.
38.70	Wash, 10 lks. wide, 1 ft. deep, in
	hollow, course S 80° E.
40.00	Set an iron post, 3 ft. long, 1 in. dia.;
	26 ins. in the ground for 1/4 sec.
	cor. mkd on brass cap,
	1/4 S 23 on W half,
	S 24 on E half; from which
	a cedar 5 ins. dia., bears N 77½° E.;
	37 lks. dist.; mkd,
	1/4 S 24 BT.
	a cedar, 6 ins. dia.; bears S 41° 55' W.;
	133 lks. dist.; mkd
	1/4 S 23 BT.
42.00	Enter timber, bears E. and W.
50.00	50 feet above hollow.
	S fwd. fragicle E.
	descend 40 feet to
54.00	Hollow, course E;
	ascend 40 feet to
60.00	Ridge, bears N 60° W. and S 40° E.;
	descend 70 feet to
79.50	Intersect E. and W. line, 109 lks.
	W. of the cor. of secs. 23, 24, 25
	and 26. I destroy all trees
	and accessories of this cor. pertaining
	to secs. 23 and 24 and at
	my point of intersection I set.

Subdivision of T. 40 S., R. 5 W.

Chains

an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for closing Cor. to secs. 23 and 24
mkd. on brass cap:
T40S S23 R5W S24 in N. half
S 25 in SE and
CC S26 in SW. quadrant.
from which
a pinion pine, 6 ins. dia., bears N65½°E., 49½ lks. dist.; mkd
T40S R5W S 24 BT.
a cedar, 6 ins. dia.; bears N83¼°W., 24 lks. dist.; mkd
T40S R5W S 23 BT.
Land, rolling mountainous.
Soil, rocky; 3rd rate.
Timber, cedar and pinion pine on 74.50 chs.
Undergrowth, sage, buck and service brush.
Land, rolling mountainous.
79.50 chains.

Andrew Nelson
U.S. Transitman.

June 19, 1911.

June 20: at 8h 01m a.m. l.m.t. I sighted 37°21½' on the last arc, 23°27' on the decl. arc, and determined a mer. with the solar at the cor. of secs. 2, 3, 10 and 11.
Thence I run
N0°01' W. on a random line bet. secs. 2 and 3.
40.00 Set temp. ¼ sec. cor.
76.89 Intersect N. bdy. of the Tp. 20 lks. E. of the cor. of secs. 2, 3, 34 and 35 which is an iron post, heretofore described;
Thence I run
S0°10' E. on a true line bet. secs. 2 and 3.

Subdivision of T. 40 S., R. 5 W.

Chains.	
	Over rough mountainous land through dense undergrowth of oak, buck and service brush.
	Ascend, on land facing NE.; 200 ft. to
28.90	Ridge, and enter dense cedar and pinion pine timber, bears NW. and SE.
	Descend, broken land facing S.; 120 ft. to
36.89	Set an iron post, 3 ft. long, 1 in. dia.; 26 ins. in the ground for 1/4 sec. cor.;
	Mkd. on brass cap:
	1/4 S 3 on W half
	S 2 on E half, from which
	a cedar, 8 ins. dia., bears S 74½° E.;
	33 lks. dist.; mkd.
	1/4 S 2 BT.
	a cedar, 9 ins. dia., bears S 86½° W.;
	28 lks. dist.; mkd.
	1/4 S 3 BT.
	Descend 40 ft. to
38.89	Hollow, course SE.;
	Ascend 60 ft. to
42.70	Spur, projects SE.
	Descend 450 ft. to
60.00	Hollow, course S 45° E.
68.50	Top of 50 ft. perpendicular sandstone edge, and ridge, bears NW. and SW.
76.89	200 ft. below ridge.
	The cor. of sec. 2, 3, 10 and 11.
	Land, rough mountainous.
	Soil, rocky, 2nd rate.
	Subsoil, sandstone.
	Timber, cedar and pinion pine on South 48.00 chs.
	Undergrowth, oak, buck, and dense service brush.
	Land rough mountainous.
	76.89 Chains.
	Walter A. Stumm
	U. S. Transitman.

Subdivision of T. 40 S., R. 5 W.

Chains June 19: For 2 chain deflection
see line bet. secs. 1 and 12 in this
book.
S. 0°01' E.
bet. secs. 10 and 11.
Over rough mountainous land,
through dense forest of cedar and fir
timber, undergrowth of
buck, oak and service brush.
Ascend 70 feet to
6.80 Top of perpendicular, 40 ft. ~~[illegible]~~ ledge, and
ridge, bears N.W. and S.E.
20.00 Moderate land facing S.E. and S.
25.75 70 ft. below ridge.
Gully, course E.
Ascend 20 feet to
27.30 Spur of ridge, projects E. and bears
N.W.; descend 70 feet to
40.00 Set an iron post, 3 ft. long, 1 in.
dia., 26 lks. in the ground for
1/4 sec. cor., mkd. on brass cap.
1/4 S. 10 on W. half,
S. 11 on E. half.
From which
a cedar, 8 ins. dia., bears N. 58° 11' E.;
18½ lks. dist.; mkd.
1/4 S. 11 BT.
a fir pine, 8 ins. dia., bears N. 48° 15' W.;
44 lks. dist.; mkd.
1/4 S. 10 BT.
51.50 Leave hilly land and timber,
Enter hollow, bears N. 10° E. and S. 10° W.
Thence down hollow, through dense
undergrowth of sage and rabbit brush.
76.60 Wash, 30 lks. wide, 15 feet deep,
Course S.
79.56 Wash, 30 lks. wide, 6 feet deep.
Course S.
Intersect E. and W. line, S. 05
chs., S. 89° 45' W. of the cor. of
secs. 10, 11, 14 and 15.

Subdivision of T. 40 S., R. 5 W.

Chains. I destroy all marks and accessories of this cor. pertaining to secs. 10 and 11. The point for cor. falls in rock so at a point 50 lks. E. of the true cor. point I set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for witness cor. to the closing cor. of secs. 10 and 11, mkd. on brass cap.

WC T40S S10 R5W S11 in N. half.
S14 in S E. and
CC S15 in S W quadrant.
from which
a cedar, 20 ins. dia., bears N 68° E., 95 lks. dist., mkd.
WC T40S R5W S11 BT.

No suitable bearing tree available in Sec. 10, raise a mound of stone, 2 ft. base, 1½ ft. high, on cor.
Pits impracticable.

Land, North 51.50 chs, mountainous, soil, rocky 3rd rate.
South 28.06 chs., rolling, gravelly soil, 2nd rate.
Timber, cedar and pinion pine on N. 51.50 chs.
Undergrowth, sage, rabbit, buck, oak and service brush.
Land, mountainous 51.50 chs.

Andrew Nelson
U. S. Transitman.

June 19: at 9h 31m A.M. l.m.t., I set off 37° 20' 3/4' on the lat. arc, 23° 26' N. on the decl. arc. and determine a mer. with the solar at the cor. of secs. 14 and 15.

Thence I run
East on a random line,
bet. secs. 11 and 14.

40.00 Set temp. 1/4 sec. cor.
76.94 Intersect N. and S. line, 28 lks.

Subdivision of T. 40 S., R. 5 W.

Chains	N. of the Cor. of secs. 11, 12, 13 and 14. Thence I did run N 89°47' W. on a true line bet. secs. 11 and 14.
	Over rolling mountainous land, through scattering cedar and fir timber, dense undergrowth of sage brush. Ascend gradually.
16.50	Enter dense timber, bears N. and S.
40.00	160 feet above sec. Cor.
	Set an iron post 3 ft. long, 1 in. dia.; 26 lbs. in the ground for 1/4 sec. Cor.; mkd. on base cap. 1/4 S 11 on N half. S 14 on S half. From which
	a fir tree 8 ins. dia.; bears S 66 3/4° W. 53 lbs. div.; mkd. 1/4 S 14 BT.
	a fir tree 14 ins. dia.; bears N 56° E.; 28 lbs. div.; mkd 1/4 S 11 BT.
	Ascend 50 feet.
43.00	Ridge, and top of mesa, bears N-W and S-E;
	Descend, over rolling land facing W. 100 feet.
76.94	The Cor. of secs. 14 and 15. Land, rolling mountainous. Soil, gravelly, 2nd rate. Subsoil, volcanic formation. Timber, cedar and fir timber. Over. 60.44 chs. Undergrowth, dense sage brush. Land rolling mountainous. 76.94 chs.
	For solar observation see line bet. secs. 14 and 23, in Resurvey in this Book.

Subdivision of T. 40 S., R. 5 W.

Chains.	
	From the reestablished 1/4 sec. cor. bet secs. 14 and 23, I run East, on a random line bet. secs. 14 and 23.
36.67	Intersect N. and S. line, 14 chs. N. of the cor. of secs. 13, 14, 23 and 24.
	Thence I run N 89°47' W. on a true line bet. secs. 14 and 23.
	Are rolling mountainous land, through dense forest of Cedar and pinion pine timber; undergrowth of sage brush.
	Ascend 80 feet.
8.77	Spur, projects N; descend 100 feet to.
26.00	Hollow course N: ascend 100 feet to
35.77	Spur, projects N. descend, 4 feet.
36.67	The 1/4 sec. cor.
	Land, rolling mountainous
	Soil, rocky, 3rd rate.
	Subsoil, sandstone formation.
	Timber, cedar and pinion pine.
	Undergrowth, sage brush.
	Land, rolling mountainous and heavily timbered 36.67 chains.
	June 19, 1911.
	June 20: At 10h 01m a.m. l.m.t. I set o/f 37° 21½' on the lat. arc, 23° 26¾' N. on the decl. arc, and determine a mer. with the solar. At the cor. of secs. 3, 4, 9 and 10.
	Thence I run N 0°02' W. on a random line bet. secs. 3 and 4.
40.00	Set temp. 1/4 sec. cor.

Subdivision for 40 S., 20 W.

Chains	June 20: at this cor. I set 78
	23°26¾' N. on the decl. arc and
	at 12h 01m. limit observe the sun on
	the mer.; the resulting lat. is 37°32'
76.50	Intersect N. bdy. of the Tp. 12 chs.
	E. of the cor. of secs. 3, 4, 33 and 34
	heretofore described.
	Thence I run
	S. 0° 07' E. on a true line
	bet. secs. 3 and 4.
	Over rough mountainous land
	through dense undergrowth of oak,
	buckb. service and sage brush.
	Ascend 40 feet to
1.00	Ridge, bears E. and W.
	Descend 40 feet to
8.50	Hollow, course W.
	Ascend 240 feet to
28.00	Ridge, bears N.E. and S. 60° W.
29.00	Enter dense cedar and pinion pine.
	bears East and West.
	Descend 200 feet to
36.80	Set an iron post 3 ft. long, 1 in. dia.,
	26 ins. in the ground, for 1/4 sec. Cor.,
	Mkd. on brass cap,
	1/4 S 4 on W. half
	S 3 on E. half
	From which
	a cedar, 24 ins. dia., bears S 80½° E.,
	11 lks. dist.; mkd.
	1/4 S. 3 BT.
	a pinion pine, 8 ins. dia., bears N 64° W.,
	31 lks. dist.; Mkd.
	1/4 S. 4 BT.
52.10	200 ft. below top.
	Ridge, bears N.E. and S.W.
	Descend over broken E. slope.
54.18	Perpendicular, sandstone ledge, 45 ft.
	high; bears N.E. and S.W.
57.00	100 feet below ridge.
	Gulch, course E.

Subdivision of T. 40 S., R. 5 W.

Chains.	
	Ascend 90 feet to
63.75	Spur of main ridge, bears NW and projects SE;
	Descend 100 feet to
76.80	The cor. of secs. 3, 4, 9 and 10.
	Land rough mountainous,
	Soil, rocky, 3rd rate.
	Subsoil, sandstone.
	Timber, cedar and pinion pine on South 47.80 chains.
	Undergrowth, oak, buck, service and sage brush.
	Land rough mountainous.
	76.80 chains.
	Walter A. Stumm,
	June 20, 1911. U. S. Transitman

	June 20: For solar observation.
	See line bet. secs. 9 and 10 in Reserve.
	From the reestablished 1/4 sec. cor. bet. secs. 9 and 10, I run
	North on a true line bet. secs. 9 and 10.
	Over gently rolling land through dense undergrowth of sage brush.
	Ascend gradually.
0.05	Old road, bears N. 20° W. and SE.
9.45	Wash, 20 lks. wide 12 ft. deep, course SE.
17.00	Ascend over rolling mountainous land through dense forest of cedar and pinion pine timber, bears NW. and SE.
32.00	A small shearing corral, bears W. about 3 chains distant.
40.00	Intersect E. and W. line, 2.99 chs. East of the cor. of secs. 3, 4, 9 and 10.
	I destroy all marks on this cor pertaining to secs. 9 and 10 and at

Subdivision of T. 40 S., R. 5 W.

Chains	my point of intersection, I set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground for closing cor. to secs. 9 and 10.; Mkd on brass cap. T 40 S S 4 in N.W. and C C R 5 W S 3 in N.E. quadrant, S 9 S 10 in S. half. From which a pinion pine, 7 ins. dia.; bears S 33½° E., 40 lks. dist.; mkd. T 40 S R 5 W S 10 B.T. a cedar, 16 ins. dia.; bears S 44° W., 47 lks. dist.; Mkd. T 40 S R 5 W S 9 B.T. Land, gently rolling and rolling mountainous. Soil, gravelly, 2nd rate. Subsoil, gravel. Timber cedar and pinion pine Undergrowth, sage brush. Land rolling mountainous and heavily timbered. 23.00 chains. Andrew Nilson U.S. Transitman.
	June 21. For solar observation see line bet. secs. 4 and 9. N 0° 07' W. on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.
76.74	Intersect N. bdy. of the Tp. 1.18 chs. S. 89° 40' W. of the cor. of secs. 4, 5, 32 and 33, heretofore described. I destroy all marks and accessories of this cor. pertaining to secs. 4 and 5. and at my point of intersection, I set an iron post, 3 ft. long, 2 ins. dia.; 24 ins. in the ground for closing cor. to secs. 4 and 5. Mkd. on brass cap.

Subdivision of T. 40 S., R. 5 W.

Chains.	
	T 39 S S 32 C C in N W.
	R 5 W S 33 in N E. quadrant.
	S 4 & S 5 in S. half.
	From which.
	a pinion pine, 12 ins. dia.; bears S 83 1/2° E.;
	306 lbs. dist.; mkd.
	T 40 S R 5 W S 4 BT.
	a pinion pine, 5 ins. dia.; bears S 9° 40' W.;
	329 lbs. dist.; mkd.
	T 40 S R 5 W S 5 BT.
	Thence I run
	S 0° 07' E. on a true line,
	bet. secs. 4 and 5.
	Over rolling mountainous land,
	through scattering cedar and
	pinion pine timber; dense under-
	growth of sage, oak and buck brush.
.15	Wash, 15 lks wide, 8 ft. deep, course S W.; asc. 100 ft to
8.75	Spur, projects W.;
	Ascend, through dense timber,
	bearing N E. and S W.; 75 feet to
15.25	Hollow, course W.
	Ascend along W. slope. 75 ft. to
28.75	Ridge, and leave dense timber,
	bears N E. and S W.
	Continue through scattering timber.
36.74	Set an iron post, 3 ft. long, 1 in. dia.,
	26 ins. in the ground, for 1/4 sec.
	cor.; mkd. on brass cap.
	1/4 S 5 on W. half.
	S 4 on E. half.
	From which
	a cedar, 10 ins. dia.; bears N 10 3/4° E.;
	56 lbs. dist.; mkd.
	1/4 S 4 BT.
	a cedar, 8 ins. dia.; bears N 14° W.;
	22 lbs. dist.; mkd.
	1/4 S 5 BT.
	Desc. gradually.
66.75	Enter dense timber, bears N E. and S W.
76.74	150 feet below 1/4 sec. cor.

Subdivision of T. 40 S., R. 5 W.

Chains. The cor. of secs. 4, 5, 8 and 9.
Land, rolling mountainous.
Soil, rocky. 2nd rate.
Subsoil, gravel.
Timber Cedar and pinion pine.
Undergrowth, sage, oak and service brush.
Land, timbered, covered with dense undergrowth and rolling mountainous
76.74 Chains.

June 21: At this cor. I set off 23° 27½' N. on the decl. arc and at 12h 01m P.M. M.T. observe the sun on the mer; the resulting lat. is 37° 21½'.

Walter A. Stumm.
U. S. Transitman.

June 21: For solar observation see line bet secs. 9 and 16 in Reserves in this Bk.
From ¼ Cor. North on true line bet. secs. 8 and 9.
Over rolling mountainous land, through dense forest of cedar and pinion pine; dense undergrowth of sage, oak, and rabbit brush.

1.00 Leave timber, bears N.E. and S.W. descend 50 feet
3.75 Enter hollow, bears N.E. and S.W.
5.50 Wash, 30 lks. wide 12 ft. deep, course S.W.
6.75 Road, Kanab to Alton and Meadow, bears N.E. and S.W.
7.50 Leave hollow, and enter dense timber, bears N.E. and S.W. Ascend over land facing S.E.
22.00 Leave timber, bears N.E. and S.W.
23.75 Wash, 5 lks. wide, 2 feet deep, in small scale, course S.W.
30.00 Enter dense timber bears

Subdivision of T. 40 S.; R. 5 W.

Chains
40.12 N. E. and S. W.
70 ft. above hollow.
Intersect E. and W. line 3.72 chains
E. of the Cor. of secs. 4, 5, 8 and 9.
I destroy all marks and accessories
of this Cor. pertaining to secs. 8 and 9.
At my point of intersection I set an
iron post, 3 ft. long, 2 ins. dia.; 24 ins.
in the ground for closing Cor. to secs. 8 & 9.
Mkd. on brass cap.
T40S S5 in N.W. and
R5W S4 C C in N.E. quadrant
S8 S9 in S half.
from which
A cedar, 7 ins. dia.; bears S 51° E.;
62½ lks. dist.; mkd.
T40S R5W S9 BT
A pinion pine, 24 ins. dia.; bears S 59¾° W.
40 lks. dist.; mkd.
T40S R5W S8 BT.
Land, rolling mountainous. Slopes to S.E.
Soil, rocky and gravelly. 3rd rate.
Subsoil, gravel and sandstone
formation.
Timber cedar and pinion pine.
Undergrowth, sage, oak, buck and
service brush.
Land heavily timbered 25:50 chains.
The soil in the main hollow
is a rich sandy loam 3 to
10 ft deep, with a gravel subsoil.
Land rolling Mountainous
40.12 Chains —

Andrew Nelson
H. S. Ramsthaler

General Description.

This fractional township is mountainous in character, sloping to the Southwest.

It is covered with a growth of cedar, pinion pine and a dense undergrowth of oak, sage, buck and Service berry.

In Thompsons Hollow, which traverses the township in a Southerly direction is Thompsons Ranch which embraces portions of secs. 11, 12 and 13.

It is irrigated from Thompson Creek, a small stream of Muddy water which flows through this Tp.

The soil is a deep clay loam and very fertile. Improvements consist of a frame house, frame barn, corral, fences and about 40 acres of meadow.

Value of improvements $1500.00

This ranch is used a Stockmens headquarters and, at present, there are no residents at this ranch.

Elbow Spring, located, approximately, in the S E ¼ of Sec 4, near the Maybell-Alto Road, which road traverses sections 8 and 9, is a small spring of pure water. A small stream of water flows S. W. from this Spring.

There are no Surface indications of Minerals in this Township.

There are no other settlers except the owners of Thompsons Ranch in this Township.

The Township is well watered and adapted to grazing.

Walter A Sherman
Andrew Nelson
L. S. Vanatten

4—680

BOOK A-397

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, ..., U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of .....

For certificate of assistants see book "J" T. 39 S., R. 5 W.

of the ..... Meridian, in the State of .....

which are represented in the foregoing field notes as having been executed by him, and under his direction; and that said survey has been, in all respects, to the best of our knowledge and belief, well and faithfully executed.

NAME.	PERIOD OF SERVICE.		CAPACITY.
	BEGUN.	ENDED.	

Subscribed and certified to before me on the dates of the final service as shown above.

.....

U. S. Surveyor.

6—2764

FINAL OATH OF UNITED STATES SURVEYOR.

I, ..., U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for ..... bearing date of the ..... day of ....., 191 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of .....

For final oath of transitmen see book "S" T. 39 S., R. 12 W.

..... of the ..... Meridian, in the State of ....., which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for ..... and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

.....

U. S. Surveyor.

Subscribed by said ....., and sworn to before me this ..... day of ....., 191

SEAL

.....

.....

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 3, 1914.

The foregoing field notes of the ~~survey of~~ retracements, resurveys and surveys of the subdivisional lines of Township No. 40 S., R. 5 West of the Salt Lake Base and Meridian, Utah,

executed by Andres Nelson and Walter A. Stumm under ~~his~~ their special instructions dated March 27, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

A. C. Thorsen

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.

6—2761