Volume

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R0403

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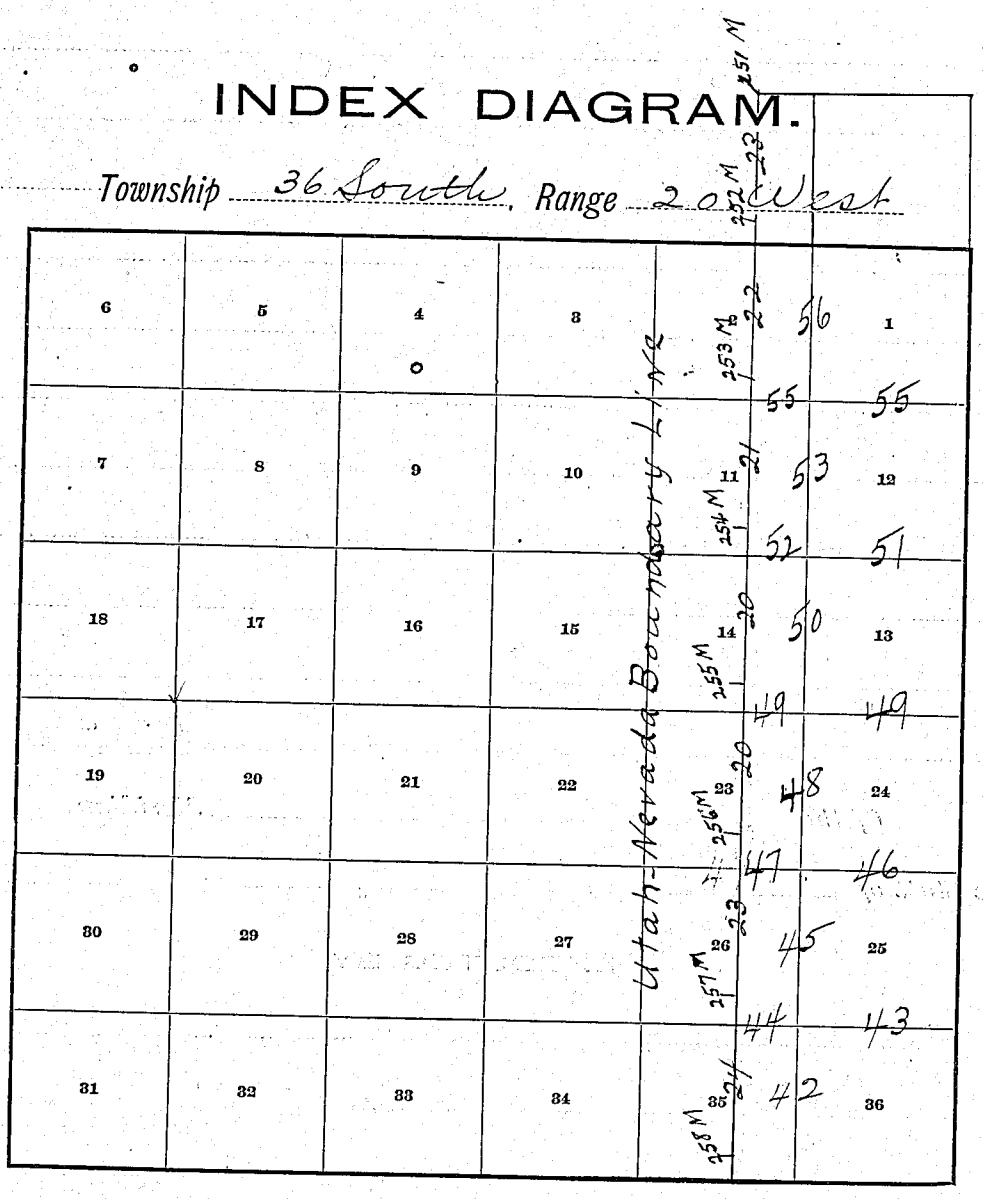
Township 36 South, Range 20 West



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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*....

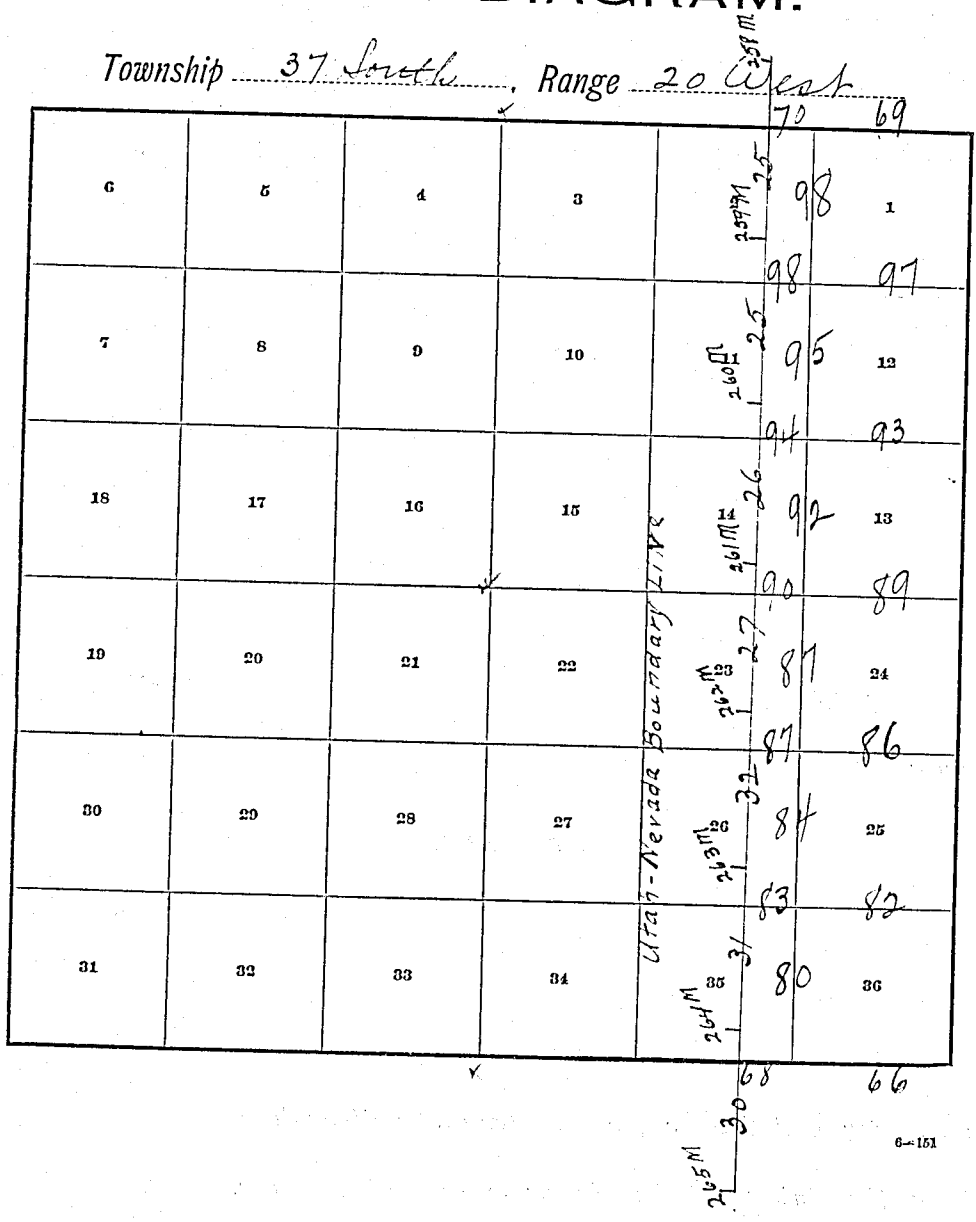
Survey commenced ....., *191*....

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

BOOK A-403

INDEX DIAGRAM.

Township 37 South, Range 20 West



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Office, ..., *191....*

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

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

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Office, ..., *191*....

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

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

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Natural Bridges pages 531-557, incl.

Tp. 39 S., Rs. 18 + 19 E.

37 S., R. 19 E.

37 S., Rs. 17 + 18 E.

36 S., R. 17, 18 + 19 E.

Plat in vault.

J. C. Thomas Secy

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Page

FEB 24 1913
SALT LAKE CITY, U

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K.
BOOK A-403

FIELD NOTES

OF THE ~~SURVEY~~ OF THE
Retracement and resurvey of the

UTAH-NEVADA BOUNDARY

FROM THE

251st MILE POST TO THE 265th MILE POST.

~~Of the Salt Lake Base and Meridian,~~

~~In the State of~~ Utah

EXECUTED BY

Ralph Gentry

In the capacity of U. S. Surveyor, *under instructions dated* August 12, *191*1, *issued by the United States Surveyor General to govern surveys included in Group No.* 14, *which were approved by the Commissioner of the General Land Office,* August 23, *1911*, *pursuant to authority contained in the Act of Congress dated* ....., *191*..

Survey commenced May 17, *1912*

Survey completed May 25, *1912*

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Utah-Nev. 37 Co - 6-77-77
36 Co - 6-79-84

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6—151

Chains

Survey commenced May 17, 1912, and executed with a W. & L. E. Gurleys explorers transit No.957, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, February 13, 1912.

I examine the adjustments of the transit, find them correct; 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 256 th. mile post, on the Utah-Nevada boundary, latitude 37° 39' 41"N., longitude 113° 59' 33"W.; I set off 37° 40'N., on the lat. arc; 19° 26'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 my station.

May 17, 1912.

May 18: At 3h 49m a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chs. N. of my station.

At 7h a.m., l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined, on the stake set May 17, on which the meridian falls 0.1 in. east of the mark determined bu the solar.

At 7h 57m a.m., l.m.t., I set off 37° 40' on the lat. arc; 19° 35'N., on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. east of the meridian established by Polaris observations.

Chains	
	The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0' 05" west and 0' 11" east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satidfactory.
	The magnetic bearing of the true meridian, at 8h 30m a. m., is N.15° 45'W.; the angle thus determined gives the mag. decl. 15° 45'E.
	From the 256th mile post, which is a cedar post, 4 ins. square, 3 ft. above the ground, marked and witnessed as described by the surveyor general, I retrace
	North, along the 256th mile of the Utah- Nevada boundary. Over rolling land, through timber and scattering undergrowth of sage brush and grass.
20.00	Ascend, over mountainous land, brs. NW. ans SE.
52.00	Leave timber, enter sage brush, brs. NW. and SE.
58.00	Ridge, 100 ft. high, brs. E. and W.
	Enter timber, and scattering sage brush, brs. E. and W.
	Descend.
66.00	Ravine, 40 ft. below ridge, course E.
	Ascend.
79.90	Fall 33 lks. W. of the 255th mile post, 4 ins. square, 5 ft. long, set in a mound of stone, 5 ft. base, marked as described by the surveyor general, and witnessed by a Cedar; 5 ins. in dia., bearing S.8°W., 27 lks. dist., marked NEVADA 255 M P.
	May 18: At this mile post I set off 19° 36'N., on the decl arc; and at 11h 57m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 40'.
	The course of this line is N.0°14'E. 79.90 chs.
	North, along the 255th mile of the Utah-Nevada boundary. Over mountainous land, through timber and scattering undergrowth of sage brush and grass.
	Ascend.

Chains	
2.00	Ridge, 150 ft. high, brs. N.60°E.and S.60°W.,
	Descend.
12.00	Leave timber, brs. E. and W.
20.00	Hollow, 200 ft. deep, course E.
	Ascend.
22.00	Enter timber, brs. E. and W.
31.00	Ridge, 100 ft. high, brs. E. and W.
	Descend.
42.00	Ravine, 150 ft. deep, course E.
	Ascend.
59.75	Ridge, brs. E. and W.
	Descend.
66.00	Ravine, 160 ft. below ridge, course E.
	Ascend.
68.00	Spur, 15 ft. above ravine, projects NE.
	Descend.
77.90	Ravine, 35 ft. below spur, course NE.
	Ascend.
79.02	Fall 1.23 chs. W. of the 254 th mile post, which is a cedar 4 X 4 ins. 5 ft. above the ground, marked and witnessed as described by the surveyor general.
	The course of this line is therefore N.0° 53'E., and the length is 79.02.
	May 18, 1912.

May 20: At 7h 57m a.m.,l.m.t., I set off 37° 41' on the lat. arc; 20° 00'N., on the decl.arc; and determine a meridian with the solar at the 254th mile post.

Thence I retrace

North, along the 254th mile of the Utah-Nevada boundary.

Over mountainous land, through timber, and scattering undergrowth of sage brush and grass.

	Ascend.
12.00	Ridge, 150 ft. high, brs. NE. and SW.
	Descend.

Chains	
23.10	Ravine, 150 ft. deep, course E.
	Ascend.
42.00	Ridge, 45 ft. above ravine, brs. NE. and SW.
	Descend.
60.00	Enter scattering timber, brs. E. and W.
80.21	Fall 67 lks. E. of the 253rd mile post, which is a cedar post, 4 X 4 ins. 3 ft. above the ground, marked as described by the surveyor general, from which
	A cedar, 12 ins. in dia., bears N.27°50'W., 41 lks. dist., marked 253 M P NEVADA.
	A cedar. 18 ins. in dia., bears S.39°30'E., 81 lks. dist., marked 253 M P UTAH.
	The course of this line is therefore N.0° 29'W., and the length is 80.21 chs.
	North, along the 253rd mile, of the Utah-Nevada boundary:- Over rolling hills, through scattering timber and undergrowth of sage brush and grass.
	Descend.
6.00	Ravine, 110 ft. deep, course E.
	Ascend.
16.00	Ridge, 140 ft. high, brs. E. and W.
	Descend, along E. slope of ridge.
18.00	Enter heavy timber, brs. E. and W.
20.00	Head of ravine, 75 ft. deep, course E.
	Ascend.
26.00	Spur, projects E.
	Descend.
32.60	Ravine, 50 ft. deep, course E.
	Ascend.
36.00	Spur, 30 ft. high, projects E.
	Descend.
42.00	Ravine, 20 ft. deep, course E.
	Ascend.
74.00	Spur, 50 ft. above ravine, projects E.
	Descend.

Chains	
80.26	Fall 30 lks. W. of the 252nd mile post, which is a cedar post, 4 x 4 ins. 5 ft. long, set in a mound of stone, marked and witnessed as described by the surveyor general. The course of this mile is therefore N.0° 13'E., and the the length is 80.26.
	May 20: At this mile post, I set off 20°02'N., on the decl. arc; and at 11h 57m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 43'.
	North, along the 252nd mile of the Utah-Nevada boundary. Over roiiling hills, through scattering timber, and undergrowth of sage brush and grass.
	Descend.
16.75	Foot of spur, 180 ft. below top, brs. NE. and SW.
	Thence over rolling bench land.
30.00	Descend into ramine, brs. NE. andS W.
34.00	Ravine, 25 ft. deep, course NE.
	Ascend.
37.50	Leave ravine.
60.00	Descend from bench, brs. NE. and W.
64.00	Foot of bench land, 40 ft. below top, brs. NE. and W.
	Leave timber, brs. E. and W.
	Thence over rolling desert land.
80.17	Fall 44 lks. W. of the 251st mile post, which is cedar post, 4 ins. square, 3 ft. above the ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N.0° 19'E., and the distance is 80.17 chs.
	May 20, 1912.
	May 21: At 7h 57m a.m.,l.m.t., I set off 37° 40', on the lat. arc; 20° 13'N., on the decl.arc; and determine a meridian with the solar at the 256th mile post.
	Thence I run
	South, along the 257th mile of the Utah-Nevada boundary.

Chains	
	Over rolling land, through scattering timber a nd under-growth of sage brush and grass.
5.70	Old road, brs. NW. and SE.
17.90	Road, brs. E. and W., Picche to Enterprise.
40.00	Ascend spur, brs. E. and W.
54.40	Spur, 150 ft. high, projects SE.
	Descend.
72.50	Foot of spur, 120 ft. below top, brs. E. and W.
	Thence descend over gently rolling land.
80.08	Fall 35 lks. E. of the 257th mile post, which is a cedar post, 4 ins. square 3 ft. above the ground, marked and witnessed as described by the surveyor general.
	The course of this line is therefore S.0° 15'W., and the distance is 80.08.

	South, along the 258th mile of the Utah-Nevada boundary.
	Over gently ascending land, through timber, and scattering undergrowth of sage brush and grass.
24.00	Rolling ridge, 60 ft. above mile post, brs. NW. and SE.
	Descend.
25.40	Ravine, 25 ft. deep, course NW.
	Ascend.
51.00	Ridge, 85 ft. high, brs. E. and W.
	Descend.
64.75	Ravine, 130 ft. deep, course SE,
	Ascend.
66.00	Top of ravine, 25 ft. above bottom, brs.SE. and NW.
	Thence over rolling land.
80.20	Fall 23 lks. W. of the 258th mile post, which is a cedar post, 4 ins. square, 4 ft. above the ground, marked and witnessed as described by the surveyor general.
	The course of this line is therefore S.0° 10'E., and the distance is 80.20 chs.
	May 21: At this mile post I set off 20° 14'N., on the decl. arc; and at 11h 57m l.m.t., observe the sun on the

Chains	
	meridian. The resulting lat. is 37° 38'.
	South, along the 259th mile of the Utah-Nevada boundary. Over rolling land, through timber, and scattering undergrowth of sage brush and grass.
28.00	Foot of ridge, brs. E. and W.
	Ascend.
41.00	Ridge, 75 ft. high, brs. E. and W.
	Descend.
50.00	Foot of ridge, 75 ft. below top, brs. E. and W.
	Thence over rolling land.
69.00	Road, brs. NE. and W., Pioche to Enterprise.
69.00	Foot of ridge, brs. NE. and SW.
	Leave timber, brs. E. and W.
	Ascend.
79.38	Fall 2.60 chs. E. of the 259th mile post, which is an old cedar post, lying on a mound of earth with a marked stone in the mound. The post is decayed so that the marks cannot be read. I re-establish this cor. as follows: Set a cedar post, 5 ft. long, 4 ins. square, 24 ins. in the ground over the marked stone, and raise a mound of earth and stone around the post, and mark the post as follows:
	259 on N.
	UTAH on E.
	L W 37 on S., and
	NEVADA on W., faces.
	The course of this line is therefore S.1°53'W. and distance 79.38 chs. May 21, 1918.
	May 22: At 7h 57m a.m., l.m.t., I set off 37° 37' on the lat. arc; 20° 25'N., on the decl. arc; and determine a meridian with the solar at the 259th mile post.
	Thence I retrace
	South, along the 260th mile of the Utah-Nevada boundary. Over rolling hills, through sage brush and grass.

Chains	
	Ascend.
12.00	Ridge, 135 ft. high, brs. E. and W.
	Descend.
23.20	Foot of ridge, 100 ft. below top, brs. E. and W.
	Thence over sage brush flat.
46.00	Enter rolling hills, brs. NW. and SE.
	Ascend.
57.00	Ridge, 110 ft. high, brs. E. and W.
	Enter timber, brs. NW. and SE.
	Descend.
74.00	Ravine, 75 ft. deep, course SE.
	Ascend.
80.33	Fall 26 lks. W. of the 260th mile post, which is a granite stone, 12 x 10 x 8 ins., firmly set in the ground, marked and witnessed as described by the surveyor general for Nevada.
	The course of this line is therefore, S. 0° 11' E., and the distance is 80.33 chs.
	May 22: At this mile post, I set off 20° 26' 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° 36'.

	South, along the 261st. mile of the Utah-Nevada boundaey. Over rolling hills, through scattering timber and scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
7.00	Spur, 25 ft. high, projects E.
	Descend.
12.00	Ravine, 30 ft. deep, course E.
	Ascend.
15.00	Top of ascent, 10 ft. above ravine, on E. end of spur.
	Descend.
20.50	Ravine, 75 ft. deep, course SW.
	Ascend.
28.00	Ridge, brs. E. and W.

Chains	
	Descend.
34.00	Ravine, 30 ft. deep, course SW.
	Ascend.
40.00	Spur, projects W.
	Descend.
42.50	Ravine, 35 ft. deep, course W.
	Ascend.
49.00	Spur, projects SW.
	Descend.
50.00	Leave timber, brs. E. and NW.
69.05	Canyon, 330 ft. below spur, course W.
	Ascend.
74.00	Spur, 135 ft. high, projects W.
	Descend.
78.00	Ravine, 80 ft. deep, course W.
	Ascend.
79.78	Fall 35 lks. E. of the 261st mile postwhich is a granite stone, 20 x 14 x 14 ins. set in a mound of stone, marked 261 on N., U on E., and N., on W. faces, as described by the surveyor general for Nevada.
	The course of this line is therefore S.0° 15'W., and the distance is 79.78 chs.
	May 22, 1912.

May 23: At 7h 57m a.m.,l.m.t., I set off 37° 36' on the lat. arc; 20° 36'N., on the decl. arc; and determine a meridian with the solar at the 261st mile post.

Thence I retrace

South, along the 262nd mile of the Utah-Nevada boundary. Over mountainous land, through timber, and scattering undergrowth of sage brush, service berry brush and grass.

Ascend.

12.00 Ridge, 300 ft. high, brs.E. and W.

Note: The original notes describes a post being set at 15.00 chs. on top of ridge, with bearing trees. I was unable to find any trace of this post.

Chains	
	Descend.
14.60	Ravine, 60 ft. deep, course W.
	Ascend.
30.50	Ridge, 90 ft. high, brs. E. and W.
	Descend.
36.00	Ravine, 110 ft. deep, course W.
	Ascend.
39.00	Spur, 20 ft. high, projects W.
	Descend
40.65	Ravine, 20 ft. deep, course W.
	Ascend.
46.25	Spur, 75 ft. high, projects NW.
	Descend.
51.70	Ravine, 40 ft. deep, course NW.
	Ascend.
60.00	Ridge, 85 ft. high, brs. NW. and SE.
	Descend.
64.30	Ravine, 20 ft. deep, course NW.
	Ascend.
73.00	Ridge, 40 ft. high, brs.NW. and SE.
	Descend.
79.80	Ravine, 90 ft. deep, course.SW.
	Ascend.
79.96	Fall 1 lk. E. of the 262nd mile post, which is a granite, 12 X 12 X 8 ins. above the ground, marked 262 on N., U on E., and N., on W., faces.
	The course of this line is therefore South, and the distance is 79.96 chs.
	May 23: At this mile post, I set off 20° 38'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° 35'.

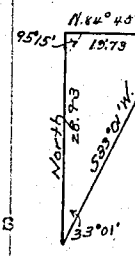
The records of the surveyor generals office show that the 263rd and 264th mile posts are not set , therefore I resurvey these three miles as follows:

Chains	
	From the 262nd mile post, I run
	South, on a random line.
43.80	To impassable canyon.
	Set a flag at this point.

May 23, 1912.

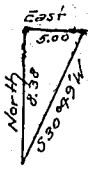
May 24: At 8h 27m a.m., l.m.t., I set off 37° 34' on the lat. arc; 20° 48' N., on the decl. arc; and determine a meridian with the solar at the flag set May 23, on N. side of impassable canyon, at 43.80 chs.

To determine the dist. across canyon I proceed as follows: Set a flag on line on S. side of canyon; then measure a base line N.84° 45' E., 19.73 chs. to a point whence the flag bears S.33° 01' W. From the flag the E. end of the base bears N.33° 01' E.; by separate measurement of each angle they are found respectively 95° 15', 51° 44', and 33° 01', their sum being 180°. I compute the dist. across the canyon as follows:



$$\frac{\sin.51°44'}{\sin.33°01'} \times \text{base, or } \frac{0.785}{0.545} \times 19.73 = 28.43 \text{ chs.}$$

	43.80 + 28.43 makes
72.23	To S. side of canyon.
80.00	Set temp. post for 263rd mile.
97.30	From this point I triangulate as follows, to determine the distance to top of ledges impossible to chain over. I set a flag on line on top of ledges; then measure a base line E. 5.00 chs. to a point from which the flag bears N.30° 49' E.; from the flag the E. end of the base bears S.30° 49' W.; therefore the distance is cot.30°49' X base, or 1.676 X 5.00= 8.38 chs., and 97.30 + 8.38 makes
105.68	To top of ledges.
160.00	Set temp. 264th mile post.
238.32	Fall 208 lks. W. of the 265 + 2.23 chs. mile post, which is a cedar post. 4 ins. square, 5 ft. long, set in a mound of stone, marked and witnessed as described by the surveyor general.



The course of this line is therefore S.0° 30' E., and by

Chains	
	total distance is 238.32 chs.
	May 24, 1912.

	May 25; At 8h 27m a.m.,l.m.t., I set off 37° 32' on the lat. arc; 20° 59'N., on the decl. arc; and determine a meridian with the solar at the 265th + 2.23 mile post.
	Thence I run
	N.0° 30'W., on resurvey line along the 265th mile of the Utah-Nevada boundary.
	Over mountainous land, through scattering timber and undergrowth of sage brush, service berry brush, oak brush and grass.
	Descend.
21.50	Gulch, heads about 6 chs. E., 400 ft. below mile post, course W.
	Ascend.
26.80	Spur, 150 ft. above gulch, projects W.
	Descend.
28.00	Head of ravine, 20 ft. below spur, course W.
	Ascend.
30.00	Spur, 70 ft. above ravine, projects W.
	Descend.
45.00	Gulch, 300 ft. below spur, course W.
	Ascend.
47.00	Spur, 80 ft. above gulch, projects W.
	Descend.
63.50	Canyon, 175 ft. below spur, course SW.
	Ascend.
76.00	Leave timber, brs. E. and W.
80.90	By proportionate measure.
	The point for mile post falls on sandstone outcroping; Therefore I mark a cross at point and set an iron post, 3 ft. long, 3 ins. in dia., over the cross in a mound of stone 5 ft. base, 2 ft. high for the 264th mile post, with brass cap marked

Chains	
	264 N U L W 37 1912
	raise mound of stone 4 ft.base, 2 ft.high W.of cor.
	Land mountainous, very rough and broken.
	Soil, light sandy loam and loose rock, 4th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush, oak brush, and grass.

	N.0° 30'W., along the 264th mile of the Utah-Nevada boundary.
	Over mountainous land, through scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
20.00	Ridge, 460 ft. high, brs. E. and W.
	Enter timber, brs. E. and W.
	Descend.
29.40	Ravine, 235 ft. below ridge, course NE.
	Enter sandstone outcroping. brs. E. and W.
	Ascend.
31.00	Top of ascent, 25 ft. above ravine.
	Descend.
33.00	Ravine, 40 ft. deep, course E.
	Ascend.
35.00	Top of ascent, brs. E.
	Descend.
36.50	Ravine, 50 ft. deep, course E.
	Ascend.
40.00	Top of Ascent, brs. E.
	Descend.
42.00	Ravine, 50 ft. deep, course E.
	Ascend.
44.00	Leave sandstone outcroping, brs. E. and W.
49.50	Ridge, 145 ft. above ravine, brs. E. and W.
	Descend.

Chains	
53.00	Top of ledges, 200 ft. below top of ridge, brs. E. and W.
61.40	Canyon, 700 ft. deep, with stream of clear water, 10 lks. wide, 3 ins. deep, course W.
	Ascend.
68.00	Leave scattering timber, brs. E. and W.
78.71	By proportionate measurement.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for the 263rd mile post, with brass cap marked
	263 N ° U L W 37 1912
	Raise a mound of ston 3 ft. base, 2 ft. high W. of cor.
	Land, mountainous and very rough.
	Soil, light sandy loam, loose rocks and ledges, 4th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush and grass.
	May 25: At this mile post, I set off 21° 00'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° 34'.

	N.0° 30'W., along the 263rd mile of the Utah-Nevada bdy.
	Over mountainous land, through sage brush, service berry brush, scattering oak brush and grass.
	Ascend.
6.50	Spur, 650 ft. high, projects W. about 6 chs.
	Descend.
17.50	Canyon, 650 ft. deep, with stream of clear water, 8 lks. wide, 2 ins. deep, course W.
	Ascend.
34.70	Ridge, 800 ft. above bottom of canyon, brs. E. and W.
	Enter scattering timber, brs. E. and W.
	Descend.
54.00	Ravine, 125 ft. deep, course SE.

Chains	
	Ascend.
60.70	Ridge, 70 ft. high, brs. E. and W.
	Descend.
70.30	Ravine, 85 ft. deep, course W.
	Ascend.
75.70	Spur, projects W.
	Descend.
78.71	The 262nd mile post.

Land, mountainous.

Soil, light sandy loam, loose rock and sandstone ledges, 4th rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, service berry brush, and scattering oak and grass.

May 25, 1912.

Ralph Greeley

U. S. Surveyor.

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Page

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry, U. S. ~~Surveyor~~ Surveyor, during the periods and in the capacities stated opposite our several signatures, in ~~surveying~~ retracing and re- all those parts or portions of The Utah-Nevada boundary line from the 251st mile post to the 265th mile post,

~~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.	
E R Bunbury	May 16, 1912	May 25, 1912	Chainman
[illegible]	May 16, 1912	May 25, 1912	Chainman
[illegible]	May 16, 1912	May 25, 1912	Moundman
Sidney Rose	May 16, 1912	May 25, 1912	Axeman
[illegible]	May 16, 1912	May 25, 1912	Flagman

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

Ralph Gentry
Asst. Surveyor.
U.S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry U.S. Surveyor, ~~U.S. Surveyor~~, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 12th day of August, 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~~ retraced or re-all those parts or portions of The Utah-Nevada boundary line from the 251st mile post to the 265th mile post.

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

Ralph Gentry
~~U.S. Surveyor.~~
U.S. Surveyor.

Subscribed by said Ralph Gentry, and sworn to before me this 7th day of May, 1913

Thomas Kell
U.S. Surveyor General for Utah

SEAL

APPROVAL.

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

The foregoing field notes of the ~~xxxxxxx~~ retracement of resurvey of the Utah-Nevada Boundary line from the 251st to 265th mile post

executed by Ralph Gentry
under his special instructions dated August 12, 1911, having been critically examined, and the necessary corrections and explanations made, the ~~said~~ field notes, and the retracements and re-surveys they describe, are hereby approved.

C. C. Thoresen
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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Page

4—679

BOOK A-403

V.

U. S. Surveyor General's Office
FEB 15 1913
SALT LAKE CITY, UTAH

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

T.36 S.,R.20 W.

Of the SALT LAKE BASE AND *Meridian,*

n the State of UTAH

EXECUTED BY

RALPH GENTRY

the capacity of U. S. Surveyor, *under instructions dated* August 12, *1911*,

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

oup No. 14, *which were approved by the Commissioner of the General Land*

ice, August 23, *191*1, *pursuant to authority contained in the Act of*

ngress dated , *191*

Survey commenced August 3, 1912., *191*

Survey completed August, 20, 1912. *191*

6—151

Subs - 13-32-71
Clos - 66-81

BOOK A-403

INDEX DIAGRAM.

Township 36 South, *Range* 20 West.

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30	29	28	27	26 5 4	25 3
31	32	33	34	35 2	36

Chains

Survey commenced August 3, 1912, and executed with a W. & L. E. Gurleys explorers transit No. , with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct, and was approved by the surveyor general for Utah, Feb. 13, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the NE. quarter of sec. 16, T.36 S.,R.19 W.; latitude 37°41'40"N., longitude 113°54'39"W.; I observe Polaris at 10^h 43^m p.m.l.m.t., at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a stake driven in the ground 5 chs. N. of my station.

August 3, 1912.

August 4, 1912: At 8^h 30^m a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark a point in the meridian thus determined by driving a nail in a stake firmly set in the ground, 5 chs. N. of my station.

At 9^h 06^m a.m.l.m.t., I set off 37° 42' N., on the lat. arc, 17° 15' N., on the decl. arc; and determine a meridian with the solar. The meridian thus determined coincides with the meridian established by the Polaris observations.

At 12^h 06^m l.m.t., I set off 17° 13' N., on the decl. arc, and observe the sun on the meridian; the resulting latitude is 37° 42'.

At 3^h 06^m p.m.l.m.t., I set off 37° 42'N., on the lat. arc; 17° 11' N., on the decl. arc; and determine a meridian with the solar; which coincides with the meridian

Chains	
	established by the Polaris observation.
	The solar apparatus, by p.m. and a.m. observations defines positions for meridians, respectively, coinciding with the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian, at 3^h 30^m p.m. is N.15° 45'W.; the angle thus determined gives the mag. decl. 15° 45'E.
	August 4, 1912.
	August 15, 1912: At 9^h 34^m a.m.l.m.t., I set off 37° 38' on the lat. arc; 14° 02½' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2,35 and 36, on the S. bdy. of the Tp., heretofore described.
	Thence I run
	N.0° 01'W., bet. secs. 35 and 36.
	Over rolling land, through scattering timber and medium undergrowth of sage brush and grass.
	Descend gently.
0.85	Dry wash, 8 lks. wide, 1 ft. deep, drs. E.
	Ascend gently.
6.00	Top of low rolling ridge, brs. E. and W.
	Descend gently.
14.35	Dry wash, 10 lks. wide, 1 ft. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S35 | S36 ¼ | 1912
	from which
	A cedar, 10 ins. dia., bears N.87° 50'E., 43 lks. dist., marked ¼ S 36 B T.
	A cedar, 8 ins. dia., bears N.55° 20'W., 38 lks. dist., marked ¼ S 35 B T.
55.00	Top of ridge, 185 ft. high, brs. E. and W.
	Descend.

Chains	
69.50	Foot of ridge, brs. E. and W.
	Thence, over slightly rolling land.
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, with brass cap marked

T36S	R20W
S26	S25
S35	S36

1912 . from which

A cedar, 8 ins. dia., bears N.13° 45'E., 35 lks. dist., marked T 36 S R 20 W S 25 B T.

A cedar, 14 ins. dia., bears S.72° 15'E., 91 lks. dist., marked T 36 S R 20 W S 36 B T.

A cedar, 12 ins. dia., bears S.58° 20'W., 69 lks. dist., marked T 36 S R 20 W S 35 B T.

A cedar, 8 ins. dia., bears N.39° 20'W., 24 lks. dist., marked T 36 S R 20 W S 26 B T.

Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

August 15: At this cor. I set off 14° 01' N. on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 39'.

	East On a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ cor.
79.92	Intersect E. bdy. of Tp., 2 lks. S. of cor. of secs. 25, 30,31 and 36, heretofore described.
	Thence I run
	S.89° 59'W., on a true line bet. secs. 25 and 36
	Over rolling land, through scattering timber and medium undergrowth.
	Descend gently.
5.90	Dry wash, 8 lks. wide, 1 ft. deep, drs. NE.
	Ascend gently.
39.96	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Subdivision of T.36 S., R.20 W.

Chains

$\frac{\frac{1}{4}\ S25}{S36}$
1912 from which

A cedar, 6 ins. dia., bears N.76° 20'E., 17 lks. dist., marked ¼ S 25 B T.

A cedar, 6 ins. dia., bears S.25° 40'E., 26 lks. dist., marked ¼ S 36 B T.

Cor. stands on top of low rolling spur, projects N.

Thence, over slightly rolling land.

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

Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

West, bet. secs. 26 and 35.

Over rolling land, through medium undergrowth.

22.28 Intersect Utah-Nevada state line, 11.46 chs.S.0°10'E.of mi. post No. 257, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 26 and 35, with brass cap marked

CC N | T36S S26 S35 R20W | U
1912 from which

A pine, 12 ins. dia., bears N.80° 45'E., 1 lk. dist., marked T 36 S R20 W S 26 B T.

A cedar, 26 ins. dia., bears S.65° 20'E., 33 lks. dist., marked T 36 S R 20 W S 35 B T.

Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

August 15, 1912.

August 16, 1912: At $9^h\ 04^m$ a.m.l.m.t., I set off 37° 39' on the lat. arc; 13° 44' N., on the decl. arc; and de-

Chains	
	termine a meridian with the solar at the cor. of secs. 25,26,35 and 36.
	Thence I run
	N.0° 01'W., bet. secs. 25 and 26.
	Over rolling land, through dense timber and scattering undergrowth.
	Descend gently.
4.00	Enter dense timber and scattering undergrowth, brs. E. and W.
23.70	Dry wash, 10 lks. wide, 1 ft. deep, drs. NE.
	Ascend gently.
34.00	Top of rolling spur, 12 ft. high, projects E.
	Descend gently.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S26 | S25 ¼ | 1912 from which
	A cedar, 8 ins. dia., bears S.45° 10'E., 14 lks. dist., marked ¼ S 25 B T.
	A cedar, 5 ins. dia., bears S.78° 35'W., 94 lks. dist., marked ¼ S 26 B T.
47.00	Foot of descent, 12 ft. below top of spur, brs. E. and W.
	Thence over nearly flat land.
69.25	Old wagon road, Enterprise to Caliente, brs. NW. and SE.
70.00	Dry wash, 10 lks. wide, 1 ft. deep, drs. S.75°E.
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, with brass cap marked
	T36S | R20W S23 | S24 S26 | S25 1912 from which
	A cedar, 10 ins. dia., bears N.40° 25'E., 40 lks. dist., marked T 36 S R 20 W S 24 B T.
	A cedar, 8 ins. dia., bears S.79°E., 36 lks. dist., marked T 36 S R 20 W S 25 B T.
	A cedar, 18 ins. dia., bears S.49° 15'W., 46 lks. dist., marked T 36 S R 20 W S 26 B T.

Chains	
	A cedar, 8 ins. dia., bears N.7° 15'W., 47 lks. dist., marked T 36 S R 20 W S 23 B T.
	Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, dense cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.
	August 16: At this cor. I set off 13° 42' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 40'.
	N.89° 59'E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ cor.
79.92	Intersect E. bdy. of Tp., 7 lks. N. of cor. of secs. 19, 24,25 and 30, heretofore described.
	Thence I run
	N.89° 58'W. on a true line bet. secs. 24 and 25.
	Over rolling land, through dense timber and scattering undergrowth.
	Descend gently.
12.00	Ravine, 20 ft. deep, drs. S.
	Ascend.
15.00	Top of ridge, 10 ft. high, brs. N. and S.
	Descend.
25.40	Wash, 12 lks. wide, 1 ft. deep, 25 ft. below top of ridge drs. SE.
	Ascend gently.
39.96	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S24 / ¼ / S25 / 1912 from which
	A cedar, 16 ins. dia., bears N.36° 30'E., 7 lks. dist., marked ¼ S 24 B T.
	A pine, 12 ins. dia., bears S.41° 30'W., 28 lks. dist., marked ¼ S 25 B T.
42.00	Top of ascent, 20 ft. above wash, brs. NE. and SW.
	Thence, over flat land.

Chains	
79.92	The cor. of secs. 23,24,25 and 26.
	Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

	West, bet. secs. 23 and 26.
	Over rolling land, through dense timber and scattering undergrowth.
	Descend gently.
3.50	Dry wash., 8 lks. wide, 1 ft. deep, drs. S.
	Thence, over nearly flat land.
10.00	Leave dense timber; enter scattering timber and medium undergrowth of sage brush and bunch grass, brs. N. and S.
16.85	Old wagon road, Enterprise to Pioche, brs. NW. and SE.
18.00	Point of ascent, brs. NW. and SE.
21.97	Intersect Utah-Nevada state line, 11.61 chs. S..0°15'W. of M.P. No. 256, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 23 and 26, with brass cap marked

```
      | T36S
      | S23
CC    |-------
N     | S26  U
      | R20W
      1912
```

from which

A cedar, 7 ins. dia., bears N.14° 15'E., 33 lks. dist., marked T 36 S R 20 W S 23 B T.

A cedar, 6 ins. dia., bears S.67° 15'E., 21 lks. dist., marked T 36 S R 20 W S 26 B T.

25 ft. above point of ascent.

Land, rolling; soil, stony on surface with subsoil composed of coarse gravel and sand; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

August 16, 1912.

August 17, 1912. At $8^h\ 04^m$ a.m.l.m.t., I set off 37° 40' on the lat. arc; 13° 26' N., on the decl. arc; and de-

Chains	
	termine 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 rolling land, through dense timber and scattering undergrowth.
	Descend gently.
7.50	Dry wash, 10 lks. wide, 1 ft. deep, drs. SW.
	Ascend gently.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S23 | S24 ¼ 1912 from which
	A pine, 6 ins. dia., bears N.20° 05'E., 42 lks. dist., marked ¼ S 24 B T.
	A cedar, 14 ins. dia., bears S.23°W., 23 lks. dist., marked ¼ S 23 B T.
66.00	Top of spur, 90 ft. high, projects E.
	Descend.
73.00	Ravine, 30 ft. deep, drs. SE.
	Ascend.
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, with brass cap marked
	T36S | R20W S14 | S13 S23 | S24 1912 from which
	A pine, 6 ins. dia., bears N.61° 30'E., 34 lks. dist., marked T 36 S R 20 W S 13 B T.
	A cedar, 5 ins. dia., bears S.27° 45'E., 96 lks. dist., marked T 36 S R 20 W S 24 B T.
	A cedar, 8 ins. dia., bears S.14° 45'W., 33 lks. dist., marked T 36 S R 20 W S 23 B T.
	A cedar, 8 ins. dia., bears N.51° 50'W., 71 lks. dist., marked T 36 S R 20 W S 14 B T.
	30 ft. above ravine.
	Land, rolling; soil, stony from 3 to 4 ins. deep with

Chains

subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

August 17: At this cor. I set off 13° 23' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 41'.

S.89° 58'E., on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ cor.

80.00 Intersect E. bdy. of Tp., 5 lks. S. of cor. of secs. 13, 18,19 and 24, heretofore described.

Thence I run

West, on a true line bet. secs. 13 and 24.

Over rolling land, through dense timber and scattering undergrowth.

Descend gently.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S13
¼

S24
1912

from which

A cedar, 20 ins. dia., bears N.26° 25'E., 24 lks. dist., marked ¼ S 13 B T.

A cedar, 16 ins. dia., bears S.1°E., 34 lks. dist., marked ¼ S 24 B T.

52.60 Ravine, 100 ft. deep, drs. NE.

Ascend.

70.00 Top of ridge, 30 ft. high, brs. N. and S.

Descend.

80.00 The cor. of secs. 13,14,23 and 24.

Land, rolling; soil, stony 3 to 4 ins. deep, with subsoil composed of coarse gravel and sand; timber, dense undergrowth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

West, bet. secs. 14 and 23.

Over rolling land, through dense timber and scattering

Chains	
	undergrowth.
	Ascend gently along S. slope of ridge.
21.52	Intersect Utah- Nevada state line, 11.42 chs.S.0°14'W.of M.P. No. 255, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 14 and 23, with brass cap marked

```
      |T36S
      |S14
   CC |-----
      |S23 .U
  N   |R20W
     1912
```

from which

A cedar, 5 ins. dia., bears N.28° 35'E., 18 lks. dist., marked T 36 S R 20 W S 14 B T.

A pine, 6 ins. dia., bears S.65° 20'E., 51 lks. dist., marked T 36 S R 20 W S 23 B T.

Land, rolling; soil, stony from 3 to 4 ins. deep with subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

August 17, 1912.

August 19, 1912: At $8^h\ 04^m$ a.m.l.m.t., I set off 37° 41' on the lat. arc; 12° 47' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13,14,23 and 24.

Thence I run

N.0° 01'W., bet. secs. 13 and 14.

Over rolling hills, through dense timber and scattering undergrowth.

Ascend.

17.00	Top of ridge, 55 ft. above sec. cor., brs. E. and W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

```
S14 | S13
 ¼  |
    1912
```

from which

A pine, 8 ins. dia., bears S.87° 14'E., 16 lks. dist., marked ¼ S 13 B T.

Chains	
	A pine, 6 ins. dia., bears S.63° 15'W., 23 lks. dist., marked ¼ S 14 B T.
52.65	Ravine, 245 ft. deep, drs. NE.
	Ascend.
60.00	Top of spur, 20 ft. high, projects NE.
	Descend gently.
72.30	Ravine, 35 ft. deep, drs. NE.
	Ascend.
78.40	Top of spur, 40 ft. high, projects NE.
	Descend.
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, with brass cap marked

T36S	R20W
S11	S12
S14	S13

1912 from which

A cedar, 8 ins. dia., bears N.49° 05'E., 1.10 chs. dist., marked T 36 S R 20 W S 12 B T.

A pine, 6 ins. dia., bears S.46° 30'E., 38 lks. dist., marked T 36 S R 20 W S 13 B T.

A pine, 8 ins. dia., bears S.64° 05'W., 72 lks. dist., marked T 36 S R 20 W S 14 B T.

A cedar, 8 ins. dia., bears N.71° 10'W., 81 lks. dist., marked T 36 S R 20 W S 11 B T.

Cor. stands on E. slope of spur, 25 ft. below the top. Land, rolling hills; soil, stony from 3 to 4 ins. deep with subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

	East, on a random line, bet. secs. 12 and 13.
40.00	Set temp. ¼ cor.
80.08	Intersect E. bdy. of Tp., 5 lks. N. of cor. of secs. 7, 12,13 and 18, heretofore described.
	Thence I run
	N.89° 58'W., on a true line bet. secs. 12 and 13.
	Over rolling hills, through dense timber and scattering undergrowth.

Chains

Descend.

2.40 Ravine, 30 ft. below sec. cor., drs. S.

Ascend.

8.10 Top of ridge, 45 ft. above ravine, brs. N. and S.

Descend, along top of spur.

30.10 Top of spur, 20 ft. below top of ridge, projects N.80°W.

Descend.

40.04 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

$$\frac{\frac{1}{4}}{\frac{S12}{S13}}$$
1912 from which

A cedar, 16 ins. dia., bears S.61° 10'W., 48 lks. dist., marked ¼ S 13 B T.

A cedar 6 ins. dia., bears N.74° 05'W., 28 lks. dist., marked ¼ S 12 B T.

August 19: At this cor. I set off 12° 44' N., on the decl. arc; and at $12^h\ 04^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 42'.

67.15 Ravine, 120 ft. below top of spur, drs. N.

Ascend.

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

70 ft. above ravine.

Land, rolling hills; soil, stony 3 to 4 ins. deep with subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and grass.

West, bet. secs. 11 and 14.

Over rolling hills, through dense timber and scattering undergrowth.

Descend gently.

5.00 Ravine, 30 ft. below sec. cor., drs. N.

Ascend.

10.00 Top of spur, 20 ft. high, projects N.

Descend.

12.50 Ravine, 10 ft. deep, drs. N.

Chains	
	Ascend gently along N. slope of ridge.
20.00	Top of spur, 10 ft. high, projects NE.
	Descend.
20.26	Intersect Utah-Nevada state line; 10.36 chs. S.0°53'W. of M.P. No. 254, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 11 and 14, with brass cap marked

T36S
CC S11 S14 U
N R20W
1912

from which

A pine, 16 ins. dia., bears N.23° 35'E., 16 lks. dist., marked T 36 S R 20 W S 11 B T.

A pine, 12 ins. dia., bears S.81° 25'E., 50 lks. dist., marked T 36 S R 20 W S 14 B T.

10 ft. below top of spur.

Land, rolling hills; soil, stony, 3 to 4 ins. deep, with subsoil composed of coarse gravel and sand; timber, dense growth of cedars and pinion pine; scattering undergrowth of sage brush and bunch grass.

N.0° 01'W., bet. secs. 11 and 12.

Over rolling hills, through dense timber and scattering undergrowth.

Descend.

25.90 Ravine, 105 ft. below sec. cor., drs. N.80°W.

Ascend.

26.00 Leave dense timber and scattering undergrowth; enter scattering timber and medium undergrowth, brs. E. and W.

30.50 Top of spur, 80 ft. high, projects W.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S11 | S12
¼
1912

from which

A pine, 5 ins. dia., bears S.44° 40'E., 1.30 chs. dist., marked ¼ S 12 B T.

Chains	
	A pine, 6 ins. dia., bears S.45° 30'W., 80 lks. dist., marked ¼ S 11 B T.
	August 19, 1912.
	August 20, 1912: At 8^h 03^m a. m.l.m.t., I set off 37° 42' on the lat. arc; 12° 28' N., on the decl. arc; and determine a meridian with the solar at the ¼ cor. of secs 11 and 12.
	Thence I continue
	N.0° 01'W., bet. secs. 11 and 12.
54.60	Ravine, 110 ft. deep, drs. N.15°E.
	Ascend gently.
65.00	Top of spur, 15 ft. above ravine, projects NE.
	Descend gently.
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, with brass cap marked

T36S	R20W
S2	S1
S11	S12

1912 from which

A cedar, 6 ins. dia., bears N.10° 25'E., 1.20 chs. dist., marked T 36 S R 20 W S 1 B T.

A cedar, 6 ins. dia., bears S.30° 50'E., 1.52 chs. dist., marked T 36 S R 20 W S 12 B T.

A cedar, 5 ins. dia., bears S.70° 30'W., 1.55 chs. dist., marked T 36 S R 20 W S 11 B T.

A cedar, 5 ins. dia., bears N.52° 45'W., 1.11 chs. dist., marked T 36 S R 20 W S 2 B T.

Land, rolling hills; soil, stony on surface with subsoil composed of coarse gravel and sand of medium texture; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

	S.89° 58'E., on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ cor.
80.10	Intersect E. bdy. of Tp., at the cor. of secs. 1,6,7 and 12, heretofore described.
	Thence I run

Chains	
	N.89° 58'W., on a true line bet. secs. 1 and 12.
	Over rolling hills, through dense timber and scattering undergrowth.
	Ascend.
25.50	Top of ridge, 100 ft. above sec. cor., brs. N. and S.
	Descend.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S1 / S12 1912 from which
	A pine, 7 ins. dia., bears N.49° 25'E., 47 lks. dist., marked ¼ S 1 B T.
	A cedar, 6 ins. dia., bears S.62° 20'W., 38 lks. dist., marked ¼ S 12 B T.
42.50	Small ravine, 75 ft. below top of ridge, drs. S.
	Ascend.
47.00	Top of spur, 20 ft. above ravine, projects S.
	Descend. Enter scattering timber, brs N. and S.
75.55	Ravine, 220 ft. below top of spur, drs. NW.
	Ascend.
80.10	The cor. of secs. 1,2,11 and 12.
	5 ft. above ravine.
	Land, rolling hills; soil, stony on surface with subsoil composed of coarse gravel and sand of medium texture; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.
	West, bet. secs. 2 and 11.
	Over rolling hills, through scattering timber and medium undergrowth.
	Ascend gently.
20.00	Top of spur, 40 ft. above sec. cor., projects NE.
	Descend.
20.62	Intersect Utah-Nevada state line, 10.60 chs. S. 0°39'E. of M.P. No. 253, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

Chains	
	the ground for closing corner of secs. 2 and 11, with brass cap marked
	T36S S2 CC S11 U N R20W 1912 from which
	A cedar, 5 ins. dia., bears N.30° 15'E., 1.24 chs. dist., marked T 36 S R 20 W S 2 B T.
	A cedar, 8 ins. dia., bears S.67° 20'E., 68 lks. dist., marked T 36 S R 20 W S 11 B T.
	Land, rolling hills; soil, stony on surface with subsoil composed of coarse gravel and sand of medium texture; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.
	August 20: At this cor. I set off 12° 24' N., on the decl. arc; and at 12^h 03^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 43'.

	N.0° 01'W., bet. secs. 1 and 2.
	Over low rolling hills, through scattering timber and medium undergrowth.
	Descend gently.
7.70	Ravine, drs. N.
	Descend gently along bottom of ravine.
27.00	Wash, 12 lks. wide, 1 ft. deep, drs. NE.
	Thence, over nearly flat land.
32.50	Dry wash, 15 lks. wide, 1 ft. deep, 10 ft. below sec. cor. drs. NE.
	Ascend gently.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S2 S1 ¼ 1912 from which
	A cedar, 6 ins. dia., bears N.62° 10'E., 1.73 chs. dist., marked ¼ S 1 B T.
	A cedar, 8 ins. dia., bears S.54° 15'W., 47 lks. dist., marked ¼ S 2 B T.
60.00	Top of spur, 25 ft. above dry wash, projects NE.

Chains	
	Descend gently.
79.60	Ravine, 20 ft. below top of spur; drs. NE.
	Ascend gently over rolling land.
166.04	Intersect Seventh Standard Parallel South, 11.36 chs. E. of ¼ cor. of sec. 35, which is a 1 in. iron post marked and witnessed as described by the surveyor general.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 1 and 2, with brass cap marked

T35S | R20W
S35 | S36
CC
S2 | S1
1912

from which

A cedar, 8 ins. dia., bears S.41° 15'E., 42 lks. dist., marked T 36 S R 20 W S 1 B T.

A cedar, 5 ins. dia., bears S.61° 45'W., 51 lks. dist., marked T 36 S R 20 W S 2 B T.

Land, rolling hills; soil, stony on surface with subsoil composed of coarse gravel and sand of medium texture; timber, scattering cedars and pinion pine; medium undergrowth of sage brush and bunch grass.

August 20, 1912.

General Description.

The south half of the township is generally rolling land the soil of which is stony, 3 to 4 ins. deep, with a subsoil composed of coarse gravel and sandy loam of medium texture. The north half of the township is generally rolling hills the soil of which is stony on the surface with a subsoil composed of loose rock, gravel and sand of medium texture.

The township is generally unfit for agriculture purposes and is covered with a good growth of cedars and pinion pine and a medium undergrowth of sage brush and nutricious

Chains

grasses.

There is no water found in this township.

There are no improvements or settlers in this township.

The road from Pioche to Enterprise crosses the township, passing through secs. 25,26 and 23.

There are no indications of coal, oil or minerals found in this township.

U. S. Surveyor.

Latitudes, departures and closing errors.

Line designated	True bearing	Dist. chs.	Latitudes North chs.	Latitudes South chs	Departures East chs	Departures West chs.
South bdy.	West	102.38				102.38
C.C. to M.P. 258	N.1° 52'E.	11.35	11.35		.35	
M.P.258 to 257	N.0° 10'W.	80.20	80.20			.23
M.P.257 to 256	N.0° 15'E.	80.08	80.08		.35	
M.P.256 to 255	N.0° 14'E.	79.90	79.90		.33	
M.P.255 to 254	N.0° 53'E.	79.02	79.02		123	
M.P.254 to 253	N.0° 29'W.	80.21	80.21			.68
M.P.253 to 252	N.0° 13'E.	80.26	80.26		.30	
M.P.252 to Tp.cor.	N0°19'E.	75.29	75.29		.42	
North bdy.	East	99.89			99.89	
East bdy.	South	565.94		565.94		
Convergency					.14	
	Totals		566.31	565.94	103.01	103.29
			565.94			103.01

Error in lat. .37 Error in dep. .28

Ralph Greely

U. S. Surveyor.

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BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry & Ed. H. Bunbury and Transitman, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of Ts. 36 and 37 S., Rs. 19 and 20 W.,

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 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.	
Sterling Hewitt	July 6, 1912	August 22, 1912	Chainman
Patrick Kelly	July 6, 1912	August 22, 1912	Chainman
[illegible]	July 6, 1912	August 22, 1912	Chainman
P. R. Perry	July 6, 1912	August 22, 1912	Chainman
Simon Bates	July 6, 1912	August 22, 1912	Moundman
Geo. Pederson	July 6, 1912	August 22, 1912	Moundman
Sidney Rose	July 6, 1912	August 22, 1912	Axeman
L. A. Allerton	July 6, 1912	August 22, 1912	Flagman
Robert T. Collier	July 6, 1912	August 22, 1912	Flagman

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

Ralph Gentry
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 12 day of August, 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 Tps. 36 and 37 S., Rs. 19 and 20 W., of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books P.Q.R.S.T.U.& V 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.

Ralph Gentry
U. S. Surveyor.

Subscribed by said Ralph Gentry, and sworn to before me this 7th day of May, 1913

SEAL

Thomas Kell
U. S. Surveyor General of Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, Oct. 2, 1914.

The foregoing field notes of the survey of the Subdivisional lines of Township No. 36 South, Range No. 20 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry under his special instructions dated August 12, 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. Thoresen
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.

6—2761

U. S. Surveyor General.

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Page

4—679

BOOK A-403

R.

FIELD NOTES

OF THE SURVEY OF THE

North and South Boundaries

of

T.37 S., R.20 W.

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

Ralph Gentry.

In the capacity of U. S. Surveyor, under instructions dated August 12, *1911, issued by the United States Surveyor General to govern surveys included in Group No.* 14, *which were approved by the Commissioner of the General Land Office,* August 23, *1911, pursuant to authority contained in the Act of Congress dated* , *191*

Survey commenced July 20, *1912*

Survey completed July 25, *1912*

6—151

Ex. Bdy - 1-23-60
Clos - 20-40
N Bdy - 1-22-38
Clos - 11-58

U. S. Land Office
FEB 24 1913
SALT LAKE CITY, UTAH

BOOK A-403

INDEX DIAGRAM.

Township 37 South, *Range* 20 West.

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31	32	33	34	35	36
				4	2

6—151

Chains

Survey commenced July 20, 1912, and executed with a W.& L. E. Gurleys explorers transit No.___, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, February 13, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the SE. quarter of sec. 18, T.37 S., R.19W., latitude 37° 35' 40"N., longitude 113° 56' 56"W., I observe Polaris at eastern elongation, at 11h 38m p.m.l.m.t., in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chs. N. of my station.

July 20, 1912.

July 21; At 8h a.m.l.m.t., I lay off the azimuth of Polaris, 1° 29' to the west, and mark the meridian thus determined on a stake firmly set in the ground 5 chs. N. of my station.

At 9h 06m a.m.l.m.t., I set off 37° 36' on the lat. arc; 20° 29'N. on the decl. arc; and mark a point in the meridian determined with the solar, by driving a tack in the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by Polaris observations.

At 3h 06m p.m.l.m.t., I set off 37° 36' on the lat. arc; 20° 26'N. on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already

Chains	
	set 5 chs. N. of my station; this mark falls 0.1 in. east of the meridian established by Polaris observations. The solar apparatus, by a.m. and p.m. observations, defines positions for the meridian, respectively about 0° 11" west and 0° 05" east of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian, at 3h 30m p.m. is N.15° 45'W., the angle thus determined gives the mag. decl. 15° 45'E.
	July 21, 1912.

	July 24: At 8h 36m a.m.l.m.t., I set off 37° 33' on the lat. arc; 19° 53'N. on the decl. arc; and determine a meridian with the solar at the cor. of Ts.37 and 38 S., Rs. 19 and 20 W, heretofore described.
	Thence I run
	West, bet. secs. 1 and 36, on the S. bdy. of T.37 S.,R. 20 W.
	Over mountainous land, through scattering timber and scattering undergrowth of sage brush, oak brush, service berry brush and grass.
	Ascend.
8.00	Spur, 55 ft. above Tp. cor., projects N.
	Descend.
17.80	Ravine, 120 ft. deep, course N.
	Ascend.
24.50	Spur, projects N.
	Descend.
26.20	Ravine, 100 ft. deep, course N.
	Ascend.
39.50	Spur, 200 ft. high, projects N.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Chains	
	S36 ¼ --- S 1 1912
	from which
	A pinon, 15 ins. in dia., bears N.60°30'E., 52 lks. dist., marked ¼ S 36 B T.
	A pinon, 10 ins. in dia., bears S.18°10'W., 12 lks. dist., marked ¼ S 1 B T.
42.60	Ravine, 50 ft. below spur, course N.
	Ascend.
48.50	Ridge, 155 ft. above ravine, brs. N. and S.
	Descend.
52.00	Head of ravine, 20 ft. deep, course N.15°W.
	Enter dense timber, brs. N. and S.
	Ascend.
55.40	Spur, 40 ft. high, projects NW.
	Descend.
57.30	Ravine, 25 ft. deep, course N.
	Ascend.
63.00	Spur, projects N.
	Descend.
64.00	Head of ravine, 10 ft. below spur, course NW.
	Ascend.
76.00	Top of ascent on N. slope of ridge, 50 ft. above ravine.
	Descend slightly along N. side of ridge.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 35 and 36, with brass cap marked
	T37S | R20W S35 | S36 ---|--- S2 | S1 T38S | R20W 1912
	from which
	A pinon, 8 ins. in dia., bears N.26°35'E., 95 lks.

Chains	
	dist., marked T 37 S R 20 W S 36 B T.
	A cedar, 8 ins. in dia., bears S.46°45'E., 26 lks. dist., marked T 38 S R 20 W S 1 B T.
	A pinon, 8 ins. in dia., bears S.68°15'W., 75 lks. dist., marked T 38 S R 20 W S 2 B T.
	A pinon, 10 ins. in dia., bears N.47°45'W., 89 lks, dist., marked T 37 S R 20 W S 35 B T.
	Land, mountainous.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, cedars and piron pine.
	Undergrowth, scattering sage brush, oak brush, service berry brush and grass.
	July 24: At this cor. I set off 19° 51'N. on the decl. arc; and at 12h 06m. l.m.t., observe the sun on the meridian. The resulting lat. is 37° 33'.

	West, bet. secs. 2 and 35.
	Over mountainous land, through very scattering timber, and undergrowth of sage brush, service berry brush and grass.
	Ascend.
1.00	Ridge, 10 ft. above sec. cor., brs. NW. and S.70°E.
	Descend.
10.00	Foot of descent, 200 ft. below ridge.
	Ascend, along S. side of ridge.
16.00	Spur, 35 ft. above foot of descent, projects SW.
	Descend
23.60	Intersect Utah-Nevada boundary line 20.40 chs. S.0° 30'E. of the 264th mile post, heretofore described.
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for closing cor. of secs, 2 and 35, with brass cap marked

N T37S R20W S35C / S2 C R20W T38S U

Chains	
	and raise a mound of stone, 3 ft. base, 2 ft. high E. of cor.
	Land, mountainous.
	Soil, light sandy loam and loose rock, 4th rate.
	Timber, very scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush and grass.
	July 24, 1912.

	July 25: At 8h 36m a.m.l.m.t.m I set off 37° 38' on the lat. arc; 19° 40'N., on the decl. arc; and determine a meridian with the solar at the cor, of Ts.36 and 37 S., Rs. 19 and 20 W, heretofore described.
	Thence I run
	West, bet. secs. 1 and 36, on the N. bdy. of T.37 S., R. 20 W.
	Over very rolling land , through scattering timber, and undergrowth of sage brush and grass.
	Ascend, slightly.
4.00	Top of ascent, 15 ft. above Tp. cor., brs. NE. and SW.
	Descend slightly.
28.80	Ravine, 20 ft. deep, course NE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S36 ¼ --- S 1 1912
	from which
	A cedar, 8 ins. in dia., bears N.38°40'W.,271 lks. dist., marked ¼ S 36 B T.
	A cedar, 6 ins. in dia., bears S.38°10'E., 174 lks. dist., marked ¼ S 1 B T.
46.00	Spur, 20 ft. high, projects N.
	Descend.
74.00	Ravine, 25 ft. deep, course NE.

Chains	
	Ascend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 35 and36, with brass cap marked

T36S	R20W
S35	S36
S2	S1
T37S	R20W

1912

from which

A cedar, 9 ins. in dia., bears N.71°05'E., 78 lks. dist., marked T 36 S R 20 W S 36 B T.

A cedar, 8 ins. in dia., bears S.84°45'E., 123 lks. dist., marked T 37 S R 20 W S 1 B T.

A cedar, 9 ins. in dia., bears S.18°30'W., 74 lks. dist., marked T 37 S R 20 W S 2 B T.

A cedar, 8 ins. in dia., bears N.1°50'W., 96 lks. dist., marked T 36 S R 20 W S 35 B T.

Land, molling .

Soil, light sandy loam, clay and loose rock, 2nd. rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

July 25: At this cor. I set off 19° 38'N., on the decl. arc; and at 12h 06m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 38'.

West, bet. secs. 2 and 35.

Over rolling hills, through scattering timber and undergrowth of sage brush and grass.

Ascend.

13.50 Low ridge, 40 ft. high, brs. NE. and S.

Descend.

22.38 Intersect the Utah-Nevada boundary line 11.35 chs. S.1° 52'W., of the 258th mile post, heretofore described.

Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for closing Ts. cor. of Ts.36 and 37 S., Rs.

Chains

20 W., with brass cap marked

N cc T36S
R20W
S35 U
S2
R20W
T37S

1912

from which

A pinon, 8 ins. in dia., bears N.32°10'E., 92 lks. dist., marked T 36 S R 20 W S 35 B T

A pinon, 12 ins. in dia., bears S.33°35'E., 62 lks. dist., marked T 37 S R 20 W S 2 B T.

Land, rolling hills.

Soil, light sandy loam and loose rock, 3rd. rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

July 25, 1912.

Latitudes, departures, and closing errors.

Line designated	True bearing	Dist. chs.	Latitudes North chs.	Latitudes South chs.	Departures East chs.	Departures West chs.
S.bdy.of T.37S.,R20W	West	103.60				103.60
CC Tp.cor.to 264 MP.	N.0°30'W	20.40	20.40			.17
264 MP to 262 MP	N.0°30'W	157.42	157.42			1.37
262 MP to 261 M P.	North	79.96	79.96			
261 M P to 260 M P.	N.0°15'E.	79.78	79.78		.35	
260 M P to 259 M P.	N.0°11'W	80.33	80.33			.26
259 M P to CCTp cor.	N.1°52'E.	68.03	67.99		2.21	
N.bdy. T37SR20W.	East	102.38			102.38	
East Bdy. of Tp.	South	485.80		485.80		
Convergency					.14	
			485.88	485.80	105.08	105.40
			455.80			105.08
	Error in lat.----		0.08	Error in dep.--		0.32

For general description see notes of the Subdivision of T.37 S., R.20 W.

Ralph Gurley
U. S. Surveyor.

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Page

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BOOK A-403

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 "V" T.36 S.R.20 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 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 Ralph Gentry as U.S. Surveyor see book "V" T.36 S., R.20 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, Oct. 2, 1914.

The foregoing field notes of the survey of the North and South Boundaries of Township No. 37 South, Range No. 20 West of the Salt Lake Base and Meridian, Utah

executed by Ralph Gentry

under his special instructions dated August 12, 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. A. Thoresen

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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Page

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Page

4—679

BOOK A-403

S.

U. S. Land Office
FEB 24 1913
SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE SURVEY OF THE

Subdivision

of

T.37 S., R.20 W.

Of the Salt Lake Base and *Meridian,*

in the State of Utah

EXECUTED BY

Ralph Gentry

in the capacity of U. S. Surveyor, under instructions dated August 12, *1911, issued by the United States Surveyor General to govern surveys included in Group No.* 14, *which were approved by the Commissioner of the General Land Office,* August 23, *1911, pursuant to authority contained in the Act of Congress dated* , *191*

Survey commenced July 20, *1912*

Survey completed August 1, *1912*

6—151

Subs - 12-49-42
Corr - 01-16-84

BOOK A-403

INDEX DIAGRAM.

Township 37 South, *Range* 20 West.

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				12	11
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				9	7
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				5	4
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6—151

SUBDIVISION OF T.37 S., R.20 W.

Chains

Survey commenced July 20, 1912, and executed with a W. & L. E. Gurleys explorers transit No.____, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, February 13, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the SE. quarter of sec. 18, T.37 S., R.19 W., latitude 37° 35' 40"N., longitude 113° 56' 56"W., I observe Polaris at eastern elongation, at 11h 38m p.m.l.m.t., in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chs. N. of my station.

July 20, 1912.

July 21: At 8h a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined on a stake firmly set in the ground, 5 chs. N. of my station.

At 9h 06m a.m.l.m.t., I set off 37° 36' on the lat. arc; 20° 29'N. on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. west of the meridian established by Polaris observations.

At 3h 06m p.m.l.m.t., I set off 37° 36' on the lat. arc; 20° 26'N. on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already set, 5 chs. N. of my station; this mark falls 0.1 in.

Chains

east of the meridian established by Polaris observations. The solar apparatus, by a.m. and p.m. observations, defines positions for the meridian, respectively about 0° 11" west and 0' 05" east of the meridian established by Polaris observations; therefore I conclude that the adjustment of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 3h 30m p.m. is N.15° 45'W., the angle thus determined gives the mag. decl. 15° 45'E.

July 21, 1912.

July 26: At 8h 36m a.m.l.m.t., I set off 37° 33' on the lat. arc; 19° 27'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of T.37 S., R.20 W. heretofore described. Thence I run

N.0° 01'W., bet/ secs. 35 and 36.

Over mountainous land, timber, and scattering undergrowth of sage brush, service berry brush and grass.

Descend.

21.50 Ravine, 230 ft. deep, course W.

Ascend.

30.00 Enter scattering timber, brs. NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S35 | S36
¼ |
1912

from which

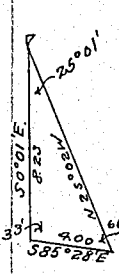
A cedar, 8 ins. in dia., bears S.79°30'E., 82 lks. dist., marked ¼ S 36 B T.

There being no other suitable trees for bearing trees, I raise a mound of stone 3 ft. base, 2 ft. high W. of cor.

40.82 Top of ridge, 200 ft. high, brs. E. and W.

Abrupt descent into canyon, which drains NW. and W.,

Chains	
	Enter dense growth of oak brush, brs. E. and W.
57.25	Ravine, 600 ft. below ridge, course E.
	Ascend.
66.00	Top of ascent on top of sandstone point, 300 ft. above ravine, projects E.
	Descend.
68.50	Canyon, 325 ft. below sandstone point, stream of clear water, 10 lks. wide, 3 ins. deep, course NW.
	Ascend over sandstone ledges which are impossible to chain over.
	To determine the dist., I proceed as follows: I set a flag on line, on top of spur; then measure a base line S.85° 28'E., 4.00 chs. to a point, whence the flag beard N.25° 02'W. From the flag the E. end of the base line bears S.25° 02'E.; by seperate measurement of each angle they are found respectively 94° 33', 60° 26', and 25° 01' their sum being 180°. I compute the dist. as follows:



$$\frac{\sin.60°26'}{\sin.25°01'} \times \text{base, or } \frac{.870}{.423} \times 4.00 = 8.23 \text{ chs., and}$$

68.50 + 8.23 makes

76.73	To top of spur, 500 ft. high, projects W.
	Descend, over ledge 25 ft. high.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs.25, 26, 35 and 36, with brass cap marked

T37S	R20W
S26	S25
S35	S36

1912

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous and very rough.

Soil, light sandy loam, loose rock and sandstone, 4th. rate.

Timber, dense cedars and pinon pine on the first 30.00 chs., and a few scattering cedars and pinon pine on the remainder of the mile.

Chains.	
	Undergrowth, scattering sage brush, oak brush, and grass on first 42.00 chs.;the remainer of the mile is covered with a dense growth of oak.
	July 26: At this cor I set off 19° 25'N. on the decl. arc; and at 12h 06m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34'.
	East, on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec. cor.
80.10	Intersect E. bdy. of Tp. 21 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence I run
	S.89° 51'W., on a true line bet. secs. 25 and 36.
	Over mountainous land, through timber, and scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
7.60	Ridge, 115 ft. above sec. cor., brs. N.30°E., and S.30°E.
	Descend.
21.10	Ravine, 200 ft. deep, course S.
	Ascend.
31.60	Spur, 100 ft. high, projects S.
	Descend.
34.85	Ravine, 40 ft. deep, course S.
	Ascend.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S25
¼

S36

1912

from which

A pinon, 8 ins. in dia., bears N.25°25'W., 68 lks. dist., marked ¼ S 25 B T.

A cedar, 8 ins. in dia., bears S.0°15'W., 18 lks. dist., marked ¼ S 36 B T.

52.00	Spur, 200 ft. high, projects S.

Chains	
	Enter scattering timber, brs. NW. and SE.
	Descend, gradually along S. slope of ridge.
70.00	Spur, 50 ft. below spur, projects SW.
	Descend.
80.10	The cor. of secs. 25, 26, 35 and 36.
	Land, mountainous.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, heavy cedars and pinon pine, on 52.00 chs., and scattering cedars and pinon pine on the remaining portion.
	Undergrowth, scattering sage brush, oak brush and grass.
	July 26, 1912.

July 27: At 8h 36m a.m.l.m.t., I set off 19° 14'N. on the decl. arc; 37° 34' on the lat. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence I run

West, bet. secs. 26 and 35.

Over mountainous land, through dense undergrowth of service berry brush, oak brush, sage brush and grass.

Descend over outcroping of sandstone ledges.

10.50 Canyon, 400 ft. below sec. cor., stream of clear water, 15 lks. wide, 3 ins. deep, course NW.

Ascend.

12.75 Top of N. end of rocky spur, 100 ft. high,

Descend.

18.50 Recross creek, course S.80°W.,

Thence along bottom of canyon.

22.65 Recross creek, course N.

Ascend.

24.25 Intersect Utah-Nevada boundary 19.32 chs. S.0° 30'E., of the 263rd. mile post.

Point for cor. falls on outcroping of shale ledge, making it impossible to set cor. in proper place; therefore at a point 1.15 chs. E., I set an iron post, 3 ft.

Chains	
	long, 2 ins. in dia., 24 ins. in the ground for closing witness cor. to secs. 26 and 35, with brass capmarked
	N | T37S S26 WC C U S35 R20W 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high E. of cor.
	Land, mountainous.
	Soil, light sandy loam, sandstone and loose rock, 4th. rate.
	No timber.
	Undergrowth, sage brush, service berry brush, oak brush, and grass.
	N.0° 01'W., bet. secs. 25 and 26.
	Over mountainous land, through service berry brush, oak brush, sage and grass, and a few scattering trees.
	Descend.
2.75	Ravine, 200 ft. deep, course W.
	Ascend.
24.00	Spur, 450 ft. high, projects SW.
	Descend.
28.00	Head of ravine, 150 ft. deep, course N.60°W.
	Ascend.
32.00	Spur. 100 ft above ravine, projects N.60°W.
	Descand.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S26 ¼ | S25 1912
	and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.
40.50	Gulch, 300 ft. below spur, course W.

Chains	
	Ascend.
50.00	Enter timber, brs. E. and W.
55.00	Ridge, 500 ft. above gulch, brs. W. and E.
	Descend.
65.70	Ravine, 130 ft. deep, course E.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 23, 24, 25 and 26, with brass cap marked

T37S | R20W
S23	S24
S26	S25

1912

from which

A pinon, 8 ins. in dia., bears N.22°30'E., 43 lks. dist., marked T37S R 20 W S 24 B T.

A pinon, 10 ins. in dia., bears S.30°45'E., 38 lks. dist., marked T 37 S R 20 W S 25 B T.

A pinon, 14 ins. in dia., bears S.32°45'W., 23 lks. dist., marked T 37 S R 20 W S 26 B T.

A pinon, 8 ins. in dia., bears N.80°45'W., 118 lks. dist., marked T 37 S R 20 W S 23 B T.

Land, mountainous and very rough.

Soil, light sandy loam and loose rock, 4th. rate.

Timber, cedars and pinon pine on last 30.00 chs. of mile.

Undergrowth, oak brush, service berry brush, sage brush and grass.

July 27: At this cor. I set off 19° 11'N., on the decl. arc; and at 12h 06m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.

	N.89° 51'E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect E. bdy. of Tp. 9 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.

Chains	
	Thence I run
	S.89° 55'W., on a true line bet. secs. 24 and 25.
	Over rolling hills, through timber, and scattering under-growth, of sage brush, service berry brush and grass.
	Ascend.
4.00	Ridge, 20 ft. above sec. cor., brs. N. and S.
	Descend.
8.00	Ravine, 70 ft. deep, course S.15°W.,
	Ascend.
26.00	Top of rolling ridge, 60 ft. above ravine, brs. NE. and SW.
	Descend.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S24 ¼ ----- S25 1912
	from which
	A pinon, 16 ins. in dia., bears N.63°45'E., 44 lks. dist., marked ¼ S 24 B T.
	A pinon, 8 ins. in dia., bears S.53°W., 26 lks. dist., marked ¼ S 25 B T.
41.00	Ravine, 40 ft. deep, course N.60°W.
	Ascend.
60.00	Top of ascent, 30 ft. above sec. cor.
	Descend.
69.20	Ravine, 40 ft. below top of ascent, course S.
	Ascend.
80.04	The cor. of secs. 23, 24, 25 and 26.
	Land, mountainous and rolling hills.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, cedars and pinon pine.
	Undergrowth, scattering sage brush, service berry brush, and grass.
	July 27, 1912.

Chains

July 29: Prevented work by rain strom.

July 30: At 8h 06m a.m.l.m.t., I set off 37° 35' on the lat. arc; 18° 32'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

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

Over rolling hills, through scattering timber, and undergrowth of sage brush and grass.

Ascend.

2.50 Ridge, 20 ft. above sec. cor., brs. NE. and N.80°W

Descend gradually along the S, side of ridge.

24.76 Intersect the Utah-Nevada boundary line, 18.16 chs. S.0° 30'E., of the 262nd. mile post, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 23 and 26, with brass cap marked

T37S
S23
N cc---- U
S26
R20W

1912

from which

A pinon, 8 ins. in dia., bears N.21°30'E., 13 lks. dist., marked T 37 S R 20 W S 23 B T.

A pinon, 14 ins. in dia.,bears S.16°15'E., 117 lks. dist., marked T 37 S R 20 W S 26 B T.

Land, rolling hills.

Soil, light sandy loam and loose rock, 4th. rate.

Timber, scattering cedars and pinon pine.

Undergrowth sage brush and grass.

N.0° 01'W., bet. secs. 23 and 24.

Over rolling hills, through scattering timber and undergrowth of sage brush, service berry brush and grass.

Ascend.

Chains

3.00 Rolling ridge, 15 ft. above sec. cor., brs. NE. and SW1

Descend.

9.00 Head of ravine, 30 ft. deep, course W.

Ascend.

22.00 Ridge, 55 ft. high, brs. NW. and SE.

Enter timber, brs. E. and W.

Descend.

31.00 Ravine, 45 ft. deep, course NW.

Ascend.

38.00 Ridge, brs. NW. and SE.

Descend.

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

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

1912

from which

A cedar, 12 ins. in dia., bears N.46°15'W., 25 lks. dist., marked $\frac{1}{4}$ S 23 B T.

A cedar, 10 ins. in dia., bears S.27°50'E., 29 lks. dist., marked $\frac{1}{4}$ S 24 B T.

63.30 Ravine, 100 ft. deep, course W.

Ascend.

70.00 Ridge, brs. E. and W.

Descend.

77.50 Ravine, 85 ft. deep, course NE.

Ascend.

79.00 Spur, 30 ft. high, projects NE.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 14, 23 and 24, with brass cap marked

T37S	R20W
S14	S13
S23	S24

1912

Chains	
	from which
	A cedar, 8 ins. in dia., bears N.86°50'E., 26 lks. dist., marked T 37 S R 20 W S 13 B T.
	A cedar, 6 ins. in dia., bears S.60°E., 70 lks. dist., marked T 37 S R 20 W S 24 B T.
	A cedar, 8 ins. in dia., bears S.14°25'W., 40 lks. dist., marked T 37 S R 20 W S 23 B T.
	A cedar, 4 ins. in dia., bears N.8°15'W., 26 lks. dist., marked T 37 S R 20 W S 14 B T.
	Land, rolling hills.
	Soil, light sandy loam and loose rock, 4 th rate.
	Timber, cedars an d pinon pine.
	Undergrowth, sage brush, and scattering service berry brush and grass.
	July 30: At this cor. I set off 18° 29'N., on the decl. arc; and at 12h 06m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 36'.

	N.89° 55'E., on a random line, bet. secs. 13 and 24.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of Tp. 9 lks. S. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	S.89° 51'W., on a true line bet. secs. 13 and 24.
	Over rolling hills, through timber and undergrowth of sage brush, service berry brush and grass.
	Ascend.
1.50	Ridge, 30 ft. above sec. cor., brs. NW. and SE.
	Descend.
12.75	Ravine, 75 ft. deep, course N.
	Ascend.
21.00	Spur, projects N.
	Descend.
24.80	Ravine, 50 ft. deep, course NW.
	Ascend.

Chains	
32.00	Spur, projects N.
	Descend.
34.50	Ravine, 45 ft. deep, course N.
	Ascend.
38.50	Spur, 80 ft. high, projects N.
	Descend.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S13 $\frac{1}{4}$ --- S24 1912
	from which
	A cedar, 5 ins. in dia., bears N.57°15'E., 8 lks. dist., marked $\frac{1}{4}$ S 13 B T.
	A cedar, 6 ins. in dia., bears S.19°25'W., 56 lks. dist., marked $\frac{1}{4}$ S 24 B T.
48.20	Ravine, 90 ft. deep, course NW.
	Ascend,
53.50	Spur, 25 ft. high, projects N.
	Descend.
55.60	Ravine, 50 ft. deep, course N.
	Ascend.
62.00	Ridge, 100 ft. high, brs. NW. and SE.
	Descend.
78.00	Ravine, 110 ft. deep, course NW.
	Ascend.
80.06	The cor. of secs. 13, 14, 23 and 24.
	Land, rolling hills.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, cedars and pinon, pine.
	Undergrowth, sage brush, service berry brush and grass.

West, bet. secs. 14 and 23.

Over mountainous land, through timber, and undergrowth of

Chains	
	sage brush, oak brush, service berry brush and grass.
	Ascend.
2.00	Spur, 100 ft. high, projects N.
	Descend.
4.00	Head of ravine, 60 ft. deep, course N.
	Ascend.
10.00	Ridge, brs. NW. and SE.
	Descend.
14.00	Head of ravine, 20 ft. deep, course NW.
	Ascend, gradually along S. side of ravine.
24.93	Intersect Utah-Nevada boundary line 17.96 chs. S. of the 261st. mile post, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing sec. cor. of secs. 14 and 23, with brass cap marked

T37S
S14
N cc----- U
S23
R20W

1912

from which

A cedar, 18 ins. in dia., bears N.84°15'E., 28 lks. dist.; marked T 37 S R 20 W S 14 B T.

A cedar, 12 ins. in dia., bears S.27°30'E., 33 lks. dist., marked T 37 S R 20 W S 23 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate.

Timber, cedars and pinon pine.

Undergrowth, sage brush, oak brush, service berry brush and grass.

July 30, 1912.

July 31: At 8h 06m a.m.l.m.t., I set off 37° 36', on the lat. arc; 18° 17'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Chains.	
	Thence I run
	N.0° 01'W., bet. secs. 13 and 14.
	Over mountainous land, through timber, and undergrowth of sage brush, scattering service berry brush and grass.
	Descend.
1.90	Ravine, 50 ft. below sec. cor., course NW.
	Ascend.
5.80	Spur, 85 ft. high, projects W.
	Descend.
20.00	Leave timber, brs. E. and W.
27.20	Gulch, 285 ft. deep, course SW.
	Ascend.
40.00	Set ahiron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap, marked
	S14 $\frac{1}{4}$ | S13 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
50.00	Spur, 250 ft. high, projects SW.
	Descend.
54.75	Ravine, 30 ft. below spur, course SW.
	Ascend.
66.00	Ridge, 125 ft. above ravine, brs. E. and W.
	Enter timber, brs. E. and W.
	Descend.
76.00	Ravine, 50 ft. deep, course SE.
	Ascend.
80.00	Set an iron post, 3ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 11, 12, 13 and 14, with brass cap marked
	T37S | R20W S11 | S12 --- S14 | S13 1912
	from which

Chains	
	A cedar, 6 ins. in dia., bears N.22°15'E., 32 lks. dist., marked T 37 S R 20 W S 12 B T.
	A cedar, 4 ins. in dia., bears S.25°15'E., 64 lks. dist., marked T 37 S R 20 W S 13 B T.
	A cedar, 14 ins. in dia., bears S.19°30'W., 53 lks. dist., marked T 37 S R 20 W S 14 B T.
	A cedar, 8 ins. in dia., bears N.58°30'E., 46 lks. dist., marked T 37 S R 20 W S 11 B T.
	Land, mountainous.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, cedars and pinon pine.
	Undergrowth, sage brush, scattering service berry brush and grass.

	N89° 51'E., on a random line bet. secs. 12 and 13.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect E. bdy. of Tp. 2 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	S.89° 50'W., on a true line bet. secs. 12 and 13.
	Over mountainous land, through timber and scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
7.00	Ridge, 60 ft. above sec. cor., brs. NW. and SE.
	Descend.
27.20	Ravine, 120 ft. deep, course S.
	Ascend.
36.00	Spur, projects S.
	Descend.
40.00	Set an iron post, 3 ft. lomg, 1 in. in dia., 26 ins. in the ground for ¼ sec/ cor., with brass cap marked

S12
¼

S13

1912

Chains	
	from which
	A pinon, 6 ins. in dia., bears N.81°30'W., 35 lks. dist., marked ¼ S 12 B T.
	A pinon, 5 ins. in dia., bears S.63°45'W., 23 lks. dist., marked ¼ S 13 B T.
47.40	Ravine, 80 ft. deep, course S.
	Ascend.
53.00	Ridge, brs. NW. and SE.
	Descend.
62.00	Ravine, 80 ft. deep, course S.
	Ascend.
68.00	Ridge, brs. NW. and SE.
	Descend, very gradually.
80.00	The cor. of secs. 11, 12, 13 and 14.
	Land, mountainous.
	Soil, light sandy loam and loose rock, 4th. rate.
	Timber, cedars and pinon pine.
	Undergrowth, scattering service berry brush, sage brush and grass.
	July 31: Heavy rain, commencing at 11h. am., prevented work for the day.
	July 31, 1912.

August 1: At 8h.06m a.m.l.m.t., I set off 37° 36' on the lat. arc; 18° 02'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

West, bet. secs. 11 and 14, on true line,

Over rolling hills, through timber and scattering undergrowth of sage brush, service berry brush and grass.

Ascend, gradually.

7.00 Top of ascent : Low divide or pass, 20 ft. above sec. cor. Brs. N. and S.

Descend, gradually.

Chains	
22.90	Ravine, 60 ft. deep, course S.
	Ascend.
24.62	Intersect Utah-Nevada boundary line 17.60 chs., S.0° 15'W of the 260th mile post, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing sec. cor., of secs. 11 and 14, with brass cap marked

```
        |T37S
        |S11
N qc-------U
        |S14
        |R20W
```

1912

from which

A cedar, 8 ins. in dia., bears N.76°05'E., 43 lks. dist., marked T 37 S R 20 W S 11 B T.

A pinon, 8 ins. in dia., bears S.63°30'E., 38 lks. dist., marked T 37 S R 20 W S 14 B T.

Land, rolling hills.

Soil, light sandy loam and loose rock, 4th. rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sage brush, service berry brush, and grass.

N.0° 01'W., bet. secs. 11 and 12.

Over rolling hills, through timber and scattering undergrowth od sage brush, service berry brush and grass.

Ascend.

15.00	Ridge, 110 ft. above sec. cor., brs. E. and W.
	Descend.
23.30	Ravine, 45 ft. deep, course E.
	Ascend.
37.00	Spur, projects SE.
	Descend.
39.60	Ravine, 20 ft. deep, course SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for ¼ sec. cor., with brass cap marked
	S11 ¼ | S12 1912
	from which
	A pinon, 5 ins. in dia., bears N.59°35'W., 62 lks/ dist., marked ¼ S 11 B T.
	A pinon, 6 ins. in dia., bears N.20°45'E., 158 lks. dist., marked ¼ S 12 B T.
46.00	Ridge, 65 ft. above ravine, brs. N.60°E.. and S.60°W.
	Descend.
61.00	Foot, of ridge, 85 ft. below top, brs. E. and W.
	Thence over rolling land.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 11 and 12, with brass cap marked.
	T37S | R20W S2 | S1 ---|--- S11 | S12 1912
	from which
	A cedar, 8 ins. in dia., bears N.29°50'E., 63 lks. dist., marked T 37 S R 20 W S 1 B T.
	A cedar, 10 ins. in dia., bears S.57°30'E., 34 lks. dist., marked T 37 S R 20 W S 12 B T.
	A cedar, 14 ins. in dia., bears S.54°15'W., 90 lks. dist., marked T 37 S R 20 W S 11 BT.
	A cedar, 8 ins. in dia., bears N.53°15'W., 109 lks. dist., marked T 37 S R 20 W S 2 B.T.
	Land, rolling and rolling hills.
	Soil, light sandy loam and loose rock, 2nd. and 3rd. rate.
	Timber, cedars and pinon pine..
	Undergrowth, scattering sage brush, service berry brush, and grass.

Chains	
	N.89° 50'E., on a random line bet. secs. 1 and 12.
40.00	Set temp. ¼ sec. cor.
80.12	Intersect E. bdy. of Tp. 16 lks. N. of the cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 1 and 12.
	Over rolling hills, through timber and scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
16.00	Spur, 65 ft. high, projects N.
	Descend.
29.00	Ravine, 50 ft. hugh, course NE.
	Ascend.
39.00	Ridge, 90 ft. above ravine, brs. N. and S.
	Descend.
40.06	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins in the ground for ¼ sec. cor., with brass cap marked
	S 1 ¼ / S12 / 1912
	from which
	A pinon, 6 ins. in dia., bears N.39°40'W., 27 lks. dist., marked ¼ S 1 B T.
	A pinon, 6 ins. in dia., bears S.18°20'E., 32 lks. dist., marked ¼ S 12 B T.
	August 1: At this cor. I set off 17° 59'N., on the decl. arc; and at 12h 06m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 37'.
43.00	Foot of ridge, 150 ft. below top, brs. N. and S.
	Descend gradually over rolling land.
80.12	The cor. of secs. 1, 2, 11 and 12.
	The first 43.00 chs. of mile is rolling hills, the soil of which is a light sandy loam and loose rock, 3rd. rate. The remaining portion of mile is rolling land, extending N. and S. about 10.00 chs, and the soil is a light

Chains	
	sandy loam, clay and gravel, 2nd. rate.
	Timber, cedars and pinon pine.
	Undergrowth, scattering sage brush, service berry brush and grass.

	West, bet. secs. 2 and 11, on true line
	Over rolling land, through timber, and sage brush and grass
8.30	Ascend ridge, brs. SW. and NE. Leave timber, brs. SW. and NE.
24.64	Intersect Utah-Nevada boundary line 17.80 chs. S.0°11'E., of the 259th mile post, heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing sec. cor., of secs. 2 and 11, with brass cap marked.

Ncc | T37S
S2
-----U
S11
R20W

1912

	and raise a mound of stone, 3 ft. base, 2 ft, high E. of cor.
	Land to the N. is rolling hills, the soil of which is sandy loam and loose rock, 3rd. rate., and the land to the S. is rolling the soil being sandy loam, clay and gravel, 2nd. rate.
	Timber, cedars and pinon pine on first 8.30 chs.
	Undergrowth, sage brush and grass.

	N.0° 01'W., on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
85.90	Intersect N. bdy. of Tp.5 lks.W. of the cor. of secs.1,2, 35 and 36, heretofore described.
	Thence I run
	S.0° 01'W., on a true line bet. secs. 1 and 2.
	Over rolling hills, through scattering timber, and undergrowth of sage brush and grass.

Chains	
	Ascend.
20.00	Ridge, 160 ft. above sec. cor., brs. NE. and SW.
	Descend.
45.90	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S2 ¼ | S1 1912
	from which
	A cedar, 6 ins. in dia., bears S.13°10'W., 5 lks. dist., marked ¼ S 2 B T.
	A cedar, 10 ins. in dia., bears N.78°30'E., 10 lks. dist., marked ¼ S 1 B T.
50.60	Road, brs. NE. and SW., Enterprise to Pioche.
54.00	Ravine, 115 ft. below ridge, course NE.
	Ascend.
73.25	Ridge, 75 ft. high, brs. NE. and SW.
	Descend.
80.40	Foot of ridge, 75 ft. below top, brs. NE. and SW.
	Thence over rolling land.
85.90	The cor. of secs. 1, 2, 11 and 12.
	Land, rolling hills.
	Soil, light sandy loam and loose rock, 3rd. rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush and grass.
	August 1, 1912.

GENERAL DESCRIPTION

This fractional township is generally mountainous and rolling hills, the soil of which is a light sandy loam and loose rock, and is only useful as grazing land. Secs. 26, 35 and 36 are cut by a canyon which is about 800 ft. deep, and is very rough and broken by sandstone ledges. A small stream of fresh water flows through this canyon.

GENERAL DESCRIPTION OF T.37 S., R.20 W.

The township is generally covered with a medium growth of cedars and pinon pine timber, and a undergrowth of sage brush, oak brush, service berry brush and nutritious grasses.

The road from Pioche to Enterprise, crosses the north end of this township.

There are no settlers on this township.

There are no indications of oil, coal, or mineral found on this township.

Ralph Gurley
U. S. Surveyor

4—680

BOOK A-403

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 "V" T.36 S., R.20 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 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 U.S.Surveyor see book "V" T.36 S., R.20 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, Oct.3, 1914.

The foregoing field notes of the survey of the Subdivisional lines of Township No.37 South, Range No. 20 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry

under special instructions dated August 12, 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.

S. A. 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.

4—270

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Page

4—679

BOOK A-403

L.

FEB 24 1913.

SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE SURVEY and RESURVEY OF THE

SOUTH AND WEST BOUNDARIES.

OF

T.37 S., R.18 W

Of the Salt Lake Base and *Meridian,*

n the State of Utah

EXECUTED BY

Ralph Gentry

n the capacity of U. S. Surveyor, under instructions dated August 12, *191*1,

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

roup No. 14, *which were approved by the Commissioner of the General Land*

ffice, August 23, *191*1, *pursuant to authority contained in the Act of*

ongress dated , *191*

Survey commenced May 26, *191*2

Survey completed June 1, *191*2

6—151

Res = S. Bdy 6-04-70

" N. Bdy 6-05-08

BOOK A-403

INDEX DIAGRAM.

Township 37 South, *Range* 18 West.

12	6	5	4	3	2	1
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18	30	29	28	27	26	25
20	31	32	33	34	35	36
	10	8	7	5	4	3

6—151

Chains

Nov. 11, 1911: I commence at the reestablished cor. of Ts. 37 and 38 S., Rs. 17 and 18 W., thence I retrace west, on the S. bdy. of T.37 S.,R.18 W.,on a blank line and at 1 mile 74.00 chains, fall 7.53 chns. N. of a sandstone, 18 x 12 x 10 ins., unmarked with some loose rock lying around it, having the appearance that it had been set in a mound of stone. I was unable to find any trace of bearing trees.

I took this stone as the cor. of secs. 34 and 35, and established a true line, running east and setting a closing corner for Ts.37 and 38 S., Rs.18 W., 7.53 chns. S. of the cor. of Tps.37 and 38 S.,Rs.17 W.

Continuing west, from the cor. of secs. 34 and 35, on blank line, I was unable to find any trace of the ¼ sec. cor. on S. bdy. of sec. 34, and found that that the cor. of secs. 33 and 34, reported to be in by the settlers, was covered by water of the reservoir of the Enterprise Irrigation Co.

On returning here May 26, 1912, to continue the survey of this bdy., I learned from the settlers, that the stone I took for the cor. of secs. 34 and 35, was not the proper cor., and that the cor. had been destroyed. There not being any settler able to identify the point where the cor. originally stood, I destroy the line established Nov.11,1911, and proceed as follows:

Survey commenced May 26,1912, and executed with a W. & L. E. Gurleys explorers transit No.___, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, February 13, 1912.

I examine the adjustments of the transit, find them correct; then, to test the solar apparatus, by comparing its

Chains

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 camp in the NW. quarter of sec. 22, T.37 S., R.18 W., latitude 37° 35' 34"N, longitude 113° 48' 08"W.; I observe Polaris at eastern elongation, at 3^h 17^m a.m.l.m.t., in accordance with Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chns. N. of my station.

At 8^h a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined, by driving a tack in a stake firmly set in the ground, 5 chns. N. of my station.

At 8^h 57^m a.m.l.m.t., I set off 37° 36' on the lat. arc; 21° 09'N., on the decl. arc; and mark a point in the meridian determined with the solar, by driving a tack in the stake already set 5 chns. N. of my station; this mark falls 0.2 ins. west of the meridian established by Polaris observations.

At 2^h 57m p.m.l.m.t., I set off 37° 36' on the lat. arc; 21° 12'N., on the decl. arc; and mark a point in the meridian determined with the solar, by driving a tack in the stake already set 5 chns. N. of my station; this mark falls 0.1 ins. east of the meridian established by Polaris observations.

The solar apparatus, by a.m. and p.m. observations, defines positions for meridians, respectively about 0' 11" west and 0' 06" east of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 3^h 30^mp.m. l.m.t., is N.15° 45'W., the angle thus determined gives the mag. decl. 15° 45'E.

May 26, 1912.

Chains	
	May 27: At 7^h 57^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 21° 19' N., on the decl. arc; and determine a meridian with the solar at the cor. of Ts.37 and 38S., Rs.17 and 18 W.,
	West, bet. secs. 1 and 36, on S. bdy. of T.37 S., R.18 W.
	Over rolling land; over the top of Flat Top Mountain, through undergrowth of oak brush, sage brush and grass.
	Descend.
18.00	Ravine, 50 ft. below Tp. cor., course NE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S36 ¼ / S 1 / 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
48.00	Top of rolling ridge, 75 ft. high, brs. NE. and SW.
	Descend, gradually.
60.00	Abrupt descent, over Flat Top Mountain, brs. NE. and SW.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 1, 2, 35 and 36, with brass cap marked
	T37S | R18W / S35 | S36 / S 2 | S 1 / T38S | R18W / 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Land, mountainous.
	Soil, dark loam and loose lava boulders, 4 th rate.
	Undergrowth, oak brush, asage brush and grass.
	No timber.

Chains	
	West, bet. secs. 2 and 35.
	Over mountainous land, through undergrowth of sage brush, oak, service berry brush and grass.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S35
$\frac{1}{4}$
S 2
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

41.00	Ravine, at foot of Flat Top Mountain, 1000 ft. below top, course NW.
	Leave oak and service berry brush, brs. NW. and SE.
	Ascend gradually, over rolling ridge.
80.00	Top of ridge, on sandstone ledges, brs. NW. and SE.

Set an iron post, 3 ft. long, 3 ins. in dia., in a mound of stone, 4 ft. base, 2 ft. high, for the cor. of secs. 2, 3, 34 and 35, with brass cap marked

T37S R18W	
S34	S35
S3	S2
T38S R18W	

1912

from which

A long leaf pine, 8 ins. dia., bears N.0° 40'E., 64 lks. dist., marked T 37 S R 18 W S 35 B T.

A long leaf pine, 8 ins. dia., bears S.49° 20'W., 76 lks. dist., marked T 38 S R 18 W S 3 B T.

A pinon pine, 8 ins. dia., bears N.87° 05'W., 42 lks. dist., marked T 37 S R 18 W S34 B T.

There being no other tree available for bearing tree, I raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, dark loam, sandy loam and loose lava boulders, 4th rate.

Chains	
	Undergrowth, sage brush, oak, service berry brush and grass.
	Timber, few scattering long leaf pine, pinon pine and cedars around cor.
	West, bet. secs. 3 and 34.
	Over rolling hills, through scattering timber, and undergrowth of sage brush and grass.
	Descend over sandstone ledges.
4.00	Foot of ledges, 40 ft. high, brs. NW. and SE.
24.00	Ravine, with stream of clear water, 6 lks. wide, 2 ins. deep, 100 ft. below sec. cor., course N.
	Ascend slightly.
	Leave timber, brs. N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S34
$\frac{1}{4}$
S 3

1912

and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.

43.00	Point of sandstone ledges, 40 ft. high, brs. N.
53.50	Low rolling ridge, 50 ft. high, brs. NW. and SE.
	Descend.
60.00	High water mark of reservoir, brs. N. and S.
	As the point for the cor. of secs. 3, 4, 33 and 34, falls in the reservoir,
	I set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for witness cor. to secs. 3, 4, 33 and 34, with brass cap marked

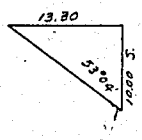
T37S R18W
S33 | S34
WC
S 4 | S 3
T38S R18W
1912

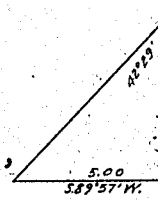
Chains	
	and raise a mound of stone, 3 ft. base, 2 ft, high W. of cor.
	May 27: At this cor. I set off 21° 21'N. on the decl. arc; and at 11^h 57^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 33'.
	From this cor. a masonry dam of the Enterprise Irrigation Co. bears N.25° 15'W., 13.04 chns. dist.
	To pass reservoir I offset as follows:
	East, 6.50 chns.
	S.0° 02'E., 20.00 chns.
	Thence west, on offset line, with continous measurement.
64.00	To bank of reservoir, or neck, brs. N. and S.
	To determine the dist., across, I set a flag on off set line, on W. side of neck of reservoir; then measure a base, south, 10.00 chns. to a point, from which the flag bears N.57° 05'W.; from the flag the S. end of the base bears S.57° 05'E.; there fore the dist. is tan. 57° 05' x base, or 1.545 X 10.00 = 15.45 chns.
	64.00+15.45 makes
79.45	To W. side of neck of reservoir.
80.00	At the high water mark of reservoir, on offset line, which is S.0° 02'E., 20.00 chains of the proper point for the cor. of secs. 3, 4, 33 and 34,
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for witness corner, of secs. 3, 4, 33 and 34, with brass cap marked

T37S R18W
S33 | S 34
W | C
S 4 | S 3
T38S | R18W
19 | 2

Chains	
	and raise a mound of stone, 3 ft, base, 2 ft. high W. of cor.
	Land, rolling hills.
	Soil, light sandy loam, and loose rock, 3rd rate.
	Undergrowth, sage brush and grass.
	Timber, scattering cedars and pinon pine.

Chains	
	From the witness corner of secs. 3, 4, 33 and 34, which is S.0° 02"E., 20.00 chns. on offset line, I continue West, on offset line through sec. 4, over rolling hills, and undergrowth of sage brush and grass.
	Ascend.
8.00	Top of spur, 20 ft. above witness cor.,projects N.
	Descend.
11.00	To bank of neck of reservoir, brs. N. and S.
	To determine the dist. across, I set a flag on offset line , on W. side of neck of reservoir; then measure a base, S., 10.00 chns. to a point, from which the flag bears N.53° 04'W.; from the flag the S. end of the base bears S.53° 04'E.; therefore the dist., is tan.53° 04' X base, or 1.330 X 10.00 = 13.30 chns.
	11.00 + 13.30 makes
24.30	To W. side of neck of reservoir, brs. N. and S.
	Ascend spur.
31.80	Spur, 30 ft. above reservoir, Projects N.
	Enter scattering timber, brs. N. and S.
	Descend, over sandstone outcropings,
37.00	Small neck of reservoir, 1.00 chn. wide, 30 ft. below spur.
	Ascend, over sandstone outcropings, brs. N. and S.
40.00	Point for ¼ sec. cor. falls in reservoir.
49.00	I offset N.0° 03'W., 10.00 chns. to S. edge of neck of reservoir, brs. E. and W.
	To determine the dist., across, I set a flag N.0° 03'W., on N. side of reservoir; then measure a base, S.89° 57'W., 5.00 chns. to a point, from which the flag bears N.42° 29'E.,; from the flag, the W. end of the base, bears S.42° 29'W.; therefore the dist., is cot. 42° 32' X base, or 1.090 X 5.00= 5.45 chns., which added to 10.00 chns. make 15.45 chns.
	Thence I continue on to offset N.0° 03'W., to 20.00 chns. to a point on the true line bet. secs.4 and 33, where I set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in





Chains

the ground for witness cor. to ¼ sec. cor., with brass cap marked

T37SR18W
S 33
——→WC ¼
S 4

1912

from which

A long leaf pine, 18 ins. dia., bears N.45° 30'W., 174 lks. dist., marked W C ¼ S 33 B T.

A long leaf pine, 18 ins. dia., bears S.17° 15'W., 65 lks. dist., marked W C ¼ S 4 B T.

Thence I run

West, on true line bet. secs. 4 and 33.

Ascend, over outcroping of sandstone, rough and broken.

80.00 Top of ridge, 125 ft. high, brs. NW. and SE.

Point for cor. falls on sandstone surface:

Set an iron post, 3 ft. long, 3 ins. in dia., in a mound of stone, 4 ft. base, 2 ft. high, for the cor. of secs. 4, 5, 32 and 33, with brass cap marked

T37S	R18W
S32	S33
S 5	S 4
T38S	R18W

1912

and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, sandy loam, loose rock and sandstone, 4th rate.

Timber, scattering long leaf pine, pinon pine and cedars.

Undergrowth, sage brush and grass.

May 27,1912.

May 28: At 7h 57m a.m.l.m.t., I set off 37° 33' on the lat. arc; 21° 29'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33.

Chains	
	Thence I run
	West, bet. secs. 5 and 32.
	Over mountainous land, through scattering timber, and undergrowth of sage brush, oak and service berry brush and grass.
	Descend.
12.30	Hollow, 115 ft. deep, stream of clear water, 3 lks. wide, 1 in. deep, course SE.
	Ascend.
25.00	Spur, 190 ft. high, projects N.
	Descend.
27.00	Ravine, 40 ft. deep, course N.
	Ascend.
30.00	Spur, projects N.
	Descend.
32.35	Ravine, 40 ft. deep, course N.
	Ascend.
36.00	Spur, projects N.
	Descend.
39.00	Ravine, 45 ft. deep, course N.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

$$\begin{array}{c} S32 \\ \frac{1}{4} \\ \hline S\ 5 \\ 1912 \end{array}$$

from which

A pinon, 8 ins. in dia., bears N.64° 55'W., 32 lks. dist., marked $\frac{1}{4}$ S 32 B T.

A cedar, 7 ins. in dia., bears S.70° 55'E., 168 lks. dist., marked $\frac{1}{4}$ S 5 B T.

47.50	Spur, projects N.
	Descend.
50.00	Ravine, 35 ft. deep, course N.
	Ascend.
60.00	Spur, projects N.

Chains	
	Descend.
62.00	Leave timber and undergrowth of oak and service berry brush, brs. N. and S.
70.50	Hollow, ≈200 ft. deep, course NE.
	Ascend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins, in the ground for the cor. of secs. 5, 6, 31 and 32, with brass cap marked

T37S	R18W
S31	S32
S 6	S5
T38S	R18W
1912	

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land mountainous.

Soil, light sandy loam and loose rock, 4th rate.

Timber, scattering long leaf pine, pinon pine and cedars.

Undergrowth, sage brush, service berry brush, oak and grass.

May 28: At this cor. I set off 21° 30'N. on the decl. arc; and at 11^h 57^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 33'.

	West, bet. secs. 6 and 31.
	Over mountainous land, through undergrowth of sage brush and grass.
	Ascend.
14.00	Spur, 75 ft. above sec. cor., projects NE.
	Descend
22.80	Head of ravine, 25 ft. deep, course NE.
	Enter scattering timber and undergrowth of oak and service berry brush, brs. NE. and SW.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

hains

S31
$\frac{1}{4}$
S 6

1912

from which

A pinon, 6 ins. in dia., bears N.76°E., 109 lks. dist., marked $\frac{1}{4}$ S 31 B.T.

A pinon. 10 ins. in dia., bears S.18° 55'E., 38 lks. dist., marked $\frac{1}{4}$ S 6 B.T.

41.20 Spur, 170 ft. high, projects NE.

Descend.

44.00 Head of ravine, 30 ft. deep, course NE.

Ascend.

78.00 Ridge, 300 ft. high, brs. N. and S.

Descend.

80.00 Set temp.cor. of Ts.37 and 38 S., Rs.18 and 19 W.

May 28, 1912.

June 1: The cor. of Ts.37 and 38 S.,Rs. 18 and 19W., falling 4.70 chns. W. of temp. cor. set May 28, I return to the temp. cor., which I now destroy, and continue West, bet. secs. 6 and 31,

Leave timber, brs. N. and S.

83.00 Hollow, 350 ft. deep, stream of clear water, in bottom, 3 lks. wide, 1 in. deep, course N.

Ascend.

84.70 The cor. of Ts.37 and 38 S., Rs.18 and 19 W., for description of which see notes of west boundary of this township.

Land, mountainous.

Soil, light sandy loam and loose rock, 4 th rate.

Timber, scattering pinon pine and cedars.

Undergrowth, sage brush, service berry brush, oak and grass.

WEST BOUNDARY OF T.37 S., R.18 W.

May 29: At 7 h 57 m a.m.l.m.t., I set off 37° 33' on the

Chains

lat. arc; 21° 39'N. on the decl. arc; and determine a meridian with the solar at the temp. cor. of Ts.37 and 38 S., Rs.18 and 19 W.

Thence I run

North, on a random line along W. bdy. of T.37 S.,R.18 W., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chns.; and at 400.00 chns. make diligent search for the old cor. of secs. 1, 6, 7, and 12, and I was unable to find any trace of same; therefore I continue N. on random line. At 440.00 diligent search is made for the old ¼ sec. cor., but no signs of same are found. I therefore continue on random line and at 485.80 chns. fall 4.70 chns. E. of the cor. of Ts.36 and 37 S., Rs.18 and 19 W., previously described.

May 29,1912.

May 31: At 7h 57m a.m.l.m.t., I set off 37° 38' on the lat. arc; 21° 56'N. on the decl. arc; and determine a meridian with the solar at the cor. of Ts.36 and 37 S., Rs.18 and 19 W.

Thence I run

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

Over rolling hills, through scattering timber, and a undergrowth of sage brush and grass.

Descend.

4,40 Ravine, 25 ft. below Tp. cor., course E.

Ascend.

7.40 Road, brs. E. and W., Enterprise to Pioche.

22.00 Spur, 85 ft. high, projects W.

Descend.

25.80 Head of ravine, 20 ft. deep, course W.

Ascend.

37.00 Top of ascent, on W. slope of spur, 80 ft. above ravine,

Descend.

43.00 Ravine, 100 ft. below top of ascent, course NW.

WEST BOUNDARY OF T. 37 S. R. 18 W.

Chains	
	Ascend.
45.80	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor. with brass cap marked S 1 ¼ | S 6 1912 from which A cedar, 10 ins. in dia., bears S.70°05'W., 59 lks. dist. marked ¼ S 1 B T. A cedar, 10 ins. in dia., bears N.27°10'E., 66 lks. dist. marked ¼ S 6 B T. NOTE: The subdivisional survey of T. 37 S. R. 18 W. operated to render this ¼ sec. cor. applicable to sec. 1 only. The marks on the E ½ of the cap on the cor. post and the bearing tree in sec. 6 were not effaced. This bearing tree will be regarded as an accessory to the ¼ sec. cor. for sec. 1 only and not for sec. 6, reference being had to letter "E" No. 243833 dated July 15, 1915, from the Commissioner of the General Land Office.
46.00	Top of ascent, 40 ft. above ravine, on E. slope of ridge. Descend.
49.00	Ravine, 30 ft. below top of ascent, course NE. Ascend.
67.00	Spur, 110 ft. high, projects E. Descend.
80.00	Ravine, 100 ft. below spur, course NE. Thence along bottom of ravine.
83.25	Leave ravine, course from SE. Ascend.
85.80	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, with brass cap marked T 37 S R 19 W R 18 W S 1 | S 6 S 12 | S 7 1912 from which A cedar, 12 ins. in dia., bears S.18°30'W., 297 lks. dist. marked T 37 S R 19 W S 12 B T. A cedar, 8 ins. in dia., bears N.26°25'W., 201 lks. dist. marked T 37 S R 19 W S 1 B T.

WEST BOUNDARY OF T. 37 S. R. 18 W.

Chains	
	raise a mound of stone 3 ft. base, 2 ft. high W. of cor. No other bearing trees within limits. Land rolling hills. Soil, light sandy loam and loose rock, 4th rate. Timber scattering cedars and pinon pine. Undergrowth sagebrush and grass.
	South bet. secs. 7 and 12.
	Over mountainous land, through scattering timber and undergrowth of sagebrush, oak, service berry and grass. Ascend.
3.00	Spur, 90 ft. high, projects NW.
	Descend slightly.
13.30	Ravine, 55 ft. deep, course NW.
	Ascend mountain.
22.00	Spur, 40 ft. high, projects W.
	Descend.
28.00	Ravine, 20 ft. deep, course NW.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor. with brass cap marked $\frac{S\ 12}{1912} \Big\vert \frac{S\ 7}{}$ from which A pinon, 14 ins. in dia., bears S.5°50'W., 32 lks. dist. marked $\frac{1}{4}$ S 12 B T. A cedar, 10 ins. in dia., bears N.11°80'E., 31 lks. dist. marked $\frac{1}{4}$ S 7 B T.
	May 31: At this cor. I set off 21°57'N. on the decl. arc. and at 11h 57m l.m.t., observe the sun on the meridian the resulting lat. is 37°37'.
72.00	Ridge, 400 ft. high, brs. NE. and W.
	Descend into low pass bet. mountains.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 12, 13 and 18, with brass cap marked

hains

T37S

R19W	R18W
S12	S 7
S13	S18

1912

from which

A cedar, 10 ins. in dia., bears N.52° 10'E., 37 lks. dist., marked T 37 S R 18 W S 7 B T.

A cedar, 12 ins. in dia., bears S.42° 40'E., 16 lks. dist., marked T 37 S R 18 W S 18 B T.

A cedar, 10 ins. in dia., bears S.21° 50'W., 55 lks. dist., marked T 37 S R 19 W S 13 B T.

A cedar, 14 ins. in dia., bears N.73° 30'W., 24 lks. dist., marked T 37 S R 19 W S 12 B T.

Land, mountaimous.

Soil, light sandy loam and loose rock, 4 th. rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, oak, service berry brush and grass.

South, bet. secs. 13 and 18.

Over mountainous land, through scattering timber and undergrowth of sage brush, oak, service berry brush and grass.

Descend.

5.20 Low pass bet. two mountains, 25 ft. below sec. cor. brs. N. and S.

Ascend.

16.80 Top of mountain, 200 ft. above low pass, brs. E. and W.

Descend.

30.05 Ravine, 200 ft. below monntain, course SE.

Ascend.

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

S13	S18
$\frac{1}{4}$	

1912

Chains	
	from which
	A pinon, 18 ins. in dia., bears S.88° 40'W.,21 lks. dist., marked ¼ S 13 B T.
	A pinon, 20 ins. in dia., bears S.61° 10'E., 18 lks. dist., marked ¼ S 18 B T.
41.20	Spur, 125 ft. high, projects E.
	Descend.
44.00	Head of ravine, 30 ft. deep, course E.
	Ascend.
54.00	Spur, projects E.
	Descend.
63.00	Ravine, 135 ft. deep, course SE.
	Ascend.
68.00	Spur, projects E.Leave timber, brs. E. and W.
	Descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of secs. 13, 18, 19 and 24, with brass cap marked

T37S
R19W | R18W
S13 | S18
S24 | S19
1912

and raise a mound of stone 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Timber, scattering cedars and pinon pine.

Soil, light sandy loam and loose rock, 4th rate.

Undergrowth, sage brush, oak, service berry brush and grass.

May 31, 1912.

June 1: At 7h 58m a.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 05'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.

WEST BOUNDARY OF T.37 S., R.18 W.

Chains.	
	Thence I run
	South bet.secs.19 and 24,
	Over mountainous land; through undergrowth of sagebrush scattering service berry brush and grass. Descend.
1.00	Ravine, 100 ft.deep, course E.
	Ascend.
18.00	Ridge, brs.E. and W.
	Descend.
24.00	Enter timber, brs.E. and W.
29.75	Ravine, 200 ft.deep, course SE.
	Ascend.
33.00	Spur, 25 ft.high, projects E.
	Descend.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked
	S $\frac{1}{4}$ 24 | S 19 1912
	from which
	A pinon, 12 ins.in dia., bears S.29° 10'W. 39 lks. dist., marked $\frac{1}{4}$ S 24 B T
	A pinon, 10 ins.in dia., bears N.72° 30'E. 78 lks. dist., marked $\frac{1}{4}$ S 19 B T
41.00	Ravine, 155 ft.deep, course NE.
	Ascend.
55.20	Spur, projects E.
	Descend.
70.20	Ravine, 175 ft.deep, course NE. Enter undergrowth of oak bears E. and W. Ascend.
76.00	Top of ascent, 100 ft.above ravine.
	Descend.
79.00	Ravine, 20 ft.deep, course N.30° E. Ascend.
80.00	Set an iron post 3 ft.long, 3 ins.in dia., 24 ins.in the ground, for the cor.of secs.19,24,25, and 30, with brass cap marked

WEST BOUNDARY OF T.37 S., R.18 W.

Chains.

T 37 S
R19W | R18W
S24 | S19
S25 | S30
1912

from which

A pinon, 12 ins.in dia., bears S.86° 35'E.90 lks. dist., marked T 37 S R 18 W S 30 B T

A pinon, 12 ins.in dia., bears S.12° 30'W. 84 lks. dist., marked T 37 S R 19 W S 25 B T

A pinon, 14 ins.in dia., bears N.6° 35'W.118 lks. dist., marked T 37 S R 19 W S 24 B T

No other bearing trees within limits; raise a mound of stone 2 ft.base, 1½ ft.high W.of cor.

Land, mountainous.

Soil, light sandy loam and loose rock; 4th rate.

Timber, cedars and pinon pine.

Undergrowth, sagebrush, serviceberry brush, oak and grass.

South bet.secs.25 and 30,

Over mountainous land; through scattering timber and undergrowth of sagebrush, oak, service berry brush and grass.

Ascend.

18.00 Top of mountain, 325 ft.high, brs.NW. and SE.

Descend.

24.50 Ravine, 20 ft.deep, course NW.

Ascend.

29.20 Spur, projects W.

Descend.

40.00 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

S ¼ 25 | S30
1912

Chains

from which

A cedar, 8 ins. in dia., bears S.86°40'W., 110 lks. dist., marked ¼ S 25 B T.

A pinon, 8 ins. in dia., bears S.86°20'E., 36 lks. dist., marked ¼ S 30 B T.

June 1: At this cor. I set off 22° 06'N. on the decl.arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34'.

40.50 Ravine, 50 ft. deep, course W.

Ascend.

44.20 Ridge, brs. E. and W.

Descend.

55.85 Ravine, 230 ft. below ridge, course E.

Ascend.

62.20 Spur, 100 ft. high, projects E.

Descend.

63.55 Ravine, 100 ft. deep, course E.

Ascend.

68.70 Ridge, brs. E. and W.

Descend.

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

T37S

R19W	R18W
S25	S30
S36	S31

1912

from which

A pinon, 8 ins. in dia., bears N.61°55'E., 57 lks. dist., marked T 37 S R 18 W S 30 B T.

A cedar, 8 ins. in dia., bears S.78°35'E., 31 lks. dist., marked T 37 S R 18 W S 31 B T.

A pinon, 7 ins. in dia., bears S.55°45'W., 19 lks. dist., marked T 37 S R 19 W S 36 B T.

A pinon, 8 ins. in dia., bears N.47°35'W., 37 lks.

Chains

dist., marked T 37 S R 19 W S 25 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th. rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, oak, service berry brush and grass.

South, bet. secs. 31 and 36.

Over mountainous land, through timber, and scatteringun-growth of sage brush, service berry and oak brush and grass.

Descend.

0.50 Ravine, 230 ft. deep, course SE.

Ascend.

11.20 Spur, 105 ft. high, projects E.

Descend.

34.00 Ravine, 200 ft. deep, course SE.

Ascend.

36.20 Spur, 20 ft. high, projects E.

Descend.

40.00 Ravine, 75 ft. deep, with stream of clear water, 6 lks. wide, 2 ins. deep, course E.

Point of ¼ sec. cor. falls in bottom of ravine. Cor. not set.

40.30 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for witness corner to ¼ sec. cor., with brass cap marked

T37S
R19W R18W
WC¼
S36 | S31
1912

from which

A pinon, 8 ins. in dia., bears N.69°10'E., 66 lks. dist., marked W C ¼ S 31 B T.

There being no other suitable bearing trees, I raise a mound of stone 3 ft. base, 2 ft. high W. of Cor.

Chains	
46.20	Spur, 75 ft. high, projects E.
	Descend.
50.20	Ravine, 25 ft. deep, course E.
	Ascend.
53.50	Spur, projects E.
	Descend.
56.85	Ravine, 25 ft. deep, course E. Leave timber and enter dense oak and service berry brush, brs. E. and W. Ascend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for the cor. of Tps. 37 and 38 S., Rs. 18 and 19 W., with brass cap marked

T37S
R19W | R18W
S36 | S31
S 1 | S.6
R19W | R18W
T38S

1912

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

Land, mountainous.

Soil, light sandy loam and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sage brush, serviceberry and oak brush, and grass.

June 1,1912.

Latitudes, departures, and closing errors.

Line designed	Course	Dist,	Latitudes North	Latitudes South	Departures East	Departures West
South bdy.	West	484.70				484.70
West bdy.	North	485.80	485.80			
North bdy.	S.89°57'E.	80.64		0.07	80.64	
Subdivision						
	S.0°02'E.	80.76		80.76	0.05	
	East	80.00			80.00	
	S0°09'E	80.06		80.06	0.21	
	N.89°32'E.	80.22	0.65		80.22	
	N.88°47'E.	41.15	0.85		41.14	
	S.86°45'E.	39.29		2.25	39.23	
	N.89°43'E.	40.36	0.20		40.36	
	N.89°11'E.	40.53	.57		40.53	
	N.89°18'E.	41.45	.49		41.45	
	S.88°56'E.	40.72		.74	40.72	
East bdy.	South	323.97		323.97		
Convergency					0.42	
			488.56	487.85	484.97	484.70
	Error in lat.		487.85		484.70	
			0.71	Error in dep.	0.27	

Ralph Gurley
U. S. Surveyor

BOOK A-403

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 .....

.....

.....

cr Certificate of Assistants see book "O" T.38 S., R.18 W.

.....

.....

.....

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

vhich 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.

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 Surveyor see book "O" T.38 S., R.18 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, Oct. 2, 1914.

The foregoing field notes of the survey ~~xx~~ and resurvey of the South and West Boundaries of Township No. 37 South, Range No. 18 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry

under his special instructions dated August 12, 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.

A. R. 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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4—679

BOOK A-403

M.

C.M.S.

FIELD NOTES

OF THE SURVEY RESURVEY AND RETRACEMENT OF THE

SUBDIVISION

OF

T.37 S., R.18 W.

Of the Salt Lake Base and *Meridian,*

the State of Utah

EXECUTED BY

Ralph Gentry and Eben B. Andrews.

the capacity of U. S. Surveyors, under instructions dated August 12, *1911*
nd Supplemental Special Instructions dated November 18, 1911
sued by the United States Surveyor General to govern surveys included in

roup No. 14, *which were approved by the Commissioner of the General Land*
ffice, August 23, *1911* and November 29, 1911, respectively *pursuant to authority contained in the Act of*

ongress dated , *191*

Survey commenced June 2, *1912*

Survey completed June 13, *1912*

6—151

Retr. Subs. - 3-03-50
Reg. Subs. - 5-11-74
Subs. - 41-46-38

BOOK A-403

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6—151

hains

Survey commenced June 2, 1912, and executed with a W.& L E. Gurley explorer's transit No,____, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general fot Utah, February 13, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the NW. quarter of sec. 22, T.37 S., R18 W., latitude 37° 35' 34"N., longitude 113° 48' 08"W.; I observe Polaris at eastern elongation, at 2^h 50^m a.m.l.m.t., in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chns. N. of my station.

At 8^h a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridiam thus determined, by driving a tack in a stake firmly set in the ground, 5 chns. N. of my station.

At 8^h 58^m a.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 13'N. on the decl. arc;and mark a point in the meridiam determined with the solar, by driving a tack in the stake already set 5 chns. N. of my station; this mark falls 0.2 ins. west of the meridian established by Polaris observations.

At 2^h 58^m p.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 15'N. on the decl. arc; and mark a point in the meridian determined with the solar, by driving a tack in the stake already set 5 chns. N. of my station; this mark falls 0.1 ins. east of the meridian established by Polaris observations.

Chains	
	The solar apparatus, by a.m. and p.m. observations defines positions for meridians, respectively about 0' 11" west and 0' 06" east of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian, at 3^h 30^m p.m. l.m.t., is N.15°45'W., the angle thus determined gives the mag. decl. 15° 45'E.
	June 2, 1912.
	June 3: At 7^h 58^m a.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 20'N. on the decl.arc; and determine a meridian with the solar at the cor. of secs. 7, 12, 13 and 18, on the E. bdy. of T.37 S.,R.18W.
	Thence I retrace
	West, bet. secs. 12 and 13.
	Over rolling hills, through undergrowth of sage brush and grass.
	Descend.
6.12	Ravine, 40 ft. below cor., course N.
	Ascend.
11.17	Spur, 50 ft. high, projects N.
	Descend.
16.17	Head of ravine, 10 ft. deep, course N.
	Ascend.
20.00	Spur, projects N.
	Descend.
27.75	Ravine, 65 ft. deep, course N.
	Ascend.
34.20	Spur, projects N.
	Descend.
40.00	Foot of bench, 100 ft. below spur, brs. NE. and SW.
40.71	Fall 75 lks. S. of the ¼ sec. cor., which is a granite 24 X 14 X 10 ins. above the ground, firmly set, marked ¼ on N face, and witnessed by a mound of stone, 2 ft.

Chains

base, 1½ ft. high N. of cor.

The length of this half mile is therefore 40.72 chns. and the course is N.88° 56'W.

From the ¼ sec. cor.

I run

West, bet. secs. 12 and 13.

Over rolling bottom land, through undergrowth of sa ge brush and grass.

9.20 Ditch, brs. NE. and SW.

19.55 Road, brs. NE. and SW., Enterprise to reservoir.

22.45 Creek, clear water, 30 lks. wide, 4 ins. deep, cpurse N.

Ascend.

At 41.70 chs. I fall 74 lks. S., of a granite stone 14 x 10 x 8 ins. lying loose upon the bank of an old ditch; from the markings I conclude that this was the old cor. of secs. 11, 12, 13 and 14; the stone was further identified by Huntsman, an old settler, who claimed to have assisted in the original survey. The proper position for said corner was determined to my satisfaction by Mr. Huntsman as being about 25 lks. E. and 25 lks. N.

Therefore at N.88° 38'W.

41.45 I re-establish the cor. as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 11 and 12, with brass cap marked

T37S	R18W
S11	S12

1912

and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.

From the cor. of secs. 11 and 12.

I retrace

Chains	
	West, on S. bdy. of sec. 11.
	Over rolling hills, through undergrowth of sage brush and grass.
	Ascend slightly along foot of ridge.
33.00	Ravine, 15 ft. deep, 2.00chns. wide, course N
	Ascend spur.
40.53	Fall 57 lks. N. of the $\frac{1}{4}$ sec. cor., which is a granite stone, 24 x 14 x 10 ins. above the ground, firmly set and marked and witnessed as described by the surveyor general.
	The length of this half mile is therefore 40.53 chs. and the course is S.89° 11'W.
	June 3: At this cor. I set off 22° 21'N. on the decl.arc; and at 11^h 58^m l.m.t., observe the sun on the meridian.
	The resulting lat. is 37° 36'.
	From this $\frac{1}{4}$ sec. cor.
	I retrace
	West, on S. bdy. of sec. 11
	Over rolling hills, through sage bruah and grass.
	Ascend.
8.36	Spur, 60 ft. high, projects N.
	Descend.
10.75	Ravine, 35 ft. deep, course N.
	Ascend.
20.00	Spur, projects N.
	Descend.
31.60	Ravine, 60 ft. deep, course N.
	Ascend.
35.00	Spur, projects N.
	Descend.
38.75	Ravine, 55 ft. deep, course N.
	Ascend.
39.75	Old road, brs, NE. and SW., Willow Springs to Enterprise.
40.36	Fall 20 lks. N. of the cor. of secs. 10 and 11, which is a granite stone, 20 X 10 X 8 ins., firmly set in the ground, marked and witnessed as described by the survey-

hains	
	or general.
	The length of this line is therefore 40.36 chs, and the course is S.89° 43'W.
	From the cor. of secs. 10 and 11.
	I retrace
	West, on S. bdy. of sec. 10.
	Over rolling hills, through sage brush and grass.
	Ascend.
4.00	Spur, projects N.
	Descend.
8.25	Ravine, 14 ft. deep, course N.
	Ascend.
21.00	Spur, 45 ft. high, projects N.
	Descend.
30.00	Foot of spur, brs. N. and S.
	Thence over rolling land. Ascending.
39.23	Fall 223 lks. S. of the ¼ sec. cor., which is a granite stone, firmly set and marked and witnessed as described by the surveyor general.
	The length of this half mile is therefore 39.29 chs. and the course is N.86° 45'W.
	From this ¼ sec. cor.
	I retrace
	West, on the S. bdy. of sec. 10.
	Over rolling land,
1.00	Descent, brs. N. and S.
5.50	Ravine, 35 ft. deep, course N.
	Ascend.
18.00	Spur, 85 ft. high, projects N.Enter timber brs. N. and S.
	Descend.
34.00	Ravine, 45 ft. deep, course N.
	Ascend.
41.14	Fall 187 lks. N. of the cor. of secs. 9 and 10, which is a trachyte stone 20 x 10 x 10 ins. marked as describ-

Chains

ed by the surveyor general, and very loosely set.

I re-establish this cor. as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 9 and 10, with brass cap marked

T37S | R18W
S9 | S10

1912

from which

A cedar, 4 ins. in dia., bears N.1° 30'E., 74 lks. dist., marked T 37 S R 18 W S 10 B T.

A cedar, 10 ins. in dia., bears N.69°20'W., 114 lks. dist., marked T 37 S R 18 W S 9 B T.

The length of this line is therefore 41.15 chs., and the course is S.88° 47'W.

RESURVEY OF THE SUBDIVISION OF T.37 S.,R18 W

From the cor. of secs. 9 and 10.

I retrace

West, on the S. bdy. of sec. 9.

40.00 Set temp. ¼ sec. cor.

After diligent search, no signs of the old ¼ sec. cor. was found.

80.22 Fall 65 lks. N. of the old cor. of secs. 8, 9, 16 and 17, which is a trachyte stone, 30 x 18 x 10 ins., loosely set, and marked as described by the surveyor general.

I re-establish this cor. as follows:

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the SW. cor. of sec. 9, with brass cap marked

T37S | R18W
S9

1912

from which

Chains.	
	A cedar, 8 ins.in dia., bears N.80°50'E.121 lks. dist., marked T 37 S R 18 W S 9 B T
	Thence I run
	N.89°32'E.on a resurvey line on S.bdy.of sec.9
	Over rolling hills, through timber and undergrowth of sagebrush and grass. Descend.
9.00	Ravine, 35 ft.deep, course N.
	Ascend.
19.00	Top of ridge, 130 ft.high, brs.N.and S.
	Descend.
40.11	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked
	S 9 / ¼ / 1912
	from which
	A cedar, 6 ins.in dia., bears N.6° 30'E.48 lks. dist., marked ¼ S 9 B T
42.75	Ravine, 190 ft.below ridge, course NE.
	Ascend slightly, over rolling land.
73.00	Spur, 115 ft.high, projects N.
	Descend.
80.22	The cor.of secs.9 and 10.
	Land, rolling hills.
	Soil, light sandy loam and loose rock; 3rd rate.
	Timber, cedars and pinon pine.
	Undergrowth, sagebrush and grass.
	June 4: At this cor.I set off 22° 28'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° 36'
	From the SW.cor.of sec.9 I retrace
	North bet.secs.8 and 9,
40.00	Diligent search was made for old ¼ sec.cor., and no signs thereof are found.

Chains.	
	Set temp. $\frac{1}{4}$ sec.cor.
80.06	Fall 21 lks.E.of the cor.of secs.4,5,8, and 9, which is a granite stone 18 x 14 x 8 ins., firmly set, marked and witnessed as described by the surveyor general.
	Thence I run
	S.0° 09'E.on a resurvey line bet.secs.8 and 9,
	Over rolling hills; through timber,and undergrowth of sagebrush and grass.
	Descend.
2.35	Ravine, 20 ft.below sec.cor., course NE.
	Ascend.
17.00	Spur, 45 ft.high, projects E.
	Descend gradually.
26.50	Ravine, 40 ft.below spur, course NE.
	Leave timber, brs.E.and W.
	Ascend.
27.50	Leave ravine, brs.NE. and SW.
	Thence over rolling land.
34.50	Ravine, 2.00 chs.wide, 20 ft.deep, course NE.
40.03	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked
	S8 $\frac{1}{4}$ | S9 1912
	and raise a mound of stone 3 ft.base, 2 ft.high W.of cor.
	Note: The subdivisional survey of T.37 S., R.18 W.,operated to render this corner applicable to section 9 only.
	The marks "S8" on the W.half of the cap on the corner post were not effaced.
49.00	Descend into ravine,brs.NW. and SE.
53.80	Ravine,30 ft.deep, course NW. Ascend.
59.00	Top of ascent,brs.NW. and SE. Descend.
71.00	Recross ravine, course NE.
	Ascend.

hains	
72.00	Enter timber, brs. E. and W.
80.06	The SW. cor. of sec. 9.
	Land, rolling hills.
	Soil, light sandy loam, and loose rock, 3 rd. rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush and grass.
	June 4, 1912.

June 5; At 7h 58m a.m.l.m.t., I set off 37° 37' on the lat. arc; 22° 34'N. on the decl.arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence I retrace

West, on S. bdy. of sec. 5.

40.00 No trace of the old ¼ sec. cor was found.

Set temp. ¼ sec. cor.

80.00 No trace of the old cor. of secs. 5,6,7 and 8 was found.

Set temp. sec. cor.

Thence I continue to retrace

West, on S. bdy. of sec. 6.

40.00 No trace of the old ¼ sec. cor. was found.

Set temp. ¼ sec. cor.

80.70 Intersect the W. bdy. of Tp. 5.08 chs. N. of the cor. of secs.1,6,7&12. I destroy the markings on this cor. pertaining to secs. 6 and 7.

The point of intersection fallsin bottom of ravine and is impracticable to set cor., Therefore from the point I run

East, on resurvey line on the S. bdy. of sec. 6.

Over mountainous land, through scattering timber, and undergrowth of sage brush and grass.

Ascend.

0.15 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for witness closing cor., to secs. 6 and 7, with brass cap marked

Chains	
	T37S R19W | R18W S1 | S6 S12 | WC C S7 C 1912
	from which
	A cedar, 6 ins. in dia., bears N.27°35'E., 201 lks. dist., marked W C T 37 S R 18 W S 6 B T.
	A cedar, 12 ins. in dia., bears S.15°45'E., 227 lks. dist., marked W C T 37 S R 18 W S 7 B T.
10.00	Spur, 200 ft. high, projects NW.
	Descend.
15.00	Ravine, 80 ft. deep, course NW.
	Ascend.
20.00	Enter dense timber, brs. N. and S.
31.00	Ridge, 150 ft. above ravine, brs. NE. and SW.
	Enter scattering timber, brs. NE. and SW.
	Descend.
40.70	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 6 ¼ 1912
	from which
	A cedar, 8 ins. in dia., bears N.72°20'W., 150 lks. dist., marked ¼ S 6 B T.
47.70	Ravine, 275 ft. deep, course N.
	Ascend.
56.50	Ridge, 120 ft. high, brs. NE. and SW.
	Descend.
62.00	Ravine, 35 ft. deep, course SE.
	Ascend.
65.00	Spur, projects S.
	Descend.
67.50	Ravine, 60 ft. deep, course S.
	Ascend.

hains	
72.00	Spur, projects S.
	Descend.
76.50	Ravine, 40 ft. deep, course S.
	Ascend.
80.70	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 5 and 6, with brass cap marked

T37S | R18W
S 6 | S 5

1912

from which

A cedar, 6 ins. in dia., bears N.16°50'E., 84 lks. dist., marked T 37 S R 18 W S 5 B T.

A pinon, 6 ins. in dia., bears N.46° 05'W., 30 lks. dist., marked T 37 S R 18 W S 6 B T.

Land, mountainous.

Soil, light sandy loam, and loose rock, 4 th. rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

June 5: At this cor. I set off 22° 35'N. on the decl. arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 37'.

	East., on resurvey line on S. bdy. of sec. 5.
	Over mountainous land, through scattering timber, and undergrowth of sage brush and grass.
	Ascend.
8.00	Ridge, 70 ft. above sec. cor., brs. N. and S.
	Enter dense timber and scattering undergrowth, brs. N. and S.
	Descend.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 5
¼

1912

Chains	
	from which
	A cedar, 24 ins. in dia., bears N.51°30'W., 57 lks. dist., marked ¼ S 5 B T.
57.00	Ravine, 485 ft. below ridge, course S.
	Ascend.
66.00	Spur, 40 ft. high, projects S.
	Descend.
67.90	Ravine, 25 ft. deep, course NE.
	Ascend.
80.00	The cor. of secs. 4, 5, 8 and 9.
	Land, mountainous.
	Soil, light sahdy loam and loose rock, 4 th. rate.
	Timber, cedars an d pinon pine.
	Undergrowth, sage brush and grass.
	From the cor. of secs. 5 and 6.
	I retrace
	North, bet. secs. 5 and 6.
40.00	Make diligent search for the old ¼ sec. cor., and was unable to fine any trace thereof.
	Set temp. ¼ sec. cor.
80.76	Intersect N. bdy. of Tp. 5 lks. E. of the cor. of secs. 5. 6, 31 and 32, heretofore described.
	Thence I run
	S.0°.02'E., on resurvey line bet. secs. 5 and 6.
	Over level bottom land, through field.
14.85	Fence, brs. N.60°W. and S.60°E.,
	Leave field, ascend gradually over rolling land through sage brush and grass.
15.10	Road, brs. N.60°W., and S.60°E., Enterprise to Pioche.
26.00	Ascend spur, brs. NE. and SW.
30.00	Spur, 50 ft. high, projects NW.
	Descend.
36.00	Ravine, 20 ft. deep, cpurse, NW.
	Ascend.
40.38	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in

Chains	
	the ground to bed rock, and raise a mound of stone 4 ft. base, 20 ins. high around the post for $\frac{1}{4}$ sec. cor., with brass cap marked
	S6 $\frac{1}{4}$ | S5 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
70.00	Enter timber, brs. E. and W.
72.75	Ridge, 500 ft. high, brs. E. and W.
	Descend.
80.76	The cor. of secs. 5 and 6.
	Land, level and mountainous.
	Soil, of bottom land is a dark rich loam, 1st. rate, and the soil of the mountainous portion is a light sandy loam, loose rock and outcroping of sandstone, 4 th. rate.
	Timber, cedars and pinon pine on last 10.00 chns. of mile.
	Undergrowth, sage brush and grass.
	June 5, 1912.

Ralph Ginly
U.S. Surveyor.

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Chains

Survey commenced June 2,1912, and executed with a W.& L. E. Gurley's explorer's transit No. 957, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, February 20, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the NW. quarter of sec. 22, T.37 S.,R.18 W., latitude 37° 35' 34"N., longitude 113° 48' 08"W.; I set off 37° 36' on the lat. arc; 22° 16'N., on the decl. arc; and at 4^h 58^m p.m.l.m.t., determine with the solar a meridian and mark a point thereof, on a stake, driven in the ground, 5 chns. N. of my station.

June 2, 1912.

June 3: At 2^h 46^m a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a stake driven in the ground, 5 chns. N. of my station.

At 6^h 45^m a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined, by driving a tack in the stake set June 2, on which the meridian falls 0.3 ins. east of the mark determined by the solar.

At 6^h 58^m a.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 20'N. on the decl. arc; and mark a point in the meridian determined with the solar, by a tack in the stake already set 5 chns. N. of my station; this mark falls

Chains	
	0.2 ins. east of the meridian established by Polaris observation.
	The solar apparatus, p.m. and a.m. observations, defines positions for meridians, respectively about 0' 16" west and 0' 11" east of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian, at 7^h 30ma.m. is N.15° 45'W., the angle thus determined gives the mag. decl. 15° 45'E.
	At 8^h 58^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 22° 20'N. on the decl. arc; and determine a meridian with the solar at the cor. af secs. 1, 2, 35 and 36, on S. bdy. of T.37 S.,R.18 W., previously described.
	Thence I run
	N.0° 01'W., bet. secs. 35 and 36.
	Over mountainous land, through undergrowth of sage brush and grass; and scattering oak and sarvice berry brush.
	Descend.
17.00	Ravine, 400 ft. deep, course W.
	Ascend.
28.00	Top of ridge, 350 ft. high, brs. N.75°W. and S.75°E.
	Descend.
38.00	Enter scattering timber, brs. E. and W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 35 ¼ 1912 | S 36

from which

A cedar, 6 ins. diam., bears S.33° 50'E., 217 lks. dist., marked ¼ S 36 B T.

There being no other bearing trees available, I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Chains	
63.00	Leave scattering timber, brs. E. and W.
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, with brass cap marked

T37S | R18W
S26 | S25
S35 | S36
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, clay & sandy loam and very stony, 4 th. rate.

Timber, scattering cedars on 25.00 chns.

Undergrowth of sage brush, grass and scattering oak and sarvice berry brush.

June 3: At this cor. I set off 22° 21'N. on the decl. arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34.

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

40.00	Set temp. ¼ sec. cor.
80.16	Intersect E. bdy. of Tp. 11 lks. S. of the cor. of secs. 25, 30, 31 and 36, heretofore described.

Thence I run

S.89° 55'W., on a true line bet. secs, 25 and 36.

Over mountanous land, through undergrowth of sage brush, sarvice berry and oak brush.

Descend mountain.

32.20	Gulch, 500 ft. deep, course N.80°W.

Ascend.

40.08	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S25
¼
S36
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, N.

Chains	
	of cor.
49.00	Top of ridge, 450 ft. high, brs. NW. and SE.
	Descend.
59.25	Gulch, 400 ft. deep, course NW.
	Ascend.
80.16	The cor. of secs. 25, 26, 35 and 36.
	Land, mountainous, very rough.
	Soil, light sandy loam, clay and very stony, 4 th. rate.
	No timber.
	Undergrowth, sage brush, oak and sarvice berry brush.
	June 3, 1912.

June 4: At 7^h 58^m a.m.l.m.t., I set off 37° 34' on the lat. arc; 22° 27'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence I run

N.0° 01'W., bet. secs. 25 and 26.

Over mountainous land, through undergrowth of sage, oak, and sarvice berry brush.

Chains	
	Descend.
9.30	Gulch, 400 ft. deep, course N.80°W.
	Ascend.
10.00	Enter scattering timber, brs. E. and W.
39.50	Spur, 400 ft. high, projects W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S26 ¼ 1912 | S25

from which

A pinon, 12 ins. diam., bears S.31°20'W., 35 lks. dist., marked ¼ S 26 B T.

A pinon, 11 ins. diam., bears S.27° 40'E., 30 lks. dist., marked ¼ S 25 B T.

Chains	
55.00	Ravine, 150 ft. deep, course SW.
	Ascend.
70.20	Ridge, 200 ft. high, brs. E. and W. Leave scattering timber, brs. E. and W. Descend.
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, with brass cap marked

T37S | R18W
S23 | S24
S26 | S25
1912

and raise a mound of stone, 3 ft. base, 2 ft. high. W. of cor.

Land, mountainous, very rough.

Soil, light sandy loam, clay and very stony, 4 Th. rate.

Timber, scattering cedars and pinon pine, on 60.00 chs.

Undergrowth, sage, oak and sarvice berry brush.

June 4:At this cor. I set off 22° 28'N. on the decl. arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.

N.89° 55'E., on a random line bet. secs. 24 and 25.

40.00	Set temp. ¼ sec. cor.
80.10	Intersect E. bdy. of Tp. 3 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.

Thence I run

S,89° 56'W., on a true line bet. secs. 24 and 25.

Over mountainous land, through scattering timber, and undergrowth of sage, oak and sarvice berry brush.

Descend slightly over top of Flat Top Mountain.

3.00	Descend from mountain, brs. N. and S.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S24
¼
S 25
1912

Chains

from which

A cedar, 14 ins. diam., bears N.76°W., 23 lks. dist., marked ¼ S 24 B T

A cedar, 12 ins. diam., bears S.37° 30'W., 38 lks. dist., marked ¼ S 25 B T.

71.25 Gulch, 750 ft. below top of mountain, course NW.

Leave scattering timber, brs. NW. and SE.

Ascend.

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

Land, mountainous, very rough.

Soil, light sandy loam, clay and very stony, 4 th. rate.

Timber, scattering cedars and pinon pine, on 71.25 chs.

Undergrowth, sage, oak and sarvice berry brush.

June 4, 1912.

June 5: At 7^h 58^m a.m.l.m.t., I set off 37° 35' on the lat. arc; 22° 34'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 mountainous land, through undergrowth of sagebrush, and scattering sarvice berry brush.

Descend, along E. side of gulch.

8.00 Enter scattering timber, brs. NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 23 | S24
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

66.00 Gulch, 50 ft. below ¼ sec. cor., course NW.

Ascend.

76.20 Top of ascent, 50 ft. above gulch, brs, E. and W.

Chains	
	Descend.
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, with brass cap marked

T37S | R18W
S14 | S13
S23 | S24

1912

and raise a mound of stone 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, light sandy loam, clay and very stony, 4 th rate.

Timber, a few scattering cedars and pinon pine.

Undergrowth, sage brush and scattering sarvice berry brush.

June 5: At this cor. I set off 22° 35'N. on the decl. arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat, is 37° 36'.

N.89° 56'E., on a random line bet. secs. 13 and 24.

40.00	Set temp. ¼ sec. cor.
79.98	Intersect E. bdy. of Tp. at the cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence I run

S.89° 56'W., on a true line bet. secs. 13 and 24.

Over mountainous land, through sage brush and scattering sarvice berry brush.

Descend.

13.20	Enter timber, brs. N. and S.
18.00	Ravine, 150 ft. below sec, cor., course N.
	Ascend.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S13
¼
S24
1912

Chains	
	Ther being no bearing objects available, I raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
41.00	Ridge, 50 ft. high, brs. NW. and SE.
	Descend over ledges outcroping, and boulders.
69.20	Leave timber, brs. N. am d S.
79.98	The cor. of secs. 13, 14, 23 and 24.
	Land, mountainous, and very rough.
	Soil, light sandy loam covered by lava boulders.
	Timber, cedars and pinon pine.
	Undergrowth, sage brush and scattering sarvice berry brush.
	June 5, 1912.

June 8: At 7^h 58^m a.m.l.m.t., I set off 37° 36' on the lat. arc; 22° 52'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence I run

N.0° 00'W., bet. secs. 13 and 14.

Over mountainous, land, through undergrowth of sage brush.

Descend.

11.05	Irrigation ditch, brs. NE. and SW.
13.75	Creek, clear water, 30 lks. wide, 1 ft. deep, course NE., in canon. Ascend.
21.00	Road, brs. NE. and SW., Enterprise to the reservoir.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S14 ¼ 1912 | S13 and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
64.60	Spur, 100 ft. high, projects E.
	Descend.
84.25	Fall 2.05 chns., N.89°18'E., of the cor. of secs. 11 and

Chains	
	12.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 13 and 14 with brass cap marked,
	T37S | R18W S11 | S12 CC S14 | S13 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, S. of cor.
	Land, mountainous.
	Soil, light sandy loam and stony, 4 th. rate.
	Undergrowth, of sage brush and grass.
	No. timber.
	June 8: At this cor. I set off 22° 53'N. on the decl. arc; and at 11^h 59^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 36'.

	June 6: At 8^h 28^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 22° 41'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35, on S. bdy. of the Tp. heretofore described.
	Thence I run
	N.0° 01'W., bet. secs. 34 and 35.
	Over rolling mountainous land, through undergrowth of sage brush and grass.
	Descend, gradually from cor.
11.50	Ravine, 50 ft. below sec. cor., course NW.
	Ascend, gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., wiyh brass cap marked
	S34 ¼ | S35 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Chains	
63.00	Spur, 100 ft. high, projects W.
	Descend.
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, with brass cap marked

T37S | R18W
S27 | S26
S34 | S35

1912

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, light sandy loam, clay and gravel, 3 rd. rate.

Undergrowth, sage brush and grass.

No timber.

East on a random line bet. secs. 26 and 35.

40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.16	Intersect N. and S. line 17 lks. N. of the cor. of secs. 25, 26, 35 and 36.

Thence I run

N.89° 53'W., on a true line bet. secs. 26 and 35.

Over mountainous land, through undergrowth of sage, sarvice berry brush and grass.

Ascend.

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

S26
$\frac{1}{4}$
S35

1912

and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.

June 6: At this cor. I set off 22° 41'N., on the decl. arc; and at 11^h 58^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34'.

hains	
43.00	Spur, 400 ft. high, projects N.
	Descend.
57.40	Ravine, 100 ft. deep, course N.
	Ascend.
62.00	Ridge, 300 ft. high, brs. N. and S.
	Descend.
80.16	The cor. of secs. 26, 27, 34 and 35.
	Land , mountainous.
	Soil, light sandy loam, clay, gravel and stony, 4 th. rate.
	Undergrowth, sage, service berry brush and grass.
	No. timber.

	N.0° 01'W., bet. secs. 26 and 27.
	Over mountainous land, through undergrowth of sage brush, service berry brush and grass.
	Descend.
18.20	Creek, of clear water, 30 lks. wide, 1 ft. deep, 75 ft. below sec. cor., drs. N.10°E.
	Dense growth of willows along creek bottom.
	Ascend.
22.30	Road, brs. N.10°E., and S.10°W., Enterprise to reservior.
30.00	Spur, 50 ft. high, projects E.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S27$\frac{1}{4}$ | S26
	1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
41.60	Ravine, 75 ft. deep, course E.
	Ascend.
54.30	Ridge, 100 ft. high, brs. E. and W.
	Descend.

Chains	
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, with brass cap marked

T37S	R18W
S22	S23
S27	S26

1912

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, sandy loam and very stony, 4th. rate.

Undergrowth, sage brush, service berry brush and grass.

Willows along the creek bottom.

No timber.

June 6, 1912.

June 7: At 7^h 59^m a.m.l.m.t., I set off 37° 35' on the lat. arc; 22° 47'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

S.89° 53'E., on a random line bet. secs. 23 and 26.

40.00	Set temp. ¼ sec. cor.
80.20	Intersect N. and S. line 7 lks. S., of the cor. of secs. 23, 24, 25 and 26.

Thence I run

N.89° 56'W., on a true line bet. secs. 23 and 26.

Over mountainous land, through a few scattering cedars and pinon pines, and undergrowth of sage brush, service berry brush and grass.

Ascend.

14.15	Top of ridge, 75 ft. above sec. cor., brs. NW. and SE.

Descend.

40.10	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked

Chains	
	S 23 / $\frac{1}{4}$ / S 26 / 1912
	There being no bearing trees available, I raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.
65.80	Creek, of clear water, 35 lks. wide, 1 ft. deep, 600 ft. below top of ridge, drs. N.
	Ascend.
72.60	Road, brs. N.15°E., and S.15°W., Enterprise to reservoir.
80.20	The cor. of secs. 22, 23, 26 and 27.
	Land, mountainous.
	Soil, light sandy loam and loose rocks, 4 th rate.
	Timber, a few scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush and grass.
	June 7: At this cor. I set off 22° 47'N. on the decl. arc; and at $11^h 59^m$ l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.
	N.0° 01'W., bet. secs. 22 and 23.
	Over rolling hills, through very scattering timber and undergrowth of sage brush and grass.
	Descend slightly.
22.50	Ravine, 30 ft. below sec. cor., course E.
	Ascend, gradually.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	S22$\frac{1}{4}$ | S23 / 1912
	and dig pits, 18 x 18 x 12 ins., N. and S of post, $3\frac{1}{2}$ ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
46.00	Rolling ridge, 75 ft. high, brs. E. and W.
	Descend.
61.00	Lumber house, 8 x 12 ft., brs. E. 140 lks. dist., owner unknown.

Chains

62.25 Ravine, 35 ft. deep, course E.

Ascend.

80.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for cor. of secs. 14, 15, 22 and 23, with brass cap marked

T37S	R18W
S15	S14
S22	S23

1912

from which

A cedar, 12 ins. diam., bears N.62° 55'E., 223 lks. dist., marked T 37 S R 18 W S 14 B T.

A cedar, 11 ins. diam., bears S.0° 35'E., 93 lks. dist., marked T 37 S R 18 W S 23 B T.

A cedar, 5 ins. diam., bears S.41° 32'W., 164 lks. dist., marked T 37 S R 18 W S 22 B T.

A cedar, 7 ins. diam., bears N.29° 45'W., 44 lks. dist., marked T 37 S R 18 W S 15 B T.

Land, rolling hills.

Soil, light sandy loam, gravel and stony, 3rd rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

S.89° 56'E., on a random line bet. secs. 14 and 23.

40.00 Set temp. ¼ sec. cor.

80.24 Intersect N. and S. line, 19 lks. S. of the cor. of secs. 13, 14, 23 and 24.

Thence I run

S.89° 56'W., on a true line bet. secs. 14 and 23.

Over rolling hills, through undergrowth of sage brush and grass.

6.40 Ravine, 50 ft. deep, course NW.

Ascend.

12.90 Spur, 40 ft. high, projects NW.

Descend.

22.00 Creek, of clear water, 35 lks. wide, 1 ft. deep, course

Chains	
	NE.
	Ascend.
27.25	Road, brs. NE. and SW., Enterprise to reservoir.
40.12	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 14 / ¼ / S 23 / 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.
49.80	Old wood road, brs. NW. and SW.
62.00	Enter scattering timber, brs. N. and S.
80.24	The cor. of secs. 14, 15, 22 and 23.
	Land, rolling hills.
	Soil, light sandy loam, gravel and loose rocks, 3rd rate.
	Timber, scattering cedars and pinon pine, on 18.00 chs.
	Undergrowth, sage brush and grass.
	June 7,1912

June 8: At 1^h 59^m p.m.l.mt., I set off 37° 36' on the lat. arc; 22° 53'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

N.0°.01'W., bet. secs. 14 and 15.

Over rolling hills, through scattering timber, and undergrowth of sage brush and grass.

Ascend, gradually.

38.20	Old road, brs. NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S15¼ | S14 / 1912

Chains

from which

A cedar, 5 ins. diam., bears N.28° 15'W.,33 lks. dist., marked ¼ S 15 B T.

A cedar, 6 ins. diam., bears S.69° 10'E., 54 lks. dist., marked ¼ S 14 B T.

61.00 Top of ridge, 150 ft. high, brs. E. and SW.

Descend.

66.00 Old road, brs. NE. and SW.

83.55 Intersect E. and W. line , N.89° 43'E., 2.80 chns. dist. of the cor. of secs. 10 and 11.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 14 and 15, with brass cap marked

T37SR18W

S10 | S11

CC

S15 | S14

1912

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

Land, mountainous.

Soil, light sandy loam, gravel and stony, 3 rd rate.

Timber, scattering, cedars and pinon pine.

Undergrowth, sage brush and grass.

June 8,1912.

Eben B. Andrews

U. S. Surveyor.

June 6: At 7^h 58^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 22° 41'N., on the decl. arc; and determine a meridian with the solar at the W. C., to secs. 3, 4, 33 and 34, on E. side of reservoir,heretofore described.

To pass the reservoir I offset as follows:

East, 6.50 chns.

N.0° 02'W., 22.40 chns.

West, 26.50 chns. to

22.40 A point on line bet. secs. 33 and 34, on N. side of reservoir.

Chains	
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for witness cor. to secs. 3, 4, 33 and 34, with brass cap marked
	T37S | R18W S33 | S34 WC S4 | S 3 T38S | R18W 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Thence I run
	N.0° 02'W., on a true line bet. secs. 33 and 34:
	Over mountainous land, through undergrowth of sage brush and grass.
	Ascend.
24.00	Top of spur, 30 ft. above cor., projects W.
	Descend slightly,
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S33 ¼ | S34 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
43.00	Ravine, 10 ft. deep, course SW.
	Ascend.
67.60	Spur, 200 ft. high, projects SE.
	Descend.
70.90	Ravine, 40 ft. deep, course SE.
	Ascend.
76.00	Top of ascent, 40 ft. above bottom of ravine,
	Descend.
78.00	Recross ravine, 30 ft. below top of ascent, course SW.
	Ascend.
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, with

Chains	
	brass cap marked

T37S S28	R18W S27
S33	S34

1912

from which

A lone cedar, 10 ins. diam., bears S.31°35'E.,247 lks. dist., marked T 37 S R 18 W S 34 B T.

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

Land, mountainous.

Soil, light sandy loam, gravel and very stony, 4th rate.

Undergrowth, sage brush and grass.

No, timber.

June 6: At this cor. I set off 22° 41'N., on the decl. arc: and at 11^h 02^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34'.

	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line 11 lks. S. of the cor. of secs. 26, 27, 34 and 35.
	Thence I run
	S.89° 55'W., on a true line bet. secs. 27 and 34.
	Over mountainous land, through scattering timber and undergrowth, of sage brush, scattering service berry brush and grass.
	Descend.
6.00	Creek, 35 lks. wide, 1 ft. deep, course N.20°E.
	Ascend.
7.00	Road, brs. N. and S., Enterprise to the reservoir.
13.00	Top of spur, 175 ft. high, projects S.
	Descend.
18.00	Ravine, 65 ft. deep, course SE.
	Ascend.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains	
	the ground for ¼ sec. cor., with brass cap marked
	S 27 ¼ S 34 1912
	from which
	A pinon, 6 ins. diam., bears N.82° 30'W., 33 lks. dist., marked ¼ S 27 B T.
	A cedar, 5 ins. diam., bears S.15° 45'W., 25 lks. dist., marked ¼ S 34 B T.
44.00	Spur, 700 ft. high, projects S.
	Descend.
55.00	Ravine, 160 ft. deep, course S.
	Ascend.
61.00	Top of spur, 160 ft. high, projects S.
	Descend.
70.85	Ravine, 180 ft. deep, course S.
	Ascend.
75.00	Spur, 50 ft. high, projects S.
	Descend.
79.80	Ravine, 75 ft. deep, course S.
	Ascend.
80.04	The cor. of secs. 27, 28, 33 and 34.
	Land, mountainous.
	Soil, light sandy loam, gravel and very stony, 4 th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, scattering service berry brush, and grass.
	June 6,1912.

June 7: At 8h 28m a.m.l.m.t., I set off 37° 34' on the lat. arc; 22° 47'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

N.0° 02'W., bet. secs. 27 and 28.

Chains.	
	Over mountainous land, through scattering undergrowth of sage brush, oak, service berry brush and grass.
	Ascend, hogs back.
32.00	Top of hogs back, 1050 ft. high, brs. E. and W.
	Descend.
40.00	Set an iron post. 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S $28\frac{1}{4}$ | S27 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
58.30	Ravine, 800 ft. below top of hogs back, course N.80°E.
	Ascend.
66.00	Top of ridge,163 ft. high, brs. N.75°E., and S.75°W.
	Descend.
77.40	Ravine, 370 ft. deep, course NE.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 21, 22, 27 and 28, with brass cap marked
	T37S | R18W S21 | S22 S28 | S27 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Land, mountainous.
	Soil, light sandy loam, gravel and very stony, 4 th rate.
	No. timber.
	Undergrowth, scattering sage brush, servoce berry brush oak and grass.
	N.89°55'E., on a random line bet. secs. 22 and 27.
40.00	Set temp. $\frac{1}{4}$ sec. cor.

Chains	
80.08	Intersect N. and S. line 11 lks. N. of the cor. of secs. 22, 23, 26 and 27.
	Thence I run
	West, on a true line bet. secs. 22 and 27.
	Over mountainous land, through undergrowth of sage brush and grass.
	Descend Slightly,
15,00	Ravine, 10 ft below sec. cor., course NE.
	Enter, scattering timber, brs. N. and S.
	Ascend.
24.00	Top of spur, 350 ft. high, projects N.
	Descend.
35.00	Ravine, 165 ft. deep, course NE.
	Ascend.
40.04	Set an iron post, 3 ft. long, 1in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 22
¼
S 27
1912

from which

A cedar, 8 ins. diam., bears N.63°E.,333 lks. dist., marked ¼ S 22 B T.

There being no other bearing trees available, I raise a mound of stone, 3 ft. base, 2 ft. high N. of cor.

June 7: At this cor. I set off 22° 47'N. on the decl. arc; and at 11^h 59^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.

56.00	Spur, 450 ft. high, projects NE.
	Descend.
65.70	Ravine, 200 ft. deep, course N.
	Ascend.
72.50	Ridge, 215 ft. high, brs. N. and S.
	Descend.
76.00	Ravine, 50 ft. deep, course NE.
	Ascend.

Chains	
80.08	The cor. of secs. 21, 22, 27 and 28.
	Land, mountainous.
	Soil, light sandy loam, gravel and very stony, 4th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush and grass.

	N.0° 02'W., bet. secs. 21 and 22.
	Over mountainous, land through undergrowth of sage brush and grass.
	Descend.
5.00	Ravine, 160 ft. deep, course NW.
	Ascend.
16.00	Spur, 350 ft. high, projects NW.
	Enter scattering timber, brs. NE. and SW.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S21 ¼ | S 22
	1912
	from which
	A cedar, 14 ins. diam., bears N.89° 15'W., 137 lks. dist., marked ¼ S 21 B T.
	A cedar, 6 ins. diam., bears N.8° 30'E., 32 lks. dist., marked ¼ S 22 B T.
40.60	Ravine, 360 ft. deep, course NE.
	Ascend.
52.00	Top of spur, 50 ft. high, brs. NE. and SW.
	Descend.
59.40	Ravine, 20 ft, deep, course NE.
	Ascend.
72.00	Spur, 25 ft. high, projects E.
	Descend.
76.85	Ravine, 25 ft. deep, course E.
	Ascend.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22, with brass cap marked

T37S S16	R18W S15
S21	S22

1912

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, rolling hills.

Soil, light sandy loam, gravel and stony, 3 rd rate.

Timber, scattering, cedars and pinon pine.

Undergrowth, sage brush and grass.

From this cor. Willow springs bears S.28° 45'E., 10.63 chns. dist.

June 7,1912.

June 11: At 7h 59m a.m.l.m.t., I set off 37° 36' on the lat. arc: 23° 06'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

East, on a random line bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

80.14 Intersect N. and S. line 16 lks. S. of the cor. of secs. 14, 15, 22 and 23.

Thence I run,

S.89° 53'W., on atrue line bet. secs. 15 and 22.

Over rolling hills, through scattering timber, and undergrowth of sage brush and grass.

Ascend gradually from cor.

40.07 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 15
¼

S 22
1912

Chains.

from which

A cedar 6 ins. diam., bears N.49°E., 110 lks. dist., marked $\frac{1}{4}$ S 15'B T.

A cedar, 8 ins. diam., bears S.66° 35'W., 203 lks. dist., marked $\frac{1}{4}$ S 22'B T.

60.00 Top of rolling ridge, 40 ft. high, brs. NE. and SW.

Descend.

60.60 Old road, brs. NE. and SW., Willow Springs to Enterprise

63.00 Ravine, 50 ft. deep, course NE., small stream of clear water, 3 lks. wide, 1 in. deep, in bottom of ravine.

Leave scattering timber, brs. NE. and SW.

Ascend.

80.14 The cor. of secs. 15, 16, 21 and 22.

Land, rolling hills.

Soil, light sandy loam, gravel and stony, 3rd rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

N.0° 02'W., bet. secs. 15 and 16.

Over rolling hills, through undergrowth of sage brush and grass.

Ascend.

10.00 Top of spur, 101 ft. high, projects E.

Descend.

13.00 Head of ravine, 50 ft. deep, course E.

Ascend.

20.00 Top of ridge, 50 ft. above ravine, brs. NE. and SW.

Descend.

32.00 Enter timber, brs. E. and W.

36.10 Ft. of ridge, 195 ft. below top, brs. E. and W.

Thence over rolling land.

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

S 16 $\frac{1}{4}$ | S 15

SUBDIVISION OF T.37 S., R.18 W.

Chains.

from which

A cedar, 15 ins.dia., bears S.73° 55'W. 33 lks. dist., marked ¼ S 16 B T

A cedar, 8 ins.diam.bears N.42° 15'E. 41 lks. dist., marked ¼ S 15 B T

55.80 Foot of ridge, bears NW. and SE.

Ascend.

68.00 Top of spur, 45 ft.high, bears SW. and NE.

Descend.

79.85 Ravine, 105 ft.deep, course NE.

Ascend.

85.12 Intersect E.and W.line 3.01 chs.N.88° 47'E.of the cor.of secs.9 and 10.

Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for closing corner of secs.15 and 16, with brass cap marked

T 37 S | R 18 W
S 9 | S 10
CC
S 16 | S 15
1912

from which

A pinon 10 ins.diam.bears S.21° 15'E. 75 lks.dist. marked T 37 S R 18 W S 15 B T

A cedar 12 ins.diam.bears S.44° W. 77 lks.dist. marked T 37 S R 18 W S 16 B T

Land, rolling hills.

Soil, light sandy loam, gravel and stony; 3rd rate.

Timber, cedars and pinon pine.

Undergrowth, sagebrush and grass.

June 11: At this cor.I set off 23° 07'N.on the decl.arc; and at 11h 59m l.m.t., observe the sun on the meridian; the resulting lat.is 37° 36'

June 8: At 7h 59m a.m.l.m.t., I set off 37° 33' on the lat.arc; 22° 52'N.on the decl.arc; and determine a me-

Chains.	
	ridian with the solar at the cor.of secs.4,5,32, and 33 on S.bdyl of Tp., heretofore described.
	Thence I run
	N.0° 03'W.bet.secs.32 and 33,
	Over rolling hills; through scattering timber and undergrowth of sagebrush and grass.
	Ascend over sandstone ledges.
1.00	Top of ledges and ridge, bears NW. and SE.
	Descend.
10.00	Ravine, 75 ft.deep, course S.75° E.
	Ascend.
16.00	Top of spur, 30 ft.high, projects E.
	Descend.
29.10	Ravine, 55 ft.deep, course SE.
	Ascend.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked
	S ¼ 32 | S 33 1912
	from which
	A cedar 4 ins.diam.bears S.41° 50'W.183 lks.dist. marked ¼ S 32 B T
	A pinon 10 ins.diam.bears N.47° 45'E. 99 lks.dist. marked ¼ S 33 B T
44.75	Spur, 40 ft.high, projects E. Descend.
50.63	Ravine 30 ft.deep, course SE.
	Leave scattering timber, brs.NW. and SE. Ascend.
80.00	Top of ridge, 110 ft.high, bears NW. and SE.
	Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for the cor.of secs.28,29,32, and 33, with brass cap marked
	T 37 S | R18 W S29 | S28 S32 | S33 1912

chains	
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	Land, rolling hills.
	Soil, light sandy loam, gravel and stony, 3rd rate.
	Timber, cedars and pinon pine.
	Undergrowth, sage brush and grass.
	June 8: At this cor. I set off 22°.53'N. on the decl. arc; and at 11^h 59^m l.m.t., observe the sun on the meridian.
	The resulting lat. is 37° 34'
	East, on a random line bet. secs. 28 and 33.
40.00	Set temp. ¼ sec. cor.
80.04	Intersect N. and S. line 11 lks. N. of the cor. of secs. 27, 28, 33 and 34.
	Thence I run
	N.89° 55'W., on a true line bet. secs. 28 and 33.
	Over mountainous land, through undergrowth of sage brush, oak, service berry brush and grass.
	Ascend.
5.00	Top of spur, 50 ft. above sec. cor., projects SE.
	Enter scattering timber, brs. NW. and SE.
	Descend.
6.55	Ravine, 50 ft. deep, course SE.
	Ascend.
16.00	Spur, 80 ft. high, projects S.
	Descend.
32.70	Ravine, 195 ft. deep, course S.
	Ascend.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 28 / ¼ / S 33
	1912
	from which

Chains

A cedar, 8 ins. diam., bears N.1° 55'E., 110 lks. dist., marked ¼ S 28 B T.

A cedar, 8 ins. diam., bears S.81°W., 57 lks. dist., marked ¼ S 33 B T.

41.00 Spur, 130 ft. high, projects S.

Descend.

54.00 Ravine, 275 ft. deep, course S.

Ascend.

57.00 Spur, 30 ft. high, projects S.

Descend.

66.70 Gulch, 185 ft. deep, course S.

Leave scattering timber, brs. E. and S.

Ascend.

80.04 The cor. of secs. 28, 29, 32 and 33.

Land, mountainous.

Soil, light sandy loam, gravel, and very stony, 4th rate

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, service berry brush, oak and grass.

June 8.1912.

June 10: At 7^h 59^m a.m.l.m.t., I set off 37° 34' on the lat. arc; 23° 02'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, through undergrowth of sage brush and grass.

Descend.

9.20 Gulch, 195 ft, deep, course SE.

Ascend.

23.00 Spur, 75 ft. high, projects W.

Descend.

25.00 Ravine, 30 ft. deep, course W.

Chains	
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 29 ¼ | S 28 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
48.00	Enter scattering timber, brs. SE. and NW.
58.00	Spur, 200 ft. high, projects W.
	Descend.
63.00	Ravine, 25 ft. deep, course W.
	Ascend.
80.00	Top of ridge, 375 ft. high, brs. NW. and SE.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 20, 21, 28 and 29, with brass cap marked
	T37S | R18W S20 | S21 S29 | S28 1912
	from which
	A pinon, 6 ins. diam., bears N.61° 45'W., 242 lks. dist., marked T 37 S R 18 W S 20 B T.
	There being no other trees suitable for bearing trees, I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Land, mountainous.
	Soil, sandy loam, gravel and very stony, 4th rate.
	Timber, scattering cedars and pinon pine, on 32.00 chs.
	Undergrowth, sage brush and grass.

	S.89° 55'E., on a random line bet. secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
79.88	Intersect N. and S. line, 19 lks. S. of the cor. of secs.

Chains	
	21, 22, 27 and 28.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 21 and 28.
	Over mountainous land, through undergrowth of sage brush oak, service berry brush and grass.
	Ascend.
19.00	Spur, 200 ft. high, projects NE.
	Descend.
30.00	Ravine, 230 ft. deep, course NE.
	Ascend.
39.94	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in t the ground for ¼ sec. cor., with brass cap marked
	S 21 / ¼ / S 28 / 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
	June 10: At this cor. I set off 23° 03'N. on the decl. arc; and at 11^h 59^m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.
60.00	Top of ridge, 370 ft. high, brs. S. and NE.
	Descend.
77.00	Head of ravine, 245 ft. below top of ridge, course NE.
	Ascend.
79.88	The cor. of secs. 20, 21, 28 and 29.
	Land, mountainous.
	Soil, light sandy loam, gravel and very stony, 4 th rate;
	Undergrowth, sage brush, oak, service berry brush and grass.
	No timber.

	N.0° 03'W., bet. secs. 20 and 21.
	Over mountainous land, through timber and scattering undergrowth of sage brush, servive berry brush and grass.

Chains.	
	Descend.
12.45	Ravine, 145 ft. deep, course E.
	Ascend.
17.00	Spur, 15 ft. high, projects E.
	Descend.
24.52	Ravine, 110 ft. deep, course E.
	Ascend.
28.00	Spur, 80 ft. high, projects E.
	Descend.
31.60	Ravine, 50 ft. deep, course E.
	Ascend.
39.00	Spur, 45 ft. high, projects SE.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 20 ¼ | S 21

1912

from which

A cedar, 8 ins. diam., bears S.52° 10'W., 60 lks. dist., marked ¼ S 20 B T.

A cedar, 10 ins. diam., bears S.45° 10'E., 52 lks. dist., marked ¼ S 21 B T.

51.50	Ravine, 70 ft. deep, course SE.
	Ascend.
71.00	Top of ridge, 400 ft. high, brs. E. and W.
	Descend, slightly.
79.00	Head of ravine, 25 ft. below top of ridge, course E.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 16, 17, 20 and 21, with brass cap marked

T37S	R18W
S17	S16
S20	S21

1912

Chains	
	from which
	A pinon, 8 ins. diam., bears N.49 25'E., 87 lks. dist., marked T 37 S R 18 W S 16 B T.
	A cedar, 6 ins. diam., bears S.78° 05'E.,85 lks. dist., marked T 37 S R 18 W S 21 B.T.
	A cedar, 14 ins. diam., bears S.80° 05'W., 150 lks. dist., marked T 37 S R 18 W S 20 B T.
	A pinon, 8 ins. diam., bears N.8° 20'W., 28 lks. dist., marked T 37 S R 18 W S 17 B.T.
	Land mountainous.
	Soil, light sandy loam, gravel and very stony, 4th rate.
	Timber, cedars and pinon pine.
	Undergrowth, scattering sage brush, service berry brush, and grass.
	June 10, 1912.

	June 11: At 1h 59m p.m.l.m.t., I set off 37° 36' on the lat. arc; 23° 07'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.
	Thence I run
	N.89° 57'E., on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ sec. cor.
79.74	Intersect N. and S. line, 7 lks. N. of the cor. of secs. 15, 16, 21 and 22.
	Thence I run
	West, on a true line bet. secs. 16 and 21.
	Over mountainous land, through undergrowth of sage brush and grass.
	Descend.
5.25	Ravine, 40 ft. below sec. cor.,Course SE.
	Ascend.
24.00	Spur, 180 ft. deep, projects NE.
	Descend.
29.45	Ravine, 40 ft. deep, course NE.

Chains	
	Ascend.
35.00	Spur, 75 ft. high, projects NE.
	Descend.
37.65	Ravine, 15 ft. deep, course NE.
	Enter scattering timber, brs. NE. and SW.
	Ascend.
39.87	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 16 ¼ S 21 1912
	from which
	A cedar, 8 ins. diam., bears N 53°30'W., 175 lks. dist., marked ¼ S 16 B T
	A cedar, 18 ins. diam., bears S 35°35'W., 182 lks. dist., marked ¼ S 21 B T
44.00	Enter dense timber, brs. N. and S.
47.00	Spur, 170 ft. high, projects N.
	Descend.
51.85	Ravine, 90 ft. deep, course NE.
	Ascend.
64.00	Enter scatteringtimber, brs. N. and S.
79.74	The cor. of secs. 16, 17, 20 and 21.
	Land, mountainous.
	Soil, light sandy loam, gravel and very stony, 4th rate.
	Timber, cedars and pinonpine.
	Undergrowth, sage brush and grass.
	June 11, 1912.

June 12: At 8h 00m a.m. l.m.t., I set off 37°36' on the lat. arc, 23°10'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.

Thence I run

Chains	
	N 0°03'W. bet. secs. 16 and 17.
	Over mountainous land, through timber and scattering undergrowth of sage brush, service berry brush and grass.
	Ascend.
2.00	Top of ridge, 10 ft. above sec. cor., brs. N 70°E. and S 70°W.
	Descend.
11.40	Ravine, 300 ft. deep, course NE.
	Ascend.
20.00	Spur, 25 ft. high, projects NE.
	Descend.
25.80	Ravine, 80 ft. deep, course NE.
	Ascend.
29.00	Spur, 50 ft. high, projects NE.
	Descend.
35.80	Ravine, 75 ft. deep, course E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S 17 ¼ | S 16 1912 from which
	A cedar, 6 ins. diam., bears S 15°45'W., 37 lks. dist., marked ¼ S 17 B T
	A cedar, 8 ins. dia., bears N 71°40'E., 108 lks. dist., marked ¼ S 16 B T
44.40	Ridge, 120 ft. high, brs. E. and W.
	Descend.
71.90	Ravine, 390 ft. deep, course NE.
	Ascend.
84.58	Intersect E. and W. line, 3.16 chns., N 89°32'E., of the SW. cor. of sec. 9.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

chains

the ground for closing cor. of secs. 16 and 17, with brass cap marked

T37SR18W
S 8 | S9
co
S17 | S16
1912

from which

A cedar, 14 ins. diam., bears S.54° 25'E., 113 lks. dist., marked T 37 S R 18 W S 16 B T.

A cedar, 8 ins. diam., bears S.9° 35'W., 98 lks. dist., marked T 37 S R 18 W S 17 B T.

Land, mountainous.

Soil, light sandy loam, gravel and very stony, 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sage brush, service berry brush, and grass.

June 12: At this cor. I set off 23° 11'N. on the decl. arc; and at 12^h l.m.t., observe the sun on the meridian. The resulting lat. is 37° 36'.

June 12, 1912.

Ralph Genby

U. S. Surveyor.

June 10: At 7^h 59^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 23° 02'N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5, 6, 31 and 32, on the S. bdy. of Tp., heretofore described.

Thence I run

N.0° 03'W., bet. secs. 31 and 32.

Over mountainous land, through scattering timber, and undergrowth of sage brush, service berry brush, oak and grass.

Ascend.

4.10 Spur, 75 ft. above sec. cor., projects E.

Descend.

12.00 Ravine, 30 ft. deep, course E.

Chains	
	Ascend.
18.00	Spur, 30 ft. high, projects E.
	Descend.
21.80	Pine creek, 75 ft. below spur, stream of clear water, 2 lks. wide, 3 ins. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 31	S 32
¼	
1912	

from which

A cedar, 10 ins. diam., bears S.59° 20'W., 85 lks. dist., marked ¼ S 31 B T.

A cedar, 10 ins. in dia., bears N.26° 50'E., 12 lks. dist., marked ¼ S 32 B T.

Chains	
68.50	Ridge, 300 ft. high, brs. E. and W.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 29, 30, 31 and 32, with brass cap marked

T37S	R18W
S30	S29
S31	S32
1912	

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

Land, mountainous.

Soil, light sandy loam, gravel and very stony, 4th rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, service berry brush, oak and grass.

West, on a random line bet. secs. 30 and 31.

Chains	
40.00	Set temp. ¼ sec. cor.

Chains	
84.55	Intersect W. bdy. of Tp., 3 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence I run
	N.89° 59'E., on a true line bet. secs. 30 and 31.
	Over mountainous land, through timber, and scattering undergrowth of sage brush, service berry brush and oak.
	Ascend.
23.50	Ridge, 200 ft. high, brs. N.75°W. and S.75°E.
	Descend, gradually along N. slope of ridge.
44.55	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 30 / ¼ / S 31 / 1912
	from which
	A cedar, 10 ins. diam., bears N.78° 50'E., 66 lks. dist., marked ¼ S 30 B T.
	A pinon, 6 ins. diam., bears S.13° 50'E., 59 lks. dist., marked ¼ S 31 B T.
	June 10: At this cor. I set off 23° 03'N., on the decl. arc; and at 11h 59m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 34'.
84.55	The cor. of secs. 29, 30, 31 and 32.
	Land, mountainous.
	Soil, sandy loam, gravel and very stony, 4th rate.
	Timber, cedars and pinon pine.
	Undergrowth, scattering sage brush, service berry brush, oak and grass.
	East, on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ sec. cor.
	June 10, 1912.
	June 11: At 7h 59m a.m.l.m.t., I set off 37° 34' on the lat. arc; 23° 07'N., on the decl. arc; and determine a

Chains	
	meridian with the solar at the temp. ¼ sec. cor. bet. secs. 29 and 32.
	Thence I cnntinue
	East, on random line bet. secs. 29 and 32.
79.90	Intersect N. and S. line 7 lks. N. of the cor. of secs. 28, 29, 32 and 33.
	Thence I run
	N.89° 57'W., on atrue line bet. sec s. 29 and 32.
	Over mountainous land, through very scattering timber, and undergrowth of sage brush and grass.
	Ascehd.
31.90	Ridge, 100 ft. above sec. cor., brs. S.75°W. and N.75°E.
	Enter undergrowth of service berry brush and oak, brs. S.75°W., and N.75°E.
	Descend along N. slppe of ridge.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 29 ¼ S 32 1912
	from which
	A cedar, 8 ins. in dia., bears N.41° 10'E., 65 lks. dist., marked ¼ S 29 B T.
	A cedar, 6 ins. in dia., bears S.66° 25'E., 92 lks. dist., marked ¼ S 32 B T.
79.90	The cor. of secs. 29, 30, 31 and 32.
	Land, mountainous.
	Soil, light sandy loam, gravel and stony, 4th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush, oak and grass.

	N.0° 03'W., bet. secs. 29 and 30.
	Over mountainous land, through undergrowth of sage brush and grass.

Chains.	
	Descend.
14.45	Gulch, 200 ft. deep, course NE.
	Ascend.
24,75	Spur, 150 ft. high, projects E.
	Descend.
35.50	Ravine, 100 ft, deep, course SE.
	Ascend
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 30 ¼	S 29
1912	

and raise a mound of stone, 3 ft. base, 2 ft. high, W., of cor.

53.60	Spur, 150 ft. high , projects E.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 19, 20, 29 and 30, with brass cap marked

T37S	R18W
S19	S20
S30	S29
1912	

and 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.

Land, mountainous.

Soil, light sandy loam, gravel and stony 4th rate.

Undergrowth, sage brush and grass.

No timber.

June 11: At this cor. I set off 23° 07'N. on the decl. arc; and at 11h 59m l.m.t., observe the sun on the meridian. The resulting lat. is 37° 35'.

S.89° 57'E., on a random line bet. secs. 20 and 29

40.00	Set temp. ¼ sec. cor.

Chains	
79.96	Intersect N. and S. line at the cor. of secs. 20, 21, 28 and 29.
	Thence I run
	N.89° 57'W., on a true line bet. secs. 20 and 29.
	Over mountainous land, through undergrowth of sage brush and grass.
	Descend mountain.
14.00	Ravine, 100 ft. below top of mountain, course SW.
	Enter timber, brs. N. and S.
	Ascend.
22.00	Enter scattering timber, brs. N. amd S.
26.50	Spur, 50 ft. above ravine, projects SW.
	Descend.
39.98	Set an iron post, 3 ft. long, 1 in. in.dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 20 ¼ / S 29 1912
	from which
	A cedar, 5 ins. in dia., bears N.42° 55'W., 36 lks. dist., marked ¼ S 20 B T.
	A cedar, 6 ins. in dai., bears S.33° 50'W., 85 lks. dist., marked ¼ S 29 B T.
75.80	Hollow, 400 ft. below spur, drs. SE.
	Ascend.
79.96	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous.
	Soil, light sandy loam, gravel and stony, 4th rate.
	Timber, cedars and pinon pine.
	Undergrowth, sage brush and grass.
	S.89° 59'W., on a random line, bet. secs. 19 and 30
40.00	Set temp. ¼ sec. cor.
84.45	Intersect W. bdy. of Tp. 11 lks. N., of the cor. of secs. 19, 24, 25 and 30, heretofore described.

Chains	
	Thence I run
	N.89° 54'E., on a true line bet. secs. 19 and 30.
	Over mountainous land, through scattering timber, and undergrowth of sage brush, service berry brush and grass.
	Ascend, over N. slope of mountain.
35.00	Top of ascent, 200 ft. above sec. cor.
	Descend.
44.45	Set an iron post, 3 ft. long, 1 in. in dai., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 19 ¼ S 30 1912
	from which
	A cedar, 12 ins. diam., bears N.28° 50'W., 102 lks. dist., marked ¼ S 19 B T.
	A cedar, 13 ins. in dia., bears S.36° 45'W.,244 lks. dist., marked ¼ S 30 B T.
84.45	The cor. of secs. 19, 20, 29 and 30.
	Land, mountainous.
	Soil, light sandy loam, gravel and stony, 4 th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush and grass.
	June 11, 1912.

June 12: At 8h a.m.l.m.t., I set off 37° 35' on the lat. arc; 23° 10'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, through scattering timber, and undergrowth of sage brush and grass.
	Descend.
6.90	Hollow, 30 ft. below sec. cor., drs. SE.

Chains	
	Ascend.
27.75	Spur, 300 ft. high, projects SE.
	Descend.
37.80	Ravine, 275 ft. deep, course SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 19 | S 20
¼ | 1912

from which

A cedar, 5 ins. diam., bears N.68° 10'W., 30 lks. dist., marked ¼ S 19 B T.

A cedar, 5 ins. diam., bears S.49° 10'E., 29 lks. dist., marked ¼ S 20 B T.

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

T37S | R18W
S18 | S17
S19 | S20
1912

from which

A cedar, 6 ins. in dia., bears S.13° 10'E., 53 lks. dist., marked T 37 S R 18 W S 20 B T.

A cedar, 5 ins. in dia., bears S.72° 20'W., 90 lks. dist., marked T 37 S R 18 W S 19 B T.

There being no other trees suitable for bearing trees, I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous.

Soil, light sandy loam, gravel and stony, 4th rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

Chains	
	S.89° 57'E., on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line 7 lks. S. of the cor. of secs. 16, 17, 20 and 21,
	Thence I run
	West, on a true line bet. secs. 17 and 20.
	Over mountainous land, through undergrowth of sage, oak, service berry brush and grass.
	Ascend.
9.00	Top of ridge, 30 ft. above sec. cor., brs.N.80°E., and S.80°W.
	Descend along S. slope of mountain.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 17 / ¼ / S 20 / 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
44.00	Low pass bet. two mountains, brs. N. and S.
50.00	Ravine, 300 ft. deep, course NW.
	Ascend.
59.00	Ridge, 300 ft. high brs. NW. and SE.
	Descend.
80.00	The cor. of secs. 17, 18, 19 and 20.
	Land, mountainous.
	Undergrowth, sage brush, oak, service berry brush and grass.
	No, timber.
	June 12: At this cor., I set off 23° 11'N. on the decl. arc; and at 12h 1m.m.t., observe the sun on the meridian. The resulting lat. is 37° 36'.

S.89° 54'W., on a random line bet. secs. 18 and 19.

Chains	
40.00	Set temp. ¼ sec. cor.
84.33	Intersect W. bdy. of Tp., 11 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	N.89° 49'E., on a true line bet. secs. 18 and 19.
	Over mountainous land, through scattering timber and undergrowth of sage brush and grass.
	Descend.
2.00	Ravine, 10 ft. below sec. cor., course N.80°E.
	Ascend gradually.
35.00	Top of ascent, 25 ft. above ravine.
	Descend
42.00	Gulch, 30 ft. below top of ascent, course SE.
	Ascend.
44.33	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 18 / ¼ / S 19 / 1912
	from which
	A cedar, 10 ins. in dia., bears N.58° 10'W., 330 lks. dist., marked ¼ S 18 B T.
	A cedar, 10 ins. in dia., bears S.25° W., 570 lks. dist., marked ¼ S 19 B T.
58.30	Spur, 40 ft. high, projects S.
	Descend.
65.73	Ravine, 40 ft. deep, course SW.
	Ascend.
76.30	Ridge, 100 ft. high, brs. N. and S.
	Descend.
84.33	The cor. of secs. 17, 18, 19 and 20.
	Land, mountainous.
	Soil, light sandy loam, gravel and stony, 4 th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush and grass.

Chains	
	N.0° 03'W., bet. secs. 17 and 18.
	Over mountainous land, through scattering timber, and undergrowth of sage brush, service berry brush and grass.
	Ascend.
18.00	Ridge, 260 ft. high, brs. NW. and SE.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dai., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 18 ¼ | S 17
1912

and raise a mound of s tone 3 ft, base, 2 ft. high, W. of cor.

June 12,1912.

June 13: At 8h a.m.l.m.t., I set off 37° 36' on the lat. arc; 23° 14'N., on the decl arc; and determine a meridian with the solar at the ¼ sec. cor. bet. secs. 17 and 18.

Thence I continue

N.0° 03'W., bet. secs. 17 and 18.

	Descend.
52.00	Ravine, 250 ft. deep, course NE.
	Ascend.
65.20	Ridge, 50 ft. high, brs. NE. and SW.
	Descend.
76,25	Ravine, 100 ft. deep,course NE.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 7, 8, 17 and 18, with brass cap marked

T37S	R18W
S 7	S 8
S18	S17

1912

from which

Chains

A pinon, 13 ins. in dia., bears N.58° 55'E., 23 lks dist., marked T 37 S R 18 W S 8 B T.

A pinon, 14 ins. in dia., bears S.18°E., 119 lks. dist., marked T 37 S R 18 W S 17 B T.

A cedar, 7 ins. in dia., bears S.68° 45'W., 15 lks. dist., marked T 37 S R 18 W S 18 B T.

A cedar, 7 ins. in dia., bears N.29° 10'W., 22 lks. dist., marked T 37 S R 18 W S 7 B T.

Land, mountainous.

Soil, light sandy loam, gravel, and stony, 4th rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush, service berry brush and grass.

East, on a random line bet. secs. 8 and 17.

40.00 Set temp. ¼ sec. cor.,

80.08 Intersect N. and S. line, 4.65 chns. S.0° 02'E., of the closing cor. of secs. 16 and 17.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. i the ground for closing cor. of secs. 8 and 17, with brass cap marked

T37S R18W
S8 S9
cc
S17 S16
1912

I destroy marks on C.C. of secs.16&17 pertaining to sec.17

A cedar, 5 ins. in dia., bears S.8° 10'W., 19 lks. dist., marked T 37 S R 18 W S 17 B T.

A cedar, 7 ins. in dia., bears N.78° 50'W., 12 lks. dist., marked T 37 S R 18 W S 8 B T.

Thence I run

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

Over mountainous land, through scattering timber and undergrowth of sage brush, service berry brush and grass.

Descend.

18.30 Ravine, 50 ft. deep, course NE.

Chains	
	Ascend.
27.25	Ridge, 150 ft. high, brs. NE. and SW.
	Descend.
35.40	Ravine, 200 ft. deep, course N.
	Ascend.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 8 / $\frac{1}{4}$ / S 17 / 1912.
	and raise a mound of stone, 3 ft, base. 2 ft. high, N. of cor.
40.80	Spur, 120 ft, high, projects N.
	Descend.
45.00	Ravine, 120 ft. deep, course NE.
	Ascend.
68.00	Spur, 100 ft. high, projects N.
	Descend.
70.20	Ravine, 75 ft. deep, course NE.
	Ascend.
74.75	Spur, 150 ft. high, projects SE.
	Descend.
80.08	The cor. of secs. 7, 8, 17 and 18.
	Land, mountainous.
	Soil, light sandy loam, gravel and stony, 4th rate.
	Timber, scattering cedars and pinon pine.
	Undergrowth, sage brush, service berry brush and grass.
	S.89° 49'W., on a random line bet. secs. 7 and 18.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
84.15	Intersect W. bdy. of Tp., 7 lks. S. of the cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	N.89° 52'E., on a true line bet. secs. 7 and 18.

Chains	
	Over mountainous land, through undergrowth of sage brush oak brush service berry brush and grass.
	Desdend.
10.40	Ravine, 300 ft. deep, course NE.
	Ascend.
20.15	Ridge, 200 ft. high, brs. NE. and SW.
	Descend.
42.80	Ravine, 160 ft. deep, course NE.
	Ascend.
44.15	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 7 / $\frac{1}{4}$ / S 18 / 1912
	and raise a mound of stone, 3 ft. base, 12 ft. high, on N. of cor.
	June 13: At this cor. I set off 23° 14'N. on the decl. arc; and at 12^h l.m.t., observe the sun on the meridian. The resulting lat. is 37° 36'.
53.15	Spur, 150 ft. high, projects NE.
	Descend.
76.00	Ravine, 150 ft. deep, course SE.
	Ascend.
84.15	The cor. of secs. 7, 8, 17 and 18.
	Land, mountainous.
	Soil, light sandy loam, gravel, and stony 4th rate.
	Undergrowth, sage, service berry brush and grass.
	No timber.
	N.0° 03'W., bet. secs. 7 and 8.
	Over mountainous land, through scattering timber, and undergrowth of sage brush and grass.
	Ascend.
7.00	Ridge, 125 ft. high, brs. SE. and NW.

hains	
	Descend.
14.00	Ravine, 75 ft. deep, course SE.
	Ascend.
34.10	Ridge, 75, ft. above ravine, brs. E. and W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S 7 | S 8
¼
1912

from which

A pinon, 6 ins. in dia., bears N.73° 10'W.,42 lks. dist., marked ¼ S 7 B T.

A pinon, 7 ins.in.dia., bears N.71° 20'E., 79 lks. dist., marked ¼ S 8 B T.

71.90	Ravine, 400 ft. deep, course N.80°E.
	Ascend.
84.70	Intersect E. and W., line, 3.29 chns. E. of the cor. of secs. 5 and 6.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing corner of secs. 7 and 8, with brass cap marked

T37S | R18W
S 6 | S 5
cc
S 7 | S 8
1912

from which

A cedar, 8 ins. in dia., bears S.50° 20'E., 178 lks. dist., marked T 37 S R 18 W S 8 B T.

A cedar, 5 ins. in dia., bears S.47° 10'W., 62 lks. dist., marked T 37 S R 18 W S 7 B T.

Land, mountainous.

Soil, light sandy loam, gravel and stony, 4 th rate.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and grass.

Chains.

June 13,1912.

Eben B Andrews
U. S. Surveyor.

GENERAL DESCRIPTION

This fractional township is generally rough mountainous land and rolling hills, the soil of which , is generally a sandy loam, gravel and loose rock, on a subsoil of loose rock and clay, and is unfit for any purpose except grazing.

The township is generally covered with a scattering growth of cedars and pinon pine, and a undergrowth of sage brush, scrub oak, service berry brush and nutritious grasses.

A reservoir, owned by the Enterprise Irrigation Co., covering the SE. quarter of sec. 33, a portion of the SW quarter of sec. 34 and extending into T.38 S.,R.18W., is used to store flood water , for irrigation purposes in T.37 S.,R.17W. The water is conducted down a natural water way through secs, 34, 27, 26, 23, 14 and 13.

Water is also found in this township in Little Pine Creek, which runs through secs, 31 and 32 emptying into the reservoir, and at Willow Spring in the NW.cor. of sec. 22.

A road from the reservoir to Enterprise , passes through this township.

There are no settlers on the new survey of this fractional township.

There are no indications of coal, oil or minerals in this township.

Ralph Gurley
U. S. Surveyor.

Eben B Andrews
U. S. Surveyor.

4—680

BOOK A-403

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 "O" T.38 S., R.18 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—2764 *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 oaths of U.S. Surveyors see book "O" T. 38 S., R. 18 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, Oct. 2, 191 4.

The foregoing field notes of the survey of the Subdivisional lines of Township No. 37 South, Range No. 18 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry and Eben B. Andrews under his special instructions dated August 12, 1911 and supplemental special instructions Nov. 18, 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. A. Thoresen

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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BOOK A-403
N.

U. S. Surveyor General's Office
FEB 15 1913
SALT LAKE CITY, UTAH.

Geo. FIELD NOTES

OF THE SURVEY OF THE

SOUTH AND WEST BOUNDARIES

OF

T. 38 S., R. 18 W.

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

RALPH GENTRY

the capacity of U. S. Surveyor, under instructions dated August 12, *191*1

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

roup No. 14, *which were approved by the Commissioner of the General Land*

fice, August 23, *191*1, *pursuant to authority contained in the Act of*

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

Survey commenced June 12, 1912. ~~*191*~~

Survey completed June 21, 1912. ~~*191*~~

BOOK A-403

INDEX DIAGRAM.

Township 38 South, *Range* 18 West.

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6—151

Chains

Survey commenced June 12, 1912, and executed with a W. & L. E. Gurleys explorers transit No. [illegible], with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct, and was approved by the surveyor general for Utah, Feb. 13, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the NE. quarter of sec. 15, T.38 S.,R.18 W.; latitude 37° 31' 14"N., longitude 113° 47' 02"W.; I set off 37° 31'N., on the lat. arc; 23° 12'N., on the decl. arc; and at 5^h 00^m 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 my station.

June 12, 1912.

June 13, 1912: At 2^h 07^m a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a stake driven in the ground 5 chs. N. of my station.

At 6^h 45^m a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined by a cross on the stake set June 12, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 7^h 00^m a.m.l.m.t., I set off 37° 31' N., on the lat. arc; 23° 14' N., on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stake already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the

Chains	
	Polaris observation.
	The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0' 16" east and 0' 16" west of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory.
	The the magnetic bearing of the true meridian, at 7^h 15^m a.m. is N.15° 45'W.; the angle thus determined gives the mag. decl. 15° 45' E.
June 13	At 9^h 30^m a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 14' N., on the decl. arc; and determine a meridian with the solar at the cor. of Tps.38 & 39 S., Rs. 17 & 18 W, heretofore described.
	Thence I run West.
	Bet. secs. 1 and 36, along S. bdy. of Tp.
	Over mountainous land, through medium undergrowth of sage brush and scattering service berry brush.
	Descend.
0.25	Ravine, 5 ft. below sec. cor., drs. S.
	Ascend.
9.00	Top of spur, 30 ft. above ravine, projects S.
	Descend.
16.15	Ravine, 145 ft. below top of spur, drs. S.
	Ascend.
20.00	Top of spur, 70 ft. above ravine, projects S.
	Descend.
26.30	Ravine, 40 ft. below top of spur, drs. S.
	Ascend.
32.00	Top of spur, 65 ft. above ravine, projects S.
	Descend.
38.40	Ravine, 115 ft. below top of spur, drs. S.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground to solid rock, and erect a mound of stone, 3 ft. base, 1 ft. high, around post for ¼ sec. cor., with

Chains	
	brass cap marked
	$\frac{1}{4}$ S36 / S1 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
50.00	Top of spur, 160 ft. high, projects S.
	Descend.
54.00	Ravine, 35 ft. deep, drs. SE.
	Ascend.
66.00	Top of spur, 90 ft. high, projects S.
69.50	Ravine, 20 ft. below top of spur, drs. SE.
76.00	Top of spur, 125 ft. high, projects S.
	Descend.
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, with brass cap marked
	T38S | R18W S35 | S36 S2 | S1 T39S | R18W 1912
	and raise a mound of stone, 3 ft. base, 2½ ft. high, W. of cor.
	70 ft. below top of spur.
	Land, mountainous; soil, stony; third rate; no timber; medium undergrowth of sage brush and service berry brush.
	June 13: At this cor., I set off 23° 14' N., on the decl. arc; and at 12^h 00^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 28'.
	West bet. secs. 2 and 35.
	Over mountainous land, through medium undergrowth of sage brush and service berry brush.
	Descend.
8.75	Ravine, 170 ft. below sec. cor., drs. S.
	Ascend.
	Enter scattering timber, brs. N. and S.
20.00	Top of spur, 100 ft. high, projects S.
	Descend.

Chains	
25.70	Ravine, 60 ft. deep, drs. S.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S35 / S2 1912 from which
	A cedar, 6 ins. dia., bears S.1° 15'E., 6 lks. dist., marked ¼ S 2 B T.
	A cedar, 6 ins. dia., bears N.52° 05'W., 48 lks. dist., marked ¼ S 35 B T.
44.00	Top of spur, 65 ft. high, projects S.
	Descend.
47.15	Ravine, 95 ft. deep, drs. S.
	Ascend.
50.00	Top of spur, 70 ft. high, projects S.
	Descend.
54.25	Ravine, 30 ft. deep, drs. S.
	Ascend.
62.00	Top of spur, 65 ft. high, projects S.
	Descend.
66.35	Ravine, 80 ft. deep, drs. S.
	Ascend.
69.00	Top of spur, 40 ft. high, projects S.
	Descend.
	Leave scattering timber, brs. N. and S.
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, with brass cap marked
	T38S | R18W S34 | S35 S3 | S2 T39S | R18W 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	185 ft. below top of spur.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of service berry, sage brush and bunch

Chains	
	grass.
	June 13, 1912.
	June 14, 1912. At 9^h 00^m a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 17' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2,3,34 and 35.
	Thence I run West.
	Bet. secs. 3 and 34.
	Over mountainous land, through dense undergrowth of service berry brush, sage brush and bunch grass.
	Descend.
1.00	Ravine, 30 ft. deep, drs.S.
	Ascend.
9.00	Top of spur, 55 ft. high, projects SW. about 10 chs.
	Descend.
22.75	Ravine, 270 ft. deep, drs. S.75°W.
	Ascend.
28.50	SW. end of spur, 30 ft. above ravine,
	Descend.
36.80	Gulch, with running water, 5 lks. wide, 1 in. deep, drs. S. 180 ft. below SW. end of spur.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked ¼ S34 / S3 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
69.75	Top of spur, 175 ft. high, projects S. from high ridge.
	Descend.
78.60	Ravine, 250 ft. deep, drs. S.
	Ascend.
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, with brass cap marked

Chains

T38S	R18W
S33	S34
S4	S3
T39S	R18W

1912

and raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.

30 ft. above ravine.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of service berry brush, sage brush and bunch grass.

June 14: At this cor. I set off 23° 17' N., on the decl. arc; and at $12^h\ 00^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 28'.

West bet. secs. 4 and 33.

Over mountainous land, through dense undergrowth.

Ascend.

6.00 Top of spur, 75 ft. high, projects SE.

Descend.

11.30 Ravine, 105 ft. deep, drs. S. 70°E.

Ascend, along N. slope of mountain.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

¼
S33
S4
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

June 14, 1912.

June 15, 1912: At $9^h\ 00^m$ a.m.l.m.t., I set off 37° 28' N., on the lat. arc; 23° 20' N., on the decl. arc; and determine a meridian with the solar at the ¼ cor. of secs. 4 and 33.

Thence I proceed

West bet. secs. 4 and 33.

45.00 Top of ascent on N. slope of mountain, 360 ft. above ravine

Descend.

Chains	
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, with brass cap marked

T38S	R18W
S32	S33
S5	S4
T39S	R18W

1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

255 ft. below top of ascent.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of oak, service berry brush, sage brush and bunch grass.

West bet. secs. 5 and 32.

Over mountainous land, through dense undergrowth.

Descend.

13.75 Gulch, 50 ft. deep with running water, 10 lks. wide, 3 ins. deep; drs. S.

Ascend.

24.00 Top of S. end of spur, 50 ft. high.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

¼
S32
S5

1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

June 15: At this cor. I set off 23° 20' N., on the decl. arc; and at $12^h\ 00^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 28'.

48.60 Gulch, 235 ft. deep, with running water 6 lks. wide, 1 in. deep, drs. S.80°E.

Ascend.

53.00 Top of ascent, 45 ft. above gulch, brs. NW. and SE.

Descend.

60.00 Ravine, 30 ft. deep, drs. N.60°E.

Chains	
	Ascend.
80.00	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, with brass cap marked

T38S | R18W
S31 | S32
S6 | S5
T39S | R18W
1912

	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	335 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of service berry brush, scrub oak and scattering sage brush.
	June 15, 1912.

June 17, 1912: At 9^h 31^m a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 24' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5,6,31 and 32.

	Thence I run
	West bet. secs. 6 and 31.
	Over mountainous land, through dense undergrowth.
	Ascend.
2.00	Top of ridge, 20 ft. high, brs. NW. and SE.
	Descend.
8.00	Ravine, 120 ft. deep, drs. SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

¼
S31
S6
1912

	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

June 17: At this cor. I set off 23° 24' N., on the decl. arc; and at 12^h 01^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 28'.

Chains	
42.00	Cross small divide, brs. N.15°W. and S.15°E.
	Descend gently.
48.00	Small ravine, 20 ft. deep; drs. SE.
	West over broken land.
62.40	Ravine, drs. SE.
	Ascend.
80.00	Top of ridge, 785 ft. high, brs. N. and S.
	Descend, gently.
85.26	Set temp. cor. for Tps. 38 and 39 S., Rs.18 and 19 W.
	This cor. afterwards made permanent at 85.60 chs., by survey of W. boundary of this Tp.
	Cor. stands on top of high ridge.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of service berry brush, scrub oak, bunch grass and scattering sage brush.

June 17, 1912.

June 18, 1912. At 9^h 01^m a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 26' N., on the decl. arc; and determine a meridian with the solar at the temp. cor. for Tps. 38 and 39 S., Rs.18 and 19 W.

Thence I run

North on a random line, along the W. bdy. of T.38 S., R. 18 W., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs.; and, at 472.28 chs., intersect the N. bdy. 34 lks. E. of the cor. of Tps. 37 and 38 S., Rs. 18 and 19 W., heretofore described.

June 18, 1912.

June 19, 1912: At 9^h 01^m a.m.l.m.t., I set off 37° 33' on the lat. arc; 23° 27' N., on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 37 and 38 S., Rs. 18 and 19 W.

Thence I run

South bet. secs. 1 and 6, along W. bdy. of Tp.

Over mountainous land, through dense undergrowth of sage

Chains

brush, oak and service berry brush.

Descend.

7.00 Ravine, with running water, 4 lks. wide, 1 in. deep, 15 ft. below sec. cor. drains NW.

Ascend.

18.00 Top of spur, 125 ft. high, projects W.

Descend.

21.80 Ravine, 30 ft. deep, drs. W.

Ascend.

28.00 Top of spur, 130 ft. high, projects W.

Descend.

31.40 Ravine, 20 ft. deep, drs. W.

Ascend.

32.28 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S1 | S6
¼ | 1912

and raise a mound of stone 3 ft. base, 1½ ft. high, W. of cor.

35.00 Top of spur, 100 ft. high, projects W.

Descend.

63.00 Ravine, 190 ft. deep, drs. E.

Ascend.

66.50 Top of spur, 40 ft. high, projects E.

Descend.

68.20 Ravine, 60 ft. deep, drs. E.

Ascend.

70.30 Top of spur, 130 ft. high, projects E.

Descend.

72.28 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, with brass cap marked

T38S
R19W | R18W
S1 | S6
S12 | S7
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Chains	
	Cor. stands on S. slope of spur, 25 ft. below the top. Land, mountainous; soil, stony; third rate; dense undergrowth of sage brush, oak and service berry brush. No timber.
	June 19: At this cor. I set off 23° 27' N., on the decl. arc; and at 12^h 01^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 32'.
	South bet. secs. 7 and 12.
	Over mountainous land, through dense undergrowth.
	Descend.
0.60	Ravine, 25 ft. below sec. cor.; drs. E.
	Ascend.
9.00	Top of ridge, 265 ft. high; brs. NW. and SE.
	Descend.
34.70	Ravine, with running water, 8 lks. wide, 3 ins. deep, 265 ft. below top of ridge, drs. SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S12 | S7 ¼ | 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
41.75	Top of spur, 325 ft. high, projects NW.
	Descend.
60.60	Ravine, 110 ft. deep, drs. NW.
	Ascend.
70.00	Top of spur, 165 ft. high, projects E.
	Descend.
72.00	Head of ravine, 20 ft. deep, drs. NE.
	Ascend.
78.40	Top of ridge, 165 ft. high, brs. E. and W.
	Descend.
80.00	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, with brass cap marked

West boundary of T.38 S., R.19 W.

Chains	
	T38S R19W | R18W S12 | S7 S13 | S18 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on S. slope of ridge, 60 ft. below the top.
	Land, mountainous; soil, stony; third rate; dense undergrowth of sage brush, oak and service berry brush. No timber. June 19, 1912.
	June 20, 1912: At $9^h 01^m$ a.m. l.m.t., I set off 37° 31' on the lat. arc; 23° 27' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7,12,13 and 18.
	Thence I run South bet. secs. 13 and 18.
	Over mountainous land, through dense undergrowth.
	Descend.
10.50	Ravine, 230 ft. below sec. cor., drs. E.
	Ascend.
15.80	Top of spur, 90 ft. high, projects E.
	Descend.
25.60	Ravine, 110 ft. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S13 | S18 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
41.00	Top of low spur, 15 ft. high, projects N. 60° E.
	Descend.
45.40	Ravine, 20 ft. deep, drs. NE.
	Ascend.
64.20	Top of ridge, 650 ft. high, drs. NE. and SW.
	Descend.
74.00	Ravine, 100 ft. deep, drs. SE.

Chains	
	Ascend.
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, with brass cap marked

T38S.
R19W | R18W
S13 | S18
S24 | S19
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Cor. stands on N. slope of ridge, 35 ft. above ravine.

Land, mountainous; soil, stony; third rate; dense undergrowth of sage brush, oak and service berry brush. No timber.

June 20: At this cor. I set off 23° 27' N., on the decl. arc; and at $12^h\ 01^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.

South bet. secs. 19 and 24.

Over mountainous land, through dense undergrowth.

	Ascend.
6.50	Top of ridge, 50 ft. above sec. cor., brs. NW. and SE.
	Descend.
21.60	Ravine, 310 ft. deep, drs. SE.
	Ascend.
34.00	Top of ridge, 170 ft. high, brs. NW. and SE.
	Descend.
38.00	Ravine, 65 ft. deep, drs. SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S24 | S19
¼ |
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

45.00	Top of low spur, 20 ft. high, projects SE.
	Descend.
50.00	Ravine, 240 ft. deep, drs. SE.
	Ascend.

Chains	
53.50	Top of spur, 45 ft. high, projects SE.
	Descend.
65.00	Ravine, 120 ft. deep, drs. SE.
	Ascend.
71.00	Top of spur, 90 ft. high, projects SE.
	Descend.
76.00	Ravine, 20 ft. deep, drs. SE.
	Ascend.
79.90	Top of spur, 55 ft. high, projects SE.
	Descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 19,24,25 and 30, with brass cap marked

T38S

R19W	R18W
S24	S19
S25	S30

1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Cor. stands on top of Spur.

Land, mountainous; soil, stony; third rate; dense undergrowth of sage brush, oak and service berry brush. No timber. June 20, 1912.

June 21, 1912: At $9^h 01^m$ a.m.l.m.t., I set off 37° 29' on the lat. arc; 23° 28' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19,24,25 and 30.

Thence I run

South bet. secs. 25 and 30.

Over mountainous land, through dense undergrowth.

	Descend.
19.80	Moody Wash, with running water, 6 lks. wide, 1 ft. deep, 285 ft. below sec. cor., drs. E.
	Ascend.
31.00	Top of spur, 240 ft. high, projects E.
	Descend.
35.20	Ravine, 70 ft. deep, drs. E.

Chains	
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S25 | S30
¼ | 1912

	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	Cor. stands on top of spur, 100 ft. high, projects E.
	Descend.
47.00	Ravine, 55 ft. deep, drs. E.
	Ascend.
60.00	Top of ridge, 200 ft. high, brs. E. and W.
	South along top of ridge.
66.00	Point of descent, brs. E. and W.
71.00	Ravine, 55 ft. deep, drs. SE.
	Ascend.
77.00	Top of spur, 50 ft. high, projects SE.
	Descend.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of secs. 25,30,31 and 36, with brass cap marked

T38S
R19W | R18W
S25 | S30
S36 | S31
1912

	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on S. slope of spur, 15 ft. below the top.
	Land, mountainous: soil, stony; third rate; dense undergrowth of sage brush, oak and service berry brush. No timber.
	June 21: At this cor. I set off 23° 27' N., on the decl. arc; and at 12^h 01^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.

	South bet. secs. 31 and 36.
	Over mountainous land, through dense undergrowth.
	Descend.
13.30	Ravine, 245 ft. below sec. cor., drs. SE.

Chains	
	Ascend.
15.50	Top of spur, 60 ft. high, projects E.
	Descend.
22.20	Ravine, 75 ft. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S36 | S31
¼
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

45.00	Top of ridge, 440 ft. high, N.80°W. and S.80°E.
	Descend.
66.60	Ravine, 400 ft. deep, drs. SE.
	Ascend high ridge.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground for cor. of Tps.38&39S.Rs.18&19W. with brass cap marked

T38S
R19W | R18W
s36 | S31
S1 | S6
R19W | R18W
T39S
1912

and raise mound of stone, 3 ft. base, 2 ft. high, S. of cor. I destroy temporary corner.

Cor. stands on top of ridge, 160 ft. above ravine.

Land, mountainous; soil, stony; third rate ; no timber; dense undergrowth of service berry brush, scrub oak, bunch grass and scattering sage brush.

June 21, 1912.

Boundaries of T.38 S.,R.18 W.

Chains

Latitudes, departures and closing errors.

Line designated	True bearing.	Dist.	Latitudes North	Latitudes South	Departures East	Departures West
South bdy.	West	485.60				485.60
West bdy.	North	472.28	472.28			
North bdy.	East	484.70			484.70	
East bdy.	South	471.88		471.88		
Convergency					.56	
			472.28	471.88	485.26	485.60
			471.88			485.26

Error in lat..40 Error in dep.34

For general description of this Tp., see notes of subdivision of T.38 S.,R.18 W.

Ralph Gurley
U. S. Surveyor.

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4—680

BOOK A-403

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 "O" T.36 S., R.18 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—2764 *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 U.S.Surveyor see book "C" T.35 S., R.16 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, Oct.2 , 191 4.

The foregoing field notes of the survey of the South and East Boundaries of Township No. 35 South, Range No.16 East of the Salt Lake Base and Meridian, Utah

executed by Ralph Gentry under his special instructions dated August 12 , 1911 , 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—2701

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U. S. LAND OFFICE FEB 15 1913 SALT LAKE CITY, UTAH

BOOK A-403

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP NO.38 SOUTH,

RANGE NO.18 WEST,

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

RALPH GENTRY AND EBEN B.ANDREWS

the capacity of U. S. Surveyors, under instructions dated August 12, *191*1,

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

roup No. 14, *which were approved by the Commissioner of the General Land*

fice, August 23, *1911, pursuant to authority contained in the Act of*

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

Survey commenced June 14, *1912.*

Survey completed July 5, *1912.*

INDEX DIAGRAM.

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

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

6—151

Chains

Survey commenced June 14, 1912, and executed with a W. and L. E. Gurleys explorers transit No. 957, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct, and was approved by the surveyor general for Utah, Feb. 20, 1912.

I examine the adjustments of the transit, find them correct; 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 camp in the NE. quarter of sec. 15, T.38 S., R.18 W.; latitude 37° 31' 14" N., longitude 113° 47' 02" W.; I set off 37° 31' N., on the lat. arc; 23° 19' N., on the decl. arc; and at 5^h 00^m 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 my station.

June 14, 1912.

June 15, 1912: At 1^h 59^m a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructoins, and mark a point in the line thus determined on a stake driven in the ground 5 chs. N. of my station.

At 6^h 45^m a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined by a cross on the stake set June 14, on which the meridian falls 0.2 ins. east of the mark determined by the solar.

At 7^h 00^m a.m.l.m.t., I set off 37° 31' N., on the lat. arc; 23° 20' N., on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. east of the meridian established by the

Chains	
	Polaris observation.
	The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about 0' 11" west and 0' 11" 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 7^h 15^m a. is N.15°.45' W.; the angle thus determined gives the mag. decl. 15°.45' E.
June 15:	At 9^h 30^m a.m. l.m.t., I set off 37°.28' on the lat. arc 23°.20' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1, 2, 35 and 36, on the S. bdy. of the Tp., heretofore described.
	Thence I run. N. 0° 01' W., bet. secs. 35 and 36.
	Over mountainous land, through dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	Ascend.
21.00	Top of ridge, 210 ft. high, brs. E. and W.
	Descend.
38.75	Ravine, 120 ft. deep, drs. NE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S35 | S36 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
61.20	Ravine, 150 ft. deep, drs. N.5°W.
	Ascend.
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, with brass cap marked
	T38S | R18W S26 | S25 S35 | S36 1912

Chains	
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	80 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	June 15: At this cor. I set off 23° 20' N., on the decl. arc; and at $12^h 00^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.
	East on a random line bet. secs. 25 and 36.
40.00	Set temp. ¼ sec.cor.
80.00	Intersect E. bdy. of Tp., 2 lks. N. of cor. of secs. 25, 30,31 and 36, heretofore described.
	Thence I run
	N.89° 59'W., on a true line bet. secs. 25 and 36.
	Over mountainous land, through dense undergrowth.
	Descend.
7.50	Ravine, 60 ft. deep, drs. S.
	Ascend.
14.00	Top of ridge, brs. N. and S.
	Descend.
24.95	Ravine, 80 ft. deep, drs. N.
	Ascend.
32.00	Top of ridge, brs. N. and S.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S25 / S36 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
58.65	Ravine, 165 ft. deep, drs. S.
	Ascend.
70.00	Top of ridge, brs. N.20W. and S.20°E.
	Descend.

Chains
80.00 The cor. of secs. 25,26,35 and36.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.

June 15, 1912.

June 17, 1912: At 9^h 01^m a.m.l.m.t., I set off 37° 29' on the lat. arc; 23° 24' E., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25,26,35 and 36.

Thence I run

N.0° 01'W., bet. secs. 25 and 26,

Over mountainous land, through dense undergrowth.

Ascend.

18.00 Top of spur, 40 ft. above sec. cor., Projects NW.

Descend.

36.20 Moody Wash, 180 ft. deep, with running water, 7 lks. wide, 5 ins. deep, drs. E.

Ascend.

39.50 Top of spur, projects W. about 5 chs.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S26 | S25
¼ |
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

49.40 Ravine, 20 ft. deep, drs. S.20°W.

Ascend.

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, with brass cap marked

T38S | R18W
S23 | S24
S26 | S25
1912

and dig pits, 18X18X12 ins., in each sec. 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W.

Chains	
	of cor.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	June 17: At this cor. I set off 23° 24' N. on the decl. arc; and at 12^h 01^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.
	S.89° 59'E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec.cor.
80.04	Intersect E. bdy. of Tp., 7 lks. S. of cor. of secs. 19, 24,25 and 30, heretofore described.
	Thence I run
	S.89° 58'W., on a true line bet. secs. 24 and 25.
	Over mountainous land, through dense undergrowth.
	Descend.
18.50	Ravine, 75 ft. deep, drs. S.
	Ascend.
26.00	Top of ridge, brs. N. and S.
	Descend.
38.00	Ravine, 100 ft. deep, drs. S.
	Ascend.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S24 / S25 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
49.00	Top of spur, projects S.
	Descend.
75.90	Ravine, 10 ft. deep, drs. S.
	Ascend.
80.04	The cor. of secs. 23,24,25 and 26.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.

Chains	June 17, 1912.
	June 18, 1912: At 8^h 31^m a.m.l.m.t., I set off 37° 30' on the lat. arc; 23° 26' 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 mountainous land, through dense undergrowth.
	Ascend along west side of ravine.
29.00	Top of spur, projects E. about 3 chs.
	Descend.
38.00	Ravine, 35 ft. below top of spur, drs. SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S23 | S24 / ¼ | 1912 and dig pits, 18X18X12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth 3½ ft. base, 1½ ft. high, W. of cor.
43.20	Top of spur, 120 ft. high, projects W. about 3 chs.
	Descend.
47.60	Ravine, 75 ft. deep, drs. SW.
	Ascend.
60.00	Abrupt ascent and bottom of granite ledges, 200 ft. high brs. E. and W.
76.00	Enter scattering timber, brs. E. and W.
79.70	Top of ledges and ridge bear N.85°W. and S.85°E.
	Descend.
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, with brass cap marked T38S | R18W / S14 | S13 / S23 | S24 / 1912

from which

A cedar, 8 ins. dia., bears N.32° 40'E., 40 lks. dist., marked T 38 S R 18 W S 13 B T.

Chains	
	A pine, 6 ins. dia., bears S.28° 35'E., 57 lks. dist., marked T 38 S R 18 W S 24 B T.
	A cedar, 18 ins. dia., bears S.36° 10'W., 66 lks. dist., marked T 38 S R 18 W S 23 B T.
	A cedar, 10 ins. dia., bears N.64° 15'W., 73 lks. dist., marked T 38 S R 18 W S 14 B T.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; medium undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	June 18: At this cor. I set off 23° 26' N., on the decl. arc; and at $12^h 01^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.
	N.89° 58'E., on a random line bet. secs. 13 and 24.
40.00	Set temp. ¼ sec.cor.
80.10	Intersect E. bdy. of Tp. 16 lks. S. of cor. of secs. 13, 18,19 and 24, heretofore described.
	Thence I run S89° 51'W., on a true line bet. secs. 13 and 24.
	Over mountainous land, through scattering timber, and dense undergrowth.
	Descend.
19.00	Ravine, 100 ft. deep, drs. SE.
	Ascend.
26.00	Top of spur, projects S.
	Descend.
35.00	Ravine, 70 ft. deep, drs. S.
	Ascend.
38.00	Top of spur, projects S.
	Descend.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked ¼ S13 / S24 1912 from which
	A pine, 14 ins. dia., bears N.76° 50'E., 18 lks.

Chains	
	dist., marked ¼ S 13 B T.
	A pine, 8 ins. dia., bears S.46° 45'E., 52 lks. dist., marked ¼ S 24 B T.
43.00	Ravine, 90 ft. deep, drs. S.80°E.
	Ascend.
80.10	The cor. of secs. 13,14,23 and 24.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; medium undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	June 18, 1912.

June 19, 1912: At 8h 01m a.m.l.m.t., I set off 37° 30' on the lat. arc; 23° 28' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13,14,23 and 24.

Thence I run

N.0° 01'W., bet. secs. 13 and 14.

Over mountainous land, through scattering timber and medium undergrowth.

	Descend.
15.80	Ravine, 70 ft. deep, drs. E.
	Ascend.
23.75	Top of ridge, brs. E. and W.
	Descend.
26.30	Ravine, 100 ft. deep, drs. E.
	Ascend.
36.00	Top of spur, projects E.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S14 ¼ | S13 1912
	no bearing trees available, therefore I raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
43.20	Ravine, 75 ft. deep, drs. SE.
	Ascend.

Chains	
47.10	Abrupt ascent and bottom of granite ledges, 300 ft. high brs. E. and W.
63.00	Top of ledges, 300 ft. high, brs. E. and W.
68.00	Top of ridge, 280 ft. high, brs. E. and W.
	Descend.
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, with brass cap marked

T38S	R18W
S11	S12
S14	S13

1912

from which

A pine, 14 ins. dia., bears S.30° 05'E., 1.42 chs. dist., marked T 38 S R18 W S 13 B T.

A pine, 12 ins. dia., bears S.58°W., 11 lks. dist., marked T 38 S R 18 W S 14 B T.

A cedar, 8 ins. dia., bears N.60° 15'W., 83 lks. dist., marked T 38 S R 18 W S 11 B T.

No other bearing tree available, therefore I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; medium undergrowth of sage brush, oak, service berry brush and scattering bunch grass.

June 19: At this cor. I set off 23° 27' N., on the decl. arc; and at 12^h 01^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 31'.

N.89° 51'E., on a random line bet. secs. 12 and 13.

40.00	Set temp. ¼ cor.
80.06	Intersect E. bdy. of Tp., 2 lks. N. of cor. of secs. 7, 12,13 and 18, heretofore described.

Thence I run

S.89° 50'W., on a true line bet. secs. 12 and 13.

Over mountainous land, through dense undergrowth.

Descend.

5.30	Ravine, 50 ft. deep, drs. SE.
	Ascend.

Chains	
12.00	Top of ridge, brs. N. and S.
	Descend.
18.80	Ravine, 45 ft. deep, drs. SW.
	Ascend.
24.00	Top of ridge, brs. NE. and SW.
	Descend.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S12 / S13 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
49.00	Ravine, 50 ft. deep, drs. S.
	Ascend.
60.00	Top of ridge, brs. N. and S.
	Descend.
68.00	Ravine, 125 ft. deep, drs. NW.
	Ascend.
77.10	Top of spur, projects N.
	Descend.
	Enter scattering timber, brs. N. and S.
80.06	The cor. of secs. 11,12,13 and 14.
	Land, mountainous; soil, stony, third rate; timber, scattering cedars and pinion pine; medium undergrowth of sage brush, oak, service berry brush and scattering bunch gras
	June 19, 1912.

June 20, 1912: At $8^h 01^m$ a.m.l.m.t., I set off 37° 31' on the lat. arc; 23° 28' 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.0° 01'W., bet. secs. 11 and 12.

Over mountainous land, through scattering timber and medium undergrowth.

Descend.

Chains	
7.25	Ravine, 90 ft. deep, drs., W.
	Ascend.
32.75	Top of ridge, brs. NE. and SW.
	Descend.
37.10	Ravine, 110 ft. deep, drs. SW.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S11 | S12
¼ | 1912

no bearing trees available, therefore I raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

Chains	
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, with brass cap marked

T38S | R18W
S2 | S1
S11 | S12
1912

no bearing trees available, therefore I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.

June 20: At this cor. I set off 23° 27' N., on the decl. arc; and at 12h 01m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 32'.

N.89° 50'E., on a random line bet. secs. 1 and 12.

Chains	
40.00	Set temp. ¼ cor.
79.86	Intersect E. bdy. of Tp., 12 lks. N. of cor. of secs. 1, 6, 7 and 12, heretofore described.

Thence I run

S.89° 55'W., on a true line bet. secs. 1 and 12.

Over mountainous land, through scattering timber and dense undergrowth.

Descend.

Chains	
3.75	Ravine, 150 ft. deep, drs. SE.
	Ascend.
28.90	Top of ridge, brs. N. and S.
	Descend.
39.93	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S1 / S12 / 1912
	No bearing trees available, therefore I raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
56.00	Ravine, 200 ft. deep, drs. SE.
	Ascend.
59.80	Top of ridge, brs. N. and S.
	Descend.
79.86	The cor. of secs. 1,2,11 and 12.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.
	June 20, 1912.
	June 21, 1912: At $8^h 01^m$ a.m.l.m.t., I set off 37° 32' On the lat. arc; 23° 28' 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 cor.
71.74	Intersect N. bdy. of Tp., 6 lks. E. of cor. of secs. 1, 2,35 and 36, heretofore described.
	Thence I run S.0° 04'E., on a true line bet. secs. 1 and 2.
	Over mountainous land, through scattering timber and dense undergrowth.
	Ascend.
21.75	Top of spur, projects W.
	Descend.

CHAINS

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

S2 | S1
$\frac{1}{4}$
1912

No bearing trees available, therefore I raise a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high W. of cor.

June 21: At this cor. I set off 23°27'N. on the decl. arc; and at 12 h. 01 m l.m.t., observe the sun on the meridian; the resulting latitude is 37°33'.

34.80 Ravine, 100 ft. deep, drs. W.

Ascend.

57.50 Top of ridge, brs. E. and W.

Descend.

71.74 The cor. of secs. 1, 2, 11 and 12.

Land, mountainous; soil, stony, third rate; timber, scattering cedars and pinon pine; dense undergrowth of sage brush, oak, service berry brush and scattering bunch grass.

June 21, 1912.

Eben B Andrews
U. S. Surveyor.

Survey commenced June 12, 1912, and executed with a W. & L. E. Gurleys explorer's transit No. with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct, and was approved by the surveyor general for Utah, Feb. 13, 1912.

I examine the adjustments of the transit, find them correct; 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

CHAINS

by observations on Polaris, I proceed as follows:

At camp in the NE. quarter of sec. 15, T.38S.R.18 W. lat. 37°31'14"N., longitude 113°44'52"W., I set off 37°31'N. on the lat. arc; 23°12'N. on the decl. arc; and at 5h 00m p.m.l.m.t., determine a meridian with the solar and mark a point thereof, on a stake firmly driven in the ground, 5 chs. N. of my station.

June 12, 1912.

June 13,1912: At 2h 7m a.m.l.m.t., I observe Polaris at eastern elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined on a stake driven in the ground 5 chs. N. of my station.

At 6h 45m a.m.l.m.t., I lay off the azimuth of Polaris, 1° 28' to the west, and mark the meridian thus determined by a cross on the stake set June 12, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 7h 00m a.m.l.m.t., I set off 37°31'N. on the lat. arc; 23°14'N. on the decl.arc; and mark a point in the meridian determined with the solar, by a cross on the stake already set 5 chs.N.of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observati

The solar apparatus, by p.m. and a.m. observations, defines positions for meridian, respectively about 0'16" east and 0'16" west 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 7h 15m a.m. is N.15°45'W. the angle thus determined gives the mag. decl. 15°45'E.

June 13, 1912.

June 22, 1912: At 9h 02m a.m.l.m.t., I set off 37°28' on the lat. arc; 23°27'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35, on the S. bdy. of the Tp., heretofore described.

Chains	
	Thence I run
	N.0° 01'W. bet. secs. 34 and 35.
	Over mountainous land, through dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	Descend.
1.00	Ravine, 20 ft. deep, drs. SW.
	Ascend.
16.75	Top of ridge, 380 ft. high, brs. NE. and SW.
	Descend.
26.00	Ravine, 290 ft. deep, drs. SW.
	Ascend.
27.50	Top of ridge, brs. E. and W.
	Descend.
37.90	Ravine, 105 ft. deep, drs. W.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S34 | S35 ¼ 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
44.80	Top of spur, 65 ft. high, projects W.
	Descend.
67.60	Ravine, 425 ft. deep, drs. W.
	Ascend.gently.
70.05	Top of ascent, brs. E. and W.
	Descend, gently.
70.75	Ravine, 10 ft. deep, drs. SW.
	Ascend.
71.00	Enter scattering timber, cedars and pinion pine, brs. NE. and SW.
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, with brass cap marked T38S | R18W S27 | S26 S34 | S35 1912 from which

Chains	
	A cedar, 6 ins. dia., bears N.54° 35'E., 24 lks. dist., marked T 38 S R 18 W S 26 B T.
	A cedar, 6 ins. dia., bears S.1° 55'E., 1.32 chs. dist., marked T 38 S R 18 W S 35 B T.
	A cedar, 6 ins. dia., bears S.67° 25'W., 40 lks. dist., marked T 38 S R 18 W S 34 BT.
	A cedar, 6 ins. dia., bears N.10° 35'W., 82 lks. dist., marked T 38 S R 18 W S 27 B T.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	June 22: At this cor. I set off 23° 27' N., on the decl. arc; and at $12^h 02^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.
	East on a random line, bet. secs. 26 and 35.
40.00	Set temp. ¼ cor.
80.08	Intersect N. and S. line 7 lks. N. of cor. of secs. 25, 26,35 and 36.
	Thence I run
	N.89° 57'W., on a true line, bet. secs. 26 and 35.
	Over mountainous land, through dense undergrowth.
	Descend.
2.80	Ravine, 15 ft. below sec. cor., drs. NE.
	Ascend gently.
6.00	Top of ascent, brs. NE. and SW.
	Descend.
11.40	Ravine, 140 ft. deep, drs. NE.
	Ascend.
	Enter scattering timber, brs. NE. and SW.
34.10	Top of spur, 30 ft. high, projects NE.
38.80	Ravine, 380 ft. deep, drs. NE.
	Ascend.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Chains	
	$\frac{\frac{1}{4}}{\frac{S26}{S35}}$ 1912 from which
	A cedar, 6 ins. dia., bears N.28° 50'E., 90 lks. dist., marked ¼ S 26 B T.
	A cedar, 8 ins. dia., bears S.26° 05'W., 27 lks. dist., marked ¼ S 35 B T.
43.10	Top of spur, projects NE.
	Descend.
48.10	Bottom of depression, 40 ft. below top of spur, drs. NE.
	Ascend.
60.00	Top of ridge, 250 ft. high, brs. NW. and SE.
	Descend.
72.80	Ravine, 80 ft. deep, drs. SW.
	Ascend.
80.08	The cor. of secs. 26,27,34 and 35.
	70 ft. above ravine.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	June 22, 1912.

June 24, 1912: At 8^h 32^m a.m.l.m.t., I set off 37° 29' on the lat. arc; 23° 26' 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 mountainous land, through scattering timber and dense undergrowth.

Ascend.

18.00	Top of ridge, 160 ft. above sec. cor., brs. E. and W.
	Descend.
34.00	Ravine, 420 ft. deep; Moody Wash in bottom with running water, 12 lks. wide, 4 ins. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Chains

the ground for ¼ sec. cor., with brass cap marked

S27 | S26
¼ |
1912

from which

A cedar, 5 ins. dia., bears S.4° 20'E., 1.30 chs. dist., marked ¼ S 26 B T.

A cedar, 5 ins. dia., bears S.41° 15'W., 1.35 chs. dist., marked ¼ S 27 B T.

41.00 Top of spur, 90 ft. high, projects E.

Descend.

47.40 Ravine, 80 ft. deep, drs. SE.

Ascend.

48.00 Leave scattering timber, brs. E. and W.

58.00 Top of ascent, 50 ft. above ravine, brs. E. and W.

Descend.

73.60 Ravine, 65 ft. deep, drs. SW.

Ascend.

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, with brass cap marked

T38S | R18W
S22 | S23
S27 | S26
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Cor. stands on top of spur, 205 ft. high, projects W.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak, and scattering bunch grass.

June 24: At this cor. I set off 23° 26' N., on the decl. arc; and at 12^h 02^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29½'.

S.89° 57'E., on a random line bet. secs. 23 and 26.

40.00 Set temp. ¼ cor.

80.10 Intersect N. and S. line, 23 lks. S. of cor. of secs. 23,24,25 and 26.

Thence I run

S.89° 53'W., on a true line bet. secs. 23 and 26.

Chains	
	Over mountainous land, through dense undergrowth.
	Ascend.
8.00	Top of spur, 105 ft. high, projects S.
	Descend.
22.00	Ravine, 110 ft. deep, drs. S.
	Ascend.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., eith brass cap marked
	¼ S23 S26 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
	Cor. stands on top of spur, 30 ft. high, projects S.
	Descend.
45.40	Ravine, 165 ft. deep, with running water 8 lks. wide, 2 ins. deep, drs. SE.
	Ascend.
56.60	Top of spur, 60 ft. high, projects S.
	Descend.
63.50	Ravine, 30 ft. deep, drs. S.
	Ascend.
66.00	Top of spur, 65 ft. high, projects S.
	Descend.
70.30	Ravine, 50 ft. deep, drs. S.
	Ascend.
72.00	Top of spur, 55 ft. high, projects SW.
	Descend.
76.60	Ravine, 35 ft. deep, drs. S.
	Ascend.
80.10	The cor. of secs. 22,23,26 and 27.
	40 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	June 24, 1912.

Chains	
	June 25, 1912: At 8^h 02^m a.m.l.m.t., I set off 37° 29½' on the lat. arc; 23° 25' 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, through dense undergrowth.
	Descend.
3.00	Ravine, 45 ft. below sec. cor., drs. SW.
	Ascend.
8.50	Top of spur, projects SW.
	Descend.
11.80	Ravine, 60 ft. deep, drs. SW.
	Ascend.
22.00	Top of ridge, 200 ft. high, brs. NE. and SW.
	Descend.
29.00	Ravine, 65 ft. deep, drs. SW.
	Ascend.
30.00	Enter scattering timber, brs. NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S22 ¼ | S23
	1912 from which
	A cedar, 10 ins. dia., bears S.9° 55'W., 1.72 chs. dist., marked ¼ S 22 B T.
	No other bearing trees available, therefore I raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
44.00	Top of ridge, 270 ft. high, brs. E. and W.
	Descend.
61.60	Ravine, 240 ft. deep, drs. SE.
	Ascend.
72.00	Abrupt ascent over high ledges, brs. E. and W.
79.00	Top of ridge, 375 ft. high, brs. E. and W.
	Descend.
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, with brass cap marked

Chains

T38S	R18W
S15	S14
S22	S23

1912 from which

A pine, 6 ins. dia., bears N.47° 35'E., 1.34 chs. dist., marked T 38 S R 18 W S 14 B T.

A pine, 8 ins. dia., bears S.35° 05'E., 1.60 chs. dist., marked T 38 S R 18 W S 23 B T.

No other bearing trees available, therefore I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Cor. stands on N. slope of high ridge, 20 ft. below the top.

Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

June 25: At this cor., I set off 23° 24' N., on the decl. arc; and at 12^h 02^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.

N.89° 53'E., on a random line bet. secs. 14 and 23.

40.00 Set temp. ¼ cor.

79.86 Intersect N. and S. line, 12 lks. S. of cor. of secs. 13, 14,23 and 24.

Thence I run

S.89° 48'W., on a true line bet. secs. 14 and 23.

Over mountainous land, through scattering timber and dense undergrowth.

Ascend.

4.90 Top of ridge, 50 ft. above sec. cor., brs. N.70°W. and S.80°E.

Descend.

17.30 Ravine, 330 ft. deep, drs. S.

Ascend.

35.90 Top of ridge, 225 ft. high, brs. NW. and SE.

Descend.

39.93 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Chains

$\frac{\frac{1}{4}\ S14}{S23}$
1912

from which

A pine, 8 ins. dia., bears N.54° 40'E., 2.74 chs. dist., marked ¼ S 14 B T.

A pine 8 ins. dia., bears S.25° 40'W., 1.24 chs. dist., marked ¼ S 23 B T.

49.90 Head of ravine, 235 ft. deep, drs. S.

Ascend.

64.00 Top of ridge, 100 ft. high, brs. N.70°E. and S.80°W.

Descend.

79.86 The cor. of secs. 14,15,22 and 23.

90 ft. below top of ridge.

Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

June 25, 1912.

June 26, 1912: At $8^h\ 03^m$ a.m.l.m.t., I set off 37° 30' on the lat. arc; 23° 23' 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

N.0° 01'W., bet. secs. 14 and 15.

Over mountainous land, through scattering timber and dense undergrowth.

Descend.

20.50 Ravine, 245 ft. below sec. cor., drs. E.

Ascend.

25.00 Top of spur, 60 ft. high, projects E.

Descend.

32.00 Head of ravine, 45 ft. deep, drs. NW.

Ascend.

36.00 Top of spur, 115 ft. high, projects E.

Descend.

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

Chains	
	the ground for ¼ sec. cor., with brass cap marked
	S15 | S14 ¼ | 1912 from which
	A cedar, 16 ins. dia., bears N.49° 45'E., 82 lks. dist., marked ¼ S 14 B T.
	A cedar, 8 ins. dia., bears N.80° 35' W., 1.22 chs. dist., marked ¼ S 15 B T.
51.50	Bottom of descent, 150 ft. below top of spur, brs. E. and W.
	Ascend abruptly over rock ledges.
53.00	Top of rock ledges, brs. E. and W.
	Descend.
68.00	Ravine, 165 ft. deep, drs. E.
	Ascend.
80.00	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, with brass cap marked
	T38S | R18W S10 | S11 S15 | S14 1912 from which
	A cedar, 10 ins. dia., bears N.62° 45'E., 1.96 chs. dist., marked T 38 S R 18 W S 11 B T.
	A cedar, 14 ins. dia., bears S77° 40'E., 1.25 chs. dist., marked T 38 S R 18 W S 14 B T.
	No other bearing trees available, therefore I raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on S. slope of ridge, 45 ft. above ravine.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.89° 48'E., on a random line bet. secs. 11 and 14.
40.00	Set temp. ¼ cor.
80.08	Intersect N. and S. line, 14 lks. N. of cor. of secs. 11, 12,13 and 14.
	Thence I run

Chains	
	S.89° 54'W., on a true line bet. secs. 11 and 14.
	Over mountainous land, through scattering timber and dense undergrowth.
	Descend.
0.35	Ravine, 10 ft. below sec. cor., drs. N.
	Ascend.
6.10	Top of spur, 55 ft. high, projects NW.
	Descend.
12.05	Ravine, 120 ft. below top of spur, drs. N.
	Ascend.
18.45	Small spring, drs. N.
23.60	Top of spur, 30 ft. above ravine, projects N.
	Descend.
26.10	Enter rolling land, brs. N. and S.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S11 / S14 / 1912 from which
	A pine, 24 ins. dia., bears N.52° 10'E., 2.43 chs. dist., marked ¼ S 11 B T.
	A pine, 8 ins. dia., bears S.65° 45'E., 1.70 chs. dist., marked ¼ S 14 B T.
	June 26: At this cor. I set off 23° 22' N., on the decl. arc; and at 12h 03m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 31'.
40.10	Cabin, brs. S.23° 24'W. Leave scattering timber, brs.N&S
	NE. cor. of field, brs. N.23° 10'W.
	SE. cor. of field, brs. S.11° 21'W.
	SW. cor. of field, brs. S.26° 30'W.
	NW. cor. of field, brs. N.60° 53'W.
42.00	Fence line, brs. N.1°E. and S.1°W.
47.50	Fence line, brs. N.11°E. and S.11°W.
48.20	Wash, 6 lks. wide, 2 ft. deep, drs. NE.
55.45	Road, brs. NE. and SW.
60.00	Wash, 10 lks. wide, 1 ft. deep, drs. SE.
62.10	Enter scattering timber, brs. N. and S.

Chains	
63.00	Enter mountainous land, brs. N. and S.
70.10	Cabin, brs. S.25° 55'E.
	NE. cor. of field, brs. N.75° 16'E.
	SE. cor. of field, brs. S.62° 45'E.
	SW. cor. of field, brs. S.35° 20'E.
	NW. cor. of field, brs. N.78° 35'E.
71.10	Top of spur, 140 ft. high, projects S.
	Descend.
76.30	Ravine, 65 ft. deep, drs. S.
	Ascend.
80.08	The cor. of secs. 10,11,14 and 15.
	60 ft. above ravine.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

N.0° 01'W., bet. secs. 10 and 11.

Over mountainous land, through scattering timber and dense undergrowth.

	Ascend.
13.20	Top of ridge, 180 ft. above cor., brs. E. and W.
	Descend.
30.65	Ravine, 270 ft. below top of ridge, drs. NE.
	Ascend.
34.00	Top of spur, 30 ft. above ravine, projects NE.
	Descend.
37.40	Ravine, 60 ft. below top of spur, drs. NE.
	Ascend gently.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S10 | S11
¼ | 1912 from which

A pine, 12 ins. dia., bears S.42° 55'E., 60 lks. dist., marked ¼ S 11 B T.

A pine, 10 ins. dia., bears N.49° W., 53 lks. dist., marked ¼ S 10 B T.

Chains	
	June 26, 1912.
	June 27, 1912: At 8^h 03^m a.m.l.m.t., I set off 37° 31' on the lat. arc; 23° 21' N., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor. of secs. 10 and 11.
	Thence I continue N.0° 01'W., bet. secs. 10 and 11.
47.20	Top of ascent, 30 ft. above ravine, brs. NE. and SW.
	Descend gently.
57.00	Ravine, 25 ft. below top of ascent, drs. NW.
	Ascend gently.
58.00	Top of ascent, 5 ft. above ravine, brs. NW. and SE.
	Descend gently.
58.90	Ravine, 5 ft. below top of ascent, with running water, 8 lks. wide, 3 ins. deep, drs. NW.
61.00	Old road, brs. NW. and SE.
68.00	Top of ascent, 30 ft. above ravine, brs. NW. and SE.
	Descend.
77.25	Ravine, 40 ft. below top of ascent, drs. NW.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. i the ground for cor. of secs. 2,3,10 and 11, with brass cap marked

T38S | R18W
S3 | S2
S10 | S11
1912

No bearing trees available, therefore I raise a mound o stone, 3 ft. base, 2 ft. high, W. of cor.

15 ft. above ravine.

Land, mountainous; soil, stony; third rate; timber, ver scattering, cedars and pinion pine; dense undergrowth of sage brush and scattering bunch grass.

	N.89° 54'E., on a random line bet.secs. 2 andll.
40.00	Set temp. ¼ cor.
80.14	Intersect N. and S. line, 18 lks. N. of cor. of secs. 1,2,11 and 12.

Chains	
	Thence I run
	N.89° 58'W., on a true line bet. secs. 2 and 11.
	Over mountainous land, through scattering timber and dense undergrowth.
	Descend.
28.25	Ravine, 50 ft. deep, drs. SW.
	Ascend.
37.15	Top of spur, 175 ft. high, projects SW.
	Descend.
40.07	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S2 S11 1912
	No bearing trees available, therefore I raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
49.10	Ravine, 25 ft. deep, drs. SW.
	Ascend.
80.14	The cor. of secs. 2,3,10 and 11.
	Land, mountainous; soil, stony; third rate; timber, very scattering cedars and pinion pine; dense undergrowth of sage brush and scattering bunch grass.
	June 27: At this cor. I set off 23° 20' N., on the decl. arc; and at $12^h 03^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 32".
	N.0° 01'W., on a random line bet. secs. 2 and 3.
40.00	Set temp. ¼ cor.
71.87	Intersect N. bdy. of Tp.,15 lks. E. of cor. of secs. 2, 3,34 and 35, heretofore described.
	Thence I run
	S.0° 08'E., on a true line bet. secs. 2 and 3.
	Over mountainous land, through scattering timber and dense undergrowth.
	Ascend.
6.15	Top of spur, 100 ft. high, projects W.
	Descend.

Chains	
12.30	Ravine, 90 ft. deep, drs. W.
	Ascend, rock ledges.
29.52	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground to solid rock and raise a mound of stone 3 ft. base, 1½ ft. high, around post for W.C. to ¼ sec. cor., with brass cap marked

T38S | R18W
S3 | S2
¼WC
1912

from which

A pine, 24 ins. dia., bears N.74° 20'E., 1.40 chs. dist., marked W. C ¼ S 2 B T.

A pine, 12 ins. dia., bears N.72° 25'W., 45 lks. dist., marked W C ¼ S 3 B T.

29.90	Top of rock ledges, 70 ft. high, brs. E. and W. Descend
31.87	Point for ¼ sec.cor.falls on ledges; corner not set.
33.90	Foot of rock ledges, brs. E. and W.
35.80	Ravine, 40 ft. deep, drs. W.
	Ascend.
43.90	Top of spur, 35 ft. high, projects W.
	Descend.
51.70	Ravine, 70 ft. deep, drs. W.
	Ascend.
59.90	Top of spur, 45 ft. high, projects W.
	Descend.
71.87	The cor. of secs. 2,3,10 and 11.

Land, mountainous; soil, stony; third rate; timber, very scattering cedars and pinion pine; dense undergrowth of sage brush and scattering bunch grass.

June 27, 1912.

Ralph Gentry
U. S. Surveyor.

June 22, 1912: At $9^h\ 02^m$ a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 27' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 3,4,33 and 34, on the S. bdy. of the Tp., heretofore

chains	
	described.
	Thence I run
	N0° 02'W., bet. secs. 33 and 34.
	Over mountainous land, through dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	Ascend.
18.00	Top of ridge, 325 ft. above sec. cor., brs. E. and W.
	Descend.
33.75	Ravine, 425 ft. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S33 | S34 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
44.00	Top of ridge, 295 ft. high, brs. E. and W.
	Descend.
58.15	Ravine, 460 ft. deep, with running water, 6 lks. wide, 2 ins. deep, drs. E.
	Ascend.
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, with brass cap marked
	T38S | R18W S26 | S27 S33 | S34 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on S. slope of ridge, 310 ft. above ravine. Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak, and scattering bunch grass.
une 22	At this cor. I set off 23° 27' N., on the decl. arc; and at $12^h 02^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.

Chains	
	East on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ cor.
80.04	Intersect N. and S. line 5 lks. N. of cor. of secs. 26, 27,34 and 35.
	Thence I run
	N.89° 58'W., on a true line bet. secs. 27 and 34.
	Over mountainous land, through scattering timber and dense undergrowth.
	Descend.
13.30	Ravine, 60 ft. below sec. cor., drs. S.20°W.
	Ascend.
23.20	Top of ridge, 165 ft. high, brs. N. and S.
	Descend.
38.90	Ravine, 170 ft. deep, drs. S.
	Ascend.
39.50	Top of low spur, 10 ft. high, projects S.
	Descend.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S27 / S34 / 1912 from which
	A cedar, 6 ins. dia., bears N.37° 50'E., 48 lks. dist., marked ¼ S 27 B T.
	A cedar, 12 ins. dia., bears S.30° 55'W., 1.86 ch dist., marked ¼ S 34 B T.
52.00	Ravine, 95 ft. deep, drs. S.
	Ascend.
60.00	Leave scattering timber, brs. N. and S.
80.04	The cor. of secs. 27,28,33 and 34.
	465 ft. above ravine.
	Land mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	June 22, 1912.

June 24, 1912: At $8^h\ 02^m$ a.m.l.m.t., I set off 37° 29'
On the lat. arc; 23° 26' N., On the decl. arc; and de-

Chains	
	termine a meridian with the solar at the cor. of secs. 27,28,33 and 34:
	Thence I run
	N.0° 02'W., bet. secs. 27 and 28:
	Over mountainous land, through dense undergrowth.
	Ascend.
2.15	Top of ridge, 60 ft. above sec. cor., brs. E. and W.
	Descend.
11.60	Ravine, 265 ft. deep, drs. E.
	Ascend.
21.50	Top of ridge, 130 ft. high, brs. E. and W.
	Descend.
32.20	Ravine, 310 ft. deep; Moody Wash in bottom with running water, 6 lks. wide, 4 ins. deep, drs. E.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S28 | S27 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
56.25	Ridge, 435 ft. high, brs. NW. and SE.
	Descend.
65.00	Ravine, 205 ft. deep, drs. SE.
	Ascend.
77.00	Top of ridge, 250 ft. high, brs. E. and W.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 21,22,27 and 28, with brass cap marked
	T38S | R18W S21 | S22 S28 | S27 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on N. slope of ridge, 40 ft. below the top.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush,

Chains	
	oak and scattering bunch grass.
	June 24: At this cor. I set off 23° 26' N., on the decl. arc; and at 12^h 02^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29½'.
	S.89° 58'E., on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ cor.
80.08	Intersect N. and S. line, 16 lks. N. of cor. of secs. 22, 23,26 and 27.
	Thence I run
	N.89° 51'W., on a true line bet. secs. 22 and 27.
	Over mountainous land, through dense undergrowth.
	Descend.
5.20	Ravine, 105 ft. below sec. cor., drs. S.
	Ascend.
10.10	Top of spur, 105 ft. above ravine, projects S.
	Descend.
16.00	Ravine, 100 ft. deep, drs. SE.
	Ascend.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S22 S27 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
44.10	Top of ridge, 465 ft. above ravine, brs. N. and S.
	Descend.
56.40	Ravine, 215 ft. deep, drs. S.20°E.
	Ascend.
80.08	The cor. of secs. 21,22,27 and 28.
	510 ft. above ravine.
	Land mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	June 24, 1912.

chains	
	June 25, 1912: At 8^h 02^m a.m.l.m.t., I set off 37° 29½' on the lat. arc; 23° 25' 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 N.0° 02' W., bet. secs. 21 and 22.
	Over mountainous land, through dense undergrowth.
	Descend.
8.50	Ravine, 125 ft. below sec. cor., drs. N.80°E.
	Ascend.
14.30	Top of ridge, 50 ft. high, brs. NE. and SW.
	Descend gently.
18.20	Bottom of descent, brs. NE. and SW.
	Ascend abruptly over ledges.
23.15	Top of ledges and spur, 100 ft. high, projects E.
	Descend.
35.70	Ravine, 150 ft. deep, drs. SW.
	Ascend.
	Enter scattering timber, cedars and pinion pine, brs. NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S21 | S22 ¼ | 1912
	from which
	A cedar, 8 ins. dia., bears N.15° 45'E., 40 lks. dist., marked ¼ S 22 B T.
	A cedar, 13 ins. dia., bears N.45° 10'W., 97 lks. dist., marked ¼ S 21 B T.
68.00	Top of ridge, 390 ft. high, brs. E. and W.
	Descend.
79.80	Ravine, 215 ft. deep, drs. NE.
	Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15,16,21 and 22, with brass cap marked
	T38S | R18W S16 | S15 S21 | S22 1912

Chains	
	No bearing trees available, therefore I raise a mound o
	stone, 3 ft. base, 2 ft. high, W. of cor.
	5 ft. above ravine.
	Land, mountainous; soil, stony; third rate; timber, sca
	tering cedars and pinion pine; dense undergrowth of sag
	brush, service berry brush, oak and scattering bunch
	grass.
	June 25;: At this cor. I set off 23° 24' n., on the dec
	arc; and at 12h 02m l.m.t., observe the sun on the mer
	dian; the resulting latitude is 37° 30'.
	S.89° 51'E., on a random line bet. secs. 15 and 22.
40.00	Set temp. ¼ cor.
80.06	Intersect N. and S. line at the cor. of secs. 14,15,22
	and 23.
	Thence I run
	N.89° 51'W., on a true line bet. secs. 15 and 22.
	Over mountainous land, through scattering timber and
	dense undergrowth.
	Ascend.
19.00	Top of ridge, 140 ft. above sec. cor., brs. N.82°W. and
	S.82°E.
	Descend gently along S. slope of ridge.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in
	the ground for ¼ sec. cor., with brass cap marked
	¼ S15 / S22 1912
	No bearing trees available, therefore I raise a mound o
	stone, 3 ft. base, 1½ ft. high, N. of cor.
40.75	Abrupt descent over granite ledges, N.80°W. and S.80°E
46.30	Bottom of ledges, brs. N. and S.
62.00	Ravine, 350 ft. deep, drs. N.20°W.
	Ascend.
73.10	Top of spur, 65 ft. high, projects N.
	Descend.
79.50	Ravine, 50 ft. deep, drs. NE.
	Ascend.

Chains.	
80.06	The cor.of secs.15,16,21, and 22, 10 ft.above ravine.
	Land, mountainous; soil stony; third rate.
	Timber scattering cedars and pinion pine; dense undergrowth of sagebrush, service berry brush, oak and scattering bunch grass.
	June 25, 1912.
	June 26, 1912: At 8h 03m a.m.l.m.t., I set off 37° 30' on the lat.arc;23°23'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 land; through dense undergrowth and scattering timber.
	Ascend.
6.30	Top of spur, 75 ft.above sec.cor., projects E.
	Descend.
15.40	Hollow, 95 ft.deep, drs.E.
	Ascend.
20.00	Top of ridge, 100 ft.high, brs.E. and W.
	Descend.
39.00	Ravine, 220 ft.deep, drs.NE.
	Ascend.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked
	S16 | S15 $\frac{1}{4}$ 1912
	No bearing trees available; therefore I raise a mound of stone, 3 ft.base, 2 ft.high W.of cor.
45.00	Top of spur, 70 ft.high projects E.
	Descend.
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, with brass cap marked

Chains.	
	T38S | R18W S9 | S10 S16 | S15 1912
	No bearing trees available; therefore I raise a mound of stone 3 ft.base, 2 ft.high W.of cor.
	Cor.stands on N.slope of spur, 280 ft.below the top.
	Land, mountainous; soil, stony, third rate;timber scattering cedars and pinion pine; dense undergrowth of sagebrush, service berry brush, oak and scattering bunch grass.
	S.89° 51'E.on a random line bet.secs.10 and 15,
40.00	Set temp.$\frac{1}{4}$ sec.cor.
80.20	Intersect N.and S.line 26 lks.S.of cor.of secs.10,11,14 and 15. Thence I run
	S.89°58'W.on a true line bet.secs.10 and 15,
	Ascending over mountainous land; through scattering timber and dense undergrowth.
18.30	Top of ridge, 30 ft.above sec.cor., brs.N.and S.
	Descend.
39.20	Ravine, 70 ft.deep, drs.S. Ascend.
40.10	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked
	$\frac{1}{4}$ S10 S15 1912 from which
	A pine, 14 ins.dia., bears N.48° 50'W.1.91 chs. dist., marked $\frac{1}{4}$ S 10 B T
	A pine, 13 ins.dia., bears S.41° 20'W. 1.44 chs. dist., marked $\frac{1}{4}$ S 15 B T
	June 26: At this cor.I set off 23° 22'N.on the decl.arc; and at 12h 03m p.m.l.m.t., observe the sun on the meridian; the resulting latitude is 37° 31'
48.20	Top of ridge, 75 ft.high, brs.N.and S. Descend.
77.70	Ravine, 355 ft.deep, drs.NW. Ascend.

Chains	
80.20	The cor. of secs. 9,10,15 and 16.
	15 ft. above ravine.
	Land, mountainous; soil, stony; third rate; timber, scattering cedars and pinion pine; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N. 0° 02' W., bet. secs. 9 and 10.
	Over mountainous land, through scattering timber and dense undergrowth.
	Descend.
6.85	Hollow, 30 ft. below sec. cor., drs. NE.
	Ascend.
	Leave scattering timber, brs. NE. and SW.
16.00	Top of spur, 95 ft. high, projects E.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S9 ¼ | S10 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	June 26, 1912.
	June 27, 1912: At 8h 03m a.m.l.m.t., I set off 37° 31' on the lat. arc; 23° 21' N., on the decl. arc; and determine a meridian with the solar at the ¼ cor. of secs. 9 and 10.
	Thence I continue
	N. 0° 02' W., bet. secs. 9 and 10.
45.00	Hollow, 195 ft. deep, drs. NE.
	Ascend.
61.00	Top of ridge, 215 ft. high, brs. NE. and SW.
	Descend.
70.05	Ravine, 110 ft. deep, drs. W.
	Ascend.
74.00	Top of spur, 50 ft. high, projects W.
	Descend.

Chains	
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, with brass cap marked T38S | R18W S4 | S3 S9 | S10 1912 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. Cor. stands on N. slope of spur, 110 ft. below the top. Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.89° 58'E., on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ cor.
80.20	Intersect N. and S. line, 5 lks. S. of cor. of secs. 2, 3, 10 and 11.
	Thence I run S.89° 56'W., on a true line bet. secs. 3 and 10. Over mountainous land, through dense undergrowth.
	Descend.
7.80	Ravine, 60 ft. below sec. cor., with running water, 5 lks. wide, 3 ins. deep, drs. NW.
	Ascend.
19.80	Old wagon road; brs. NW. and SE.
20.30	Top of ridge, 75 ft. high; brs. N. and S.
	Descend.
40.10	Set an iron post, 3 ft. long, 2 ins. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked ¼ S3 S10 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
48.20	Ravine, 100 ft. deep, drs. N.
	Ascend.
74.20	Top of ridge, 220 ft. high, brs. N. and S.

Chains.	
	Descend.
80.20	The cor.of secs.3,4,9, and 10, 230 ft.below top of ridge.
	Land, mountainous; soil,stony;third rate; no timber; dense undergrowth of sagebrush, service-berry brush, oak, and scattering bunch grass.
	June 27: At this cor.I set off 23° 20'N.on the decl.arc; and at 12h03m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 32'
	N.0° 02'W.on a random line bet.secs.3 and 4,
40.00	Set temp.$\frac{1}{4}$ sec.cor.
51.90	Intersect offset line for N.bdy.of the Tp. 15 lks.E.of the witness corner for cor.of secs.3,4,33, and 34, heretofore described, which is 20 chs.S.of true cor. point.
	Thence I run, counting distances from true corner point, for secs.3,4,33, and 34,
	S.0° 12'E.on a true line bet.secs.3 and 4,
	Over mountainous land; through dense undergrowth.
	Ascend.
31.90	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked S4 $\frac{1}{4}$ | S3 1912 and raise a mound of stone 3 ft.base, 2 ft.high W.of cor.
61.40	Top of spur, 190 ft.above witness corner, projects E.
	Descend.
69.70	Lost Creek, 75 ft.below top of spur, with running water 7 lks.wide, 5 ins.deep, drs.N.20° E.
	Ascend.
71.90	The cor.of secs.3,4,9, and 10, 20 ft.above Lost Creek.
	Land, mountainous; soil, stony,third rate; no timber; dense undergrowth of sagebrush; service-berry brush, oak, and bunch grass.

Chains.

June 27, 1912.

Eben B. Andrews
U.S.Surveyor.

June 28, 1912: At 9h 33m a.m.l.m.t., I set off 37° 28' on the lat.arc; 23° 18'N.on the decl.arc; and determine a meridian with the solar at the cor.of secs.4,5, 32, and 33 on the S.bdy.of the Tp., heretofore described. Thence I run

N.0° 03'W.bet.secs.32 and 33,

Over mountainous land; through dense undergrowth of sage brush, service-berry brush, oak,and scattering bunch grass. Descend.

6.90 Ravine, 235 ft.below sec.cor., drs.SW.

Ascend.

12.00 Top of spur, 110 ft.high, projects W.

Descend.

15.60 Ravine, 25 ft.deep, drs.W.

Ascend.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

S32 | S33
¼
1912

and raise a mound of stone, 3 ft.base, 1½ ft.high W. of cor.

41.00 Top of ridge, 585 ft.high, brs.E.and W. Descend.

47.40 Ravine, 150 ft.deep, drs.W.

Ascend.

52.00 Top of spur, 60 ft.high, projects W.

Descend.

61.50 Ravine, 40 ft.deep, drs.W. Ascend.

71.50 Top of spur, 85 ft.high, projects NW. Descend.

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, with brass cap marked

Chains

T38S	R18W
S29	S28
S32	S33

1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

130 ft. below top of spur.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

June 28: At this cor., I set off 23° 17' N., on the decl. arc; and at 12^h 03^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.

East, on a random line bet. secs. 28 and 33.

40.00 Set temp. ¼ cor.

79.98 Intersect N. and S. line 5 lks. S. of cor. of secs. 27, 28,33 and 34.

Thence I run

S.89° 58'W., on a true line, bet. secs. 28 and 33.

Over mountainous land, through dense undergrowth.

Ascend.

6.00 Foot of ledges, brs. N. and S.

Abrupt ascent.

16.00 Top of ledges, 235 ft. above sec. cor., brs. E. and W.

Descend over ledges.

30.30 Ravine, 95 ft. deep, drs. S.

Ascend.

39.99 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

¼
S28
S33
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

June 28, 1912.

June 29, 1912; At 9^h 03^m a.m.l.m.t., I set off 37° 29' on the lat. arc; 23° 15' N., on the decl. arc; and determine a meridian with the solar at the ¼ cor. of secs.

Chains	
	28 and 33.
	Thence I continue
	S.89° 58'W., on a true line bet. secs. 28 and 33.
53.50	Top of spur, 50 ft. high, projects S.
	Descend.
66.00	Ravine, 90 ft. deep, drs. SE.
	Ascend.
75.00	Top of low ridge, 20 ft. high, brs. N.5°E. and S.5°W.
	Descend.
79.98	The cor. of secs. 28,29,32 and 33.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., bet. secs. 28 and 29.
	Over mountainous land, through dense undergrowth.
	Descend.
2.20	Ravine, 25 ft. below sec. cor., drs. W.
	Ascend.
12.00	Top of ridge, 130 ft. high, brs. E. and W.
	Descend.
21.70	Ravine, 150 ft. deep, drs. E.
	Ascend.
24.00	Top of spur, 25 ft. high, projects E.
	Descend.
28.50	Ravine, 65 ft. deep, drs. E.
	Ascend.
35.00	Top of spur, 105 ft. high, projects E.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S29 ¼ | S28 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	June 29: At this cor. I set off 23° 14' N., on the decl arc; and at 12^h 03^m l.m.t., observe the sun on the mer-

Chains	
	idian; the resulting latitude is 37° 29'.
17.30	Ravine, 205 ft. deep; Moody Wash in the bottom with running water, 8 lks. wide, 3 ins. deep, drs. S.80°E.
	Ascend.
70.00	Top of spur, 345 ft. high, projects S.
	Descend gently.
72.20	Head of ravine, 20 ft. deep, drs. S.
	Ascend.
77.50	Top of ridge, 155 ft. high, brs. NW. and SE.
	Descend.
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, with brass cap marked

T38S	R18W
S20	S21
S29	S28

1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

35 ft. below top of ridge.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

June 29, 1912.

July 1, 1912. At 8^h 04^m a.m.l.m.t., I set off 37°29½' on the lat. arc; 23° 08' 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.89° 58'E., on a random line bet. secs. 21 and 28.

40.00	Set temp. ¼ cor.
79.92	Intersect N. and S. line, 12 lks. S. of cor. of secs. 21,22,27 and 28.

Thence I run

S.89° 53'W., on a true line bet. secs. 21 and 28.

Over mountainous land, through dense undergrowth.

Ascend.

4.00	East top of ridge, 55 ft. above sec. cor., brs. N. and

Chains	
	S.
	Ascend gently along top of ridge.
12.00	W. top of ridge, 90 ft. above E. top, brs. N. and S.
	Descend.
24.25	Ravine, 30 ft. deep, drs. S.
	Ascend.
28.00	Top of spur, 150 ft. high, projects S.
	Descend.
37.10	Ravine, 305 ft. deep; running water in bottom, 5 lks. wide, 2 ins. deep, drs. S.
	Ascend.
39.96	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. i the ground for ¼ sec. cor., with brass cap marked ¼ S21 S28 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, N of cor.
53.00	Top of ridge, 190 ft. high, brs. NW. and SE.
	Descend.
65.50	Ravine, 120 ft. deep, drs. S.
	Ascend.
72.00	Top of spur, 25 ft. high, projects SE.
	Descend.
77.20	Ravine, 65 ft. deep, drs. SE.
	Ascend.
79.92	The cor. of secs. 20,21,28 and 29.
	65 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., bet. secs. 20 and 21.
	Over mountainous land, through dense undergrowth.
	Descend.
4.00	Ravine, 20 ft. below sec. cor., drs. SE.
	Ascend.

Chains	
17.00	Top of ridge, 220 ft. high, brs. E. and W.
	Descend.
25.00	Ravine, 145 ft. deep, drs. E.
	Ascend.
30.50	Top of spur, 60 ft. high, projects E.
	Descend.
39.85	Ravine, 180 ft. deep, drs. E.
	Ascend, over high ledges.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S20 | S21 ¼ 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor. July 1: At this cor. I set off 23° 07' N., on the decl. arc; and at 12h 04m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.
48.00	Top of ledges, 370 ft. high, brs. E. and W.
	Descend.
56.00	Ravine, 90 ft. deep, drs. E.
	Ascend, ledges.
62.00	Top of ledges, 125 ft. high, brs. E. and W.
	Descend.
66.50	Ravine, 115 ft. deep, drs. S.80°W.
	Ascend.
70.00	Top of spur, 40 ft. high, projects W.
	Descend.
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, with brass cap marked T38S | R18W S17 | S16 S20 | S21 1912 and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor. Cor. stands in bottom of ravine, 165 ft. deep, drs. NW. Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush,

Chains

oak and scattering bunch grass.

N.89° 53'E., on a random line bet. secs. 16 and 21.

40.00 Set temp. ¼ cor.

79.90 Intersect N. and S. line, 42 lks. N. of cor. of secs. 15,16,21 and 22.

Thence I run

N.89° 49'W., on a true line bet. secs. 16 and 21.

Over mountainous land, through scattering timber and dense undergrowth.

Ascend.

11.90 Top of ridge, 250 ft. above sec. cor., brs. N. and S.

Descend. Leave scattering timber, brs. N. and S.

21.90 Ravine, 150 ft. below top of ridge, brs. N.

Ascend.

37.90 Top of ridge, 390 ft. above ravine, brs. E. and W.

Descend along N. slope of ridge.

39.95 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

¼
S16
S21
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

53.00 Bottom of descent, 90 ft. below top of ridge, brs. N. and S.

Ascend.

68.40 Top of ridge, 130 ft. high, brs. NW. and S.80°E.

Descend.

79.90 The cor. of secs. 16,17,20 and 21.

130 ft. below top of ridge.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

July 1, 1912.

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chains	
	July 2, 1912: At 8^h 04^m a.m.l.m.t., I set off 37° 30' on the lat. arc; 23° 04' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16,17,20 and 21.
	Thence I run
	N.0° 03'W., bet. secs. 16 and 17.
	Over mountainous land, through dense undergrowth.
	Ascend.
12.00	Top of ridge, 180 ft. above sec. cor., brs. NW. and SE.
	Descend.
22.00	Ravine, 180 ft. deep, drs. E.
	Ascend.
26.00	Top of spur, 30 ft. high, projects E.
	Descend.
33.30	Ravine, 100 ft. deep, drs. NE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S17 | S16 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	Cor. stands on top of spur, 65 ft. high, projects E.
	Descend.
50.75	Ravine, 190 ft. deep, drs. SE.
	Ascend.
68.50	Top of ridge, 335 ft. high, brs. E. and W.
	Descend.
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, with brass cap marked
	T38S | R18W S8 | S9 S17 | S16 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	Cor. stands on N. slope of ridge, 260 ft. below the top.

Chains	
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, and scattering bunch grass.
	S.89° 49'E., on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ cor.
79.86	Intersect N. and S. line 12 lks. S. of cor. of secs. 9, 10,15 and 16.
	Thence I run
	N.89° 54'W., on a true line bet. secs. 9 and 16.
	Over mountainous land, through scattering timber and dense undergrowth.
	Ascend.
14.90	Top of ridge, 55 ft. high, brs. NE. and S.
	Descend.
23.90	Ravine, 40 ft. deep, drs. NE.
	Ascend.
29.90	Top of ascent, 25 ft. above ravine, brs. NE. and SW.
	Descend.
37.30	Ravine, 60 ft. deep, drs. NE.
	Ascend.
39.90	Top of ascent, 25 ft. above ravine, brs. NE. and SW.
	Descend.
39.93	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S9 / S16 1912 from which
	A cedar, 8 ins. dia., bears S.47° 45'W., 84 lks. dist., marked ¼ S 16 B T.
	A cedar, 6 ins. dia., bears N.49° 45'W., 50 lks. dist., marked ¼ S 9 B T.
	July 2; At this cor. I set off 23° 02' N., on the decl. arc; and at 12h 04m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 31'.
43.50	Ravine, 110 ft. deep, drs. SE.
	Ascend.
55.90	Top of ridge, 60 ft. high, brs. N. and S.

chains	
	Descend. Leave scattering timber, brs. N. and S.
8.90	Ravine, 55 ft. deep, drs. N.
	Ascend.
6.90	Top of ridge, 190 ft. above ravine, brs. N.20°W. and SE.
	Descend.
9.86	The cor. of secs. 8,9,16 and 17.
	55 ft. below top of ridge.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., bet. secs. 8 and 9.
	Over mountainous land, through dense undergrowth.
	Descend.
0.00	Enter scattering timber, brs. E. and W.
5.70	Lost Creek, 380 ft. below sec. cor.; running water, 5 lks. wide, 3 ins. deep, drs. NW.
	Ascend.
5.00	Top of spur, 110 ft. high, projects E.
	Descend.
6.50	Ravine, 100 ft. deep, drs. N.80°W.
	Ascend.
0.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S8 ¼ | S9 1912 from which
	A cedar, 14 ins. dia., bears N.74° 45'E., 57 lks. dist., marked ¼ S 9 B.T.
	A cedar, 8 ins. dia., bears N.48° 30'W., 43 lks. dist., marked ¼ S 8 B T.
6.75	Top of spur, 155 ft. high, projects E.
	Descend.
4.45	Ravine, 75 ft. deep, drs. SE.
	Ascend.
9.00	Top of ridge, 65 ft. high, brs. E. and W.
	Descend.
0.00	Leave scattering timber, brs. E. and W.

Chains	
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. the ground for cor. of secs. 4,5,8 and 9, with brass c marked
	T38S | R18W S5 | S4 S8 | S9 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W, of cor.
	Cor. stands on N. slope of ridge, 60 ft. below the top
	Land, mountainous; soil, stony; thirddrate; no timber dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	July 2, 1912.
	July 3,1912: At 8h 04m a.m.l.m.t., I set off 37° 32'. the dlat. arc; 22° 59' N., on the decl. arc; and deter ine a meridian with the solar at the cor. of secs. 4, 8 and 9.
	Thence I run S.89° 54'E. on a random line bet. secs. 4 and 9.
40.00	Set temp. ¼ cor.
79.90	Intersect N. and S. line 7 lks. S. of cor. of secs. 3, 9 and 10.
	Thence I run N.89° 57'W., on a true line bet. secs. 4 and 9. Over mountainous land, through dense undergrowth.
	Descend.
2.40	Lost Creek, 5 ft. below sec. cor.; running water, 4 lk wide, 3 ins. deep, drs. NE.
	Ascend.
33.90	Top of spur, 130 ft. above Lost Creek, projects S.
	Descend.
38.90	Ravine, 40 ft. below top of spur, drs. S.
	Ascend.
39.95	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. i the ground for ¼ sec. cor., with brass cap marked

Chains	
	$\frac{\frac{1}{4}\ S4}{S9\ 1912}$
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
4.90	Top of spur, 130 ft. above ravine, projects S.
	Descend.
7.90	Ravine, 30 ft. deep, drs. S.
	Ascend.
4.90	Top of ridge, 120 ft. above ravine, brs. N. and S.
	Descend.
9.90	The cor. of secs. 4,5,8 and 9.
	185 ft. below top of ridge.
	Land, mountainous; soil, stony; third rate.; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ cor.
72.00	Intersect N. bdy. of Tp.,18 lks. E. of cor. of secs. 4, 5,32 and 33, heretofore described.
	July 3: At this cor. I set off 22° 58' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 33'.
	Thence I run
	S.0° 12'E., on a true line bet. secs. 4 and 5.
	Over mountainous land, through dense undergrowth.
	Descend.
3.60	Ravine, 100 ft. below sec. cor., drs. E.
	Ascend.
6.50	Top of spur, 140 ft. above ravine, projects E.
	Descend.
10.25	Ravine, 115 ft. below top of spur, drs. N.80°E.
	Ascend.
32.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S5 | S4 ¼ | 1912

Chains

and raise a mound of stone, 3 ft. base, 1½ ft. high, W of cor.

Cor. stands on top of ridge, 550 ft. high, brs. E. and

Descend.

48.70 Ravine, 235 ft. deep, drs. W.

Ascend.

51.00 Top of spur, 45 ft. high, projects W.

Descend.

60.60 Ravine, 105 ft. deep, drs. W.

Ascend.

70.50 Top of spur, 120 ft. high, projects W.

Descend.

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

15 ft. below top of spur.

Land, mountainous; soil, stony, third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

July 3, 1912.

Ralph Gentry
U. S. Surveyor.

June 28, 1912: At $9^h 33^m$ a.m.l.m.t., I set off 37° 28' on the lat. arc; 23° 18' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 5,6,31 and 32, on the S. bdy. of the Tp., heretofore described.

Thence I run

N.0° 03'W., bet. secs. 31 and 32.

Over mountainous land, through dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

Descend.

14.10 Ravine, 150 ft. deep; running water 5 lks. wide, 2 ins. deep, drs. E.

Ascend.

chains	
20.00	Top of spur, 140 ft. high, projects E.
	Descend.
30.25	Ravine, 160 ft. deep; running water, 5 lks. wide, 2 ins. deep, drs. SE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S31 | S32
¼
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

68.50	Top of ridge, 75 ft. high, brs. E. and W.
	Descend.
72.50	Ravine, 20 ft. deep, drs E.
	Ascend.
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, with brass cap marked

T38S | R18W
S30 | S29
S31 | S32
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

300 ft. above ravine.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

June 28: At this cor. I set off 23° 17' N., on the decl. arc; and at 12h 03m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.

	East on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ cor.
79.96	Intersect N. and S. line at the cor. of secs. 28,29,32 and 33.
	Thence I run
	West on a true line bet. secs. 29 and 32.
	Over mountainous land, through dense undergrowth.

Chains	
	Descend.
8.00	Ravine, 50 ft. deep, drs. SW.
	Ascend.
12.00	Top of spur, 40 ft. high, projects S.
	Descend.
25.85	Ravine, 85 ft. deep; running water, 5 lks. wide, 2 ins. deep, drs. SE.
	Ascend.
39.98	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	$\frac{1}{4}$ S29 / S32 1912
	and raise a mound of stone 3 ft. base, 2 ft. high, N. of cor.
50.00	Top of spur, 385 ft. high, projects N.
	Descend.
57.00	Ravine, 100 ft. deep, drs. NW.
	Ascend.
79.96	The cor. of secs. 29,30,31 and 32.
	580 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, and scattering bunch grass.
	June 28, 1912.
	June 29, 1912: At $8^h\ 33^m$ a.m.l.m.t., I set off 37° 29' the lat. arc; 23° 15' 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. $\frac{1}{4}$ cor.
85.50	Intersect W. bdy. of Tp., 9 lks. S. of cor. of secs. 25, 30,31 and 36, heretofore described.
	Thence I run
	S.89° 56'E., on a true line bet. secs. 30 and 31.
	Over mountainous land, through dense undergrowth.

Chains	
	Descend.
6.50	Ravine, 25 ft. deep, drs. S.20°E.
	Ascend.
9.40	Top of ridge, 250 ft. high, brs. NW. and SE.
	Descend.
26.00	Ravine, 250 ft. deep, drs. SE.
	Ascend.
45.50	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	$\frac{\frac{1}{4}\ S30}{S31}$ 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
70.10	Top of ridge, 450 ft. high, brs. NW. and SE.
	Descend.
85.50	The cor. of secs. 29,30,31 and 32.
	250 ft. below top of ridge.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak, and scattering bunch grass.
	June 29: At this cor. I set off 23° 14' N., on the decl. arc; and at $12^h\ 03^m$ l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29'.
	N.0° 03'W., bet. secs. 29 and 30.
	Over mountainous land, through dense undergrowth.
	Ascend.
4.35	Top of spur, 100 ft. above sec. cor., projects E.
	Descend.
33.10	Ravine, 525 ft. deep, ; running water, 5 lks. wide, 2 ins. deep, drs. S.70°E.
	Ascend.
38.20	Top of ridge, 80 ft. high, brs. S.60°E. and SW.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Chains	
	S30 | S29 ¼ | 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, W of cor.
54.70	Ravine, 30 ft. deep; Moody Wash in bottom with running water, 5 lks. wide, 3 ins. deep, drs. E.
	Ascend.
79.90	Top of ridge, 200 ft. high, brs. NW. and SE.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. the ground for cor. of secs. 19,20,29 and 30, with bra cap marked
	T38S | R18W S19 | S20 S30 | S29 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, W. cor.
	5 ft. below top of ridge.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, and scattering bunch grass.
	June 29, 1912.
	July 1, 1912: At 8h 04m a.m.l.m.t., I set off 37° 29½' on the lat. arc; 23° 08' 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
	East on a random line bet. secs. 20 and 29.
40.00	Set temp. ¼ cor.
79.96	Intersect N. and S. line 7 lks. S. of cor. of secs. 20 21,28 and 29.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 20 and 29.
	Over mountainous land, through dense undergrowth.
	Ascend.
1.90	Top of ridge, 25 ft. above sec. cor., brs. NW. and SE.

Chains	
	Descend.
14.80	Ravine, 145 ft. deep, drs. S.
	Ascend.
26.10	Top of ridge, 200 ft. high, brs. N. and S.
	Descend.
34.20	Ravine, 90 ft. deep, drs. S.
	Ascend.
39.98	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S20 S29 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
46.00	Top of ridge, 100 ft. high, brs. N. and S.
	Descend.
51.10	Ravine, 120 ft. deep, drs. S.
	Ascend.
58.25	Top of spur, 40 ft. high, projects S.
	Descend.
59.85	Ravine, 50 ft. deep, drs. SE.
	Ascend.
71.90	Top of ridge, 250 ft. high, brs. N. and S.
	Descend.
78.20	Ravine, 60 ft. deep, drs. S.30°E.
	Ascend.
79.96	The cor. of secs. 19,20,29 and 30.
	25 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	July 1: At this cor. I set off 22° 07' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 29½'.

	N.89° 56'W., on a random line bet. secs. 19 and 30.
40.00	Set temp. ¼ cor.
85.49	Intersect W. bdy. of Tp., 19 lks. N. of cor. of secs. 19,

Chains

24,25 and 30, heretofore described.

Thence I run N.89° 56'E., on a true line bet. secs. 19 and 30.

Over mountainous land, through dense undergrowth.

Descend.

12.00 Ravine, 150 ft. deep, drs. S.

Ascend.

34.80 Top of ridge, 230 ft. high, brs. NW. and SE.

Descend.

45.49 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. i the ground for ¼ sec. cor., with brass cap marked

¼
S19
S30
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, N of cor.

47.40 Ravine, 190 ft deep, drs. SE.

Ascend.

81.80 Top of ridge, 275 ft. high, brs. N. and S.

Descend.

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

50 ft. below top of ridge.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, and scattering bunch grass.

July 1, 1912.

July 2, 1912: At 8^h 04^m a.m.l.mit., I set off 37° 29½' on the lat. arc; 23° 04' N., on the decl. arc; and det mine 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, through dense undergrowth.

Descend.

4.60 Ravine, 35 ft. below sec. cor., drs. SE.

Ascend.

Chains	
30.80	Top of spur, 400 ft. high, projects W.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S19 | S20 ¼ | 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
40.80	Hollow, 170 ft. deep, drs. SW.
	Ascend.
52.00	Top of ridge, 300 ft. high, brs. N.80°W. and S.80°E.
	Descend.
74.20	Ravine, 175 ft. deep, drs. NE.
	Ascend.
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, with brass cap marked T38S | R18W. S18 | S17 S19 | S20 1912 and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.
	15 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	July 2: At this cor. I set off 23° 02½' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 30'.
	N.89° 57'E., on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ cor.
79.84	Intersect N. and S. line, 5 lks. N. of cor. of secs. 16, 17,20 and 21.
	Thence I run
	S.89° 59'W., on a true line bet. secs. 17 and 20.
	Over mountainous land, through dense undergrowth.
	Ascend.

Chains	
4.70	Top of spur, 40 ft. above sec. cor., projects N.
	Descend.
17.90	Hollow, 130 ft. deep, drs. NW.
	Ascend.
25.50	Top of spur, 20 ft. above hollow, projects NE.
	Descend.
33.25	Ravine, 50 ft. deep, drs. NE.
	Ascend.
39.92	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. i
	the ground for ¼ sec. cor., with brass cap marked
	¼ S17 / S20 .1912,
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N
	of cor.
45.20	Top of ridge, 40 ft. high, brs. NE. and SW.
	Descend.
56.50	Ravine, 50 ft. deep, drs. NE.
	Ascend.
68.75	Top of spur, 145 ft. above ravine, projects N.
	Descend.
73.50	Ravine, 100 ft. deep, drs. N.
	Ascend.
79.84	The cor. of secs.17,18,19 and 20.
	180 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber;
	dense undergrowth of sage brush, service berry brush,
	and scattering bunch grass.
	July 2, 1912.

July 3, 1912: At $8^h\ 04^m$ a.m.l.m.t., I set off 37° 30'
the lat. arc; 22° 59' N. on the decl. arc; and determi
a meridian with the solar at the cor. of secs. 17,18,1
and 20.

Thence I run

S.89° 56'W., on a random line bet. secs. 18 and 19.

40.00	Set temp. ¼ cor.

Chains	
85.36	Intersect W. bdy. of Tp., at the cor. of secs. 13,18,19 and 24, heretofore described.
	Thence I run
	N.89° 56'E., on a true line bet. secs. 18 and 19.
	Over mountainous land, through dense undergrowth.
	Descend.
5.65	Ravine, 70 ft. deep, drs. SE.
	Ascend.
26.10	Top of ridge, 270 ft. high, brs. NW. and SE.
	Descend.
30.50	Ravine, 50 ft. deep, drs. S.
	Ascend.
37.75	Top of spur, 160 ft. high, projects S.
	Descend.
41.90	Small ravine, 15 ft. deep, drs. S.70°E.
	Ascend.
45.10	Top of ridge, 30 ft. high, brs. NW. and SE.
	Descend.
45.36	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S18 / S19 1912
	and raise a mound of stone, 3 ft. base, 2 ft. high, N. of cor.
72.90	Ravine, 185 ft. deep, drs. NE.
	Ascend.
82.70	Top of ridge, 175 ft. high, brs. NE. and SW.
	Descend.
85.36	The cor. of secs. 17,18,19 and 20.
	70 ft. below top of ridge.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., bet. secs. 17 and 18.
	Over mountainous land, through dense undergrowth.
	Ascend.

Chains

1.00 Top of ridge, 25 ft. above sec. cor., brs. NE. and SW

Descend.

7.00 Ravine, 220 ft. deep, drs. NE.

Ascend.

12.00 Top of ridge, 190 ft. high, brs. NE. and SW.

Descend.

30.00 Ravine, 200 ft. deep, drs. S.E.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 inc. the ground for ¼ sec. cor., with brass cap marked

S16 | S17
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high, of cor.

July 3: At this cor. I set off 22° 56' N., on the dec arc; and at 12h 04m l.m.t., observe the sun on the me dian; the resulting latitude is 37° 31'.

45.20 Top of ridge, 180 ft. high, brs. E. and W.

Descend.

54.05 Ravine, 200 ft. deep; Lost Creek in bottom with runni water, 5 lks. wide, 3 ins. deep, drs. E.

Ascend.

65.50 Top of spur, 145 ft. high, projects E.

Descend.

73.30 Ravine, 185 ft. deep, drs. S.75°E.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 inc. the ground for cor. of secs. 7,8,17 and 18, with brass cap marked

T3S | R16W
S7 | S8
S18 | S17
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W. of cor.

Cor. stands on S. slope of ridge, 181 ft. above ravine

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush,

Chains	
	and scattering bunch grass.
	N.89° 59'E., on a random line bet. secs. 8 and 17.
40.00	Set temp. ¼ cor.
80.00	Intersect N. and S. line, 50 lks. N. of cor. of secs. 8, 9,16 and 17.
	Thence I run
	N.89° 59'W., on a true line bet. secs. 8 and 17.
	Over mountainous land, through dense undergrowth.
	Descend.
29.40	Ravine, 285 ft. deep; Lost Creek in bottom, with running water, 5 lks. wide, 3 ins. deep, drs. NE.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S8 / S17 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
49.00	Top of spur, 50 ft. high, projects S.
	Descend.
52.40	Ravine, 100 ft. deep, with running water, 4 lks. wide, 3 ins. deep, drs. SE.
	Ascend.
80.00	The cor. of secs. 7,8,17 and 18.
	475 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

July 3, 1912.

July 5, 1912: At 8^h 04^m a.m.l.m.t., I set off 37° 31' on the lat. arc; 22° 49' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7,8, 17 and 18.

Chains

Thence I run

1.0° 03'W., bet. secs. 7 and 8.

Over mountainous land, through dense undergrowth.

Ascend.

4.00 Top of ridge, 85 ft. above sec. cor., brs. E. and W.

Descend.

18.60 Ravine, 660 ft. deep, with running water in bottom, 7

wide, 3 ins. deep, drs. SE.

Ascend.

38.80 Top of ridge, 560 ft. high, brs. E. and W.

Descend.

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

the ground for ¼ sec. cor., with brass cap marked

S7|S8
¼|
1912

and raise a mound of stone, 3 ft. base, 1½ ft. high,

of cor.

51.00 Ravine, 350 ft. deep, drs. E.

Ascend.

55.00 Top of ridge, 100 ft. high, brs. NE. and SW.

Descend.

70.00 Ravine, 175 ft. deep, drs. NE.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins.

the ground for cor. of secs. 5,6,7 and 8, with brass c

marked

T35S|R18W
S6|S5
S7|S8
1912

and raise a mound of stone, 3 ft. base, 2 ft. high, W.

cor.

1 ft. above ravine.

Land, mountainous; soil, stony; third rate; no timber;

dense undergrowth of sage brush, service berry brush,

and scattering bunch grass.

S.89° 59'E., on a random line bet. secs. 5 and 8.

40.00 Set temp. ¼ cor.

Chains	
80.00	Intersect N. and S. line 5 lks. S. of cor. of secs. 4,5, 8 and 9.
	Thence I run
	S.89° 59'W., On a true line bet. secs. 5 and 8.
	Over mountainous land, through dense undergrowth.
	Descend.
1.80	Ravine, 30 ft. below sec. cor., drs. N.
	Ascend.
34.20	Top of ridge, 225 ft. high, brs. NW. and SE.
	Descend, over granite ledges.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	¼ S5 S8 1912
	and raise a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
	July 5: At this cor. I set off 22° 47' N., on the decl. arc; and at 12^h 04^m l.m.t., observe the sun on the meridian; the resulting latitude is 37° 31'.
43.20	Bottom of ledges, 200 ft. below top of ridge, brs. NW. and SE.
	Descend gently.
46.40	Ravine, 180 ft. deep, drs. NW.
	Ascend.
73.80	Top of spur, 75 ft. high, projects NW.
	Descend.
78.40	Ravine, 175 ft. deep, drs. NE.
	Ascend.
80.00	The cor. of secs. 5,6,7, and 8.
	5 ft. above ravine.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	N.0° 03'W., on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ cor.

Chains	
71.82	Intersect N. bdy. of Tp.14 lks. E. of cor. of secs. 5,6, 31 and 32, heretofore described.
	Thence I run
	S.0° 11'E., on a true line bet. secs. 5 and 6.
	Over mountainous land, through scattering timber and dense undergrowth.
	Descend.
4.60	Ravine, 45 ft. deep, drs. E.
	Ascend.
9.80	Top of spur, 50 ft. high, projects E.
	Descend.
12.20	Ravine, 150 ft. deep, drs. E.
	Ascend.
24.55	Top of spur, 65 ft. high, projects W.
	Descend.
29.60	Ravine, 185 ft. deep, drs. NW.
	Ascend.
31.82	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S6 | S5 ¼ 1912 from which
	A cedar, 14 ins. dia., bears S.0° 69'E., 42 lks. dist., marked ¼ S 5 B T.
	A pine, 10 ins. dia., bears S.0° 65'W., 99 lks. dist., marked ¼ S 6 B T.
45.30	Top of ridge, 150 ft. high, brs. E. and W.
	Descend.
59.80	Leave scattering timber, brs. E. and W.
60.45	Ravine, 40 ft. deep, drs. E.
	Ascend.
64.80	Top of spur, 30 ft. high, projects E.
	Descend.
71.82	The cor. of secs. 5,6,7 and 8.
	30 ft. below top of spur.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

CHAINS	
	July 5, 1912. Eben B. Andrews U. S. Surveyor.
	July 5, 1912: At 8 h 04 m a.m.l.m.t., I set off 37°30' on the lat. arc; 22°49'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7, 8, 17 and 18.
	Thence I run
	S. 89°56'W. on a random line bet. secs. 7 and 18.
40.00	Set temp. ¼ cor.
85.26	Intersect W. bdy. of Tp., 7 lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described.
	Thence I run
	N. 89°59'E. on a true line bet. secs. 7 and 18.
	Over mountainous land, through dense undergrowth.
	Ascend.
20.00	Top of ridge, 130 ft. above sec. cor., brs. N. and S.
	Descend.
26.00	Ravine, 15 ft. below top of ridge, drs. N.
	Ascend.
28.25	Top of spur, 10 ft. high, projects N.
	Descend.
45.00	Bottom of depression, 290 ft. below top of spur, drs. N.
	Ascend.
45.26	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked ¼ S 7 S 18 1912 and raise a mound of stone, 3 ft. base, 1½ ft. high N. of cor.
48.00	Top of ridge, 10 ft. above bottom of depression, brs. NE. and SW.
	Descend.
56.00	Ravine, 95 ft. below top of ridge, drs. SE.
	Ascend.

CHAINS	
70.00	Top of spur, 30 ft. above ravine, projects S.
	Descend.
85.26	The cor. of secs. 7, 8, 17 and 18.
	75 ft. below top of spur.
	Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.
	July 5: At this cor. I set off 22°47'N. on the decl. arc; and at 12h 04 m l.m.t., observe the sun on the meridian; the resulting latitude is 37°31'.
	From the cor. of secs. 5, 6, 7 and 8, I run S. 89°59'W. on a random line bet. secs. 6 and 7.
40.00	Set temp. ¼ cor.
85.00	Intersect W. bdy. of Tp. 33 lks. N. of cor. of secs. 1, 6, 7 and 12, heretofore described.
	Thence I run N. 89°45'E., on a true line bet. secs. 6 and 7.
	Over mountainous land, through dense undergrowth.
	Descend.
13.00	Ravine, 70 ft. deep, drs. NE.
	Ascend.
13.10	Enter scattering cedars and pinon pine; brs. N. and S.
33.20	Top of spur, 55 ft. above ravine, projects N.
	Descend.
45.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked ¼ S 6 / S 7 / 1912 from which
	A cedar, 14 ins. dia., bears N. 40°30'E., 1.68 chs. dist., marked ¼ S 6 B T.
	A cedar, 14 ins. dia., bears S. 41°45'W., 13 lks. dist., marked ¼ S 7 BT.
63.70	Ravine, 140 ft. below top of spur, drs. N.
	Ascend.
67.70	Top of low spur, 25 ft. above ravine, projects NW.

Subdivision of T.38 S.,R.18 W.

CHAINS	
	Descend.
77.20	Ravine, 15 ft. belop top of spur, drs. NE.
79.30	Recross ravine, drs. SE.
	Ascend.
80.00	Leave scattering timber, brs. NW. and SE.
85.00	The cor. of secs. 5, 6, 7 and 8.
	40 ft. above ravine.

Land, mountainous; soil, stony; third rate; no timber; dense undergrowth of sage brush, service berry brush, oak and scattering bunch grass.

July 5, 1912.

Ralph Gentry
U. S. Surveyor.

GENERAL DESCRIPTION.

This township is generally rough and mountainous, the soil of which is a sandy loam and loose rock which may be classified as third and fourth rate, and is unfit for any purpose except grazing.

The township is generally covered with a very scattering growth of cedars and pinon pine timber, and a dense undergrowth of sage brush, service berry brush, oak and nutritious grasses.

A portion of the NE. quarter of section 4 and the NW. quarter of section 3 is covered with the water of the reservoir of the Enterprise Irrigation Co.

A stream of fresh water is found in Moody Wash which flows east through secs. 30, 29, 28, 27, 26 and 25. There is also water found in Lost Creek which flows through the NW. corner of the township.

The only settler in the township is located in Sec. 14, the improvements consisting of a cabin, corral and about 30 acres of a grassy marsh, fenced the value of which is about $200.00

There are no indications of oil, coal, or mineral found

in this township.

Ralph Ginly
U. S. Surveyor

Eben B Andrews
U. S. Surveyor.

Volume
#
R0403

4—680

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Eben B. Andrews, U. S. Surveyor, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of T37S, R18W, and T38S, R18W.

the Salt Lake Base and Meridian, in the State of Utah ich 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.	
Patrick Kelly	June 2-1912	July 5-1912	Head Chainman
[illegible] B. Peery	June 2-1912	July 5 1912	Rear Chainman
George G. Pedersen	June 2-1912	July 5-1912	Moundman
Sidney Reese	June 2-1912	July 5-1912	Axman
James A. Allerton	June 2-1912	July 5-1912	Flagman

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

Eben B. Andrews
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Eben B Andrews, U. S. Surveyor, do solemnly swear that, in pur
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 12 day of August, 191 1, I have well, faithfully, and
in my own proper person, and in strict conformity with said instructions, the Manual of Sur
Instructions, and the laws of the United States, surveyed all those parts or portions of T.37 S.,
and T.38 S., R.18 W.

of the Salt Lake
and Meridian, in the State of Utah, ~~which are represe~~
~~the foregoing field notes as having been executed by me~~, and under my direction; and I do
in books M. and O.
solemnly swear that all the corners of said survey have been established and perpetuated in strict
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Su
General for Utah and in the specific manner described in the field notes, a
~~the foregoing are the original field notes of such survey.~~

Eben B Andrews
~~U. S. Surve~~

Subscribed by said Eben B. Andrews, and sworn to before me
this 8 day of July, 191 2

SEAL

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

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

, 1

The foregoing field notes of the survey of

executed by

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

U. S. Surveyor Gene

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 of

U. S. Surveyor Gene

4—680

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, alph Gentry, U. S. Surveyor, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of ,37 and 38 S., Re. 18 W.,

the Salt Lake Base and Meridian, in the State of Utah ich 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.	
E. R. Bunbury	May 27, 1912	July 5, 1912	Chainman
Chas. Wright	May 27, 1912	July 5, 1912	Chainman
R. B. Pace	June 2, 1912	July 5, 1912	Moundman
Sam Brooks	June 2, 1912	July 5, 1912	Axeman
Sam Brooks	May 27, 1912	June 2, 1912	Moundman
Sidney Rose	May 27, 1912	June 2, 1912	Axeman
Robert T. Collier	June 2, 1912	July 5, 1912	Flagman
R. B. Pace	May 27, 1912	June 2, 1912	Flagman

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

Ralph Gentry
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pur
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 12th day of August, 1911, I have well, faithfully, and
in my own proper person, and in strict conformity with said instructions, the Manual of Sur
Instructions, and the laws of the United States, surveyed all those parts or portions of
Tps. 37 and 38 S., Rs. 18 W.,

of the Salt Lake Ba
and Meridian, in the State of Utah, which are represen
the foregoing field notes in books L.M.N.& O as having been executed by me, and under my direction; and I do f
solemnly swear that all the corners of said survey have been established and perpetuated in strict a
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Su
General for Utah and in the specific manner described in the field notes, an
the foregoing are the original field notes of such survey.

Ralph Gent
U. S. Surve

Subscribed by said Ralph Gentry, and sworn to before me
this 7th day of May, 1913

Thomas Hell
U. S. Surveyor General for Utah

SEAL

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, Oct. 2, 19

The foregoing field notes of the survey of the Subdivisional lines of Townsh
No. 38 South, Range No. 18 West, of the Salt Lake Base and Meridian,
Utah,

executed by Ralph Gentry and Eben B. Andrews
under ~~his~~ special instructions dated August 12, 1911, having
critically examined, and the necessary corrections and explanations made, the said field notes, an
surveys they describe, are hereby approved.

I. C. Thoresen
U. S. Surveyor Gener

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 offi

6—2761

U. S. Surveyor Gener

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BOOK A-403
Book "J"

U. S. Surveyor General's Office
APR 9 1914
SALT LAKE CITY, UTAH.

FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

T.3 N., R.11 W.

Of the SALT LAKE BASE AND *Meridian,*

the State of UTAH

EXECUTED BY

Howard W. Miller
&
Robert E. Clark

and Transitman

the capacity of U. S. Surveyor, under instructions dated April 10, *1913,*

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

oup No. 21, *which were approved by the Commissioner of the General Land*

ice, April 23, *1913, pursuant to authority contained in the Act of*

ngress dated ....., *191*...

Survey commenced July 4, *1913*

Survey completed July 12, *1913*

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Subdivisions 59-74-02

BOOK A-403

INDEX DIAGRAM.

Township 3 North, *Range* 11 West

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E.R.J.

Subdivision of T.3 N., R.11 W.

CHAINS

Survey commenced July 4 , 1913 and executed with a Young and sons light mountain transit No. 8147 , with solar attachment. For description and test 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 made on Polaris , I proceed as follows:

At my camp which is situated near the cor. of secs. 16 , 17 , 20 and 21 , T.3 N., R.10 W., in approximate lat. 40°59' N.; longitude 112°58'W., an hour angle observation was made on Polaris June 28 , and both ends of the meridian were marked by hubs driven in the ground. For description of this meridian see page 12 , book "I" of this survey. I examine the adjustments of the solar attachment on this meridian as follows :

I place my transit over the S. end of this meridian , set off 40°59' on the lat. arc ; 22°55' N., on the decl arc ; and at 8 h. 04 m. a. m. l. m. t., determine with the solar a meridian and note that this meridian falls on the Polaris meridian determined June 28 . I make numerous other observations during the morning and find that the solar meridians have a little tendency to bear to the right of the Polaris meridian.

At 4 h. 04 m. p. m. l. m. t., with the instrument in the same position , I set off 40°59' on the lat. arc ; 22° 54' N., on the decl. arc ; and determine a meridian with the solar. This meridian falls about 1' to the left of the Polaris meridian. I make numerous other solar observations during the afternoon and find that the majority of the meridians fall on the Polaris meridian. I therefore conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 7 h 30 m a.m.

Subdivision of T.3 N., R.11 W.

chains	
	is 17°30' W.; the angle thus determined gives the mag.de 17°30' E.
	July 5: AT 8 h. 04 m. a. m. l. m. t., I set off 40°56' on the lat. arc; 22°50' N., on the decl. arc; and determine a meridian with the solar at the cor. of sec 1, 2, 35 and 36 heretofore described.
	Thence I run N.0°01' W., bet. secs. 35 and 36.
	Over rough and broken mountainous land draining E., throu scattering scrub cedar timber and undergrowth of shad scale.
	Ascend 15 ft. to.
1.75	Spur, projects E., about 8 chs.
	Descend abruptly.
5.80	Hollow, 75 ft. deep, course E.
	Ascend abruptly.
9.83	Spur, 75 ft. above hollow, projects E. 10 chs.
	Descend.
14.10	Hollow, 50 ft. deep, course E.
	Ascend.
17.60	Spur, 50 ft. above hollow, projects E. 6 chs.
	Descend.
20.00	Hollow, 50 ft. deep, course E.
	Ascend.
23.75	Spur, 45 ft. above hollow, projects E. 12 chs.
	Descend.
33.00	Hollow, 100 ft. deep, course S. 80° E.
	Ascend over broken SE. face of ridge.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked S 35 | S 36 ¼ 1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

chains

43.25 Top of ridge , 50 ft. above ¼ sec. cor., bears NE. and SW.
Descend.

45.00 Head of hollow , drains NW. Thence over land facing W.

50.63 Spur , projects NW. Descend abruptly over NE. slope.

63.78 Hollow , 150 ft. deep , course N.30°W. Ascend abruptly.

68.24 Rocky point falls W. Thence over rocky land facing W.

74.75 Descend abruptly into canyon.

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 , with brass cap marked

T 3 N	R 11 W
S 26	S 25
S 35	S 36

1913

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

Land , rough and broken mountains with steep N. and S. slopes of ridges and spurs into hollows draining E. on S. 43.25 chs. and NW. on N. 36.75 chs.

Soil , rocky , gravelly and light sandy clay of poor quality on gravelly and rocky sub-soil ; 3 rd. rate.

Timber , scattering scrub cedar.

Undergrowth , short shadscale and a considerable amount of rich bunch grass , good for grazing purposes.

Mountainous or timbered land , 80.00 chs.

S.89°58'E., on a random line bet. secs. 25 and 36.

40.00 Set temp. ¼ sec. cor.

79.96 Intersect E. bdy. of the tp. 9 lks. S. of the cor. of secs. 25 , 30 , 31 and 36 heretofore described.

Thence

S.89°58'W., on true line bet. secs. 25 and 36.

Gradually ascend over rolling mountainous land covered with short undergrowth of shadscale and scattering scrub cedar timber.

6.40 Gradually descend.

13.70 Wash in small gulch , 20 lks. wide , 15 ft. deep , course NE

Gradually ascend.

chains	
23.45	Ascend abruptly over mountainous land
28.15	Point , 50 ft. high , falls S.
	Gradually descend across head of hollow thence ascend t
36.20	Ridge , bears N. and S. Descend.
39.98	Set an iron post ; 3 ft. long , 1 in. in dia., 24 ins.
	the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 25 / $\frac{1}{4}$
	S 36 / 1913
	raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ft. high , N. of cor.
40.10	Bottom of hollow , 50 ft. deep , course N. Ascend.
43.75	Spur , projects N. Descend.
48.00	Small hollow drains N. Gradually ascend.
53.40	Top of high spur , covered with huge boulders , project N. Descend abruptly.
60.90	Bottom of hollow and wash , 60 lks. wide , 5 ft. deep , 150 ft. below top of spur , course N. Ascend.
69.40	Spur , 60 ft. high , projects N. Descend abruptly.
71.10	Hollow , 50 ft. deep , course N. Ascend.
77.50	Top of spur , projects N. Descend 30 ft. to.
79.96	The cor. of secs. 25 , 26 , 35 and 36.
	Land , rough mountainous with steep E. and W. slopes of ridges into hollows draining N.
	Soil , gravelly , rocky and some light clay on gravelly and rocky sub-soil ; 4 th. rate.
	Timber , scattering scrub cedar.
	Undergrowth , short shadscale and considerable rich bunc grass , good for grazing purposes.
	Mountainous or timbered land , 79.96 chs.
	July 5 : At this sec. cor., I set off 22°49'N., on the decl. arc; and at 12 h. 04 m. p. m. l. m. t., observe the sun on the meridian , the resulting lat. is 40°57'

	N.0°01'W., bet. secs. 25 and 26
	Over rough broken mountainous land covered with short

chains

undergrowth of shadscale and scrub cedar timber.

Gradually descend.

7.00 Wash in bottom of large hollow, 50 lks. wide, 3 ft. deep, course NE. Ascend abruptly over rocky SE. slope of ridge

21.10 Top of ridge, 400 ft. above hollow, bears NE. and SW.

Descend abruptly 200 ft. to

28.62 Hollow, course E. Ascend abruptly.

35.08 Top of ridge, 175 ft. above hollow, bears N., NE. and SW.

Gradually descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 26 | S 25
¼
1913

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

Gradually ascend.

45.00 Ridge, bears NE. and SW. Descend over land sloping N.

76.50 Descend abruptly into gulch.

79.00 Bottom of gulch and wash, 75 lks. wide, 3 ft. deep, course N.20°E. Gradually ascend.

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, with brass cap marked

T 3 N | R 11 W
S 23 | S 24
S 26 | S 25
1913

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

Land, rough and broken mountains draining N. and NE.

Soil, gravelly, rocky and clay on gravelly and rocky sub-soil; 4th. rate.

Timber, scattering scrub cedar and pinon.

Undergrowth, short shadscale and considerable short bunch grass, good for grazing purposes.

Mountainous or timbered land 80.00 chs.

July 5, 1913

chains

Howard W. Miller

U. S. Surveyor.

Survey commenced July 6, 1913 and executed with a Young and sons light mountain transit No. 7147, with solar attachment. For description and test 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 made on Polaris, I proceed as follows:

At my camp which is situated near the cor. of secs. 16, 17, 20 and 21, T.3 N., R.10 W.; in approximate lat. 40°59'N.; longitude 112°59'W., an hour angle observatio on Polaris was made June 28, and both ends of the meridian were maked by hubs driven in the ground. For description of this meridian see page 12, book "L" of this survey. I examine the adjustments of the solar attachment on this meridian as follows:

I place my transit over the S. end of this meridian, set off 40°59' on the lat. arc; 22°44'N., on the decl. arc; and at 8 h. 04 m. a. m. l. m. t., determine with the solar a meridian, and note that this meridian falls on the Polaris meridian determined June 28. Other solar meridians taken during the morning indicate that the solar apparatus is in adjustment.

At 4 h. 04 m. p. m. l. m. t., with the instrument in the same position, I set off 40°59' on the lat. arc; 22° 48' N., on the decl. arc; and determine a meridian with the solar. This meridian also agrees with the Polar is meridian of June 28. I therefore conclude that the adjustments of the instrument are satisfactory.

July 6, 1913

chains	
	July 7 : At 8 h. 04 m. a. m. l. m. t., I set off 40°58' on the lat. arc ; 22°38'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.89°58'E., on a random line bet. secs. 24 and 25.
40.00	Set temp. ¼ sec. cor.
80.03	Intersect E. bdy. of the tp. 11 lks. N. of the cor. of secs. 19 , 24 , 25 and 30 heretofore described.
	Thence
	N.89°57'W., on true line bet. secs. 24 and 25.
	Over rolling mountainous land covered with short undergrowth of shadscale and sage brush.
	Descend.
2.50	Bottom of gulch near head , course SE.
	Thence gradually ascend over rolling ground sloping E.
40.01½	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 24 ¼ ——— S 25 1913
	dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high, N. of cor.
40.20	Wagon road , bears NE. and SW.
50.00	Base of ridge , bears NE. and SW.
	Ascend abruptly.
55.50	Top of ridge , bears NE. and SW.
	Descend.
58.50	Base of ridge , 70 ft. below top , bears NE. and SW.
	Thence over rolling bench lands.
76.60	Wagon road , bears N. and S.
77.90	Descend abruptly into gulch.
79.00	Bottom of gulch and wash , 75 lks. wide , course N.
	Ascend

chains	
80.03	The cor. of secs. 23 , 24 , 25 and 26.
	Land , rolling mountains or foot hills sloping and drai ing E. and W. from low ridge at 55.50 chs.
	Soil , light , dry , warm sandy clay and gravel , on hard , dry clay and gravel sub-soil ; 3 rd. rate.
	No timber.
	Undergrowth , short shadscale and sage brush. Some patc of bunch grass , good for grazing purposes.
	Mountainous land , 80.03 chs.

	N.0°01'W., bet. secs. 23 and 24
	Over rolling land in bottom of gulch.
9.00	Cross gulch where it becomes a wash , 80 lks. wide , 9 deep , draining N. Thence along E.side of wash.
18.50	Wagon road bears NW. and SEh.
26.00	Enter wash , 60 lks. wide , 9 ft. deep.
30.00	Leave wash , turns NW.
	Thence along E. side.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 23 | S 24
¼
1913

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

45.30	Same wash , course NE.
54.70	Same wash , course NW.
	Thence over rolling ground sloping 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 , with brass cap marked

T 3 N | R 11 W
S 14 | S 13
S 23 | S 24
1913

Subdivision of T.3 N., R.11 W.

chains

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high W. of cor.

Land , rolling hills with N. exposure.

Soil , light , dry , fine , warm sandy clay and gravel on hard dry sandy clay and gravel sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale. Considerable short bunch grass , good for grazing purposes.

July 7 : At this sec. cor., I set off 22°37'N., on the decl. arc ; and at 12 h. 04 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 40°59'.

S.89°57'E., on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect E. bdy. of the tp. 2 lks. S. of the cor. of secs. 13 , 18 , 19 and 24 heretofore described.

Thence

N.89°58'W., on true line bet. secs. 13 and 24.

Over rolling hilly ground sloping N. through short under-growth of shadscale and sage brush.

40.03 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 13
¼
———
S 24
1913

dig pits , 18 x 18 x 12 ins. E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

64.80 Wagon road , bears NW. and SE.

80.06 The cor. of secs. 13 , 14 , 23 and 24.

Land , rolling hills with N. exposure.

Soil , light , dry , fine warm sandy clay and gravel on

chains

hard, dry, gravel and clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth, short shadscale and sage brush. Good bunch grass for grazing purposes.

N.0°01'W., bet. secs. 13 and 14

Over rolling hilly land sloping N. through short undergrowth of shadscale.

38.00 Wagon road, bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 14 ¼	S 13
1913	

dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist., raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

47.40 Descend abruptly.

50.30 Wagon road, bears NE. and SW.

51.40 Bottom of gulch, course NE.

Ascend abruptly.

53.50 Top of N. bank of gulch, thence ascend gradually.

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, with brass cap marked

T 3 N S 11	R 11 W S 12
S 14	S 13
1913	

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

Land, rolling hills with N. and NE. exposure.

Soil, light, dry, warm sandy clay and gravel on hard dry clay and gravel sub-soil ; 3 rd. rate.

No timber.

Undergrowth, short shadscale. Some short bunch grass

chains

good for grazing purposes.

S.89°58'E., on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

80.07 Intersect E. bdy. of the tp. 2 lks. S. of the cor. of secs. 7 , 12 , 13 and 18.heretofore described.

Thence

N.89°59'W., on true line bet. secs. 12 and 13.

Over rolling land sloping N. and covered with short undergrowth of shadscale and sage brush.

24.20 Wash , 30 lks. wide , 20 ft. deep , course N.

33.00 Wagon road , bears N. and SE.

40.03½ Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 12
¼

S 13
1913

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

Gradually ascend.

70.00 Enter hilly land , bears N. and S.

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

Land , rolling and hilly with a general N. and NE. exposure

Soil , light , fine , dry , warm sandy clay mixed with fine gravel and some rocks , on hard , dry clay and rocky sub-soil ; 2 nd. rate.

Undergrowth , short shadscale and sage brush. Some bunch grass good for grazing purposes.

July 7 , 1913

July 9 : At 7 h.05 m. a. m. l. m. t., I set off 41°00' on the lat. arc ; 22° 25' N., on the decl. arc ; and determine a meridian with the solar at the cor. of secs.

chains

11 , 12 , 13 and 14.

Thence I run

N.0°01'W., bet. secs. 11 and 12.

Gradually ascend over rolling mountainous land covered with short undergrowth of shadscale.

15.80 Top of low ridge , bears NE. and SW.

Gradually descend over gradual NW. slope.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 11 ¼	S 12

1913

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

72.97 Wagon road , bears NE. and SW.

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 , with brass cap marked

T 3 N | R 11 W

S 2	S 1
S 11	S 12

1913

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

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

Land , rolling mountainous sloping SE. on S. 15.80 chs. and gently to the NW. on 64.20 chs.

Soil , gravelly , rocky and light , fine , dry , warm sandy clay and gravel on gravelly , rocky and light cl sub-soil ; 3 rd. rate.

No timber.

Undergrowth , short shadscale.

S.89°59'E., on a random line bet. secs. 1 and 12

chains	
40.00	Set temp. ¼ sec. cor.
80.06	Intersect E. bdy. of the tp. 5 lks. N. of the cor. of secs. 1 , 6 , 7 and 12 heretofore described.
	Thence
	N.89°57'W., on true line bet. secs. 1 and 12
	Over rolling land sloping S., through short undergrowth of short shadscale and white sage.
	Descend.
3.40	Small wash , course S.
	Ascend.
8.80	Low spur , projects S.
	Gradually descend.
31.40	Large wash , and base of descent , 75 lks. wide , 3 ft. deep , course NW.
	Ascend very gradually.
40.03	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 1/4 1 / S 12 1913
	dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.
71.20	Wagon road , bears NW. and SE.
80.06	The cor. of secs. 1 , 2 , 11 and 12.
	Land , rolling draining S. on E.31.40 chs. and N. on W. 48.66 chs.
	Soil , light , dry , fine , warm sandy clay , slightly baked and mixed with alkali on hard dry clay and gravel sub-soil ; 3rd. rate.
	No timber.
	Undergrowth , short shadscale and white sage.
	N.0°01'W., on a random line bet. secs. 1 and 2

chains	
40.00	Set temp. ¼ sec. cor.
80.03	Intersect N. bdy. of the tp. at the cor. of secs. 1, 2, 35 and 36 heretofore described.
	Thence
	S.0°01'E., on true line bet. secs. 1 and 2.
	Gradually descend over gently rolling land covered with short undergrowth of shadscale and white sage.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. the ground for ¼ sec. cor., with brass cap marked
	S ¼ 2 | S 1
	1913
	raise a mound of stone, 2 ft. base, 1½ ft. high, W of cor.
42.00	Wash, 2 chs. wide, 2 ft. deep; course NW.
46.00	Wash, 50 lks. wide, 3 ft. deep, course NW.
79.00	Wagon road, bears NW. and SE.
80.03	The cor. of secs. 1, 2, 11 and 12.
	Land, gently rolling with a general NW. drainage.
	Soil, light, fine, dry, warm sandy clay contains so alkali, on hard, dry clay and gypsum sub-soil; 3 r rate.
	No timber.
	Undergrowth, short shadscale and white sage.
	Robert C. Clar
	U. S. Transitman.
	July 8: At 8 h. 05 m. a. m. l. m. t., I set off 40°56' on the lat. arc; 22°32' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35 on the S. bdy. of the tp. here fore described.
	Thence I run

chains	
	N.0°02'W., bet. secs. 34 and 35.
	Over broken mountainous land draining E., through scattering scrub cedar and pinon timber and undergrowth of shadscale.
	Ascend abruptly from hollow.
6.76	Spur , 75 ft. above sec. cor., projects E. about 10 chs.
	Gradually descend.
13.17	Hollow , 60 ft. deep , course E.
	Ascend abruptly.
18.15	Spur , 50 ft. above hollow , projects E. about 8 chs.
	Descend abruptly.
24.00	Hollow , 70 ft. deep , course E.
	Ascend.
32.92	Spur , 75 ft. high , projects E.
	Descend 50 ft. to
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 34 | S 35 ¼ 1913
	dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.
	Gradually descend.
46.80	Hollow , 40 ft. below ¼ sec. cor., course E.
	Ascend 30 ft. to
50.00	Spur , projects SE. 10 chs.
	Thence over land facing nearly east through heavy timber.
60.44	Head of hollow , drains SE. Leave cedar timber.
	Ascend abruptly.
66.10	Top of ridge , bears NE. and SW.
	Descend abruptly over N. slope through dense scrub cedar timber.
80.00	150 ft. below top of ridge.
	Set an iron post , 3 ft. long , 2 in. in dia., 24 ins. in

chains

a mound of stone and earth , 4 ft. base , 2 ft. high
for cor. of secs. 26 , 27 , 34 and 35 , with brass ca
marked

T 3 N	R 11 W
S 27	S 26
S 34	S 35

1913

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

Note:
On account of natural obstacles , I am unable to set
post in the ground.

Land , rough and broken mountains with steep N. and S.
slopes of ridges and spurs into hollows draining E.

Soil , rocky , gravelly and some light clay on gravelly
and rocky sub-soil ; 3 rd. rate.

Timber , scattering scrub cedar.

Undergrowth , short shadscale and salt sage. Considerabl
rich bunch grass , good for grazing purposes.

Mountainous or timbered land , 80.00 chs.

S.89°58'E., on a random line bet. secs. 26 and 35

40.00 Set temp. ¼ sec. cor.

80.05 Intersect N. and S. line , 5 lks. N. of the cor. of sec
25 , 26 , 35 and 36.

Thence

N.89°56'W., on true line bet. secs. 26 and 35.

Over rough and broken mountainous land covered with sho
undergrowth of shadscale and scattering scrub cedar
timber.

Descend abruptly into large hollow.

4.75 Bottom of large hollow and wash , 60 lks. wide , 3 ft.
deep , course N.

Ascend abruptly 60 ft. to

7.77 Rocky spur , projects S. 5 chs.

Descend abruptly.

13.34 Same hollow , course SE.

chains	
	Ascend
17.85	Spur , 30 ft. high , projects N. about 8 chs.
	Descend abruptly.
33.00	Same hollow , drains NW.
	Ascend abruptly 80 ft. to
30.43	Top of ridge , bears NE. and SW.
	Descend abruptly
40.02½	Bottom of hollow and wash , 80 ft. below top of ridge , course N. Point for ¼ sec. cor. falls in bottom of wash where cor. would probably be washed away , I therefore do not set cor. at this point.
	Ascend abruptly.
40.45	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.in the ground for witness cor. to the ¼ sec. cor., with brass cap marked T 3 N R 11 W S 26 WC ¼ S 35 1913 raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
47.92	Spur , 70 ft. above hollow , projects N.
	Descend
58.60	Hollow , 100 ft. below spur , course N.
	Ascend abruptly 90 ft. to
62.37	Spur , projects N. 5 chs.
	Descend.
66.85	Hollow , 75 ft. deep , course NE.
	Ascend.
72.00	Spur , 80 ft. above hollow , projects N.
	Gradually descend.
80.05	The cor. of secs. 26 , 27 , 34 and 35.
	Land , rough and broken mountains , with steep E. and W. slopes of ridges into hollows draining N.
	Soil , gravelly , rocky and some light , dry sandy clay. on gravelly and rocky sub-soil ; 3 rd. rate.

chains	
	Timber , scattering scrub cedar and pinon.
	Undergrowth , short shadscale and considerable rich bun
	grass , good for grazing purposes.
	Mountainous or timbered land , 80.05 chs.
	July 8 : At this sec. cor., I set off 22° 30' N., on th
	decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observ
	the sun on the meridian ; the resulting lat. is 40° 5
	N.0°02'W., bet. secs. 26 and 27.
	Over rough and broken mountainous land covered with sho
	undergrowth of shadscale and scattering scrub cedar
	timber.
	Descend over N. slope of ridge.
27.10	Hollow , 225 ft. below sec. cor., course N.70°E.
	Ascend abruptly over S. face of ridge.
40.00	175 ft. above hollow.
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.
	the ground for ¼ sec. cor., with brass cap marked
	S 27 | S 26 ¼ 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , W.
	of cor.
41.00	Top of ridge , 10 ft. above ¼ sec. cor., bears NE. and S
	Descend abruptly over N. face of ridge.
57.63	Hollow , 275 ft. below ridge , course NE.
	Ascend 15 ft. to
58.75	E. point of spur. Descend 15 ft. to
64.20	Hollow , drains SE.
	Ascend abruptly over rocky SW. slope of ridge.
69.00	Rocky spur , 75 ft. high , projects SE.
	Descend along E. slope.
74.00	Head of hollow , drains E.
	Ascend
77.00	Spur , projects E.

chains

Descend abruptly.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high for cor. of secs. 22 , 23 , 26 and 27 , with brass cap marked

T 3 N	R 11 W
S 22	S 23
S 27	S 26

1913

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

Note:
On account of natural obstacles I am unable to set post in the ground.

Land , rough mountains with steep , N. and S. slopes of ridges into hollows draining E. and NE.

Soil , light , fine , dry clay , gravelly and rocky on gravelly and rocky sub-soil ; 3 rd.rate.

Timber , scattering scrub cedar.

Undergrowth , short shadscale and rich bunch grass , good for grazing purposes.

Mountainous or timbered land , 80.00 chs.

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

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line at the cor. of secs. 23 , 24 , 25 and 26.

Thence

N.89°56'W., on true line bet. secs. 23 and 26.

Ascend over rough mountainous land facing NE., through short undergrowth of shadscale.

31.80 Top of ridge , 170 ft. above sec. cor., bears N. and S.

Descend abruptly.

39.50 Bottom of gulch , 100 ft. below ridge , course N.

Ascend abruptly.

39.99 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in

chains	
	a mound of stone and earth , 4 ft. base , 2 ft. high
	for ¼ sec. cor., with brass cap marked
	S 23
	¼
	S 26
	1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N
	of cor.
	Note:
	On account of natural obstacles I am unable to set po
	in the ground.
41.00	Thence over land facing nearly N.
64.50	Top of E. side of gulch , bears N. and S.
	Descend abruptly.
66.00	Bottom of gulch , 50 ft. deep , course N.
	Ascend abruptly.
68.10	Top of W. side of gulch , bears N. and S.
	Thence gradually ascend over land sloping NE.
79.98	The cor. of secs. 22 , 23 , 26 and 27.
	Land , mountainous with general N. exposure.
	Soil , gravelly and rocky on rocky sub-soil ; 4 th. rat
	No timber.
	Undergrowth , short shadscale.
	Mountainous land , 79.98 chs.
	July 8 , 1913
	July 9 : At 7 h. 05 m. a. m. l. m. t., I set off 40°58'
	on the lat. arc ; 22°25' N., on the decl. arc ; and
	determine a meridian with the solar at the cor. of sec
	22 , 23 , 26 and 27.
	Thence I run
	N. 0°02' W., bet. secs. 22 and 23.
	Gradually descend over rolling mountainous land facing
	NE., through short undergrowth of sage brush.
20.00	Base of mountain , bears NW. amd SE. Enter large basin
	draining NE.

Subdivision of T.3 N., R.11 W.

chains

Thence over gently rolling land.

34.85 Wash , at mouth of large hollow , 75 lks. wide , course NE.

Thence over land sloping E. at E. edge of base of mountain.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 22	S 23
¼	

1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

45.00 Old road , bears NE. and SW.

57.40 Wash , 10 lks. wide , 5 ft. deep , course NE.

63.70 Old road , bears NE. and SW.

Leave basin , enter rough mountainous land , bears NE. and SW.

Ascend.

73.60 Spur , 50 ft. high , projects E.

Descend.

76.50 Hollow , 30 ft. below spur , course SE.

Ascend 25 ft. to

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high for cor. of secs. 14 , 15 , 22 and 23 , with brass cap marked

T 3 N S 15	R 11 W S 14
S 22	S 23

1913

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

Note:
On account of natural obstacles I am unable to set post im the ground.

Land , mountainous and rolling. S. 20 chs. and N. 17.30 chs mountainous land draining NE. and SE. to large basin

chains	
	to the east. Remainder of mile rolling land sloping E
	at W. edge of large basin.
	Soil , gravelly , rocky and light , fine , dry , warm
	sandy clay on gravelly , and clay sub-soil ; 3 rd. ra
	No timber.
	Undergrowth , sage brush.
	Moutainous land , 37.30 chs.

	S.89°56'E., on a random line bet. secs. 14 and 23
40.00	Set temp. ¼ sec. cor.
79.99	Intersect N. and S. line 2 lks S. of the cor. of secs.
	13 , 14 , 23 and 24.
	Thence
	N.89°57'W., on true line bet. secs. 14 and 23.
	Over rolling land at N. end of large basin , through
	undergrowth of shadscale and sage brush.
	Gradually descend over land sloping N.
10.00	Wash , 1 ch. wide , 1 ft. deep , course N.
	Thence over land sloping N.
17.00	Wagon road , bears NE. and SW.
31.00	Wash , 20 lks. wide , 5 ft. deep , course N.
39.99½	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.in
	the ground for ¼ sec. cor., with brass cap marked
	S 14 / ¼
	S 23 / 1913
	dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft
	dist., raise a moundof earth , 3½ ft. base , 1½ ft.
	high , N. of cor.
48.95	Wagon road , bears NE. and SW. Base of mountain , bears
	and SW. Gradually ascend over SE. slope.
79.99	The cor. of secs. 14 , 15 , 22 and 23.
	Land , rolling and mountainous with a general N. drainag
	Soil , light , dry , fine warm sandy clay and gravel wit
	considerable amount of loose rocks on surface on sub-

chains

soil of clay and gravel ; 3 rd. rate.

No timber.

Undergrowth ,short shadscale and sage. Some grass , good for grazing purposes.

Mountainous land on W. 31.05 chs.

N.0°02'W., bet. secs. 14 and 15.

Over mountainous land covered with short undergrowth of shadscale.

Ascend abruptly over SE. face of ridge.

23.00 Top of ridge , 150 ft. above sec. cor., bears NE. and SW.

Descend over NW. slope.

34.50 Cross head of hollow , 75 ft. below ridge , course NE.

Ascend.

33.30 Spur , 75 ft. high , projects NE.

Gradually descend.

38.30 Descend abruptly into hollow.

40.00 On steep NW. slope.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 15 | S 14
¼
1913

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

42.20 Hollow , 75 ft. deep , heads 2 chs. SW., drains NE.

Ascend abruptly.

50.50 Spur , 60 ft. high , projects N.70°E.

Descend 50 ft. to

53.00 Hollow , drains E.

Ascend SE. slope of high ridge.

72.00 Top of ridge , 100 ft. above hollow , bears NE. and SW.

Descend abruptly 100 ft. over N. slope to

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high , for cor. of secs. 10 , 11 , 14 and 15 , with brass cap

chains	
	marked
	T 3 N | R 11 W S 10 | S 11 S 15 | S 14 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , W
	of cor.
	Note:
	On account of natural obstacles I am unable to set po
	in the ground.
	Land , mountainous with a general NE. drainage.
	Soil , rocky and gravelly of volcanic formation on grav
	and rocky sub-soil ; 4 th. rate.
	No timber.
	Undergrowth , short shadscale.
	Mountainous land , 80.00 chs.
	July 9 : At this sec. cor., I set off 22°23' N., on the
	decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observ
	the sun on the meridian ; the resulting lat. is 41°00
	S.89°57'E., on a random line bet. secs. 11 and 14
40.00	Set temp. ¼ sec. cor.
79.96	Intersect N. and S. line 2 lks. N. of the cor. of secs. 11 , 12 , 13 and 14
	Thence
	N.89°56'W., on true line bet. secs. 11 and 14
	Over mountainous land covered with short undergrowth of shadscale.
	Ascend over E. face of ridge.
12.10	Top of ridge , 100 ft. above sec. cor., bears N. and S.
	Gradually descend.
27.00	Top of steep descent , bears NE. and SW.
	Descend abruptly into hollow.
35.00	Bottom of hollow , 150 ft. below top of ridge , course N
	Thence over land in bottom of hollow.
39.98	In bottom of hollow at bend from NW. to NE.
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.in

chains

the ground for ¼ sec. cor., with brass cap marked

S 11
¼

S 14
1913

raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

48.00 Same hollow, course NE.

Ascend abruptly over steep rocky SE. slope of ridge.

58.00 Ascend abruptly over land facing E.

66.70 Ascend gradually.

75.00 Top of ridge, 300 ft. above hollow, bears NE. and SW.

Descend over NW. slope of ridge.

79.96 The cor. of secs. 10, 11, 14 and 15.

Land, rough mountains with steep E. and W. slopes of ridges into hollows draining N.

Soil, gravelly, rocky and some light clay on gravel and rock sub-soil; 4 th. rate.

No timber.

Undergrowth, short shadscale. Considerable short bunch grass, good for grazing purposes.

Mountainous land, 79.96 chs.

N.0°02'W., bet. secs. 10 and 11

Gradually descend over rocky land sloping N. through short undergrowth of shadscale and salt sage.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 10 | S 11
¼

1913

dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist., raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

Descend more gradually over rolling ground.

49.00 Wash, 20 lks. wide, 6 ft. deep, course NE.

chains

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

T 3 N	R 11 W
S 3	S 2
S 10	S 11

1913

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

Land , mountainous with a general N. exposure.

Soil , gravelly , light , dry , warm sandy clay and some loose rocks on gravelly and sandy clay sub-soil ; 3 rate.

Timber , a few scattering cedar on both sides of line.

Undergrowth , short shadscale and sage brush. Some buno grass , good for grazing purposes.

Mountainous land , 80.00 chs.

July 9 , 1913

Howard W. Miller

U. S. Surveyor

July 9 : For solar observation see line bet. secs. 11 a 12.

S.89°56'E., on a random line bet. secs. 2 and 11

40.00 Set temp. ¼ sec. cor.

79.91 Intersect N. and S. line 9 lks. S. of the cor. of secs. 1 , 2 , 11 and 12.

Thence

West , on true line bet. secs. 2 and 11.

Over rolling land sloping N., through short undergrowth of shadscale and salt sage.

39.95½ Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. the ground for ¼ sec. cor., with brass cap marked

S 2
¼

S 11
1913

chains

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

July 9 : At this ¼ sec. cor. I set off 22°23' N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 41°01'.

45.00 Wash , 20 lks. wide , 3 ft. deep , course N.

67.00 Wash , 50 lks. wide , 3 ft. deep , course N.

79.91 The cor. of secs. 2 , 3 , 10 and 11.

Land , rolling with a general N. exposure.

Soil , light , fine , dry , warm sandy clay and gravel on hard , dry , clay and gravel sub-soil ,; 2 nd. rate.

No timber.

Undergrowth , short shadscale and salt sage.

Some good bunch grass for grazing purposes.

N.0°02'W., on a random line bet. secs. 2 and 3

40.00 Set temp. ¼ sec. cor.

80.00 Intersect N. bdy. of the tp. 12 lks. E. of the cor. of secs. 2 , 3 , 34 and 35 heretofore described.

Thence

S.0°07'E., on true line bet. secs. 2 and 3

Gradually ascend over gently rolling land covered with short undergrowth of shadscale and salt sage.

3.00 Wash , 20 lks. wide , 2 ft. deep , course NE.

23.35 Wagon road , bears NW. and SE.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., withbrass cap marked

S 3 ¼ | S 2

1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base ,1½ ft. high , W. of cor.

80.00 The cor. of secs. 2 , 3 , 10 and 11.

chains	
	Land , gently rolling with N. exposure.
	Soil , light , dry , fine , warm sandy clay and gravel on hard , dry clay and gravel sub-soil ; 2 nd. rate.
	No timber.
	Undergrowth , short shadscale and salt sage.
	July 9 , 1913.

	July 8 : At 8 h. 05 m. a. m. l. m. t., I set off 40°56' on the lat. arc ; 22°32' N., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 3 , 4 , 33 and 34 on the S. bdy. of the tp. heretofore described.
	Thence I run
	N.0°02'W., bet. secs. 33 and 34.
	Over rough mountainous land covered with short undergrowth of shadscale and scattering scrub cedar timber.
	Ascend along ridge.
3.00	Descend abruptly from ridge.
6.00	Gulch , 100 ft. deep , course SW.
	Ascend abruptly.
15.00	Spur , projects SW.
	Descend abruptly.
17.50	Gulch , 80 ft. deep , course SW.
	Ascend abruptly.
26.30	Ridge , bears N.10°W. and S.10°E.
	Gradually descend.
31.30	Head of hollow , drains S.20°E.
	Gradually ascend.
34.60	Top of ridge , bears E. and W.
	Descend abruptly.
40.00	Set an iron post , 3 ft. long , 1 in. in dia. 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 33 | S 34
¼
1913

chains

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

Continue steep descent.

46.40 Bottom of gulch , 90 ft. deep , course NE.

Gradually ascend.

59.00 Low spur , projects E.

Descend abruptly.

62.50 Gulch , 100 ft. deep , course S.75°E.

Ascend abruptly.

73.20 Ridge , 150 ft. above gulch , bears E. and W.

Descend 75 ft. to

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high , for cor. of secs. 27 , 28 , 33 and 34 , with brass cap marked

T 3 N S 28	R 11 W S 27
S 33	S 34

1913

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

Note:
On account of natural obstacles I am unable to set post in the ground.

Land , rough and broken mountains draining SW. on S.26.30 chs. and NE. on N. 53.60 chs.

Soil , gravelly and rocky with some sandy clay on gravelly and rocky sub-soil ; 4 th. rate.

Timber , scrub cedar.

Undergrowth , short shadscale. Considerable rich bunch grass , good for grazing purposes.

Mountainous or timbered land 80.00 chs.

S.89°58'E., on a random line bet. secs. 27 and 34

40.00 Set temp. ¼ sec. cor.

chains	
79.92	Intersect N. and S. line , 5 lks. N. of the cor. of secs. 26 , 27 , 34 and 35.
	Thence
	N.89°56'W., on true line bet. secs. 27 and 34.
	Descend abruptly Over rough mountainous land facing NW., through scrub cedar timber and undergrowth of shadscale.
13.00	Bottom of gulch , 150 ft. deep , course N.50°E. about 8 chs., thence N.
	Ascend abruptly.
20.60	Ascend more gradually.
30.00	Ridge , 225 ft. above gulch , bears NE. and SW.
	Descend over NW. slope.
39.96	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked S 27 ¼ S 34 1913 raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
41.60	Bottom of gulch , 70 ft. deep , course N.
	Ascend.
63.20	Ascend gradually.
64.00	Spur , projects N.
	Descend.
72.30	Gulch , 50 ft. deep , course N.
	Ascend.
73.50	Spur , projects N.
	Descend.
77.30	Gulch, drains NE.
	Ascend
79.92	The cor. of secs. 27 , 28 , 33 and 34.
	Land , rough mountainous generally following along N. side of high mountain ridge.
	Soil , gravelly , rocky and some light sandy clay on gravelly and rocky sub-soil ; 4 th. rate.

chains	
	Timber , scrub cedar.
	Undergrowth , short shadscale and considerable short bunch grass , good for grazing purposes.
	Mountainous or timbered land 79.92 chs.
	July 8 : At this sec. cor., I set off 22°30'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 40°57'

	N.0°02'W., bet. secs. 27 and 28
	Descend from ridge over rough mountainous land facing NW. through short undergrowth of shadscale and scrub cedar timber.
18.00	Bottom of gulch , 100 ft. deep , course N.10°E., about 4 chs., thence NE.
	Thence over land facing E.
23.00	Gulch , 40 ft. deep , course NE.
	Gradually ascend.
27.30	Spur , projects NE.
	Descend gradually
30.85	Descend abruptly.
33.90	Gulch , 20 ft. deep , course N.10°E.
	Gradually ascend.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 28 $\frac{1}{4}$ | S 27
	1913
	raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , W. of cor.
	Note: On account of natural obstacles I am unable to set post more than 12 ins. in the ground.
56.00	Ridge , 75 ft. high , bears E. and W.
	Descend abruptly.

chains

71.50 Bottom of gulch , 70 ft. deep , course NE.

Ascend.

73.50 Spur , projects NE.

Descend.

76.50 Gulch , 60 ft. deep , course N.75°E.

Ascend.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. a mound of stone and earth , 4 ft. base , 2 ft. high for cor. of secs. 21 , 22 , 27 and 28 , with brass cap marked

T 3 N	R 11 W
S 21	S 22
S 28	S 27

1913

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

Note:
On account of natural obstacles I am unable to set post in the ground.

Land , rough mountains with a general NE. drainage.

Soil , gravelly , rocky and some sandy clay on gravel and sandy sub-soil ; 4 th. rate.

Timber , scrub cedar.

Undergrowth , short shadscale and sage brush. Considerable bunch grass , good for grazing purposes.

Mountainous or timbered land , 80.00 chs.

July 8 , 1913

July 10 : At 8 h. 05 m. a. m. l. m. t., I set off 40°58' on the lat. arc ; 22°17' 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

S.89°56'E., on a random line bet. secs. 22 and 27.

40.00 Set temp. ¼ sec. cor.

79.89 Intersect N. and S. line 2 lks. N. of the cor. of secs.

chains

22, 23, 26 and 27

Thence

N.89°55'W., on true line bet. secs. 22 and 27

Ascend over mountainous land covered with short undergrowth of shadscale and salt sage and scattering scrub cedar timber.

21.40 Top of ridge, beard N.85°W. and S.85°E.

Ascend abruptly over N. slope of ridge.

38.40 Top of high peak on ridge, 300 ft. high.

Descend.

39.94½ Set an iron post, 3 ft. long, 1in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 22
¼
S 27
1913

raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

47.50 Base of hill or peak, thence over S. side of ridge across numerous small spurs and gulches.

79.89 The cor. secs. 21, 22, 27 and 28.

Land, rough mountainous, with general NE. exposure on E. 37.50 chs., and S. exposure on W. 42.39 chs. Line generally follows along high ridge bearing E. and W.

Soil, light, sandy clay, gravelly and some rocks on dry clayand gravel sub-soil; 3 rd. rate.

Timber, a few scattering scrub cedar.

Undergrowth, short shadscale and sage brush. Considerable rich bunch grass, good for grazing purposes.

Mountainous land, 79.89 chs.

N.0°02'W., bet. secs. 21 and 22

Over broken mountainous land covered with short undergrowth of shadscale, sage brush and scattering scrub cedar timber,

Ascend abruptly over S. face of high ridge.

chains

11.50 Top of limestone peak on top of ridge , 130 ft. above
cor., bears NE. and SW.

Descend along NW. slope of ridge.

34.00 Base of steep descent , 375 ft. below ridge , thence ov
broken land facing W.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.
the ground for ¼ sec. cor., with brass cap marked

S 21	S 22
¼	
1913	

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

67.00 Gulch , 20 ft. deep , course W.

Thence gradually ascend over numerous small ridges and
gulches.

79.50 Gulch , 25 ft. deep , course SW.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 12 ins.
in the ground and 12 ins. in a mound of stone and ear
4 ft. base , 1 ft. high , for cor. of secs.15 , 16 ,
and 22 , with brass cap marked

T 3 N	R 11 W
S 16	S 15
S 21	S 22
1913	

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

Note:
On account of natural obstacles , I am unable to set
post more than 12 ins. in the ground.

Land , rough , broken mountains with S. exposure on S.1
50 chs., and general W. exposure on N.68.50 chs.

Soil , gravelly and rocky mixed with some sandy soil on
hard gravel and rocky sub-soil ; 3 rd. rate.

Timber , scattering scrub cedar.

Undergrowth , short shadscale and sage brush. Some scatt
ing patches of bunch grass , good for grazing purposes

Mountainous land , 80.00 chs.

chains	
	S.89°55'E., on a random line bet. secs. 15 and 22
40.00	Set temp. ¼ sec. cor.
79.97	Intersect N. and S. line at the cor. of secs. 14 , 15 , 22 and 23.
	Thence
	N.89°55'W., on true line bet. secs. 15 and 22.
	Over mountainous land covered with short undergrowth of shadscale and scattering scrub cedar timber.
	Ascend over SE. face of rocky ridge.
10.00	Enter rolling bench land , bears E. and W.
30.00	Base of ridge , bears N. and S.
	Ascend abruptly over E. slope.
38.40	Top of ridge , 300 ft. above sec. cor., bears N.15°E. and S.15°W.
	Descend abruptly over W. slope.
39.98½	Set an iron post , 3 ft. long , 1 in. in dia.,12 ins. in the ground and 12 ins. in a mound of stone and earth , 4 ft. base , 1 ft. high , for ¼ sec. cor., with brass cap marked S 15 ¼ S 22 1913 raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	Note; On account of natural obstacles I am unable to set post more than 12 ins. in the ground.
	July 10 : At this ¼ sec. cor., I set off 22°16'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 40°59'.
46.40	Gulch , 75 ft. deep , course N.
	Ascend abruptly.
48.00	Spur , 60 ft. high, projects N.
	Descend abruptly.
51.00	Gulch , 60 ft. deep , course N.15°E.

chains	
	Ascend abruptly.
56.60	Ridge , 75 ft. above gulch , bears N. and S.
	Descend abruptly over W. slope.
79.00	Small gulch , 225 ft. below ridge , course SW.
	Gradually ascend.
79.97	The cor. of secs. 15 , 16 , 21 and 22.
	Land , broken mountains with steep E. and W. slopes of ridges into gulches draining NE. and NW.
	Soil , gravelly and rocky and mixed with some light , dry sand on gravelly and rocky sub-soil ; 4 th. rate.
	Timber , scattering scrub cedar.
	Undergrowth , short shadscale and salt sage. Considerabl short , rich bunch grass , good for grazing purposes.
	Mountainous land , 79.97 chs.

	N.0°02'W., bet. secs. 15 and 16.
	Ascend over broken land sloping SW., through short under growth of shadscale , salt sage and scattering scrub cedar timber.
11.60	Top of low ridge , 50 ft. above sec. cor., bears E. and Thence descend over broken NW. slope across numerous small washes and spurs.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked

S 16	S 15
¼	

1913

raise a mound of stones, 2 ft. base , 1½ ft. high , W. of cor.

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 , with brass cap marked

T.3 N.	R.11 W.
S 9	S 10
S 16	S 15

1913

chains

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

Land, rolling mountainous with a general W. exposure.
Soil, light, dry, hard clay, gravelly and rocky on gravelly and rocky sub-soil; 3 rd. rate.
Timber, a few scattering cedar.
Undergrowth, short shadscale and salt sage. Considerable rich bunch grass, good for grazing purposes.
Mountainous land, 80.00 chs.

July 10, 1913

Robert E. Clark

U. S. Transitman.

July 11: At 8 h. 05 m. a. m. l. m. t., I set off 41°00' on the lat. arc; 22°09' N., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence I run
S.89°55'E., on a random line bet. secs. 10 and 15
40.00 Set temp. ¼ sec. cor.
80.06 Intersect N. and S. line 9 lks. N. of the cor. of secs. 10, 11, 14 and 15.

Thence
N.89°51'W., on true line bet. secs. 10 and 15.

Over rolling mountainous bench land facing N., through short undergrowth of shadscale and salt sage and scattering scrub cedar timber.
35.15 Top of ridge or W. side of bench, bears NW. and SE.
Descend abruptly.
40.03 Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground and 12 ins. in a mound of stone and earth, 4 ft. base, 1 ft. high, for ¼ sec. cor., with brass cap marked

S 10
¼

S 15
1913

chains	
	raise a mound of stone , 2 ft. base , 1½ ft. high , W
	of cor.
	Note:
	On account of natural obstacles I am unable to set po
	more than 12 ins. in the ground.
45.00	Gradually descend.
59.60	Gulch , 20 ft. deep , 1 ch. wide , 100 ft. below top of
	bench , course N.80°W.
74.30	Large wash , 70 lks. wide , 15 ft. deep , course N.80°W
80.06	The cor. of secs. 9 , 10 , 15 and 16.
	Land , rolling mountains with N. and W. exposures.
	Soil , gravelly , rocky and some light , dry clay on
	gravelly and rocky sub-soil ; 3 rd. rate.
	Timber , a few scattering cedar.
	Undergrowth , short shadscale , salt sage and some bunc
	grass , good for grazing purposes.
	Mountainous land , 80.06 chs.

N.0°02'W., bet. secs. 9 and 10

Over mountainous land covered with short undergrowth of shadscale and salt sage.

1.00	Wash , 1 ch. wide , 2 ft. deep , course N.70°W.
	Ascend.
7.60	Top of W. edge of rocky point , 50 ft. above wash.
	Descend.
18.00	Small gulch , 25 ft. deep , course W.
25.50	Small gulch , 25 ft. deep , course W.
	Begin ascent over SW. slope of ridge.
40.00	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins.
	a mound of stone and earth , 4 ft. base , 2 ft. high
	for ¼ sec. cor., with brass cap marked

S. 9 | S. 10
¼

1913

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

hains

of cor.

Note:

On account of natural obstacles I am unable to set post in the ground.

8.00 Top of ridge , 100 ft. above ¼ sec. cor., bears NW. and SE.

Gradually descend over NW. slope.

0.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high , for cor. of secs. 3 , 4 , 9 and 10 , with brass cap marked

T 3 N S 4	R 11 W S 3
S 9	S 10

1913

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

Note:

On account of under lying rock I am unable to set post in the ground.

Land , mountainous with a general W. drainage.

Soil , gravelly and rocky of volcanic formation on rocky sub-soil ; 4 th. rate.

No timber.

Undergrowth , short shadscale and salt sage,

Mountainous land , 80.00 chs.

S.89°51'E., on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect N. and S. line at the cor. of secs. 2 , 3 , 10 and 11

Thence

N.89°51'W., on true line bet. secs. 3 and 10.

Gradually ascend over rolling land sloping NE., through short undergrowth of shadscale and salt sage.

26.00 Wash , 20 lks. wide , 3 ft. deep , course NE.

Enter mountainous land , bears N. and S.

Ascend abruptly over E. slope.

chains	
36.90	Top of steep ascent , 150 ft. above sec. cor., bears N. and S.
	Gradually ascend.
40.03	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S 3 / $\frac{1}{4}$ / S 10 / 1913
	raise a mound of stone , 2 ft. base , $1\frac{1}{2}$ ft. high , N of cor.
	July 11 : At this $\frac{1}{4}$ sec. cor., I set off 22°08'N., on t decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observ the sun on the meridian ; the resulting lat. is 41°01'
50.00	Top of ridge , 100 ft. above $\frac{1}{4}$ sec. cor., bears NW. and
	Descend over W. slope of ridge.
80.06	200 ft. below ridge.
	The cor. of secs. 3 , 4 , 9 and 10.
	Land , mountainous and rolling with E. and W. exposures from high ridge at 50.00 chs.
	Soil , gravelly , rocky and some light clay on hard grav and rocky sub-soil ; 4 th. rate.
	No timber.
	Undergrowth , short shadscale and salt sage.
	Some bunch grass ; good for grazing purposes.
	Mountainous land , W. 56.06 chs.

	N.0°02'W., on a random line bet. secs. 3 and 4
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.79	Intersect N. bdy. of the tp. 5 lks. E. of the cor. of se 3 , 4 , 33 and 34 heretofore described.
	Thence
	S.0°04'E., on true line bet. secs. 3 and 4.
	Gradually ascend over broken rocky land sloping N., thro short undergrowth of shadscale and salt sage.

chains

24.80 Ridge , 130 ft. above sec. cor., bears NW. and SE.

Gradually descend over gentle SW. slope.

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

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

1913

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

70.00 Base of descent and small gulch , 50 ft. below top of ridge , course W.

Gradually ascend.

79.79 The cor. of secs. 3 , 4 , 9 and 10.

Land , rolling mountainous with a general W. drainage on S.55 chs., and NE. drainage on N.24.79 chs.

Soil , gravelly and rocky of limestone formation on gravelly and rocky sub-soil ; 4 th. rate.

No timber.

Undergrowth ; short shadscale , salt sage and scattering bunch grass , good for grazing purposes.

Mountainous land , 79.79 chs.

July 11 , 1913

July 10 : At 8 h. 05 m. a. m. l. m. t., I set off 40°56' on the lat. arc ; 22°17'N., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 4 , 5 , 32 and 33 on the S. bdy. of the tp. heretofore described

Thence I run

N.0°03'W., bet. secs. 32 and 33

Over rough and broken land facing and draining nearly W., through short undergrowth of short shadscale and salt sage ; across numerous small gulches and spurs.

Descend 20 ft. to

chains

1.00 Gulch , drains W.

13.50 Gulch , 30 ft. deep , course W.

Gradually ascend.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high for ¼ sec. cor., with brass cap marked

S32 ¼ | S 33

1913

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

Note:
On account of natural obstacles I am unable to set post in the ground.

54.47 Spur , projects W.

Gradually descend over broken NW. slope.

78.67 Gulch , 75 ft. deep , course W.

Ascend.

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 with brass cap marked

T 3 N	R 11 W
S 29	S 28
S 32	S 33

1913

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

Land , broken mountains with a general W. exposure.

Soil , gravelly and rocky of limestone formation on gravelly and rocky sub-soil ; 4 th. rate.

No timber,

Undergrowth , short shadscale and salt sage.

Mountainous land , 80.00 chs.

S.89°58'E., on a random line bet. secs. 28 and 33

40.00 Set temp. ¼ sec. cor.

chains	
79.90	Intersect N. and S. line 2 lks. N. of the cor. of secs. 27 , 28 , 33 and 34.
	Thence
	N.89°57'W., on true line bet. secs. 28 and 33
	Over rough mountains covered with scattering cedar timber and short undergrowth of shadscale and salt sage.
	Descend over land facing NW.
9.20	Hollow , 100 ft. deep , near head , course NE.
	Ascend abruptly.
17.90	Top of high limestone ridge , bears N. and S.
	Leave cedar timber , descend abruptly over precipitous W. slope of mountain over ledges and slide rock.
39.95	500 ft. below top of ridge.
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high , for ¼ sec. cor., with brass cap marked
	S 28 / ¼
	S 33 / 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	Note: On account of natural obstacles I am unable to set post in the ground.
	Continue descent over W. slope of mountain.
79.90	400 ft. below ¼ sec. cor.
	The cor. of secs. 28 , 29 , 32 and 33.
	Land , rough mountains. E. 17.90 chs., E. slope of high ridge. W. 62.00 chs., steep , rocky W. slope of limestone ridge, covered with loose slide rock and numerous ledges.
	Soil , rocky of limestone formation on rocky sub-soil ; 4 th. rate.
	Timber , scattering scrub cedar on E. 17.90 chs.
	Undergrowth , short shadscale and salt sage.
	Mountainous land , 79.90 chs.

chains

July 10 : At this sec. cor., I set off 22°16'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observ the sun on the meridian ; the resulting lat. is 40°5

N.0°03'W., bet. secs. 28 and 29

Over rough mountainous land draining W., near base of l rocky ridge , through short undergrowth of shadscale.

Ascend over S. face of spur.

6.30 Spur , 65 ft. above sec. cor., projects W.

Gradually descend over land sloping nearly W.

17.40 Begin steep descent over land sloping NW.

28.75 Bottom of gulch , 75 ft. below spur , course W.

Ascend over low point , then descend to

29.75 Small gulch , course SW.

Ascend.

34.40 Low spur , projects SW.

Gradually descend.

39.90 Small gulch , drains SW.

Gradually ascend over gentle SW. slope.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. stone mound for $\frac{1}{4}$ sec. cor., with brass cap marked

S 29 | S 28
$\frac{1}{4}$
1913

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

Note:
On account of natural obstacles I am unable to set po in the ground.

80.00 On top of flat spur , projects W.

Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. a mound of stone and earth , 4 ft. base , 2 ft. high for cor. of secs. 20 , 21 , 28 and 29 with brass cap marked

chains	
	T 3 N R 11 W S 20 S 21 S 29 S 28 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , W. of cor.
	Note:
	On account of natural obstacles I am unable to set post in the ground.
	Land , mountainous with a general W. exposure.
	Soil , gravelly and rocky of limestone formation on gravelly and rocky sub-soil ; 4 th. rate.
	No timber.
	Undergrowth , short shadscale and salt sage.
	Some scattering patches of bunch grass , good for grazing purposes.
	Mountainous land , 80.00 chs.

	S.89°57'E., on a random line bet. secs. 21 and 28
40.00	Set temp. ¼ sec. cor.
79.99	Intersect N. and S. line 18 lks. S. of the cor. of secs. 21 , 22 , 27 and 28.
	Thence
	S.89°55'W., on true line bet. secs. 21 and 28
	Over rough mountainous land covered with short undergrowth of shadscale and scattering cedar timber.
	Gradually ascend over broken S. face of ridge across numerous small gulches and spurs.
6.00	Head of gulch , drains S.80°E.
	Ascend abruptly.
12.00	Top of ridge , bears NE. and SW.
	Descend
14.50	Head of gulch , drains N.
	Ascend abruptly
17.80	Top of ridge , 140 ft. above sec. cor., bears N. and SW.
	Gradually descend.

chains	
23.50	Descend abruptly over steep NW. slope of mountain.
39.26	Point for ¼ sec. cor. will fall on ledge where cor. can not be set. Therefore perpetuate cor on solid ground at this point as follows :
	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. a mound of stone and earth , 4 ft. base , 2 ft. high for witness cor. to the ¼ sec. cor., with brass cap marked
	T 3 N R 11 W S 21 WC ¼ S 28 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N of cor.
	Note: On account of natural obstacles I am unable to set po in the ground.
	Descend abruptly over limestone ledge 60 ft. high.
39.99½	Point for ¼ sec. cor. falls on ledge where cor. cannot be set.
	Thence descend over W. slope.
49.26	Dry gulch , course NW.
	Ascend abruptly over limestone ledge.
50.31	Top of limestone ledge , about 50 ft. high , and dippin about 40° SE., bears N. and S.
	Descend abruptly over general NW. slope across numerous small rocky spurs and gulches.
67.00	Descend abruptly over W. slope.
72.00	Foot of descent .
	Thence across small bench or flat.
79.99	The cor. of secs. 20 , 21 , 28 and 29.
	Land , rough mountainous. E.¼ mile , E. slope. W.¾ mile general W. exposure.
	Soil ; rocky of limestone formation on rocky sub-soil ; 4 th. rate.
	Timber , a few scattering cedar on E.¼ mile.
	Undergrowth , short shadscale.

chains

Mountainous land , 79.99 chs.

July 10 , 1913

July 12 : At 8 h. 05 m. a. m. l. m. t., I set off 40°58' on the lat. arc ; 22°02'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 mountainous land draining W., through short under-growth of shadscale and salt sage,

Descend over NW. slope of bench.

26.50 Gulch , 200 ft. below sec. cor., drains NW.

Ascend.

35.00 Spur , 75 ft. high , projects W.

Gradually descend.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 20 | S 21
¼
1913

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

48.00 Gulch , 50 ft. below ¼ sec. cor., drains NW.

Thence over broken land facing W., cut by numerous small gulches.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in a mound of stone and earth , 4 ft. base , 2 ft. high , for cor. of secs. 16 , 17 , 20 and 21 ; with brass cap marked

T 3 N | R 11 W
S 17 | S 16

S 20 | S 21
1913

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

chains	
	Land , broken mountains with a general W. exposure.
	Soil ,gravelly , rocky and some light sandy clay on har
	conglomerate and rocky sub-soil ; 4 th. rate.
	No timber.
	Undergrowth , short shadscale and salt sage.
	Mountainous land , 80.00 chs.
	N.89°55'E., on a random line bet. secs. 16 and 21
40.00	Set temp. ¼ sec. cor.
79.88	Intersect N. and S. line 7 lks. S. of the cor. of secs. 15 , 16 , 21 and 22.
	Thence
	S.89°52'W., on true line bet. secs. 16 and 21
	Gradually descend over broken mountainous land facing W
	through short undergrowth of shadscale and salt sage.
38.50	Large wash at mouth of gulch , 1 ch. wide , 2 ft. deep 250 ft. below sec. cor., course NW.
	Gradually ascend.
39.94	Set an iron post , 3 ft. long , 1 in. in dia., 12 ins. the ground and 12 ins. in a mound of stone and earth 4 ft. base , 1 ft. high , for ¼ sec. cor., with brass cap marked
	S 16 ¼
	S 21 1913
	raise a mound of stone , 2 ft. base , 1½ ft. high , N. of cor.
	Note:
	On account of natural obstacles I am unable to set pos more than 12 ins. in the ground.
45.00	N. point of ridge , 25 ft. above ¼ sec. cor., bears S.
	Thence gradually descend over gentle W. slope.
79.88	The cor. of secs. 16 , 17 , 20 and 21.
	Land , broken mountains with general W. exposure. E. 45 cut by numerous small guches. W. 35 chs. gradual W. sl
	Soil , gravelly and rocky mixed with some light clay on g
	velly and rocky sub-soil ; 4 th. rate.

chains

Timber , a few scattering cedar on E. ½ mile.

Undergrowth , short shadscale and salt sage.

Mountainous land , 79.88 chs.

N.0°03'W., bet. secs. 16 and 17.

Over broken land facing W. near W. side of bench , through scattering short undergrowth of shadscale and salt sage.

Descend.

2.50 Gulch , 50 ft. deep , course W.

Gradually ascend.

15.00 Top of flat spur , 50 ft. above gulch , projects W.

Gradually descend.

26.50 Gulch , 75 ft. below spur , course NW.

Ascend abruptly over land facing SW.

29.50 Spur , 40 ft. high , projects NW.

Descend.

36.40 Gulch , 40 ft. deep , course NW.

Thence over rolling land sloping W.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 17 | S 16
¼
1913

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

62.50 Wagon road , bears NE. and SW.

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 , with brass cap marked

T 3 N | R 11 W
S 8 | S 9
S 17 | S 16
1913

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

chains	
	Land , mountainous with a general W. exposure. S.½ mile broken land , N.½ mile rolling .
	Soil , gravelly , rocky and some light sandy clay on gravelly and clay sub-soil ; 3 rd. rate.
	No timber.
	Undergrowth , short shadscale and salt sage. A few scattering patches of bunch grass , good for grazing purposes.
	Mountainous land , 80.00 chs.

	N.89°52'E., on a random line bet. secs. 9 and 16.
40.00	Set temp. ¼ sec. cor.
79.82	Intersect N. and S. line , 5 lks. N. of the cor. of secs. 9 , 10 , 15 and 16.
	Thence
	S.89°54'W., on true line bet. secs. 9 and 16.
	Gradually decsend over rolling land sloping W., across numerous small washes and through short undergrowth shadscale and salt sage.
39.91	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. the ground for ¼ sec. cor., with brass capmarked S 9 ¼ --- S 16 1913 dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.
	Descend more gradually.
64.00	Wagon road , bears N.20°E. and S.20°W.
79.82	The cor. of secs. 8 , 9 , 16 and 17.
	Land , rolling with general W. exposure .
	Soil , gravelly , rocky and considerable light , dry , fine , warm sandy clay on gravelly and clay sub-soil ; 3 rd. rate.
	No timber.

chains

Undergrowth , short shadscale and salt sage.

July 12 : At this sec. cor., I set off 21°59'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 41°00'.

N.0°03'W., bet. secs. 8 and 9

Over rolling land sloping W., through short undergrowth of shadscale and salt sage.

30.00 Begin gradual descent over nearly level land sloping N. and W.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 8	S 9
¼	
1913	

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

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 with brass cap marked

T 3 N	R 11 W
S 5	S 4
S 8	S 9
1913	

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land , rolling and gently rolling with a general W. exposure.

Soil , light , dry , fine , warm sandy clay and gravel on hard , dry , friable clay and gravelly sub-soil ; 2nd rate.

No timber.

Undergrowth , short shadscale and salt sage.

---

chains	
	N.89°54'E., on a random line bet. secs. 4 and 9
40.00	Set temp. ¼ sec. cor.
79.80	Intersect N. and S. line 4 lks. N. of the cor. of secs. 3 , 4 , 9 and 10.
	Thence
	S.89°56'W., on true line bet. secs. 4 and 9.
	Gradually descend over broken land sloping W., through short undergrowth of shadscale and salt sage.
12.70	Top of W. edge of bench or ridge , bears NW. and SE.
	Descend abruptly over W. slope.
17.00	Base of bench and leave mountainous land , 125 ft. belo sec. cor., bears N. and S.
	Gradually descend over rolling land sloping W.
39.90	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. the ground for ¼ sec. cor., with brass cap marked S 4 ¼ / S 9 1913 dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 f dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.
50.00	Wagon road , bears N.10°E. and S.10°W.
79.80	The cor. of secs. 4 , 5 , 8 and 9.
	Land , E. ¼ mile , mountainous with general W. slope. W. mile, rolling land, with W. exposure.
	Soil , gravelly and light , fine , dry , warm sandy clay on hard , dry , clay and gravel sub-soil; 3 rd. rate.
	Some rocky soil on E. ¼ mile.
	No timber.
	Undergrowth , short shadscale and salt sage.
	Mountainous land , 17.00 chs.
	N.0°03'W., on a random line bet. secs. 4 and 5.
40.00	Set temp. ¼ sec. cor.

chains

79.95 Intersect N. bdy. of the tp. 28 lks. E. of the cor. of secs. 4., 5 , 32 and 33 heretofore described.

Thence

S.0°15'E., on true line bet. secs. 4 and 5.

Over nearly level land covered with dense undergrowth of greasewood about 3 ft. high and scattering undergrowth of short shadscale and salt sage.

39.95 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 5 | S 4
¼
1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

54.00 Leave greasewood undergrowth , bears E. and W.

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

Land , level.

Soil , light , dry , fine , warm sandy soil , mixed with some alkali on deep , dry , warm sandy sub-soil ; 1 st. rate.

No timber.

Undergrowth , short shadscale ,salt sage and greasewood.

Greasewood undergrowth on N. 54.00 chs.

July 12 , 1913

Howard W Miller

U. S. Surveyor,

July 11 : At 7 h. 35 m. a. m. l. m. t., I set off 40°56' on the lat. arc ; 22°10'N., on the decl. arc ; and determine a meridian with the solar at the cor. of secs. 5 , 6 , 31 and 32 on the S. bdy. of the tp. heretofore heretofore described.

Thence I run

N.0°04'W., bet. secs. 31 and 32

chains

Gradually descend over rolling land sloping NW., through short undergrowth of shadscale, salt sage and scattering greasewood about 3 ft. high.

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

S 31 | S 32
$\frac{1}{4}$
1913

dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist., raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

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, with brass cap marked

T 3 N | R 11 W
S 30 | S 29
S 31 | S 32
1913

dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dis. raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling sloping NW.

Soil, light, dry, fine warm sandy clay, slightly baked and containing some alkali on hard, friable cla sub-soil; 2nd. rate.

No timber.

Undergrowth, short shadscale, salt sage and scattering greasewood.

S.89°58'E., on a random line bet. secs. 29 and 32

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

79.98 Intersect N. and S. line 2 lks. N. of the cor. of secs. 28, 29, 32 and 33

Thence

N.89°57'W., on true line bet. secs. 29 and 32.

chains

Descend over mountainous land through short undergrowth of shadscale and salt sage and scattering scrub cedar timber.

17.00 Gulch, 1 ch. wide, 20 ft. deep, course N.80°W.

Thence over rolling foothills, gradually descending.

39.99 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 29
¼

S 32
1913

from which

A cedar, 8 ins. diam., bears N.45°W., 20 lks. dist., marked ¼ S 29 B T.

raise a mound of stone, 2 ft. base, 1½ ft. high, N. of cor.

Thence over gently rolling land sloping W.

44.90 Wagon road, bears N. and S.

79.98 The cor. of secs. 29, 30, 31 and 32.

Land, E.½ mountainous; W.½ gently rolling, the entire mile having a general W. exposure.

Soil, E.½ mile gravelly and rocky of limestone formation on rocky subsoil. W.½ mile, light, dry, fine, warm sandy cly, packed hard and containing some alkali on hard clay sub-soil; 4 th. rate for E.½ mile and 2 nd. rate for W.½ mile.

Timber, a few scattering cedar on E.½ mile.

Undergrowth, short shadscale and salt sage. A few scattering greasewood about 3 ft. high.

Mountainous land, 40 chs.

N.89°58'W., on a random line bet. secs. 30 and 31

40.00 Set temp. ¼ sec. cor.

79.14 Intersect W. bdy. of the tp. 2 lks. N. of the cor. of secs. 25, 30, 31 and 36 heretofore described

Thence

chains

S.89°59'E., on true line bet. secs. 30 and 31

Over level land covered with short undergrowth of shadsc

, salt sage and scattering greasewood about 3 ft. high

39.14 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i

the ground for ¼ sec. cor., with brass cap marked

S 30
¼

S 31
1913

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft

dist., raise a mound of earth , 3½ ft. base , 1½ ft.

high , N. of cor.

79.14 The cor. of secs. 29, 30, 31 and 32.

Land , level.

Soil , light , fine , dry , warm sandy clay , slightly

baked and containing some alkali on hard , friable cla

sub-soil ; 2nd. rate.

No timber.

Undergrowth , short shadscale , salt sage and some

scattering greasewood about 3 ft. high.

N.0°04'W., bet. secs. 29 and 30

Over nearly level land covered with short shadscale and

salt sage.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i

the ground for ¼ sec. cor., with brass cap marked

S 30 | S 29
¼ | 1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft

dist., raise a mound of earth , 3½ ft. base , 1½ ft.

high , W. of cor.

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

with brass cap marked

chains

T 3 N	R 11 W
S 19	S 20
S 30	S 29

1913

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land , level.

Soil , light , dry , fine , warm sandy clay , slightly baked and containing some alkali on hard , dry clay sub-soil ; 2 nd. rate.

No timber,

Undergrowth , short shadscale and salt sage.

S.89°57'E., on a random line bet. secs. 20 and 29

40.00 Set temp. ¼ sec. cor.

80.02 Intersect N. and S. line 2 lks. S. of the cor. of secs. 20 , 21 , 28 and 29.

Thence

N.89°58'W., on true line bet. secs. 20 and 29

Over mountainous land along top of bench covered with short undergrowth of shadscale and salt sage.

3.80 Leave bench , descend abruptly over broken rocky W. face of mountain.

40.01 Base of mountain , 300 ft. below sec. cor., bears N. and S.

Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 20
¼

S 29
1913

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

Thence over nearly level land covered with scattering greasewood undergrowth.

40.30 Wagon road , bears N. and S.

chains	
80.02	The cor. of secs. 19 , 20 , 29 and 30.
	Land , E.½ mile , rough mountains ; W.½ mile level land
	General exposure of land to the W.
	Soil , E.½ mile , gravelly and rocky of limestone formation on rocky sub-soil ; 4 th. rate. Soil , W.½ mile , light , dry , fine , warm sandy clay , baked hard , and mixed with some alkali on hard , friable clay sub-soil ; 2 nd. rate.
	No timber.
	Undergrowth , short shadscale and salt sage. Some scattering greasewood on W.½ mile.
	July 11 : At this sec. cor., I set off 22°08'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 40°58'
	N.89°59'W., on a random line bet. secs. 19 and 30
40.00	Set temp. ¼ sec. cor.
79.16	Intersect W. bdy. of the tp. 2 lks. N. of the cor. of secs. 19 , 24 , 25 and 30 heretofore described.
	Thence
	East , on true line bet. secs. 19 and 30.
	Over level land covered with considerable short shadscale and salt sage undergrowth.
39.16	Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked
	S 19 ¼ ——— S 30 1913
	dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.
79.16	The cor. of secs. 19 , 20 , 29 and 30
	Land , level.
	Soil , light , dry , fine , warm sandy clay , baked hard and containing some alkali on hard , friable clay sub-

chains

soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale and salt sage.

N.0°04'W., bet. secs. 19 and 20

Over level land covered with short undergrowth of shadscale.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 19	S 20
¼	
1913	

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

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 , with brass cap marked

T 3 N S 18	R 11 W S 17
S 19	S 20
1913	

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dist., raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land , level.

Soil , light , fine , dry , warm sandy clay , baked hard and containing some alkali on hard , friable clay subsoil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale.

July 11 , 1913

July 12 : At 8 h. 05 m. a. m. l. m. t., I set off 40°59' on the lat. arc ; 22°01'N., on the decl. arc ; and

chains	
	determine a meridian with the solar at the cor. of sec 17 , 18 , 19 and 20.
	Thence I run
	S.89°58'E., on a random line bet. secs. 17 and 20
40.00	Set temp. ¼ sec. cor.
80.07	Intersect N. and S. line 7 lks. N. of the cor. of secs. 16 , 17 , 20 and 21.
	Thence
	N.89°55'W., on true line bet. secs. 17 and 20.
	Descend over broken and rocky land facing W., through short undergrowth of shadscale.
20.00	Base of mountain , 125 ft. below sec. cor., bears N. and
	Thence over rolling and gently rolling land sloping W. through scattering undergrowth of greasewood.
23.05	Wagon road , bears N. and S.
40.03½	Set an irom post , 3 ft. long , 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked S 17 ¼ / S 20 1913
	dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.
55.00	Thence over level land.
80.07	The cor. of secs. 17 , 18 , 19 and 20.
	Land , E. 20 chs. mountainous with general W. exposure. W. 60.07 chs., rolling and level land with very gentle W. slope.
	Soil , on mountainous part , gravelly and rocky of lime-stone formation on rocky sub-soil ; 4 th. rate. Soil o remaininder of mile , light , fine , dry , warm sandy clay , slightly baked and containing some alkali on hard clay sub-soil ; 2 nd. rate.
	No timber.
	Undergrowth , short shadscale . Some scattering greasewoo

chains

on W. ½ mile.

Mountainous land , 20.00 chs.

West , on a random line bet. secs. 18 and 19

40.00 Set temp. ¼ sec. cor.

78.99 Intersect W. bdy. of the Tp. 7 lks. N. of the cor. of secs. 13 , 18 , 19 and 24 heretofore described.

Thence

N.89°57'E., on true line bet. secs. 18 and 19.

Over level ground covered with short undergrowth of shadscale and white sage.

38.99 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 18
¼

S 19
1913

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

78.99 The cor. of secs. 17., 18 , 19 and 20.

Land , level.

Soil , light , dry , fine , warm sandy clay , baked hard and containing some alkali on hard , damp clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale and white sage.

N.0°04'W., bet. secs. 17 and 18.

Over level ground covered with short undergrowth of shadscale.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

chains

S 18	S 17
$\frac{1}{4}$	

1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7 , 8 , 17 and 18 , with brass cap marked

T 3 N	R 11 W
S 7	S 8
S 18	S 17

1913

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dis raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

Land , level.

Soil , light , fine , dry , warm sandy clay , slightly baked and mixed with alkali on hard , damp , friable clay sub-soil ; 2nd. rate.

No timber.

Undergrowth , short shadscale.

S.89°55'E., on a random line bet. secs. 8 and 17.

40.00 Set temp. ¼ sec. cor.

80.03 Intersect N. and S. line 9 lks. N. of the cor. of secs. 8 , 9 , 16 and 17.

Thence

N.89°51'~~W., on true line bet. secs.~~ 8 and 17.

Descend over rolling mountainous land sloping W., throug short undergrowth of shadscale.

27.00 Base of mountain , bears N. and S.

Thence over nearly level land covered with scattering greasewood undergrowth.

40.01½ Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked.

chains

S 8
1/4

S 17
1913

dig pits , 18 x 18x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

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

Land , rolling mountainous with W. exposure on E. 27 chs. , remainder of mile nearly level land with no perceptible drainage.

Soil , of mountainous part , gravelly and sandy clay on gravelly and sandy sub-soil ; 3 rd. rate. Soil of remaining part , light , dry , fine , warm sandy clay, slightly mixed with alkali and baked hard , on hard , friable clay sub-soil ; 2 nd. rate.

No timber

Undergrowth , short shadscale . Scattering greasewood on W. 53 chs.

Mountainous land , 27 chs.

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

40.00 Set temp. 1/4 sec. cor.

78.85 Intersect W. bdy. of the tp. 14 lks. N. of the cor. of secs. 7 , 12 , 13 and 18 heretofore described.

Thence

N.89°51'E., on true line bet. secs. 7 and 18.

Over level ground covered with short undergrowth of shadscale.

38.85 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for 1/4 sec. cor., with brass cap marked

S 7
1/4

S 18
1913

chains

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

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

Land , level.

Soil , light , dry , warm sandy clay , slightly baked an mixed with alkali on damp friable clay sub-soil ; 2 nd rate.

No timber.

Undergrowth , short shadscale.

July 12 : At this sec. cor., I set off 21°59'N., on the decl. arc ; and at 12 h. 05 m. p. m. l. m. t., observe the sun on the meridian ; the resulting lat. is 41°00'

N.0°04'W., bet. secs. 7 and 8

Over level land covered with short undergrowth of shad-scale and white sage.

40.00 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked

S 7 | S 8
¼
1913

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

80.00 Set an iron post , 3 ft. long , 2 ins. in dia., 24 ins. in the ground for cor. of secs. 5 , 6 , 7 and 8 , with brass cap marked

T 3 N | R 11 W
S.6 | S.5
S.7 | S.8
1913

dig pits , 18 x 18 x 12 ins., in each sec., 5½ ft. dis raise a mound of earth , 4 ft. base , 2 ft. high , W. of cor.

chains

Land , level.

Soil , light , fine , dry , warm sandy clay , baked hard and containing some alkali on hard , damp friable clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale and white sage.

S.89°51'E., on a random line bet. secs. 5 and 8

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line 12 lks. S. of the cor. of secs. 4 , 5 , 8 and 9.

Thence

N.89°56'W., on true line bet. secs. 5 and 8.

Over level ground covered with short undergrowth of shadscale , white sage and scattering greasewood.

39.99 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked

S 5
¼

S 8
1913

dig pits , 18 x 18 x 12 ins., E. and W. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

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

Land , level.

Soil , light , dry , warm sandy clay , slightly baked on hard , dry , friable clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale , white sage and scattering greasewood.

S.89°51'W., on a random line bet. secs. 6 and 7

40.00 Set temp. ¼ sec. cor.

78.82 Intersect W. bdy. of the tp. 7 lks. S. of the cor. of secs.

chains.

1 , 6 , 7 and 12 , heretofore described.

Thence

N.89°54'E., on true line bet. secs. 6 and 7.

Over nearly level land covered with short undergrowth of shadscale , salt sage , and scattering greasewood.

38.82 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked

S 6
¼
S 7
1913

dig pits , 18 x 18 x 12 ins. , E. and W. of post , 3 f dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , N. of cor.

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

Land , level.

Soil , light , dry , fine , warm sandy clay , slightly baked and containing some alkali on hard , damp , fria clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale , white sage and scatterin greasewood.

N.0°04'W., on a random line bet. secs. 5 and 6.

40.00 Set temp. ¼ sec. cor.

79.85 Intersect N. bdy. of the tp. 37 lks. E. of the cor. of secs. 5 , 6 , 31 and 32 heretofore described.

Thence

S.0°20'E., on true line bet. secs. 5 and 6.

Over gently rolling land covered with short undergrowth of shadscale , greasewood and white sage.

39.85 Set an iron post , 3 ft. long , 1 in. in dia., 24 ins. i the ground for ¼ sec. cor., with brass cap marked

S 6 | S 5
¼
1913

chains

dig pits , 18 x 18 x 12 ins., N. and S. of post , 3 ft. dist., raise a mound of earth , 3½ ft. base , 1½ ft. high , W. of cor.

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

Land , gently rolling with SW. and N. exposures.

Soil , light , dry , fine , warm sandy clay , slightly baked and mixed with alkali on hard , dry clay sub-soil ; 2 nd. rate.

No timber.

Undergrowth , short shadscale , greasewood and white sage.

July 12 , 1913

Robert E. Clark.

U. S. Transitman.

GENERAL DESCRIPTION.

With the exception of a portion of the western part of this township and a part of secs. 2 and 12 this township is rough and mountainous. The highest part being situated in the southern portion of the township and breaks off gently to the NE. and abruptly to the W. more especially in secs. 21 , 28 and 33 from a high ridge or divide whose elevation decreases as you approach the N. and extends through the township in a N. and S. direction from sec. 4 to sec. 33. This divide forms a water shed for the township and from it the country drains NE. and W. The soil is generally rocky of limestone and volcanic formation but in many places large quanities of gravelly soil mixed with light , dry fine clay are found.

The western part of the township lies near the E. edge of the Great American Desert and consists of level land with no perceptible drainage. The soil is a light

General Description.

, dry , fine , warm , sandy clay ; usually baked hard and containing much alkali. The sub-soil is of the sam composition as the surface , the only difference being that it is packed much harder. Near the W. part of the township and as you approach the Great American Desert the soil becomes sticky and wet ; strongalkali water unfit for any purpose may be had by digging 3 to 4 ft under the surface. This land is as a general rule void of vegetation and unfit for agricultural purposes. A strip of land , lying diagonally across secs. 2 and 12 is apparently the most valuable in the township , the soil being a rich sandy loam , rather dry on a deep sandy sub-soil ; this land being capable of producing crops with the aid of irrigation.

Scattering scrub cedar timber is found on the mountains , more especially in the SE. part of the township. The entire township supports an abundant growth of short shadscale , salt sage , white sage and scattering patc of greasewood. Rich , native grasses are found on the mountainous part and are valuable for grazing purposes

No indications of mineral were found in the township.

There are no settlers in the township.

The annual percipitation of the surrounding country and in this township is very little and the lands are used only for winter grazing of sheep and some cattle.

Robert E. Clark

U. S. Transitman.

Howard W. Miller

U. S. Surveyor.

Group

4—680

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Robert E. Clark, U. S. ~~Surveyor~~ Transitman, during the periods and in the capacities ted opposite our several signatures, in surveying all those parts or portions of the subdivision of Tps. 1, 2 and 3 N., R.10 W., Tps. 1 and 2 S., R.11 W. and Tps. 1, 2 and 3 N., R.11 W.

the Salt Lake Base and Meridian, in the State of Utah ich 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.	
Victor A. Moore	May 4, 1913	June 19, 1913	chainman
Percival Thomas	May 2, 1913	June 19, 1913	moundman
Wesley Ream	May 2, 1913	July 15, 1913	chainman
Thomas Piper	May 2, 1913	July 15, 1913	flagman chainman
Leslie King	June 22, 1913	July 15, 1913	moundman
Ralph Jordan	June 22, 1913	July 15, 1913	flagman

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

Howard W. Miller
U. S. Surveyor.

6—2761

FINAL OATH OF UNITED STATES ~~SURVEYOR~~

I, Robert E. Clark, U. S. ~~Surveyor,~~ Transitman do solemnly swear that, in purs of special instructions received from the U. S. Surveyor General for Utah bearing date of the 10th day of April, 1913, I have well, faithfully, and in my own proper person, and in strict conformity with said instructions, the Manual of Surv Instructions, and the laws of the United States, surveyed all those parts or portions of Ts. 1 a... S. R. 11 W., Ts. 1, 2 and 3 N. R. 11 W. Ts. 1, 2 and 3 N. R. 10 W.

of the Salt La... Base and Meridian, in the State of Utah, which are represen the foregoing field notes in books E.C.E.F.G.H.I.& J. 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 a ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Sur General for Utah and in the specific manner described in the field notes, an the foregoing are the original field notes of such survey.

Robert E. Clark
U. S. ~~Surve~~ Trans...

Robert E Clark

Subscribed by said ~~A. L. Snehe~~, and sworn to before me this 27th day of April, 1914

A. L. Snehe...
Clerk of the County Court.

SEAL

Transcriber copy seal, I.J.

APPROVAL.

Office of the United States Surveyor General,

______________________________, 19

The foregoing field notes of the survey of ______________________________

executed by ______________________________

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

____
U. S. Surveyor Gene

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 offi

____
U. S. Surveyor Gene

6—2761

4—680

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Howard W. Miller, U. S. Surveyor, during the periods and in the capacities ited opposite our several signatures, in surveying all those parts or portions of Boundaries and subdivisions of Tps. 1, 2 and 3 N., R.10 W.; Tps. 1 and 2 S., R.11 W. and Tps. 1, 2 and 3 N., R.11 W.

the Salt Lake Base 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.		CAPACITY.
	BEGIN.	ENDED.	
Edwin Garner	May 7, 1913	June 19, 1913	chainman
Ruben Riley	April 30, 1913	July 15, 1913	chainman
Carl Ryan	May 1, 1913	July 15, 1913	flagman chainman
Edward Nelson	April 30, 1913	July 15, 1913	mound man
Glenn Carter	June 23, 1913	July 15, 1913	flagman

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

Howard W. Miller
U. S. Surveyor.

4—270

FINAL OATH OF UNITED STATES SURVEYOR.

I, Howard W. Miller, U. S. Surveyor, do solemnly swear that, in pur
of special instructions received from the U. S. Surveyor General for Utah
bearing date of the 10 th. day of April, 1913, I have well, faithfully, and
in my own proper person, and in strict conformity with said instructions, the Manual of Sur
Instructions, and the laws of the United States, surveyed all those parts or portions of
boundaries and subdivision of Tps. 1, 2 and 3 N., R.10 W.;
Tps. 1 and 2 S., R. 11 W. and Tps. 1, 2 and 3 N., R.11 W
of the Salt Lake
Base and Meridian, in the State of Utah, which are represen
the foregoing field notes books A to C inclusive as having been executed by me, and under my direction; and I do f
solemnly swear that all the corners of said survey have been established and perpetuated in strict a
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Su
General for Utah and in the specific manner described in the field notes, an
the foregoing are the original field notes of such survey.

Howard W. Miller
U. S. Surve

Subscribed by said Howard W. Miller, and sworn to before me
this 9th day of April, 1914

SEAL

H. C. Thoresen
U. S. Surveyor General for

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, April 5, 19

The foregoing field notes of the survey of the Subdivisional lines of Towns
No.3 North, Range No.11 West, of the Salt Lake Base and Meridia
Utah

executed by Howard W. Miller and Robert E. Clark
under ~~his~~ their special instructions dated April 10, 191 3, having
critically examined, and the necessary corrections and explanations made, the said field notes, an
surveys they describe, are hereby approved.

H. C. Thoresen
U. S. Surveyor Gene

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 offi

U. S. Surveyor Gener

6—2761

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Page

4—679

Bdrs.filed APR 9 1914 SALT LAKE CITY, UTAH.

BOOK A-403

J.

Subs.filed April 11, 1914.

Misc FIELD NOTES

OF THE ~~SURVEY OF THE~~

RETRACEMENT AND RESURVEY OF THE SOUTH BOUNDARY, AND OF

THE RESURVEY OF THE EAST AND NORTH BOUNDARIES OF

T.27 S., R.16 W.

AND

SURVEY OF THE SUBDIVISION OF

TOWNSHIP 27 SOUTH, RANGE 16 WEST

Of the Salt Lake Base and *Meridian,*

In the State of Utah

EXECUTED BY

Ralph Gentry,

In the capacity of U. S. Surveyor, under instructions dated April 15, *1913,*

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

Group No. 22, *which were approved by the Commissioner of the General Land*

Office, May 7, *1913, pursuant to authority contained in the Act of*

Congress dated , *191*

Survey commenced November 2, *1913*

Survey completed November 24, *1913*

6—151

Retrace 3-22-03 Sub. 58-66-31

Resurvey 13-61-03

BOOK A-403

INDEX DIAGRAM.

Township 27 SOUTH, *Range* 16 WEST

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

6—151

Chains

Survey commenced November 2, 1913, and was executed with instrument described in book "A" of this survey.

I examine the adjustments of the transit, find them correct; 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 camp in the NW. quarter of sec. 22, T.27S.,R.16 W.; approximate latitude 38° 28'N., longitude 113° 37'W., at 4h 41m a.m.l.m.t., I observe Polaris at western elongation in accordance 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 9h 00m a.m.,l.m.t., I lay off the azimuth of Polaris, 1° 28' to the east, and mark the meridian thus determined on a stake firmly set in the ground 5 chs. N. of my station.

At 10h 14m a.m.,l.m.t., I set off 38° 28' on the lat. arc; 14° 42'S., on the decl. arc; and mark a point in the meridian determined with the solar, by driving a nail in the stake already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by Polaris observation.

At 11h 44m l.m.t., I set off 14° 44'S., on the decl. arc; and observe the sun on the meridian; the resulting latitude is 38° 28'.

A 2h 14m p.m.,l.m.t., I set off 38° 28', on the lat. arc; 14° 45'S., on the decl. arc; and mark a point in the meridian determined with the solar, by driving a nail in the stake already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by a.m and p.m. observations, defines positions for maridians, respectively about 0' 16" west and 0' 16" east of the meridian established by the

Chains	
	Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.
	The magnetic bearing of the true meridian at 3h 00m p.m. is N.15° 45'W., the angle thus determined gives the mag. decl. 15° 45'E.
	A two chain tape and clinometer were used on all measurements on this survey.
	November 2, 1913.
	Nov. 3: Dense fog prevented work until 10h am.
	At 10h 14m a.m., l.m.t., I set off 38° 25', on the lat. arc; 15° 02'S., on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 27 and 28 S., R. 16 W., heretofore described.
	The old ¼ sec. cor. being visible.
	I retrace
	N.89° 52'E., bet. secs. 6 and 31.
	Over gently rolling land, through undergrowth of sage brush, yellow top and grass.
13.45	Stream of clear water, 8 lks. wide, 3 ins. deep, course N.10°E.
38.23	Road to Newhouse, brs. N.30°E., and S.30°W.
39.75	The old ¼ sec. cor., which is a quartizite 6 x 6 x 4 ins. above the ground, marked ¼ on N. face, and unwitnessed.
	I dig pits, 18 x 18 x 12 ins., E. and W. of stone, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	The sec. cor. being visible
	I continue on retracement
	N.89° 52'E., bet. secs. 6 and 31.
79.32	The old cor. of secs. 5, 6, 31 and 32, which is a quartzite 10 x 6 x 6 ins. above the ground, marked as described by the surveyor general, and unwitnessed.
	I 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.

Land, gently rolling, and is covered with a medium undergrowth of sage brush, yellow top and grass.

Soil, rich sandy loam, medium texture, 8 to 10 ins, deep on subsoil of clay.

No timber.

The course of the mile is N.89°52'E., and the dist. of the W. half mile, 39.75 chs., and of the E. half, 39.57 chs.

Nov. 2: Sky overcast, solar observations impossible.

The old ¼ sec. cor. being visible,

I retrace.

N.89° 51'E., bet. secs. 5 and 32.

Over gently rolling land, through undergrowth of sage brush, yellow top and grass.

39.92 The old ¼ sec. cor., which is a quartzite, 10 x 8 x 6 ins. above the ground, marked ¼ on N. face, and unwitnessed. I dig pits, 18 x 18 x 12 ins. E. and W., of stone, 3 ft. dist,; and raise a mound of stone, 3½ ft. base, 1½ ft. high N. of cor.

The old sec. cor., being visible.

From this cor. I retrace

East, bet. secs. 5 and 32.

80.00 The old cor. of secs. 4, 5, 32 and 33, which is a quartzite, 10 x 6 x 6 ins. above the ground, marked as described by the surveyor general, and unwitnessed. I 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.

The course and dist. of the W. half mile is therefore, N.89° 51'E., 39.92 chs., and of the E. half mile, East, 40.08 chs.

Land, gently rolling, and covered with a medium undergrowth of sage brush, yellow top and grass.

Chains.	
	Soil, rich sandy loam, medium texture, 8 to 10 ins. deep on subsoil of clay.
	No timber.
	The old ¼ sec. cor. being visible,
	I retrace
	East, bet. secs. 4 and 33.
	Over gently rolling land, through undergrowth of sage brush, yellow top and grass.
17.25	Road, Ryan's ranch to Newhouse, brs. N.10°E., and S.10°
39.70	The old ¼ sec. cor., which is a quartzite, 8 x 6 x 4 ins above the ground, marked ¼ on N. face and unwitnessed. Dig pits, 18 x 18 x 12 ins., E. and W., of stone, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	The old sec. cor., being visible, I retrace
	S.89°45'E., bet. secs. 4 and 33.
79.71	The old cor. of secs. 3, 4, 33 and 34, which is a quartzite 10 x 6 x 6 ins. above the ground, marked as described by the surveyor general, and unwitnessed. I 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 co
	The course and dist.; of the W. half mile is therefore East, 39.70 chs. and of the East, half mile S.89°45'E., 40.01 chs.
	Land, gently rolling, and covered with a medium undergrowth of sage brush, yellow top and grass.
	Soil, rich sandy loam, medium texture, 8 to 10 ins. dee on subsoil of clay.
	No timber.
	The old ¼ sec. cor. being visible
	I retrace

Chains	
	S.89° 55'E., bet. secs. 3 and 34.
	Over gently rolling land, through undergrowth of sage brush, yellow top and grass.
40.00	The old ¼ sec. cor., which is a quartzite, 8 x 6 x 5 ins. above the ground, marked ¼ on N. face and unwitnessed. I dig pits, 18 x 18 x 12 ins. E. and W., of stone, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.
	The old sec. cor.,
	I retrace from this cor.
	S.89° 47'E., bet. secs. 3 and 34.
73.15	Old road, brs. N. and S.
80.00	The old cor. of secs. 2, 3, 34 and 35, which is a quartzite 8 x 6 x 5 ins., marked as described by the surveyor general and unwitnessed. I raise a mound of stone, 3 ft. base, 2 ft. high W. of cor.
	The course and distance of the W. half mile is therefore S.89° 55'E., 40.00 chs., and of the E. half mile S.89° 47'E., 40.00 chs.
	Land, gently rolling, and is covered with a medium undergrowth of sage brush, yellow top and grass.
	Soil, sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay.
	No timber.
	November 3, 1913.

Nov. 4: At 8h 14m a.m.,l.m.t., I set off 38° 25', on the lat. arc; 15° 17½'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 34 and 35.

Thence I retrace East, bet. secs. 2 and 35, and at 40.00 chs. am unable to find any trace of the old ¼ sec. cor.; I continue east on retracement, and am unable to find any trace of any of the old ¼ sec. or sec. cors, along this line. At 160.00 chs. I re-establish the cor, of Ts. 27

Chains	
	and 28 S., Rs. 15 and 16 W., as follows:
	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. i the ground, for cor. of Ts. 27 and 28 S., Rs. 15 and 16 with brass cap marked

T27S

R16W	R15W
S36	S31
S1	S6
R16W	R15W

T28S

1913

From which

A pinon, 6 ins. dia., brs. N.42°30'E., 33 lks. dist.; marked T 27 S R 15 W S 31 B T.

A cedar, 8 ins. dia., brs. S.75°E., 56 lks. dist.; marked T 28 S R 15 W S 6 B T.

A pinon, 8 ins. dia., brs. S.32°W., 650 lks. dist.; marked T 28 S R 16 W S 1 B T.

A pinon, 8 ins. dia., brs. N.183° 'W., 41 lks. dist.; marked T 27 S R 16 W S 36 B T.

Thence from this re-established Tp. cor.,

I run, on resurvey line,

West, bet. secs. 1 and 36.

Over broken mountainous land, through timber, and under growth of sage brush and grass.

Descend.

1.75	Ravine, 15 ft. below Tp. cor., course S.
	Ascend.
5.00	Top of ascent, on S. point of spur, 25 ft. above ravine
	Descend.
31.85	Ravine, 200 ft. below spur, course S.15°W.
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 12 ins. in the ground, to solid rock, and raise a mound of stone, ft. base, 1 ft. high around post, for ¼ sec. cor., wit brass cap marked

Chains

S. 36
$\frac{1}{4}$
S 1
1913

From which

A cedar, 12 ins. dia., brs. N.30°E., 12 lks. dist.; marked $\frac{1}{4}$ S 36 B T.

A cedar, 8 ins. dia., brs. S.2°15'E., 26 lks. dist.; marked $\frac{1}{4}$ S 1 B T.

Nov. 4: At this cor. I set off 15° 21'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 25'.

66.00 Top of ascent on S. side of ridge, 475 ft. above ravine.

Enter scattering timber, brs. N. and S.

Descend.

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, with brass cap marked

T27S	R16W
S35	S36
S2	S1
T28S	R16W

1913

From which

A cedar, 6 ins. dia., brs. N.56°30'E.,52 lks. dist.; marked T 27 S R 16 W S 36 B T.

A pinon, 8 ins. dia., brs. S.46°E.,87 lks. dist.; marked T 28 S R 16 W S 1 B T.

A cedar, 8 ins. dia., brs. S.54°W., 110 lks. dist.; marked T 28 S R 16 W S 2 B T.

A cedar, 8 ins. dia., brs. N.1° 30'W.,71 lks. dist.; marked T 27 S R 16 W S 35 B T.

Land, broken and mountainous, covered with a medium undergrowth of sage brush and grass; soil, poor light sandy loam and loose rock, with numerous outcroping of ledges on slopes of ridges.

Timber, cedars and pinon pine.

Chains	
	West, on resurvey line bet. secs. 2 and 35.
	Over rough mountainous land, through scattering timber, and undergrowth of sage brush and grass.
	Descend.
16.00	Leave timber, brs. N. and S.
39.00	Foot of ridge, 550 ft. below sec. cor., brs. NW. and SE.
	Thence over gently decending land.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S 35
¼
S 2
1913

From which

A cedar, 6 ins. dia., brs. N.65°45'E., 517 lks. dist marked ¼ S 35 B T.

A cedar, 6 ins. dia., brs. S.7°15'W., 417 lks. dist.; marked ¼ S 2 B T.

There are a few scattering cedars around ¼ sec. cor.

46.90	Wash, 20 lks. wide, 3ft. deep, course N.60°W.
55.17	Old road, brs. NW. and SE.
71.80	Wash, 15 lks. wide, 3 ft. deep, course N.60°W.
80.00	The cor. of secs. 2, 3, 34 and 35.

Land, of E. 39 chs. rough and mountainous, and covered with a medium undergrowth of sage brush and grass; soil poor light sandy loam and loose rock, on subsoil of cla and loose rock. Land of W. 41 chs., gently rolling, and slopes to the west; undergrowth, sage brush and grass. Soil, light sandy loam and loose rock, on subsoil of cl and loose rock.

Timber, scattering cedars and pinon pine on E. 16 chs. of mile.

November 4, 1913.

Chains.

There being no subdivision depending on the E. bdy. of this township, I resurvey it as follows:

Nov. 5: At 8h 14m a.m., l.m.t., I set off 38° 25', on the lat. arc; 15° 36'S., on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 27 and 28 S., Rs. 15 and 16 W.

Thence I run, on resurvey line,

North, bet. secs. 31 and 36.

Over rough mountainous land, through timber, and scattering undergrowth of sage brush and grass.

Ascend.

27.80 Spur, 500 ft. above Tp. cor., projects W.

Descend over series of broken ledges.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground to solid rock, and raise a mound of stone, 4. ft. base, 1½ ft. high around post, for ¼ sec. cor., with brass cap marked

S36 ¼ | S31

1913

From which

A pinon, 8 ins. dia., brs. N.17°E., 28 lks. dist.; marked ¼ S 31 B T.

A pinon, 8 ins. dia., brs. S.43°W., 26 lks. dist.; marked ¼ S 36 B T.

Nov. 5: At this cor. I set off 15° 40'S., on the decl. arc. and at 11h 44m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 25'.

42.50 Ravine, 650 ft. below spur, course W.

Ascend over ledges.

52.00 Top of ascent, on W. point of spur, 380 ft. above ravine.

Descend.

78.00 Foot of spur, 600 ft. below top of ascent, brs. E. and W.

Thence over rolling land, sloping W.

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the

Chains	
	ground, for cor. of secs. 25, 30, 31 and 36, with brass cap marked

T27S
R16W | R15W
S25 | S30
S36 | S31

1913

From which

A pinon, 8 ins. dia., brs. N.52°15'E.,61 lks. dist.; marked T 27 S R 15 W S 30 B T.

A pinon, 6 ins. dia., brs. S.70°E., 28 lks. dist.; marked T 27 S R 15 W S 31 B T.

A pinon, 6 ins. dia., brs. S.58°15'W.,114 lks. dist. marked T 27 S R 16 W S 36 B T.

A pinon, 6 ins. dia., brs. N.74°30'W., 37 lks. dist.; marked T 27 S R 16 W S 25 B T.

Land, very rough and mountainous; soil poor light sandy loam and loose rock, with numerous outcroping ledges.

Undergrowth, scattering sage brush and grass.

Timber, cedars and pinon pine.

Nov. 5, 1913

Nov. 6: At 8h 14m a.m.,l.m.t., I set off 38° 26', on th lat. arc; 15° 54'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 30, 31 and 36, on E. bdy. of Tp.

Thence I run, on resurvey line,

North, bet. secs. 25 and 30.

Over rolling mountainous land, sloping W., through timb and scattering undergrowth of sage brush and grass.

Descend slightly.

12.00 Wash, 10 lks. wide, 3 ft. deep, course W.

Ascend spur.

27.00 Top of ascent, on W. point of spur, 325 ft above wash.

Descend.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., with brass cap marked S25 ¼ | S30 1913 From which A pinon, 8 ins. dia., brs. N.89°E., 44 lks. dist.; marked ¼ S 30 B T. A pinon, 8 ins. dia., brs. S.72°W., 47 lks. dist.; marked ¼ S 25 B T.
46.00	Enter scattering timber, brs. E. and W.
49.50	Wash at foot of spur, 20 lks. wide 2 ft. deep, 450 ft. below point of spur, course W. Thence on nearly level line, over land sloping W.
66.00	Wash, 15 lks. wide, 4 ft/ deep, course W.
78.10	Wash, 20 lks. wide, 2 ft. deep, course NW. Ascend spur.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of secs. 19, 24, 25 and 30, with brass cap marked T27S R16W | R15W S24 | S19 S25 | S30 1913 From which A cedar, 8 ins. dia., brs. N.71°45'E.,568 lks. dist.; marked T 27 S R 15 W S 19 B T. A cedar, 10 ins. dia., brs.S.13°15'E.,295 lks. dist.; marked T 27 S R 15 W S 30 B T. A cedar, 10 ins. dia., brs. S.33°W., 180 lks. dist.; marked T 27 S R 16 W S 25 B T. A cedar, 8 ins. dia., brs. N.9°30'W., 176 lks. dist.; marked T 27 S R 16 W S 24 B T. Land rolling , and mountainous, draining W.; soil poor light sandy loam and loose roch, with numerous outcroping of ledges on slopes.

Chains

Undergrowth, scattering sage brush and grass.

Timber, cedars and pinon pine.

Nov. 6: At this cor. I set off 15° 58'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 27'.

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

Over mountainous land, through scattering timber, and scattering undergrowth of sage brush and grass.

Ascend.

24.50 Top of ascent on W. point of rocky spur, 100 ft. above sec. cor.,

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S24 ¼ | S19

1913

From which

A cedar, 8 ins. dia., brs. S.44°45'E.,52 lks. dist.; marked ¼ S 19 B T.

A pinon, 6 ins. dia., brs. S.29°W., 50 lks. dist.; marked ¼ S 24 B T.

42.20 Wash, at foot of spur, 15 lks. wide, 4 ft. deep, 180 ft below point of spur, course N.80°W.

Thence over rolling land, sloping W.

60.10 Wash, 15 lks. wide, 3 ft. deep, course W.

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

T27S

R16W	R15W
S13	S18
S24	S19

1913

Chains	
	From which
	A pinon, 8 ins. dia., brs. N.37°15'E.,92 lks. dist.; marked T 27 S R 15 W S 18 B T.
	A cedar, 6 ins. dia., brs. S.82°15'E.,203 lks. dist.; marked T 27 S R 15 W S 19 B T.
	A pinon, 8 ins. dia., brs. S.22°30'W.,384 lks. dist.; marked T 27 S R 16 W S 24 B T.
	A cedar, 8 ins. dia., brs. N.26°30'W.,318 lks. dist.; marked T 27 S R 16 W S 13 B T.
	Land of S. 42 chs., rough and mountainous, and of the remaining portion rolling, sloping W.; soil, poor light sandy loam and loose rock, with numerous outcroping of ledges on slopes. Undergrowth, scattering sage brush and grass.
	Timber, scattering cedars and pinon pine.
	Nov. 6, 1913.

	Nov. 7: At 8h 14m a.m.,l.m.t., I set off 38° 28', on the lat. arc; 16° 12'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 18, 19 and 24.
	Thence I run, on resurvey line
	North, bet. secs. 13 and 18.
	Over rolling land, through scattering timber, and scattering undergrowth of sage brush and grass.
2.50	Descend into ravine, brs. E. and W.
6.00	Ravine, 20 ft. deep, course W.
	Ascend.
24.50	Top of ascent, on W. point of spur, 270 ft. above ravine.
	Descend.
37.80	Ravine, 30 ft. below point of spur, course SW.
	Ascend over broken ledges.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 6 ins. in the ground, to solid rock, and raise a mound of stone, 4 ft.

Chains	
	base, 1½ ft. high around post, for ¼ sec. cor., with br
	cap marked
	S13 ¼ | S18
	1913
	From which
	A cedar, 6 ins. dia., brs. N.56°45'E.,35 lks. dist.;
	marked ¼ S 18 B T.
	There being no other trees suitable for bearing trees,
	Raise a mound of stone, 3 ft. base, 2 ft. high W. of co
43.75	Spur, 280 ft. above ravine, projects W.
	Descend over series of broken ledges.
59.00	Ravine, 350 ft. below spur, course W.
	Nov. 7: At this point, I set off 16° 16'S., on the decl
	arc; and at 11h 44m l.m.t., observe the sun on the meri
	dian; the resulting lat. is 38° 28'.
	Ascend over broken ledges.
71.50	Spur, 275 ft. above ravine, brs. N. and SW.
	Thence along top of spur.
80.00	Set an iron post, 3 ft. long, 3 ins. in. dia., 4 ins. i
	the ground, to solid rock, and raise a mound of stone,
	ft. base, 20 ins. high around post, for cor. of secs. 7
	12, 13 and 18, with brass cap marked
	T27S R16W | R15W S12 | S7 S13 | S18 1913
	There being no treees suitable for bearing trees availa
	I raise a mound of stone3 ft. base, 2 ft. high W. of co
	Land very rough and mountainous, draining W,; soil, poo
	light sandy loam and loose rock and ledge outcropings.
	Undergrowth, scattering sage brush and grass.
	Timber, scattering cedars and pinon pine.

Chains	
	North, on resurvey line bet. secs. 7 and 12.
	Over rough mountainous land, through scattering timber and scattering undergrowth of sage brush and grass.
	Proceed along top of spur.
5.40	Descend from spur, projects NW.
26.40	Foot of spur, 660 ft. below top, brs. E. and W.
	Leave timber, brs. E. and W.
	Thence over rolling land, sloping W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S12 ¼ | S7

1913

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

Nov. 7, 1913.

Nov. 8: At 8h 14m a.m., l.m.t., I set off 38° 29', on the lat. arc; 16° 30'S., on the decl. arc; and determine a meridian with the solar at the ¼ sec. cor., bet. secs. 7 and 12.

Thence I continue on resurvey

North, bet. secs. 7 and 12.

46.90	Wash, 15 lks. wide, 2 ft. deep, course NW.
	Ascend spur.
62.00	Top of ascent, on W. point of spur, 220 ft. above wash.
	Enter scattering timber, brs. E. and W.
	Descend.
69.70	Ravine, 185 ft. below point of spur, course W.
	Ascend.
80.00	Fall on top of ledge, about 10 ft. high. I mark a cross at point for cor., and set an iron post, 3 ft. long, 3 ins. in dia., in mound of stone, 4 ft. base, 2 ft. high, for cor. of secs. 1, 6, 7 and 12, with brass cap marked

T27S

R16W | R15W

S1 | S6

S12 | S7

1913

Chains

From which

A pinon, 6 ins. dia., brs. N.23°E., 127 lks. dist.,
marked T 27 S R 15 W S 6 B T.

A cedar, 6 ins. dia., brs. S.39°30'E.,110 lks. dist
marked T 27 S R 15 W S 7 B T.

A cedar, 8 ins. dia., brs. S.55°30'W.,40 lks. dist.,
marked T 27 S R 16 W S 12 B T.

A pinon, 8 ins. dia., brs. N.5°W., 109 lks. dist.;
marked T 27 S R 16 W S 1 B T.

Land, rolling and mountainous and broken, draining W.;
Soil, poor light sandy loam and loose rock, ledge out-
cropings on slopes of ridges; undergrowth scattering
sage brush and grass,
Timber, cedars and pinon pine on S. 26 chs. and on N. 1
chs.

North, on resurvey line bet. secs. 1 and 6.
Over broken mountainous land, through scattering timber
and scattering undergrowth of sage brush and grass.
Ascend.

13.00 W. point of spur, 180 ft. above ravine.
Descend.

31.70 Foot of spur, 230 ft. below top, brs. E. and W.
Thence over rolling land, sloping W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in
the ground, for ¼ sec. cor., with brass cap marked

S1 ¼ | S6

1913

From which

A cedar, 8 ins. dia., brs. S.42°E., 55 lks. dist.;
marked ¼ S 6 B T.

A cedar, 20 ins. dia., brs. S.75°W., 34 lks. dist.;
marked ¼ S 1 B T.

Chains	
	Nov. 8: At this cor. I set off 16° 33'S., on the decl. arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 30'.
42.00	Foot of spur, brs. E. and W.
	Ascend.
48.00	W. point of spur, 100 ft. above foot.
	Descend.
55.00	Ravine, 40 ft. below point of spur, course SW.
	Leave scattering timber, brs. NE. and SW.
	Ascend over broken ledges.
59.00	Top of rocky spur, 185 ft. above ravine, projects E.
	Descend.
62.57	Set an iron post, 3 ft. long, 3 ins. in dia., 8 ins. in the ground to solid rock, and raise a mound of stone, 4 ft. base, 16 ins. high around post, for cor of Ts. 26 and 27 S., Rs. 15 and 16 W., with brass cap marked

T26S
R16W | R15W
S36 | S31
S1 | S6
R16W | R15W
T27S
1913

Raise a mound of stone, 3 ft. base, 2 ft. high S. of cor. Cor. stands at foot of ledge, 25 ft. high, on NW. slope of mountain, 70 ft. below top of spur.

Land, very rough and broken, draining W., soil, poor light sandy loam and loose rock, with numerous outcroping of ledges on slopes.

Undergrowth, scattering sage brush and grass.

Timber, scattering cedars and pinon pine on S.55 chs. of mile.

Note: There were no traces of any of the old ¼ sec. or sec. cors. found along this line.

Nov. 8, 1913.

chains	
	Nov. 10: At 8h 14m a.m.,l.m.t., I set off 38° 30', on t lat. arc; 17° 04'S., on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 26 and 27 S. Rs.15 and 16 W.
	Thence I run,
	West on a random line, along the N. bdy. of T.27 S.,R.1 W., setting temp. ¼ sec. and sec. cors. at intervals of 40.00 chs., and at 478.46 chs., intersect W. bdy. of Tp 30 lks. N. of the cor. of Ts. 26 and 27 S., Rs. 16 and W., heretofore described.
	The falling answers to a correction of 0° 02', or 5 lks S. per mile counting from the NE. cor. of Tp.
	Nov. 10, 191
	Nov. 11: Rain storm prevented work until 9h 14m a.m.,l. t., at which time I set off 38° 30', on the lat. arc; 17° 22'S., on the decl. arc; and determine a meridian with the solar at the cor. of Ts. 26 and 27 S., Rs. 16 and 17 W.
	Thence I run
	N.89° 58'E., on true line bet. secs. 6 and 31.
	Over gently rolling land, through medium undergrowth of sage brush, yeloow top and scattering grass.
38.46	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked
	S31 ¼ / S 6
	1913
	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. af cor.
78.46	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. i the ground, for cor. of secs. 5, 6, 31 and 32, with

Chains

brass cap marked

T27S	R16W
S31	S32
S6	S5

1913

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, and is covered with a medium undergrowth of sage brush, yellow top and scattering grass.

Soil, rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay.

No timber.

N.89° 58'E., bet. secs. 5 and 32

Over gently rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S32
¼
S 5

1913

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.

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, with brass cap marked

T27S	R16W
S32	S33
S5	S4

1913

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.

Chains	
	Land, gently rolling, and is covered with a medium unde growth of sage brush, yellow top and scattering grass. Soil, rich sandy loam, 8 to 10 ins. deep, on subsoil of clay.
	No timber.
	N.89° 58'E., on a true resurvey line bet. secs. 4 and 3
	Over gently rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., with brass cap marked
	S33 / $\frac{1}{4}$ / S 4 / 1913
	Dig pits, 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. i the ground, for cor. of secs. 3, 4, 33 and 34, with brass cap marked
	T26S | R16W S33 | S34 S4 | S3 T27S | R16W 1913
	Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high W. o cor.
	Land, gently rolling, and covered with a medium undergr th of sage brush, yellow top and scattering grass. Soil, rich sandy loam, medium texture, 8 to 10 ins. dep on a subsoil of clay.
	No timber.
	Nov. 11: At this cor. I set off 17° 24'S., on the decl.

Chains

arc; and at 11h 44m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 30'.

N.89° 58'E., on true resurvey line bet. secs. 3 and 34.
Over gently rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S34
¼
S 3
1913

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.

67.85 Wash, 20 lks. wide, 3 ft. deep, course S.15°W.

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, with brass cap marked

T26S	R16W
S34	S35
S3	S2
T27S	R16W

1913

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, and covered with a medium undergrowth of sage brush, yellow top and scattering grass.
Soil, rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay.
No timber.

N.89° 58'E., on true resurvey line bet. secs. 2 and 35.

Chains	
	Over rolling land, through medium undergrowth of sage brush, yellow top and scattering grass.
3.14	Road to Newhouse, brs. N.60°E., and S.60°W.
19.70	Old roadm brs. N. and S.
40.00	Set an iron post, 3 ft. long, 1 in. in dia. 24 ins. in the ground, for ¼ sec. cor., with brass cap marked

S35
¼
S 2
1913

	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.
53.300	Road to Newhouse, brs. N.30°E., and S.30°W.
54.35	Wash, 10 lks. wide, 1 ft. deep, course S.30°W.
80.00	Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. i the ground, for cor. of secs. 1, 2, 35 and 36, with bra cap marked

T26S	R16W
S35	S36
S2	S1
T27S	R16W

1913

	Dig pits, 18 x 18 x 12 ins. in each sec. 3½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. c cor.
	Land, rolling, and covered with a medium undergrowth of sage brush, yellow top and scattering grass.
	Soil light sandy loam, medium texture, 8 to 10 ins. dee on subsoil of clay and gravel.
	No timber.

	N.89° 58'E., on true resurvey line bet. secs. 1 and 36.
	Over rolling land, sloping gently to the NW.
30.00	Wash, 50 lks. wide, 4 ft. deep, course NW.

NORTH BOUNDARY OF T. 27 S., R. 16 W.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., with brass cap marked S36 ¼ S 1 1913 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. Cor is about 100 ft. above sec. cor.
46.00	Enter scattering timber, brs. N. and S.
54.50	Foot of rocky knoll, brs. N. and S. Ascend.
58.00	Top of knoll, 55 ft. high. Descend.
60.00	Foot of knoll, 50 ft. below top, brs. N. and S. Thence over rolling land.
61.00	Old road, brs. N. and S.
61.75	Foot of spur, brs. N. and S. Ascend.
65.00	Top of spur, 40 ft. high, projects N. Descend.
69.00	Ravine, 30 ft. below top of spur, course N. Ascend mountain over broken ledges.
80.00	The cor. of Ts.26 and 27 S., Rs.15 and 16 W. Land, of W. 54.50 chs. rolling, sloping gently to the NW. Land of the remaining portion, broken and mountainous; soil, light sandy loam and loose rock, on subsoil of clay and gravel. Broken ledges on slopes. Undergrowth, medium sage brush, yellow top and grass. Scattering timber on E. 34 chs. of mile. Nov. 11, 1913.

Latitudes, departures and closing errors.

Line designated	True Bearing	Dist.	Latitudes N	Latitudes S	Departures E	Departures W
South Bdy.	West	160.00				160.0
" "	N.89°47'W.	40.00	0.15			40.0
	N.89°55'W.	40.00	0.06			40.0
	N.89°45'W	40.01	0.17			40.0
	West	79.78				79.7
	S.89°51'W	39.92		0.11		39.9
	S.89°52'W.	79.32		0.19		79.3
West Bdy.	North	462.49	462.49			
North Bdy	N.89°58'E.	478.46	0.30		478.46	
East Bdy.	South	462.57		462.57		
Convergency					0.57	
			463.17	462.87	479.03	479.0
			462.87			479.0
	Error in lat and dep.		0.30			0.0

Ralph Gut

U. S. Surveyor.

Chains.	
	Survey commenced November 12, 1913. For description of instrument see book "A" of this survey, for recent test of which see page 1 of this book.
	November 12, 1913: At 8h 14m a.m.l.m.t., I set off 38° 25' on the lat.arc; 17° 37'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.1,2,35, and 36 on the S.bdy.of the Tp., heretofore described.
	Thence I run
	N.0° 01'W.bet.secs.35 and 36,
	Over rugged mountainous land; through scattering growth of cedars and pinon pine and scant undergrowth of scattering sagebrush and grass.
	Ascend over ledges.
11.75	Top of ascent on W.slope of peak, 550 ft.above sec.cor. brs.E.and W.
	Descend over ledges.
30.00	Leave scattering growth of timber, brs.E.and W.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked
	S 35 ¼ | S 36 1913
	and erect a mound of stone 3 ft.base, 2 ft.high W.of cor.
	900 ft.below top of ascent.
47.00	Bottom of ravine, 75 ft.below ¼ cor., drs.N.75° W.
	Ascend.
72.00	Top of ridge, 465 ft.above ravine, brs.N.75° W. and S. 75° E.
	Descend over ledges.
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, with brass cap marked
	T 37 S | R 16 W S 26 | S 25 S 35 | S 36 1913

Chains.	
	and erect a mound of stone, 3½ ft.base, 2 ft.high W. cor., 190 ft.below top of ridge.
	Land, mountainous; general drainage and exposure on S.half of the mile to the N.; on the N.half to the soil very rocky, 4th rate; scattering growth of ce ars and pinon pine, 30 chs.; no timber, 50 chs.; sca undergrowth of scattering sagebrush and grass 50 c very scant grazing.
	East on a random line bet.secs.25 and 36,
40.00	Set temp. ¼ sec.cor.
80.08	Intersect E.bdy.of the Tp., 7 lks.N.of the cor.of se 25,30,31, and 36, heretofore described. Thence I ru N.89° 57'W.on a true line bet.secs.25 and 36,
	Over low rolling land; through scattering growth of t cedars and pinon pine and scattering undergrowth o sagebrush and grass. Descend gently.
7.00	Dry wash, 10 lks.wide, 1 ft deep, drains S.75°W.
40.04	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in ground, for ¼ sec.cor., with brass cap marked
	S25 / ¼ / S 36 / 1913 from which
	A pinon pine, 8 ins.dia., bears N.12°E. 1.17 dist., marked ¼ S 25 B.T.
	A pinon pine, 8 ins.dia., bears S.10°W., 56 l dist., marked ¼ S 36 B.T.
	265 ft.below sec.cor.
	November 12: At this cor.I set off 17°41'S.on the de arc; and at 11h 44m a.m.t., observe the sun on the meridian; the resulting latitude is 38°26'
58.95	Leave rolling land, 120 ft.below ¼ cor.; ascend NE.s of ridge, brs.NW. and SE.
	Leave scattering timber, bears NW. and SE.
80.08	The cor.of secs.25,26,35, and 36. Cor.stands on NE.s of ridge, 95 ft.above point of ascent.
	Land, rolling with W.exposure, 59 chs.; mountainous w

Chains.

NE.exposure 21 chs.;soil,very stony; 4th rate; timber, scattering growth of cedars and pinon pine, 60 chs.; no timber, 20 chs.; scattering undergrowth of sagebrush and grass; scant grazing 80.08 chs.

N.0° 01'W.bet.secs.25 and 26,

Over mountainous land; through scattering undergrowth of sagebrush and grass. Descend NE.slope of ridge.

6.80 Foot of ridge or bottom of descent; 190 ft.below sec.cor. brs.N.80°W.and S.80°E. Leave mountainous land, and continue N.over rolling land, on a near level line.

25.15 Dry wash; 8 lks.wide; 6 ins.deep, drs.W.

33.45 Dry wash; 8 lks.wide, 6 ins.deep, drains.S.75°W.

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

S26$\frac{1}{4}$ | S25
1913

and erect a mound of stone 3 ft.base,1$\frac{1}{2}$ ft.high W.of cor.

61.00 Dry wash, 10 lks.wide, 1 ft.deep, drs.S.75°W.

72.00 Dry wash,10 lks.wide, 1 ft.deep, drs.N.80°W.

76.00 Enter mountainous land, and ascend S.slope of ridge, brs.E.and W.

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, with brass cap marked

T27S R16W
S23 | S24
S26 | S25
1913

and erect a mound of stone 3$\frac{1}{2}$ ft.base, 2 ft.high W.of cor. Cor.stands on S.slope of ridge, 40 ft.above point of ascent.

Land, rolling, 70 chs.; mountainous, 10 chs.; general exposure to the W., 80 chs.; soil, very stony, 4th rate; no timber; scattering undergrowth of sagebrush, yellow top and grass, 80 chs.;scant grazing.

November 12, 1913.

Chains.	
	November 13, 1913: At 8h 14m a.m.l.m.t., I set off 38° 27' on the lat.arc; 17° 53'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs. 23,24,25, and 26. Thence I run
	S.89°57'E.on a random line bet.secs.24 and 25,
40.00	Set temp.$\frac{1}{4}$ sec.cor.
80.04	Intersect E.bdy.of the Tp.2 lks.S.of the cor.of secs.19 24,25, and 30, heretofore described. Thence I run
	N.89°58'W.on a true line bet.secs.24 and 25,
	Over rolling broken land; through scattering undergrowt of sagebrush, yellow top and grass.Descend gently.
2.50	Dry wash, 10 lks.wide, 1 ft.deep, drs.N.50° W.
40.02	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked S 24 / $\frac{1}{4}$ / S 25 / 1913 and erect a mound of stone 3 ft.base, $1\frac{1}{2}$ ft.high N.of cor., 205 ft.below sec.cor.
42.00	Dry wash, 10 lks.wide, 1 ft.deep, 15 ft.below $\frac{1}{4}$ cor. drs.S.65°W. Ascend.
80.04	The cor.of secs.23,24,25, and 26., 150 ft.above wash.
	Land, rolling and broken with W.exposure on the E.half, and SE.exposure on the W.half of the mile; soil, stor 4th rate; no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing 80.04 chs.
	N.0° 01'W.bet.secs.23 and 24,
	Over rugged mountainous land; through scattering under-growth of sagebrush, yellow top, and grass. Ascend ridge, over broken quartzite ledges.
21.00	Top of peak on ridge, 635 ft.above sec.cor., brs.N.75° W.and S.75°E. Descend over broken ledges.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., with brass cap marked S23$\frac{1}{4}$ | S24 / 1913

Chains

and erect a mound of stone, 3 ft. base, 2 ft. high W. of cor. 650 ft. below top of peak.

42.40 Dry wash, 10 lks. wide, 1 ft. deep, 75 ft. below $\frac{1}{4}$ cor., drs. W. Leave mountainous land; continue N. on a near level line over rolling land.

48.50 Dry wash, 10 lks. wide, 1 ft. deep, drs. S.75°W.

57.10 Old road, brs. N.75°E. and S.75°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, with brass cap marked

T27S	R16W
S14	S13
S23	S24

1913

and erect a mound of stone, $3\frac{1}{2}$ ft. base, 2 ft. high W. of cor.

Land, rugged and mountainous with S. and N. exposure for 42 chs.; rolling, with slight slope to the W., 38 chs.; soil, stony, 4th rate, 80 chs.; no timber; scattering undergrowth of sagebrush, yellow top and grass; scant grazing 80 chs.

Heavy rain from 11 a.m. on, preventing further field work this day. November 13, 1913.

November 14, 1913: Heavy fog prevented field work up to 10:30 a.m.

At 10h 14m a.m.l.m.t., I set off 38°28' on the lat. arc; 18°11'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23, and 24. Thence I run

S.89°58'E. on a random line bet. secs. 13 and 24,

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

80.00 Intersect E. bdy. of the Tp., 14 lks. N. of the cor. of secs. 13, 18, 19, and 24, heretofore described. Thence I run

N.89°52'W. on a true line bet. secs. 13 and 24,

Over rolling land; through scattering undergrowth of

Chains	
	sagebrush, yellow top, and grass. Descend gently.
35.00	Old road, brs.N.and SW.
40.00	Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked S 13 / ¼ / S 24 / 1913 and erect a mound of stone,3 ft.base,1½ ft.high N.c cor. 200 ft.below sec.cor.
61.00	Dry wash,10 lks.wide, 1 ft.deep, drs.N.50° W.
80.00	The cor.of secs.13,14,23, and 24. 110 ft.below ¼ cor Land, rolling with drainage to the W.; soil, stony,4t rate; no timber; undergrowth, scattering sagebrush, yellow top and grass; scant grazing 80 chs. November 14: At this cor.I set off 18° 13'S.on the de arc; and at 11h 44m l.m.t., observe the sun on the ridian; the resulting latitude is 38° 28'

N.0° 01'W.bet.secs.13 and 14,

	Over rolling land; through scattering undergrowth of sagebrush, yellow top and grass.
12.25	Dry wash, 10 lks.wide, 1 ft.deep, drs.N.80° W.
18.00	Leave rolling land; ascend S.slope of ridge, brs.N.80° W.and S.80° E.
32.00	Top of ridge, 220 ft.above point of ascent, brs.N.80°W and S.80° E. Descend.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in th ground, for ¼ sec.cor., with brass cap marked S14¼ | S13 / 1913 and erect a mound of stone,3 ft.base, 2 ft.high W.of cor.Cor.stands on S.slope of ridge,175 ft.below the
64.00	Foot of ridge and bottom of descent, 230 ft.below ¼ co brs.N.60°E.and SW. Continue on a near level line,ove rolling land.
76.25	Dry wash, 10 lks.wide, 1 ft.deep, drs.N.80°W.

Chains.
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, with brass cap marked

T27S R16W
S11 | S12
S14 | S13
1913

and 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, mountainous with exposure to the S.and N.on 46 chs.; rolling with slope to the W.on 34 chs.; soil coarse gravel on surface, 2 to 3 ins.deep, on a subsoil of coarse gravel and sandy loam of medium texture; no timber; undergrowth, scattering sagebrush, yellow top and grass; scant grazing 80 chs.

S.89° 52'E.on a random line bet.secs.12 and 13.

40.00 Set temp.¼ cor.

79.96 Intersect E.bdy.of the Tp.2 lks.S.of the cor.of secs.7, 12,13, and 18, heretofore described. Thence I run N.89°53'W.on a true line bet.secs.12 and 13,

Over rolling land; through scattering undergrowth of sagebrush, yellow top, and grass. Descend gently.

10.00 Foot of descent, bears NE. and SW.

33.35 Old road, brs.N.and S.10°W.

39.98 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for ¼ sec.cor., with brass cap marked

S 12
¼
S 13
1913

and erect a mound of stone, 3 ft.base,1½ ft.high N.of cor. 90 ft.below sec.cor.

66.00 Dry wash, 6 lks.wide, 4 ins.deep, drs.S.60°W.

79.96 The cor.of secs.11,12,13, and 14, 105 ft.below ¼ cor.

Land, rolling with slight slope to the W.; soil, stony, 4th rate; no timber; undergrowth, scattering sagebrush,

Chains.

yellow top and grass; scant grazing 79.96 chs.

N.0° 01'W.bet.secs.11 and 12,

Over rolling land; through scattering undergrowth of sagebrush, yellow top and grass.

4.20 Dry wash, 8 lks.wide, 8 ins.deep, drs.S.75°W.

36.10 Wagon road, brs.N.65°W. and S.65°E.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground,for ¼ sec.cor.,with brass cap marked

S 11¼ | S 12
1913

and erect a mound of stone,3 ft.base,1½ ft.high W.of co

64.80 Dry wash,10 lks.wide,1 ft.deep,drs.SW.Ascend E.slope of spur.

80.00 Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in th ground, for cor.of secs.1,2,11, and 12,with brass cap marked T 27S | R16W

S2	S1
S11	S12

1913

and erect a mound of stone 3½ ft.base,2 ft.high W.of co 165 ft.above wash.

Land,rolling; W exposure for 65 chs.;SE exposure for 15 chs.;soil, stony,4th rate;no timber;scattering under-growth of sagebrush, yellow top and grass; scant graz ing 80 chs. November 14, 1913.

November 17, 1913: At 8h 15m a.m.l.m.t., I set off 38° 29' on the lat.arc; 18°55'S.on the decl.arc;and determine a meridian with the solar at the cor.of secs. 1,2,11, and 12. Thence I run

S.89°53'E.on a random line bet.secs.1 and 12,

40.00 Set temp.¼ sec.cor.

79.96 Intersect E.bdy.of the Tp.2 lks.S.of the cor.of secs.1, 6,7, and 12, heretofore described. Thence I run

N.89°54'W.on a true line bet.secs.1 and 12,

Over mountainous land; through very scattering growth o cedars and pinon pine and scattering undergrowth of sagebrush and grass.

Chains	
	Descend over quartzite ledges.
23.45	Foot of ledges and descent, 225 ft. below sec. cor., brs. N.10°W. and S.10°E. Leave scattering timber, brs. N. & S.
	Continue on gentle descent over rolling land.
39.60	Old road, brs. N. and S.
39.98	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S1

¼

S12
1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

50 ft. below foot of ledges.

69.40	Ascend slope of spur, brs. NE. and SW.
79.96	The cor. of secs. 1,2,11 and 12.

Cor. stands on E. slope of spur, 115 ft. above point of ascent.

Land, mountainous, 35 chs.; rolling, 45 chs.; W. exposure; soil, stony; 4th rate; timber, scattering growth of cedars and pinon pine, 23½ chs. on E. end of mile; no timber, 56½ chs.; undergrowth, scattering sage brush and grass; scant grazing, 79.96 chs.

N.0° 01'W. on a random line bet. secs. 1 and 2.

40.00	Set temp. ¼ cor.
62.39	Intersect N. bdy. of the Tp., 2 lks. W. of the cor. of secs. 1,2,35 and 36 heretofore described.

Thence I run

South on a true line bet. secs. 1 and 2.

Over rolling land through very scattering growth of cedars and pinon pine and scattering undergrowth of sage brush, yellow top and grass.

22.39	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S2¼ | S1

1913

Chains	
	No bearing trees available; therefore erect a mound of
	stone, 3 ft. base, 1½ ft. high, W. of cor.
24.00	Ascend, brs. NW. and SE.
54.40	Top of ascent, on E. slope of ridge, 295 ft. above poi
	of ascent.
	Descend gently.
62.39	The cor. of secs. 1,2,11 and 12.
	10 ft. below top of ascent.
	Land, rolling with slight slope to the N., 24 chs.; ro
	ing hills with exposure to the E., 38 chs.; soil, ston
	4th rate; timber, very scattering growth of cedars and
	pinon pine; scattering undergrowth of sage brush, yell
	top and grass; scant grazing, 62 chs.
	For latitude observation on this date see page 19 of t
	book, mile bet. secs. 11 and 14.
	November 17, 1913.

November 15, 1913: At 8^h 15^m a.m.l.m.t., I set off 38° 25' on the lat. arc; 18° 25'S., on the decl. arc; and d termine a meridian with the solar on the Sorbdy. of the Tp., at the cor. of secs. 2,3,34 and 35 heretofore described.

Thence I run

N.0° 01'W. bet. secs. 34 and 35.

Over rolling land through scattering undergrowth of sag brush, yellow top and grass.

4.15	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.60°W.
16.40	Old road, brs. N.75°W. and S.75°E.
19.55	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.80°W.
	Leave rolling land; ascend S. slope of rocky spur.
24.50	Top of rocky spur, 100 ft. above wash, projects W., 4 chs.
	Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S34¼ | S35

1913

Chains	
	and erect a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
	Cor. stands at foot of spur, 235 ft. below the top, brs. N.80°E. and S.80°W.
	Descend gently over rolling land.
55.15	Old road, brs. N.10°E. and S.10°W.
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 with brass cap marked

T27S S27	R16W S26
S34	S35

1913

	and erect a mound of stone, 3½ ft. base, 2 ft. high, W. of cor.
	185 ft. below ¼ cor.
	Land, rolling with slight slope to the NW., 60 chs.; mountainous with W. exposure on 20 chs.; soil, coarse gravel on surface, 2 to 4 ins. deep on a subsoil of coarse gravel, loose rock and sandy loam of medium texture; no timber; scattering undergrowth of sage brush, yellow top and grass, 80 chs.; scant grazing.

	East on a random line bet. secs. 26 and 35.
40.00	Set temp. ¼ cor.
79.98	Intersect N. and S. line, 11 lks. S. of the cor. of secs. 25,26,35 and 36.
	Thence I run
	S.89° 55'W. on a true line bet. secs. 26 and 35.
	Over mountainous land through scattering undergrowth of sage brush, yellow top and grass.
	Ascend NE. slope of spur; over quartzite ledges.
17.50	Top of rocky spur, 130 ft. above sec. cor., projects N. 75° W.
	Descend.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

Chains	
	S26 $\frac{1}{4}$ S35 1913
	and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Cor. stands on SW. slope of spur, 475 ft. below the top.
70.00	Bottom of descent or slope of spur, 255 ft. below $\frac{1}{4}$ cor. brs. N.10°W. and S.55°E.
	Continue W. on a near level line over gently rolling lan
76.85	Old road, brs. N. and S.
79.98	The cor. of secs. 26,27,34 and 35.
	Land, mountainous, 70 chs.; NE. and SW exposure from to of spur at the $17\frac{1}{2}$ ch. point; land, rolling, 10 chs. wit slight slope to the W.; soil, stony; 4th rate; no timber scattering undergrowth of sage brush, yellow top and gra 79.98 chs.; a scant grazing.
	N.0° 01'W. bet. secs. 26 and 27.
	Over rolling land through scattering undergrowth of sage brush, yellow top and grass.
	Ascend very gently.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S27$\frac{1}{4}$ | S26 1913
	and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
	160 ft. above sec. cor.
48.80	Dry wash, 8 lks. wide, 6 ins. deep, drs. S.80°W.
60.00	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.55°W.
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 with brass cap marked T27S | R16W S22 | S23 S27 | S26 1913

Chains

and erect a mound of stone, 4 ft. base, 2 ft. high, W. of cor.

Land, rolling with slight slope to the W.; soil, loose rock on surface with subsoil of coarse gravel and sandy loam of medium texture; no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing.

68

N.89° 55'E. on a random line bet. secs. 23 and 26.

40.00 Set temp. ¼ cor.

79.94 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 23,24,25 and 26.

Thence I run

S.89° 52'W. on a true line bet. secs. 23 and 26.

Over broken rolling land through scattering undergrowth of sage brush, yellow top and grass.

Descend along S. slope of spur.

22.40 Bottom of descent or slope of spur, 95 ft. below sec. cor., brs. N.70°W. and S.70°E.

22.45 Dry wash, 8 lks. wide, 6 ins. deep, drs. N.70°W.

Continue W. on slight descent over rolling land.

39.97 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S23
¼
S26
1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

25 ft. below bottom of descent.

November 15: At this cor., I set off 18° 28'S., on the decl. arc; and at 11^h 45^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 27'.

45.35 Old road, brs. N.10°W. and S.10°E.

77.60 Dry wash, 10 lks. wide, 1 ft. deep, drs. N.70°W.

79.94 The cor. of secs. 22,23,26 and 27.

50 ft. below ¼ cor.

Land, hilly with SW. exposure for 22½ chs.; rolling with

Chains	
	slight slope to the W., 57½ chs.; soil, stony; 4th rate no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing, 79.94 chs.
	N.0° 01'W. bet. secs. 22 and 23.
	Over rolling land through scattering undergrowth of sage brush, yellow top and grass.
1.80	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.75°W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S22¼ | S23 1913
	and erect a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.
50.80	Dry wash, 10 lks. wide, 1 ft. deep, drs. W.
69.75	Dry wash, 6 lks. wide, 4 ins. deep, drs. W.
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 with brass cap marked
	T27S | R16W S15 | S14 S22 | S23 1913
	and erect a mound of stone, 3½ ft. base, 2 ft. high, W. of cor.
	Land, rolling with slight slope to the W.; soil, stony on surface; 4th rate; no timber; undergrowth, scattering sage brush, yellow top and grass; scant grazing, 80 chs.
	N.89° 52E. on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ cor.
79.92	Intersect N. and S. line, 11 lks. S. of the cor. of secs. 13,14,23 and 24.
	Thence I run
	S.89° 47'W. on a true line bet. secs. 14 and 23.

Chains	
	Over rolling land through scattering undergrowth of sage brush, yellow top and grass.
39.96	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S14
$\frac{1}{4}$
S23
1913

and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

35 ft. below sec. cor.

79.92 The cor. of secs. 14,15,22 and 23.

25 ft. below $\frac{1}{4}$ cor.

Land, rolling with slight slope to the W.; soil, stony on surface; 4th rate; no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing, 79.92 chs.

N.0° 01'W. bet. secs. 14 and 15.

Over rolling land through scattering undergrowth of sage brush, yellow top and grass.

22.50 Dry wash, 10 lks. wide, 1 ft. deep, drs. N.65°W.

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

S15 $\frac{1}{4}$ | S14
1913

and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

58.50 Dry wash, 6 lks. wide, 4 ins. deep, drs. N.75°W.

77.80 Dry wash, 8 lks. wide, 6 ins. deep, drs. W.

80.00 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 with brass cap marked

T27S | R16W
S10 | S11
S15 | S14
1913

and erect a mound of stone, $3\frac{1}{2}$ ft. base, 2 ft. high, W. of cor.

Chains	
	Land, rolling with slight slope to the W.; soil, stony on surface, 3 to 6 ins. deep on a subsoil of coarse gra el and sandy loam of medium texture; no timber; scatter ing undergrowth of sage brush, yellow top and grass; scant grazing, 80 chs.
	November 15, 1913.

	November 17, 1913: At 10^h 15^m a.m.l.m.t., I set off 38° 29' on the lat. arc; 18° 57'S., on the decl. arc; and d termine a meridian with the solar at the cor. of secs. 10,11,14 and 15.
	Thence I run
	N.89° 47'E. on a random line bet. secs. 11 and 14.
40.00	Set temp. ¼ cor.
79.94	Intersect N. and S. line, 5 lks. N. of the cor. of secs 11,12,13 and 14.
	Thence I run
	S.89° 49'W. on a true line bet. secs. 11 and 14.
	Over rolling land through scattering undergrowth of sag brush, yellow top and grass.
	Descend gently.
21.15	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.75°W.
39.97	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S11 / ¼ / S14 / 191^3
	and erect a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.
	75 ft. below sec. cor.
60.00	Dry wash, 10 lks. wide, 1 ft. deep, drs. S.80°W.
79.94	The cor. of secs. 10,11,14 and 15.
	50 ft. below ¼ cor.
	Land, rolling with slight slope to the W.; soil, stony on surface, 4 to 6 ins. deep on a subsoil of coarse gra el and sandy loam of medium texture; no timber; scatter-

Chains

ing undergrowth of sage brush, yellow top and grass; scant grazing, 79.94 chs.

November 17: At this cor., I set off 18° 58'S., on the decl. arc; and at 11^h 45^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 29'.

N.0° 01'W. bet. secs. 10 and 11.

Over rolling land through scattering undergrowth of sage brush, yellow top and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S10¼ | S11

1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

41.05 Wagon road, Ryan's Ranch to Newhouse, brs. N.20°E. and S.20°W.

70.65 Wagon road to Newhouse, brs. NE. and SW.

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 with brass cap marked

T27S | R16W
S3 | S2

S10 | S11

1913

and erect a mound of stone, 3½ ft. base, 2 ft. high, W. of cor.

Land, rolling with slight slope to the W.; soil, stony on surface, 4 to 6 ins. deep on a subsoil of coarse gravel and sandy loam of medium texture; no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing, 80 chs.

N.89° 49'E. on a random line bet. secs. 2 and 11.

40.00 Set temp. ¼ cor.

Chains	
79.88	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 1,2,11 and 12.
	Thence I run
	S.89° 50'W. on a true line bet. secs. 2 and 11.
	Over mountainous land through scattering undergrowth of sage brush and grass.
	Ascend.
6.90	Top of spur, 85 ft. above sec. cor., projects S.
	Descend.
25.60	Head of ravine, 280 ft. below top of spur, drs. S.
	Ascend.
31.90	Top of spur, 140 ft. above ravine, projects S.
	Descend over quartzite ledges.
39.94	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S2
¼

S11
1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

	Cor. stands on W. slope of spur, 300 ft. below the top.
45.00	Foot of rugged ledges and dry wash, 10 lks. wide, 1 ft. deep, 80 ft. below ¼ cor., drs. N.25°W.
	Continue W. on a near level line over rolling land.
68.70	Wagon road to Newhouse, brs. N.35°E. and S.35°W.
79.88	The cor. of secs. 2,3,10 and 11.
	Land, mountainous with general slope to the S. for 45 ch remainder of the mile, rolling land with slight slope to the W.; soil, stony; 4th rate; no timber; scattering undergrowth of sage brush and grass; scant grazing, 79.88

	N.0° 01'W. on a random line bet. secs. 2 and 3.
40.00	Set temp. ¼ cor.
82.70	Intersect N. bdy. of the Tp., 8 lks. E. of the cor. of secs. 2,3,34 and 35 heretofore described.

Chains	
	Thence I run
	S0° 06'E. on a true line bet. secs. 2 and 3.
	Over rolling land through scattering undergrowth of sage brush, yellow top and grass.
2.75	Road to Newhouse, brs. N.60°E. and S.60°W.
22.70	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S3¼ | S2 1913 and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
36.10	Dry wash, 6 lks. wide, 4 ins. deep, drs. S.75°W.
62.70	The cor. of secs. 2,3,10 and 11.
	Land, rolling with slight slope to the W.; soil, gravel on surface, 4 to 6 ins. deep on a subsoil of gravel and sandy loam of medium texture; no timber; scattering undergrowth of sage brush, yellow top and grass; scant grazing, 62.70 chs.
	November 17,1913.

November 18, 1913: At 8^h 15^m a.m.l.m.t., I set off 38° 25' on the lat. arc; 19° 09'S., on the decl. arc; and determine a meridian with the solar on the S. bdy. of the Tp., at the cor. of secs. 3,4,33 and 34 heretofore described.

Thence I run

N.0° 02'W. bet. secs. 33 and 34.

Over rolling land through scattering undergrowth of sage brush, yellow top and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S33¼ | S34

1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, W. of cor.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

Chains	
	the ground for cor. of secs. 27,28,33 and 34 with brass cap marked
	T27S | R16W S28 | S27 S33 | S34 1913
	and dig pits, 18x18x12 ins. in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. c cor.
	Land, rolling with slight slope to the NW.; soil, coarse gravel on surface 3 to 4 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; no timber; unde growth, scattering sage brush, yellow top and grass; sca grazing.
	S.89° 51'E. on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ cor.
80.06	Intersect N. and S. line, 9 lks. S. of the cor. of secs. 26,27,34 and 35.
	Thence I run
	N.89° 55'W. on a true line bet. secs. 27 and 34.
	Over rolling land through medium undergrowth of sage bru yellow top and scattering grass.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S27 ¼ S34 1913
	and erect a mound of stone, 3 ft. base, 1½ ft. high, N. cor.
48.50	Old road, brs. NW. and SE.
80.06	The cor. of secs. 27,28,33 and 34.
	Land, rolling with slight slope to the NW.; soil, coarse gravel on surface, 3 to 4 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; no timber; medium undergrowth of sage brush and yellow top and scatteri grass; scant grazing, 80.06 chs.

Chains	
	N.0° 02'W. bet. secs. 27 and 28.
	Over rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S28¼ | S27 1913 and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
42.80	Old road, brs. N.35°W. and S.35°E.
76.35	Wagon road, Ryan's Ranch to Newhouse, brs. N.30°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. 21,22,27 and 28 with brass cap marked T27S | R16W S21 | S22 S28 | S27 1913 and 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.
	Land, rolling with slight slope to the NW.; soil, gravel on surface 2 to 3 ins. deep on a subsoil of gravel and sandy loam of medium texture; no timber; medium undergrowth of sage brush and yellow top; scattering undergrowth of grass and scant grazing for 80 chs.
	S.89° 55'E. on a random line bet. secs. 22 and 27
40.00	Set temp. ¼ cor.
79.96	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 22,23,26 and 27.
	Thence I run
	N.89° 53'W. on a true line bet. secs. 22 and 27.
	Over rolling land through medium undergrowth of sage brush

Chains	
	and yellow top and scattering grass.
23.95	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.75°W.
39.98	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S22 / $\frac{1}{4}$ / S27 / 1913
	and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
78.55	Wagon road, Ryan's Ranch to Newhouse, brs. N.30°E. and 30°W.
79.96	The cor. of secs. 21,22,27 and 28.
	Land, rolling with NW. exposure; soil, coarse gravel on surface, 4 to 6 ins. deep on a subsoil of fine gravel a sandy loam of medium texture; no timber; medium undergr th of sage brush and yellow top; scattering grass and scant grazing, 79.96 chs.
	November 18: At this cor., I set off 19° 13'S., on the decl. arc; and at 11^h 45^m l.m.t., observe the sun on th meridian; the resulting latitude is 38° 27'.
	N.0° 02'W. bet. secs. 21 and 22.
	Over rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
18.45	Dry wash, 10 lks. wide, 1 ft. deep, drs. N.75°W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S21 $\frac{1}{4}$ | S22 / 1913
	and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
48.40	Dry wash, 8 lks. wide, 6 ins. deep, drs. N.75°W.
76.00	Old road, brs. N.35°E. and S.45°W.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15,16,21 and 22 with brass cap marked

Chains

T27S | R16W
S16 | S15
S21 | S22
1913

and 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.

Land, rolling with slight slope to the W.; soil, coarse gravel on surface, 4 to 6 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; no timber; medium undergrowth of sage brush and yellow top; scattering undergrowth of grass; scant grazing, 80 chs.

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

40.00 Set temp. ¼ cor.

80.00 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 14,15,22 and 23.

Thence I run

N.89° 54'W. on a true line bet. secs. 15 and 22.

Over rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

27.60 Dry wash, 10 lks. wide, 1 ft. deep, drs. N.80°W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S15
¼
S22
1913

and erect a mound of stone, 3 ft. base, 1½ ft. high, N. of cor.

47.15 Wagon road, Ryan'S Ranch to Newhouse, Brs. N.10°E. and S.10°W.

73.40 Old road, brs. N.30°E. and S.30°W.

80.00 The cor. of secs. 15,16,21 and 22.

Land, rolling with slight slope to the W.; soil, coarse gravel on surface, 4 to 6 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; no timber; medium undergrowth of sage brush and yellow top and scatter-

Chains	
	ing grass; scant grazing, 80 chs.
	N.0° 02'W. bet. secs. 15 and 16.
	Over rolling land through medium undergrowth of sage bru
	and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in
	the ground for ¼ sec. cor., with brass cap marked
	S16¼ | S15
	1913
	and dig pits, 18x18x12 ins., N. and S. of post, 3 ft.
	dist.; and raise a mound of earth, 3½ ft. base, 1½ ft.
	high, W. of cor.
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 with brass c
	marked
	T27S | R16W S9 | S10 S16 | S15
	1913
	and dig pits, 18x18x12 ins., in each sec., 5½ ft. dist.;
	and raise a mound of earth, 4 ft. base, 2 ft. high, W. o
	cor.
	Land, rolling; soil, fine gravel and sandy loam of mediu
	texture, 24 ins. deep; general and slight slope to the W
	no timber; undergrowth, medium sage brush and yellow top
	scattering grass with scant grazing, 80 chs.
	S.89° 54'E. on a random line bet. secs. 10 and 15.
40.00	Set temp. ¼ cor.
80.04	Intersect N.and S. line, 5 lks. N. of the cor. of secs.
	10,11,14 and 15.
	Thence I run
	N.89° 52'W. on a true line bet. secs. 10 and 15.
	Over rolling land through medium undergrowth of sage brus
	and yellow top and scattering grass.
20.85	Wagon road, Ryan's ranch to Newhouse, brs. N.25°E. and S.

Chains	
	25°W.
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S10 $\frac{1}{4}$ S15 1913 and erect a mound of stone, 3 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
80.04	The cor. of secs. 9,10,15 and 16. Land, rolling with slight slope to the W.; soil, coarse gravel on surface, 4 to 6 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; no timber; medium undergrowth of sage brush and yellow top and scattering grass; scant grazing, 80.04chs. November 18, 1913.

November 20, 1913: At 8^h 16^m a.m.l.m.t., I set off 38° 29' on the lat. arc; 19° 37'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9,10,15 and 16.

Thence I run

N.0° 02'W. bet. secs. 9 and 10.

Over rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

6.10	Wagon road to Newhouse, brs. N.30°E. and S.30°W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S9$\frac{1}{4}$ | S10 1913 and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
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 with brass cap marked

Chains	
	T27S | R16W S4 | S3 ——— S9 | S10 1913
	and 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.
	Land, rolling with slight slope to the W.; soil, fine gravel and sandy loam of medium texture, 24 ins. deep; no timber; medium undergrowth of sage brush and yellow top and scattering grass; scant grazing, 80 chs.
	S.89° 52'E. on a random line bet. secs. 3 and 10.
40.00	Set temp. ¼ cor.
80.10	Intersect N. and S. line, 2 lks. N. of the cor. of secs 2,3,10 and 11.
	Thence I run through medium undergrowth of sage N.89° 51'W. on a true line bet. secs. 3 and 10.
40.05	Over rolling land through medium undergrowth of sage br and yellow top and scattering grass.
40.05	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S3 ¼ ——— S10 1913
	and erect a mound of stone, 3 ft. base, 1½ ft. high, N. cor.
80.10	The cor. of secs. 3,4,9 and 10.
	Land, rolling with slight slope to the W.; soil, coarse gravel on surface, 4 to 6 ins. deep on a subsoil of fine gravel and sandy loam of medium texture; medium undergro th of sage brush and yellow top; scattering grass; scant grazing, 80.10 chs.
	N.0° 02'W. on a random line bet. secs. 3 and 4.
40.00	Set temp. ¼ cor.

Chains	
62.46	Intersect N. bdy. of the Tp., 2 lks. W. of the cor. of secs. 3,4,33 and 34 heretofore described.
	Thence I run
	S.0° 01'E. on a true line bet. secs. 3 and 4.
	Over rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
22.46	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S4¼ | S3
	1913
	and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
34.53	Wagon road to Newhouse, brs. NE. and SW.
62.46	The cor. of secs. 3,4,9 and 10.
	Land, rolling with slight slope to the W.; soil, fine gravel and sandy loam of medium texture, 24 ins. deep; no timber; medium undergrowth of sage brush and yellow top; scattering undergrowth of grass; scant grazing, 62.46 chs.
	November 20: At this cor., I set off 19° 40'S., on the decl. arc; and at 11^h 46^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 29½'.
	November 20,1913.

November 19, 1913: At 8^h 15^m a.m.l.m.t., I set off 38° 25' on the lat. arc; 19° 23'S., on the decl. arc; and determine a meridian with the solar on the S. bdy. of the Tp., at the cor. of secs. 4,5,32 and 33 heretofore described.

Thence I run

N.0° 03'W. bet. secs. 32 and 33.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S32¼ \| S33

1913

Chains	
	and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. di
	and raise a mound of earth, 3½ ft. base, 1½ ft. high, W
	of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. i
	the ground for cor. of secs. 28,29,32 and 33 with brass
	cap marked

T27S | R16W	
S29	S28
S32	S33

1913

and dig pits, 18x18x12 ins., in each sec., 5½ ft. dist.
and raise a mound of earth, 4 ft. base, 2 ft. high, W.
cor.

Land, gently rolling with very slight drainage to the N
soil, sandy loam of medium texture on a subsoil of clay
no timber; medium undergrowth of sage brush and yellow
top and scattering grass; good grazing, 80 chs.

S.89° 52'E. on a random line bet. secs. 28 and 33.

40.00	Set temp. ¼ cor.
79.76	Intersect N. and S. line, 7 lks. S. of the cor. of secs
	27,28,33 and 34.
	Thence I run
	N.89° 55'W. on a true line bet. secs. 28 and 33.
	Over gently rolling land through medium undergrowth of
	sage brush, yellow top and scattering grass.
30.85	Wagon road, Ryan's ranch to Newhouse, brs. N.10°E. and
	10°W.
39.88	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in
	the ground for ¼ sec. cor., with brass cap marked

S28
¼

S33
1913

and dig pits, 18x18x12 ins., E. and W. of post, 3 ft.
dist.; and raise a mound of earth, 3½ ft. base, 1½ ft.
high, N. of cor.

Chains	
79.76	The cor. of secs. 28,29,32 and 33.
	Land, gently rolling; very slight slope to the N. and NE.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.76 chs.

N.0° 03'W. bet. secs. 28 and 29.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

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

S29$\frac{1}{4}$	S28
1913	

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

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 with brass cap marked

T27S S20	R16W S21
S29	S28
1913	

and dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling; very slight drainage to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.

S.89° 55'E. on a random line bet. secs. 21 and 28.

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

79.76 Intersect N. and S. line 2 lks. S. of the cor. of secs. 21,22,27 and 28.

Thence I run

Chains	
	N.89° 56'W. on a true line bet. secs. 21 and 28.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
39.88	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S21 ¼ / S28 1913
	and dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
79.76	The cor. of secs. 20,21,28 and 29.
	Land, gently rolling; very slight drainage to the NW.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering undergrowth of grass; good grazing, 79.76 chs.
	November 19: At this cor., I set off 19° 27'S., on the decl. arc; and at 11^h 45^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 27'.

	N.0° 03'W. bet. secs. 20 and 21.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
38.60	Old road, brs. NE. and SW.
39.00	Wagon road to Newhouse, brs. N.30°E. and S.30°W.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S20¼ | S21 / 1913
	and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. 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 with brass cap marked

Chains	
	T27S | R16W S17 | S16 S20 | S21 1913
	and 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.
	Land, gently rolling; very slight drainage to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.
	S89° 56'E. on a random line bet. secs. 16 and 21.
40.00	Set temp. ¼ cor.
79.78	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 15,16,21 and 22.
	Thence I run
	N.89° 55'W. on a true line bet. secs. 16 and 21.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
39.89	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S16 ¼ S21 1913
	and dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
58.60	Wagon road to Newhouse, brs. N.30°E. and S.30°W.
79.78	The cor. of secs. 16,17,20 and 21.
	Land, gently rolling; very slight drainage to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.78 chs.
	N.0° 03'W. bet. secs. 16 and 17.

Chains	
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S17$\frac{1}{4}$ | S16
1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. i the ground for cor. of secs. 8,9,16 and 17 with brass c marked

T27S | R16W
S8 | S9
S17 | S16
1913

and dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high, W. cor.

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no t ber; medium undergrowth of sage brush and yellow top ar scattering grass; good grazing, 80 chs.

S.89° 55'E. on a random line bet. secs. 9 and 16.

40.00	Set temp. $\frac{1}{4}$ cor.
79.82	Intersect N. and S. line, 9 lks. S. of the cor. of secs 9,10,15 and 16.

Thence I run

N.89° 59'W. on a true line bet. secs. 9 and 16.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

3.85	Wagon road to Newhouse, brs. N.40°E. and S.30°W.
39.91	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S9
$\frac{1}{4}$
S16
1913

Chains

and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

79.82 The cor. of secs. 8,9,16 and 17.

Land, gently rolling with slight slope to the NW.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.82 chs.

November 19, 1913.

November 20, 1913: At 2^h 16^m p.m.l.m.t., I set off 38° 29' on the lat. arc; 19° 41'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8,9,16 and 17.

Thence I run

N.0° 03'W. bet. secs. 8 and 9.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

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

S8$\frac{1}{4}$ | S9
1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

72.25 Wagon road to Newhouse, brs. N.75°E. and S.75°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 with brass cap marked

T27S | R16W
S5 | S4

S8 | S9
1913

and dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Chains	
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.
	S.89° 59'E. on a random line bet. secs. 4 and 9.
40.00	Set temp. $\frac{1}{4}$ cor.
79.82	Intersect N. and S. line, 2 lks. N. of the cor. of secs. 3,4,9 and 10.
	Thence I run
	N.89° 58'W. on a true line bet. secs. 4 and 9.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
39.91	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked
	S4 $\frac{1}{4}$ S9 1913
	and dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
59.00	Wagon road to Newhouse, brs. N.50°E. and S.50°W.
79.82	The cor. of secs. 4,5,8 and 9.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.82 chs.
	N.0° 03'W. on a random line bet. secs. 4 and 5.
40.00	Set temp. $\frac{1}{4}$ cor.
62.43	Intersect N. bdy. of the Tp., 19 lks. E. of the cor. of secs. 4,5,32 and 33 heretofore described.
	Thence I run
	S.0° 14'E. on a true line bet. secs. 4 and 5.
	Over gently rolling land through medium undergrowth of

Chains

sage brush and yellow top and scattering grass.

22.43 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S5¼ | S4

1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

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

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 62.43 chs.

November 20, 1913.

November 21, 1913: At 8h 16m a.m.l.m.t., I set off 38° 25' on the lat. arc; 19° 51'S., on the decl. arc; and determine a meridian with the solar on the S. bdy. of the Tp., at the cor. of secs. 5,6,31 and 32 heretofore described.

Thence I run

N.0° 03' W. bet. secs. 31 and 32.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S31¼ | S32

1913

and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

66.45 Wagon road, to Newhouse, brs. N.40°E. and S.40°W.

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 with brass cap marked

Chains	
	T27S | R16W S30 | S29 S31 | S32 1913
	and 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.
	Land, gently rolling with slight slope to the N.; soil,
	sandy loam of medium texture on a subsoil of clay; no ti
	ber; medium undergrowth of sage brush and yellow top and
	scattering grass; good grazing, 80 chs.
	N.89° 56'E. on a random line bet. secs. 29 and 32.
40.00	Set temp. ¼ cor.
79.98	Intersect N. and S. line, 2 lks. S. of the cor. of secs.
	28,29,32 and 33.
	Thence I run
	S.89° 57'W. on a true line bet. secs. 29 and 32.
	Over gently rolling land through medium undergrowth of
	sage brush and yellow top and scattering grass.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in
	the ground for ¼ sec. cor., with brass cap marked
	S29 ¼ S32 1913
	and dig pits, 18x18x12 ins., E. and W. of post, 3 ft. di
	and raise a mound of earth, 3½ ft. base, 1½ ft. high, N.
	of cor.
70.90	Wagon road to Newhouse, brs. N.30°E. and S.30°W.
79.98	The cor. of secs. 29,30,31 and 32.
	Land gently rolling with slight slope to the N.; soil,
	sandy loam of medium texture on a subsoil of clay; no ti
	ber; medium undergrowth of sage brush and yellow top and
	scattering grass; good grazing, 79.98 chs.
	S.89° 52'W. bet. secs. 30 and 31.

Chains	
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
35.90	Creek, 6 lks. wide, 3 ins. deep, drs. N.15°E.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked

S30
$\frac{1}{4}$
S31
1913

and dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist. and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

79.22 Intersect W. bdy. of the Tp., 17.50 chs. N. of the cor. of secs. 25 and 36 heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 30 and 31 with brass cap marked

T27S
S30
cc
S31
S25
S36
R17W
R16W
1913

and dig pits, 24x18x12 ins. crosswise on each line, N. and S., 3 ft. dist., and E. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.22 chs.

November 21: At this cor., I set off 19° 54'S., on the decl. arc; and at 11^h 46^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 26'.

N.0° 03'W. bet. secs. 29 and 30.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering undergrowth of grass.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S30$\frac{1}{4}$ | S29 1913 and dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
67.30	Old road, brs. E. and W.
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 with brass cap marked T27S | R16W S19 | S20 S30 | S29 1913 and dig pits, 18x18x12 ins. in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor. Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush, yellow top and scattering grass; good grazing, 80 chs.
	N.89° 57'E. on a random line bet. secs. 20 and 29.
40.00	Set temp. $\frac{1}{4}$ cor.
79.98	Intersect N. and S. line, 2 lks. S. of the cor. of secs. 20,21,28 and 29.
	Thence I run
	S.89° 56'W. on a true line bet. secs. 20 and 29.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
36.00	Wagon road to Newhouse, brs. N.30°E. and S.30°W.
39.99	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., with brass cap marked S20 $\frac{1}{4}$ S29 1913

Chains	
	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
79.98	The cor. of secs. 19,20,29 and 30.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.98 chs.
	November 21, 1913.

November 22, 1913: At 8^h 16^m a.m.l.m.t., I set off 38° 27' on the lat. arc; 20° 04'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19,20, 29 and 30.

Thence I run

S89° 52'W. bet. secs. 19 and 30.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

14.85 Creek, 4 lks. wide, 2 ins. deep, drs. N.20°E.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S19
¼
S30
1913

and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.

79.12 Intersect W. bdy. of the Tp., 17.47 chs. N. of the cor. of secs. 24 and 25 heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 19 and 30 with brass cap marked

T27S
S19
CC
S30
S24
S25
R17W 1917 R16W

Chains	
	and dig pits, 24x18x12 ins. crosswise on each line, N. and S., 3 ft. dist., and E. of post, 7 ft. dist.; and raise a mpund of earth, 4 ft. base, 2 ft. high, E. of cor Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.12schs.
	N.0° 03'W. bet. secs. 19 and 20.
	Over gently rolling land, through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked S19¼ | S20 1913 and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
70.40	Dry wash, 8 lks. wide, 4 ins. deep, drs. N.20°E.
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 with brass cap marked T27S | R16W S18 | S17 S19 | S20 1913 and 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.
	Land, gently rolling; slight drainage to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.
	N.89° 56'E. on a random line bet. secs. 17 and 20.
40.00	Set temp. ¼ cor.
80.00	Intersect N. and S. line at the cor. of secs. 16,17,20

Chains	
	and 21.
	Thence I run
	S.89° 56'W. on a true line bet. secs. 17 and 20.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S17 ¼ ——— S20 1913
	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
74.00	Dry wash, 8 lks. wide, 4 ins. deep, drs. N.20°E.
80.00	The cor. of secs. 17,18,19 and 20.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.
	November 22: At this cor., I set off 20° 07'S., on the decl. arc; and at 11^h 46^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 28'.
	———
	S.89° 52'W. bet. secs. 18 and 19.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S18 ¼ ——— S19 1913
	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
79.03	Intersect W. bdy. of the Tp., 17.50 chs., N. of the cor.

Chains

of secs. 13 and 24 heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 18 and 19 with brass cap marked

T27S
S18
CC
S19
S13
S24
R17W
R16W
1913

and erect a mound of stone, 3 ft. base, 2 ft. high, E. c cor.

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no ti ber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.03chs.

N.0° 03'W. bet. secs. 17 and 18.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S18¼ | S17
1913

and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7,8,17 and 18 with brass ca marked

T27S | R16W
S7 | S8
S18 | S17
1913

and dig pits, 18x18x12 ins. in each sec., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. o cor.

Land, gently rolling with slight slope to the N.; soil,

Chains

sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.

N.89° 56'E. on a random line bet. secs. 8 and 17.

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

79.94 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 8,9,16 and 17.

Thence I run

S.89° 54'W. on a true line bet. secs. 8 and 17.

Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

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

S8

$\frac{1}{4}$

S17
1913

and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

58.55 Dry wash, 6 lks. wide, 4 ins. deep, drs. N.

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

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.94 chs.

November 22, 1913.

November 24, 1913: At 8^h 17^m a.m.l.m.t., I set off 38° 29' on the lat. arc; 20° 29'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 7,8,17 and 18.

Thence I run

S.89° 52'W. bet. secs. 7 and 18.

Over gently rolling land through medium undergrowth of

Chains	
	sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S7
¼
S18
1913

	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
42.00	Descend, brs. N.10°E. and S.10°W.
44.00	Bottom of descent, 25 ft. below point of descent, brs,, N.10°E. and S.10°W.
	Continue W. on near level line over gently rolling land.
69.00	Dry wash, 8 lks. wide, 4 ins. deep, drs. N.10°E.
78.92	Intersect W. bdy. of the Tp., 17.55 chs. N. of the cor. of secs. 12 and 13 heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 7 and 18 with brass cap marked

T27S
S7
cc
S18
S12
S13
R17W
R16W
1913

	and dig pits, 24x18x12 ins. crosswise on each line, N. and S., 3 ft. dist.; and E. of post, 7 ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 78.92chs.

	N.0° 03'W. bet. secs. 7 and 8.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

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

S7$\frac{1}{4}$ | S8
1913

and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

47.25 Wagon road to Newhouse, brs. N.70°E. and S.70°W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 5,6,7 and 8 with brass cap marked.

T27S | R16W
S6 | S5
S7 | S8
1913

and dig pits, 18x18x12 ins. in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.

Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 80 chs.

N.89° 54'E. on a random line bet. secs. 5 and 8.

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

79.96 Intersect N. and S. line, 9 lks. N. of the 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 gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.

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

S5
$\frac{1}{4}$
S8
1913

Chains	
	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
	November 24: At this cor., I set off 20° 32'S., on the decl. arc; and at 11^h 47^m l.m.t., observe the sun on the meridian; the resulting latitude is 38° 29'.
79.96	The cor. of secs. 5,6,7 and 8.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 79.96 chs.

	S.89° 52'W. bet. secs. 6 and 7.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked

S6
¼
S7
1913

	and dig pits, 18x18x12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
44.55	Dry wash, 6 lks. wide, 3 ins. deep, drs. N.15°E.
78.86	Intersect W. bdy. of the Tp., 17.45 chs. N. of the cor. of secs. 1 and 12 heretofore described.
	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for C.C. of secs. 6 and 7 with brass cap marked

T27S
S6
cc
S7
S1
S12
R17W
R16W
1913

	and dig pits, 24x18x12 ins, crosswise on each line, N. and S., 3 ft. dist.; and E. of post, 7 ft. dist.; and

Chains	
	raise a mound of earth, 4 ft. base, 2 ft. high, E. of cor. Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 78.86 chs.
	N.0° 03'W. on a random line bet. secs. 5 and 6.
40.00	Set temp. ¼ cor.
62.52	Intersect N. bdy. of the Tp., 25 lks. E. of the cor. of secs. 5,6,31 and 32 heretofore described.
	Thence I run
	S.0° 17'E. on a true line bet. secs. 5 and 6.
	Over gently rolling land through medium undergrowth of sage brush and yellow top and scattering grass.
22.52	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., with brass cap marked
	S6¼ | S5 19 | 13
	and dig pits, 18x18x12 ins. N. and S. of post, 3 ft. dist; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
62.52	The cor. of secs. 5,6,7 and 8.
	Land, gently rolling with slight slope to the N.; soil, sandy loam of medium texture on a subsoil of clay; no timber; medium undergrowth of sage brush and yellow top and scattering grass; good grazing, 62.52 chs.
	November 24, 1913.

General Description of T.27 S.,R.16 W.

This township is located on the east side of Pine Valley Desert and is open country to the N.,S. and W.

The east boundary of this township passes along the W. foot of a high range of mountains extending N. and S.

The two east tiers of the township are generally broken and hilly land, draining W.; the soil of which is a sandy

Chains

loam of medium texture and loose rock on a subsoil of clay and loose rock and is only valuable as grazing land.

The character of the land on the four west tiers is generally rolling, the soil of which is a sandy loam of medium texture on a subsoil of clay and will produce fair crops without irrigation.

The township is generally covered with a medium undergrowth of sage brush, yellow top weeds and grass which affords good grazing for cattle and sheep.

There is a small stream of water flowing through secs. 30 and 31.

Scattering cedars and pinon pine are found along the E. boundary of the township and in secs. 35 and 36.

There are no settlers or indications of mineral found in the Township.

Ralph Gentry
U. S. Surveyor.

BOOK A-403

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 "K" T.30 S., R.13 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.

FINAL OATH OF UNITED STATES SURVEYOR.

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

For final oath of U.S.Surveyor see book "K" T.30 S., R.13 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 furt
solemnly swear that all the corners of said survey have been established and perpetuated in strict acco
ance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surve
General for ..... and in the specific manner described in the field notes, and t
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, April 26, 191 5

The foregoing field notes of the ~~survey of~~ retracement and resurvey of the South boundary; resurvey of the East and North boundaries; and survey of the subdivisional lines of Township No.27 South, Range No.16 West, of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry
under his special instructions dated April 15, 191 3, having be
critically examined, and the necessary corrections and explanations made, the said field notes, and t
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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Page

4—679

BOOK A-403

K.

FIELD NOTES

RE
OF THE SURVEY OF THE

SECOND GUIDE MERIDIAN WEST

THROUGH

TOWNSHIP NO.30 SOUTH, BETWEEN RANGES 13 AND 14 WEST,

RESURVEY OF THE NORTH BOUNDARY,

AND

SURVEY OF THE SUBDIVISION

O F

TOWNSHIP NO.30 SOUTH, RANGE NO.13 WEST

Of the SALT LAKE BASE AND *Meridian,*

in the State of U T A H

EXECUTED BY

RALPH GENTRY

in the capacity of U. S. Surveyor, *under instructions dated* April 15, *1913*,
and Supplemental Special Instructions dated October 25, 1913
issued by the United States Surveyor General to govern surveys included in

Group No. 22, *which were approved by the Commissioner of the General Land*

Office, May 7, 1913 and Nov. 5, 1913, respectively *191*, *pursuant to authority contained in the Act of*

Congress dated ....., *191*

Survey commenced November 27, *1913*

Survey completed December 12, *1913*.

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BOOK A-403

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6—151

2nd GUIDE MERIDIAN WEST, THROUGH Ts.30 S., BETWEEN Rs.13 and 14 W.

Chains

Survey commenced November 27, 1913, and executed with a W. & L. E. Gurley explorer's transit, No. 20, Special, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, and was approved by the assistant supervisor of survey for Utah.

I examine the adjustments of the transit find them correct; 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 camp, in the SE. cor. of sec. 15, T.30 S., R.13 W., approximate latitude 38° 12'N., , longitude 113°16'W.;

I observe Polaris at 3h 2m a.m., l.m.t., at western elongation, in accordance 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 8h 30m a.m., l.m.t., I lay off the azimuth of Polaris, 1° 28' to the east, and mark the meridian thus determined on a stake firmly set in the ground 5 chs. N. of my station.

At 8h 48m a.m., l.m.t., I set off 38°12' on the lat. arc; 21° 04'S., on the decl. arc; and mark a point in the meridian determined with the solar, by driving a nail in the stake already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by Polaris observations.

At 11h 48m l.m.t., I set off 21° 07'S., on the decl. arc; and observe the sun on the meridian; the resulting lat. is 38° 12'.

At 2h 48m p.m., l.m.t., I set off 38° 12' on the lat. arc; 21° 07'S., on the decl. arc; and mark a point in the

Chains	
	meridian determined with the solar, by driving a nail in the stake set 5 chs. N. of my station; this mark falls 0.4 ins. east of the meridian established by Polaris observations
	The solar apparatus, by a.m. and p.m. observations, defines positions for meridians, respectively about 0'16" west and 0' 21" 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 3h 30m p.m. l.m.t., is N.15° 45'W.; the angle thus determined gives the magnetic decl. 15° 45'E.
	Nov. 27, 1913

	Dec. 3: At 8h 20m a.m., l.m.t., I set off 38° 09', on the lat. arc; 22° 02'S., on the decl. arc; and determine a meridian with the solar, at the standard Tp. cor., of T.30 S., Rs.13 and 14 W., which is an iron post, 3 ins. in dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general.
	Note:- Having only one party, and it being impracticable to secure an additional set of chainmen, I therefore do not double chain this line.
	Thence I run
	North, bet. secs. 31 and 36.
	Over rolling mountain foot, through undergrowth of sage brush, grease wood and grass.
	Ascend.
29.12	Road, brs. NE. and SW., Lund to Newhouse.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap
	S36 ¼ | S31
	1913

2nd. GUIDE MERIDIAN WEST, THROUGH Ts.30 S,, BETWEEN RS. 13 AND 14 W.

Chains

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.

Cor. stands on foot of mountain, 75 ft. ft. above standard T. cor.

From this cor.,

SW. cor. of A.N.Downs house brs. S.69°50'E.

SW. cor. of barn brs. S.73°53'E.

Cor. No. 1 , of field brs. N.7°30°E.

Cor. No. 2, of field brs. N.34°50'E.

Cor. No. 3, of field brs. S.82°28'E.

Cor. No 4, of field brs. S.76°27'E.

Cor. No. 5, of field brs. N.74°55'E.

Cor. No. 6, of field brs. N.45°06'E.

Thence along level line, land sloping to the E.

60.00 From this point,

SW. cor. of A.N.Downs house brs. S.17°20'E.

SW. cor. of barn brs. S.24°40'E.

Cor. No.1 of field brs. N.41°20E.

Cor. No. 2, of field brs. N.78°10'E.

Cor. No.3, of field brs. S.34°38'E.

Cor. No.4 of field brs. S.21°23'E.

Cor. No.5, of field brs. S.26°40'E.

Cor. No.6, of field brs. S.8°10'E.

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

T30S

R14W	R13W
S25	S30
S36	S31

1913

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

Land, along foot of mountain, sloping to the E.; soil poor sandy loam, stony; undergrowth of sage brush, grease

Chains	
	wood and grass.
	No timber.

North, bet. secs. 25 and 30.

On nearly level line, along foot of mountain, through undergrowth of sage brush, grease wood and grass.

12.00 Ascend, brs. E. and W.

34.00 Top of ascent, 50 ft. above sec. cor., slopes E.

Descend slightly.

40.00 Set an iron post, 3 ft. long, 2 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

S25 | S30
$\frac{1}{4}$
1913

Raise a mound of stone, 3 ft. base, 2 ft. high W. of co

70.00 Foot of descent, 100 ft. below top, drains E.

Ascend slightly.

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

T30S
R14W | R13W
S24 | S19
S25 | S30
1913

Raise a mound of stone, 3 ft. base, 2 ft. high W. of co

Land along foot of mountain, sloping E; soil poor sandy loam and very stony; undergrowth of sage brush, grease wood and grass.

No timber.

North, bet. secs. 19 and 24.

Over slightly ascending land, along foot of mountain, through undergrowth of sage brush, grease wood and grass

Chains

20.00 Top of ascent, Slopes E., 30 ft. above sec. cor.

Thence on nearly level line.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S24 ¼ | S19

1913

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

70.00 Descend slightly, brs. E. and W.

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, marked on brass cap

T30S

R14W | R13W

S13 | S18

S24 | S19

1913

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

Land, along foot of mountain, sloping E.; soil poor sandy loam and very stony; undergrowth sage brush, grease wood and grass.

No timber.

Dec. 3: At this cor. I set off 22° 05'S., on the decl. arc; and at 11h 50m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 12'.

North, bet. secs. 13 and 18.

Over, slightly descending land, along foot of mountain, through undergrowth of sage brush, grease wood and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S13 ¼ | S18

1913

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

Chains

66.00 Foot of mountain, 75 ft. below sec. cor., brs.S.30°E., and N.30°W.

Thence over rolling land.

66.70 Road, brs. NW. and SE., Lund, to Newhouse.

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

T30S

R14W	R13W
S12	S7
S13	S18

1913

Raise a mound of stone, 3 ft. base, 2 ft. high W. of co

Land of S.66.00 chs., along foot of mountain, sloping E soil poor sandy loam and very stony; land of the remain ing portion, rolling, soil light sandy loam and clay, stony; undergrowth, sage brush, grease wood and grass. No timber.

North, bet. secs. 7 and 12.

Over rolling land, through undergrowth of sage brush, grease wood and grass.

29.00 Road, brs. NW. and SE.

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

S12 $\frac{1}{4}$	S7

1913

Dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

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

2nd. GUIDE MERIDIAN WEST, THROUGH Ts.30 S., BETWEEN Rs.13 AND 14 W.

Chains

T30S
R14W | R13W
S1 | S6
S12 | S7
1913

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; soil rich sandy loam, medium texture and from 8 to 10 ins. deep, on a subsoil of clay; undergrowth sage brush, grease wood and grass.

No timber.

North, bet. secs. 1 and 6.

Over rolling land, through undergrowth of sage brush, grease wood and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S1 | S6
¼
1913

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.

84.67 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. in the ground, for cor. of Ts. 29 and 30 S., Rs. 13 and 14 W., marked on brass cap

T29S
R14W | R13W
S36 | S31
S 1 | S 6
R14W | R13W
T30S
1913

Dig pits, 24 x 24 x 12 ins. on each line, N., E., and W., 4 ft., and S., of post, 8 ft. dist.; and raise a mound of earth, 5 ft. base, 2½ ft. high S. of cor.

Chains.

Land, rolling; soil rich sandy loam, medium texture, an
from 8 to 10 ins. deep, on subsoil of clay; undergrowth
of sage brush, grease wood and grass.
No timber.

Dec, 3, 1913

There was no trace of any of the old $\frac{1}{4}$ sec. and sec. co
found on this line.

Ralph Gindy
U. S. Surveyor.

NORTH BOUNDARY OF T.30 S.,R.13 W.

Chains

Survey commenced December 4, 1913, and executed with instrument described in Book " A " of this survey. Knowing from recent tests that my instrument is in adjustment, (see page "1" of this book) I omit the tests here and proceed as follows:

At 8h 20m a.m., l.m.t., I set off 38° 15', on the lat. arc; 22° 11'S., on the decl. arc; and determine a meridian with the solar at the cor. of Ts.29 and 30 S., Rs. 12 and 13 W.

Thence I run

West, on a random line, along the N. bdy. of Tp. 30 S., R.13 W., setting temp. ¼ sec, and sec. cors. at intervals of 40.00 chs.; and at 479.85 chs., intersect the 2nd Guide Meridian, 42 lks. N. of the cor. of Ts.29 and 30 S., Rs.13 and 14 W., heretofore described.

The falling answers to a correction of 0° 03', or 7 lks. S. per mile, counting from the NE. cor. of the Tp.

Dec. 4, 1913.

Dec. 5: At 8h 21m a.m., l.m.t., I set off 38° 15', on the lat. arc; 22° 18'S., on the decl. arc; and determine a meridian with the solar at the cor. of Ts.29 and 30 S., Rs.13 and 14 W.

Thence I run

N.89° 57'E., on true line bet. secs. 6 and 31.

Over rolling land, through undergrowth of sage brush, grease wood and grass.

39.65 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for witness cor. to ¼ sec. cor., marked on brass cap

T29S R13W
S31
WC ¼ c
S6
T30S R13W
1912

Chains

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.

39.85 Point for ¼ sec. cor. fallson bank of wash; cor. not set.

40.00 Wash, 35 lks. wide, 6 ft. deep, course S.30°E.

79.85 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. i the ground for cor. of secs. 5, 6, 31 and 32, marked on brass cap

T29S R13W	
S31	S32
S6	S5

T30S R13W
1913

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. o cor.

Land, rolling; soil rich sandy loam, medium texture, fr 8 to 10 ins. deep, on subsoil of clay; medium undergrow of sage brush, grease wood and grass.

No timber.

N.89° 57'E., on true line bet. secs. 5 and 32.

Over gently rolling land through undergrowth of scrub s brush, yellow top weeds and grass.

26.25 Road, brs. N.60°W., and S.60°E., Newhouse to Minersvill

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S32
¼
S 5
1913

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.

A rocky knoll, about 15 chs. base, 40 ft. high Brs. SW. about 12.00 chs.

NORTH BOUNDARY OF T.30 S.,R.13 W.

Chains

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, marked on brass cap

T29S	R13W
S32	S33
S 5	S 4
T30S	R13W

1913

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; soil rich sandy loam, medium texture, from 8 to 10 ins. deep, on subsoil of clay; medium undergrowth of sage brush, yellow top weeds and grass. No timber.

N.89° 57'E., on true line bet. secs. 4 and 33.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S33
¼
S 4

1913

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.

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, marked on brass cap

T29S	R13W
S33	S34
S4	S 3
T30S	R13W

1913

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

Chains

cor.

Land, gently rolling,; soil rich sandy loam, medium texture, from 8 to 10 ins. deep on subsoil of clay; medium growth of sage brush, yellow top weeds and grass.

No timber.

Dec.5: At this cor. I set off 22° 21'S., on the decl. a and at 11h 51m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 15'.

N.89° 57'E., on true line bet. secs. 3 and 34.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds and grass.

26.70 Old road, brs. N.10°W., and S.10°E.

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

S34
$\frac{1}{4}$
S 3
1913

Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

80.00 Set an iron post, 3 ft. long, 3 ins. in dia., 24 ins. the ground, for cor. of secs. 2, 3, 34 and 35, marked o brass cap

T29S	R13W
S34	S35
S 3	S 2
T30S	R13W

1913.

Dig pits, 18 x 18 x 12 ins., in each secs., $5\frac{1}{2}$ ft. dist and raise a mound, of earth, 4 ft. base. 2 ft. high W. cor.

Land, gently rolling; soil, rich sandy loam, medium texture, from 8 to 10 ins. deep, on subsoil of clay; mediu growth of sage brush, yellow top weeds and grass.

Chains

No timber.

N.89°57'E.on true line bet.secs.2 and 35,

Over gently rolling land; through undergrowth of sagebrush, yellow top weeds and grass.

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

S 35
$\frac{1}{4}$
S 2
1913

Dig pits 18 x 18 x 12 ins.E.and W.of post, 3 ft.dist.; and raise a mound of earth, $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft.high N.of cor.

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, marked on brass cap

T 29 S	R 13 W
S 35	S 36
S 2	S 1
T 30 S	R 13 W

1913

Dig pits 18 x 18 x 12 ins.in each sec., $5\frac{1}{2}$ ft.dist.; and raise a mound of earth, 4 ft.base, 2 ft.high W.of cor.

Land, gently rolling.

Soil, rich sandy loam; medium texture, from 8 to 10 ins. deep, on subsoil of clay; medium growth of sagebrush, yellow top weeds, and grass.

No timber.

N.89° 57'E.on true line bet.secs.1 and 36,

Over gently rolling land; through undergrowth of sagebrush, yellow top, and grass.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 24 ins.in

Chains	
	the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap S36 $\frac{1}{4}$ S 1 1913
	Dig pits 18 x 18 x 12 ins.E.and W.of post, 3 ft.dist.; and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft.high N.of cor.
60.15	Wash, 20 lks.wide, 3 ft.deep, course SE.
80.00	The cor.of Tps.29 and 30 S , Rs.12 and 13 W.
	Land, gently rolling.
	Soil, rich sandy loam. medium texture, from 8 to 10 ins deep, on subsoil of clay; medium growth of sagebrush, yellow top weeds, and grass.
	No timber.
	Note: There was no signs of any of the old $\frac{1}{4}$ sec. and sec.cors.found on this line.
	Dec.5, 1913.

BOUNDARIES OF T.30 S , R.13 W.

Latitudes, Departures, and Closing Errors.

Lines Designated	True Bearing	Dist.	Latitudes. N.	Latitudes. S.	Departures. E.	Departures. W.
		chs.	chs.	chs.	chs.	chs.
6th Stan.Par.S.	West	480.00	.....	.....	.....	480.00
3nd G.Mer.W.	North	484.67	484.67	.....	.....	.....
North Bdy.	N.89°57'E.	479.85	0.42	.....	479.85	.....
East Bdy.	South	484.67	.....	484.67	.....	.....
Convergency					0.57	
			485.09	484.67	480.42	480.00
			484.67		480.00	
Error in lat.and dep.			0.42		0.42	

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

Ralph Gurley

U.S.Surveyor.

Chains. Survey commenced November 28, 1913, and executed with a W. & L.E.Gurley explorer's transit, No.20, special, with solar attachment, for description and recent test of which see page 1 of this book.

Nov.28: At 8h 18m a.m.l.m.t, I set off 38° 09' on the lat.arc; 21° 14'S.on the decl.arc; and determine a meridian with the solar at the standard corner of secs.35 and 36, on S. bdy.of Tp., which is an iron post, 3 ins.in dia., 12 ins.above the ground, marked and witnessed as described by the surveyor general.

Thence I run

N.0° 01'W.bet.secs.35 and 36

Over nearly level land; through medium undergrowth of sagebrush and greasewood.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 24 ins.in the ground, for ¼ sec.cor., marked on brass cap

S35 | S36
¼
1913

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.

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 marked on brass cap

Chains

T30S	R13W
S26	S25
S35	S36

1913

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, nearly level, and covered with a medium undergrowth of sage brush, and grease wood.

Soil, gray sandy loam and clay, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

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

40.00 Set temp. ¼ sec. cor.

80.06 Intersect E. bdy. of Tp., 3 lks.S., of the cor; of secs. 25, 30, 31 and 36, heretofore described.

Thence I run

S.89° 59'W., on true line bet. secs. 25 and 36.

Over nearly level. land, through undergrowth of sage brush and grease wood.

40.03 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S25
¼
S36
1913

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.

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

Land nearly level, and is covered with a undergrowth of sage brush and grass.

Soil. gray sandy loam and clay, medium texture, and from

Chains

8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

N.0° 01'W., bet. secs. 25 and 26.

Over gently rolling land, through undergrowth of sage brush, grease wood and grass.

22.10 Road, brs. N.75°E., and S.75°W.

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

S26 $\frac{1}{4}$	S25

1913

Dig, pits 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

From this cor. the SW. cor. of lumber cabin , 16 x 12 ft brs. N.59°40'E., 4.00 chs. dist.

The SW. cor. of lumber cabin, 16 x 12 ft., brs, N.5°E., 7.79 chs. dist.

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, marked on brass cap

T30S	R13W
S23	S24
S26	S25

1913

Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling, and covered with a undergrowth of sage brush, grease wood and grass.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

Chains

Nov. 28: At this cor. I set off 21° 17'S., on the decl. arc; and at 11h 48m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 11'.

N.89° 59'E., on a random line, bet. secs. 24 and 25.

40.00 Set temp. ¼ sec. cor.

80.10 Intersect E. bdy. of Tp., 5 lks. N. of the cor. of secs. 19, 24, 25 and 30, heretofore described.

Thence I run

N.89° 59'W., on a true line bet. secs. 24 and 25.

Over gently rolling land, through undergrowth of sage brush shadscale and grass.

40.05 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S24
¼
S25

1913

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.

From this cor. the SW. cor., of lumber cabin, 16 x 12 ft., brs. N.60°E., 1.94 chs.

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

Land, gently rolling, and covered with a undergrowth of sage brus, shadscale and grass.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

N.0° 01'W., bet. secs. 23 and 24.

Over gently rolling land, through undergrowth of sage brush, shadscale and grass.

Chains

30.00 From this point the SW. cor., of lumber cabin, 16 x 12 ft
., brs. S.86° 45'E., 2.04 chs. dist.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S23 ¼	S24

1913

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.

51.00 Road, brs. N.70°W., and S.70°E., Minersville to Newhouse

80.00 Set an iron post, 3 ft long , 2 ins. in dia., 24 ins. in the ground, for the cor. of secs. 13, 14, 23 and 24, marked on brass cap

T30S S14	R13W S13
S23	S24

1913

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, and covered with a undergrowth of sage brush, shadscale and grass.

Soil, rich sandy loam, medium texture , 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

From this cor., the SW. cor. of lumber cabin, 16 x 12 f
brs. N.54° 35'E., 11.79 chs.

S.89° 59'E., on a random line bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect E. bdy. of Tp., 3 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.

Chains

Thence I run

N.89° 58'W., on a true line bet. secs. 13 and 24.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weed.

40.03 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S13
¼
S24
1913

Dig pits, 18 x 18 x 12 ins., E. and W., of post, 3 ft. dist.; and raise a mound of earth, 3½ft. base, 1½ ft. high N. of cor.

80.06 The cor. of secs. 13, 14, 23 and 24.

Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weed.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

Nov. 28, 1913.

Dec.1: Snow strom prevented work.

Dec.2: Dense fog prevented work until 2h 30m. p.m.

At 2h 49m p.m., l.m.t., I set off 38° 12' on the lat. arc; 21° 57'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13, 14, 23 and 24.

Thence I run

N.0° 01'W., bet. secs. 13 and 14.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.

4.30 Old Pioche-Milford stage road, brs. NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap.

S14 | S13
¼
1913

Chains

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.

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, marked on brass cap

T30S	R13W
S11	S12
S14	S13

1913

Dig pits, 18 x18 x 12 ins., in each secs., 5½ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weeds.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

S.89° 58'E., on a random line bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect E. bdy., of Tp., 7 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence I run

N.89° 55'W., on a true line bet. secs. 12 and 13.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.

40.04 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S12
¼
S13

1913

Chains

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.

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

Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weeds.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

Dec. 2, 1913.

Dec. 8: At 8h. 22m a.m., l.m.t., I set off 38° 13' on the lat. arc; 22° 40'S., 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.0° 01'W., bet. secs. 11 and 12.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.

4.30 Road, brs. E. and W., Minersville to Newhouse.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S11 ¼	S12

1913

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.

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, marked on brass cap

T30S S2	R13W S1
S11	S12

1913

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.

Land gently rolling and covered with a undergrowth of sag brush, grass and yellow top weed.

Soil, rich sandy loam, medium texture from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

S.89° 55'E., on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

80.02 Intersect E. bdy., of Tp. 5 lks. N. of the cor. of secs. 1, 6, 7 and12., heretofore described.

Thence I run

N.89° 53'W., on true line bet. secs. 1 and 12.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weed.

40.01 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S 1
¼
S12
1913

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.

80.02 The cor. of secs. 1, 2 11 and 12.

Land, gently rolling, and covered with undergrowth of sage brush, grass and yellow top weed.

Soil, rich sandy loam, medium texture, from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

Chains	
	N.0° 01'W., on a random line bet. secs. 1 and 2.
40.00	Set temp. ¼ sec. cor.
84.36	Intersect N. bdy. of Tp. 7 lks. W., of the cor. of secs. 1, 2, 35 and 36, heretofore described.
	Thence I run
	S.0° 02'W., on a true line bet. secs. 1 and 2.
	Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.
44.36	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S2 ¼ | S1

1913

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.

84.36	The cor, of secs. 1, 2, 11 and 12.
	Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weeds.
	Soil, rich sandy loam, medium texture from 8 to 10 ins. deep, on a subsoil of hard clay.
	No timber.

Nov. 29: At 8h 18m a.m., l.m.t., I set off 38° 09' on the lat. arc; 21° 25'S., on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 34 and 35, on S. bdy. of Tp., which is an iron post, 3 ins. in dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general.

	Thence I run
	N.0° 01'W., bet. secs. 34 and 35.
	Over rolling land, through undergrowth of sage brush and grease wood.
9.60	Road, brs. NW. and SE.

Chains

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S34 | S35
¼ |
1913

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.

74.75 Road, brs. N.75°E., and S.75°W.

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. marked on brass cap

T30S | R13W
S27 | S26
S34 | S35
1913

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, and covered with undergrowth of sage brush and grease wood.

Soil, sandy loam and gray clay, medium texture, from 8 to 10 ins, deep, on a subsoil of hard clay.

No timber.

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

40.00 Set temp. ¼ sec. cor.

80.12 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 25, 26, 35 and 36.

Thence I run

S.89° 59'W., on a true line bet. secs. 26 and 35.

Over gently rolling land, through undergrowth of sage brush and grease wood.

40.06 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in

Chains

the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

S26
$\frac{1}{4}$
S35

1913

Dig pits, 18 x 18 x 12 ins., E. and W., of post, 3 ft. dist,; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

62.00 Road, brs. N.75°E., and S.75°W.

80.12 The cor. of secs. 26, 27, 34 and 35.

Land, gently rolling, and covered with a medium undergrowth of sage brush, and grease wood.

Soil, sandy loam and gray clay, medium texture and from 8 to 10 ins., on a subsoil of hard clay.

No timber.

N.0° 01'W., bet. secs. 26 and 27.

Over gently rolling land, through undergrowth of sage brush, grease wood and grass.

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

S27 $\frac{1}{4}$	S26

1913

Dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

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, marked on brass cap.

T30S	R13W
S22	S23
S27	S26

1913

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.

Land, gently rolling and covered with a undergrowth of sage brush, grease wood and grass.

Soil, rich sandy loam, medium texture from 8 to 10 ins. deep, on a subsoil of hard clay.

No timber.

N.89° 59'E., on a random line bet. secs. 23 and 26.

40.00 set temp. ¼ sec. cor.

80.08 Intersect N.and S. line 7 lks. S. of the cor. of secs. 23, 24, 25 and 26.

Thence I run

S.89° 56'W., on a true line bet. secs. 23 and 26.

Over gently rolling land, through undergrowth of sage brush, grease wood, and grass.

40.04 Set an iron post, 3 ft. long, 1 in in dia.,24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S23
¼
S26

1913

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.

Nov.29: At this cor. I set off 21° 28'S., on the decl. arc; and at 11h 48m l.m.t., observe the sun on the meridiam; the resulting lat, is 38° 11'.

80.08 The cor. of secs. 22, 23. 26 and 27.

Land, gently rolling, and covered with a undergrowth of sage brush, grease wood and grass.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.

Chains	
	No timber.

	N.0° 01'W., bet. secs. 22 and 23.
	Over rolling land, through undergrowth of sage brush, grease wood and grass.
23.55	Old Bioche-Milford stage road, brs. NE. and SW.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S22 ¼ | S23

1913

	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.
75.25	Road, brs. N.75°W., and S.75°E., Minersville to Newhouse.
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, marked on brass cap

T30S | R13W
S15 | S14
S22 | S23

1913

	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, and covered with a undergrowth of sage brush, grease wood and grass.
	Soil rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of hard clay.
	No timber.

	N.89° 56'E., on a random line bet. secs. 14 and 23.
40.00	Set temp. ¼ sec. cor.

Chains

80.10 Intersect N. and S. line 3 lks. S. of the cor. of secs. 13, 14, 23 and 24.

Thence I run

S.89° 55'W., on a true line bet. secs. 14 and 23.

Over gently rolling land, through undergrowth of sage brush, grease wood, grass and yellow weeds.

4.90 Old Pioche- Milford stage road, brs. NE. and SW.

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

S14
$\frac{1}{4}$
S23

1913

Dig pits, 18 x 18 12 ins., E. and W., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

80.10 The cor. of secs. 14, 15, 22 and 23.

Land, gently rolling, and covered with a undergrowth of sage brush, grease wood, grass and yellow top weeds.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of clay.

No timber.

N.0° 01'W., bet. secs. 14 and 15.

Over gently rolling land, through undergrowth of sage brush, grease wood, yellow weeds and grass.

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

S15 | S14
$\frac{1}{4}$

1913

Dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

Chains	
80.00	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, marked on brass cap

T30S | R13W
S10 | S11
S15 | S14

1913

Dig pits, 18 x 18 x12 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, and covered with a undergrowth of sage brush, grease wood, grass and yellow top weed.

Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of clay.

No timber.

Nov.29,1913.

Dec. 8: At 11h 52m l.m.t., I set off 22° 42'S., on the decl. arc; and observe the sun on the meridian, at the cor. of secs. 10, 11, 14 and 15. The resulting lat. was 38° 13'.

Thence I run

N.89° 55'E., on a random line bet. secs. 11 and 14.

40.00	Set temp. ¼ sec. cor.
80.00	Intersect N. and S. line, 3 lks. S. of the cor. of secs. 11, 12, 13 and 14.

Thence I run

S.89° 54'W.,on a true line bet. secs. 11 and 14.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.

40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S11
¼
S14

1913

Chains	
	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.
80.00	The cor. of secs. 10, 11, 14 and 15.
	Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weed.
	Soil, rich sandy loam, medium texture, and from 8 to 10 ins. deep, on a subsoil of clay.
	No timber.

	N.0° 01'W., bet. secs. 10 and 11.
	Over gently rolling land, through undergrowth of sage brush, grass and yellow top weed.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S10 ¼ | S11

1913

	Dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, 3½ft. base, 1½ ft. high W. of cor.
72.60	Road, brs. N.60°W., and S.60°E., Minersville to Newhouse
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.

T30S	R13W
S3	S2
S10	S11

1913

	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, and covered with a undergrowth of sage brush, grass and yellow top weeds.

Chains	
	Soil rich sandy loam, medium texture and from 8 to 10 ins deep, on a subsoil of clay.
	No timber.
	N.89° 54'E., on a random line bet. secs. 2 and 11.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 12 lks. S. of the cor. of secs 1, 2, 11 and 12.
	Thence I run
	S.89° 49'W., on a true line bet. secs. 2 and 11.
	Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.
40.01	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	S 2 / $\frac{1}{4}$ / S11 / 1913
	Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor,
80.02	The cor. of secs. 2, 3, 10 and 11.
	Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weeds.
	Soil, rich sandy loam, medium texture, from 8 to 10 ins. deep, on a subsoil of clay.
	No timber.
	N.0° 01'W., on a random line bet. secs. 2 and 3.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
84.62	Intersect N. bdy. of Tp. 4 lks. W. of the cor. of secs. 2, 3, 34 and 35, heretofore described.

Chains

Thence I run

S.0° 01'W., on a true line bet. secs. 2 and 3.

Over gently rolling land, through undergrowth of sage brush, grass and yellow top weeds.

44.62 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S3 ¼ | S2.

1913

Dig pits, 18 x 18 x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.

84.62 The cor. of secs. 2, 3, 10 and 11.

Land, gently rolling, and covered with a undergrowth of sage brush, grass and yellow top weeds.

Soil, rich sandy loam, medium texture, from 8 to 10 ins. deep, on a subsoil of clay.

No timber.

Dec. 8, 1913.

Dec. 6: At 8h 21m a.m.,l.m.t., I set off 38° 09' on the lat arc; 22° 26'S., on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 33 and 34, on S. bdy. of Tp., which is an iron post, 3 ins. in dia., 12 ins. above the ground, marked and witnessed as described by the suryeyor general

Thence I run

N.0° 02'W., bet. secs. 33 and 34.

Over gently rolling land, through undergrowth of sage brush, and grease wood.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S33 ¼ | S34

1913

Chains	
	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.
41.05	Road, brs. N.60°E., and S.60°W.
41.75	Wash, 10 lks. wide, 3 ft. deep, course S.30°E.
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, marked on brass cap

T30S | R13W
S28 | S27
S33 | S34

1913

Dig pits, 18 x 18 x12 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; soil gray clay and sandy loam, medium texture, on a subsoil of clay; medium growth of sage brush, and grease wood.

No timber.

	East, on a random line bet. secs. 27 and 34.
40.00	Set temp. ¼ sec. cor.
80.06	Intersect N. and S. line, 3 lks. S/ of the cor. of secs. 26, 27, 34 and 35.
	Thence I run
	S.89° 59'W., on a true line bet. secs. 27 and 34.
	Over gently rolling land, through undergrowth of sage brush and grease wood.
40.03	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor/, marked on brass cap

S27
¼
S34

1913

chains	
	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.
72.83	Road brs. N.75°E., and S.75°W.
80.06	The cor. of secs. 27, 28, 33 and 34.
	Land gently rolling; soil gray clay and sandy loam, medium texture, on a subsoil of clay; medium growth of sage brush and grease wood.
	No timber.

	N.0° 02'W., bet. secs. 27 and 28.
	Over gently rolling land, through undergrowth of sage brush, grease wood and grass.
6.77	Road, brs. NW. and SE.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S28 ¼ | S27

1913

	Dig pits, 18 x 18 x 12 ins., N. an S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.
41.15	Old Pioche- Milford stage road, brs. NE. and SW.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 21, 22, 27 and 28, marked on brass cap

T30S | R13W
S21 | S22
S28 | S27

1913

	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; soil rich sandy loam, medium texture

Chains	
	on a subsoil of clay; medium growth of sage brush, grease wood and grass.
	No timber.
	N.89° 59'E., on a random line bet. secs. 22 and 27.
40.00	Set temp. ¼ sec. cor.
80.08	Intersect N. and S. line 5 lks. S. of the cor. of secs. 22, 23, 26 and 27.
	Thence I run
	S.89° 57'W., on a true line bet. secs. 22 and 27.
	Over gently rolling land, through undergrowth of sage brush, yellow top weeds and scattering greas wood.
30.50	Old Pioche- Milford stage road, brs. NE. and SW.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap.
	S22 ¼ / S27 / 1913
	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.
80.08	The cor. of secs. 21, 22, 27 and 28.
	Land, gently rolling; soil rich sandy loam, medium texture, on a subsoil of clay; fair growth of sage brush, yellow top weeds and scattering greasewood.
	No timber.
	Dec.6: At this cor. I set off 22° 29'S., on the decl. arc; and at 11h 51m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 11'.
	N.0° 02'W., bet. secs. 21 and 22.

Chains

Over gently rolling land, through undergrowth of sage brush, yellowtop weeds, and scattering greasewood and grass.

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

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

1913

Dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 15, 16, 21 and 22, marked on brass cap

T30S | R13W
S16 | S15
S21 | S22

1913

Dig pits, 18 x 18 x 12 ins., in each secs., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on a subsoil of clay; fair growth of sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

N.89° 57'E., on a random line bet. secs. 15 and 22.

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

80.02 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 14, 15, 22 and 23.

Thence I run

S.89° 55'W., on a true line bet. secs. 15 and 22.

Chains	
	Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.
16.23	Road, brs. N75°W., and S.75°E., Minersville to Newhouse.
40.01	Set an irom post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	S15 / $\frac{1}{4}$ / S22
	1913
	Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
80.02	The cor. of secs.15, 16, 21 and 22.
	Land, gently rolling; soil rich sandy loam, medium texture, from 8 to 10 ins. deep, on subsoil of clay; fair growth of sage brush, yellow top weeds, and scattering greas wood and grass.
	No timber.
	N.0° 02'W., bet secs. 15 and 16.
	Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.
18.85	Road, brs. N.75°W., and S.75°E., Minersville to Newhouse.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	S16 $\frac{1}{4}$ | S15
	1913
	Dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

Chains

the ground, for cor. of secs. 9, 10, ,15 and 16, marked on brass cap

T30S	R13W
S9	S10
S16	S15

1913

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; soil rich sandy loam, mediun texture, 8 to 10 ins. deep, on subsoil of clay; fair growth of sage brush, yellow top weed, and scattering grease wood and grass.

No timber.

N.89° 55'E., on a random line bet, .secs. 10 and 15.

40.00 Set temp. ¼ sec. cor.

80.04 Intersect N. and S. line at the cor. of secs. 10, 11, 14 and 15.

Thence I run

S.89° 55'W., on a true line bet. secs. 10 and 15.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass,

40.02 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S10
¼
S15
1913

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.

80.04 The cor. of secs. 9, 10, 15 and 16.

Land, gently rolling; soil rich sandy loam, medium tex-

Chains

ture, 8 to 10 ins. deep on subsoil of clay; fair growth of sagebrush, yellow top weeds, and scattering greasewood and grass.

No timber.

Dec. 6, 1913.

Dec. 10: At 8h 23m a.m., l.m.t., I set off 38°13' on the lat. arc; 22°51'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence I run

N.0°02'W. bet. secs. 9 and 10.

Over gently rolling land, through undergrowth of sagebrush, yellow top weeds, and scattering greasewood and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., marked on brass cap

S9 | S10
¼ |
1913

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.

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, marked on brass cap

T30S | R13W
S4 | S3
S9 | S10
1913

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; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; fair growth of sagebrush, yellow top weeds, and scattering

Chains

greasewood and grass.

No timber.

S.89°55'E. on a random line bet. secs. 3 and 10.

40.00 Set temp. ¼ sec. cor.

80.06 Intersect N. and S. line 9 lks. N. of the cor. of secs. 2, 3, 10 and 11.

Thence I run

S.89°59'W. on a true line bet. secs. 3 and 10.

Over rolling land, through undergrowth of sagebrush, yellow top weeds and scattering greasewood and grass.

19.00 Road, Newhouse to Mineraville, bears NW. and SE.

40.03 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground for ¼ sec. cor., marked on brass cap

S 3
¼
S 10
1913

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.

80.06 The cor. of secs. 3, 4, 9 and 10.

Land, rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; growth of sagebrush, yellow top weed, and scattering greasewood and grass.

Small rocky knoll, about 15 chs. base, 40 ft. high S.60° E. about 30 chs. dist.

No timber.

S.0°02'W. on a random line bet. secs. 3 and 4.

40.00 Set temp. ¼ sec. cor.

84.58 Intersect S.bdy. of Tp. 14 lks.W.of the cor. of secs.

Chains

3,4, 33 and 34, heretofore described.

Thence I run

S.0° 04'W., on true line bet. secs. 3 and 4.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

44.58 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S4 ¼ | S3

1913

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.

48.05 Road, brs. N.60°W., and SE., Minersville to Newhouse.

84.58 The cor. of secs. 3, 4, 9 and 10.

Land, rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; growth of sage brush, yellow top weed, and scattering grease wood and grass.

No timber.

Dec. 10: At this cor. I set off 22° 54'S., on the decl. arc; and at 11h 53m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 14'.

Dec. 9: At 8h 22m a.m.,l.m.t., I set off 38° 09', on the lat. ar; 22° 46'S., on the decl. arc; and determine a meridian with the solar, at the standard cor. of secs. 32 and 33, on S. bdy. of Tp., which is an iron post, 3 ins. in dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general.

Thence I run

N.0° 03'W., bet. secs. 32 and 33.

Chains

Over gently rolling land, through undergrowth of sage brush and grease wood.

3.75 Road, brs. N.60°E., and S.60°W.

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

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

1913

Dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

58.00 Old Pioche-Milford stage road, brs. NE. and SW.

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, marked on brass cap

T30S | R13W
S29 | S28

S32 | S33

1913

Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling; soil rich sandy and clay loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; growth of sage brush and grease wood.

No timber.

East, on a random line bet. secs. 28 and 33.

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

80.08 Intersect, N. and S. line at the cor. of secs. 27, 28, 33 and 34.

Thence I run

West, on true line bet. secs. 28 and 33.

Over gently rolling land, through undergrowth of sage

Chains

brush, yellow top weeds, and scattering grease wood and grass.

11.40 Wash, 15 lks. wide, 4 ft. deep, course S.15°E.

30.00 From this point,

NW. cor. of W.H.Dinwoodie, lumber house, 16 x 30 ft. brs. S.52° 15'W., 1.42 chs. dist.

NW. cor. of lumber barn, 20 x 22 ft., brs. S.14° 45' E., 1.95 chs. dist.

NE. cor. of shop, 14 x 30 ft., brs. S.14° 20'W., 1.95 chs. dist.

SE. cor. of E. E. Dinwoodie's lumber cabin, 12 x 16 ft. brs. N.15° 30'W., 3.37 chs. dist.

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

S28
$\frac{1}{4}$
S33
1913

Dig pits, 18 x 18 x 12 ins., E. and W., of post, 3 ft. dist.; and raise a mound, of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

From this cor., NE. cor. of W. C. Dinwoodies, lumber cabin, 12 x 16 ft. brs. S.24° 36'W.

52.24 Old Pioche- Milford stage road, brs. NE. and SW.

60.00 From this point, NE. cor. of W. C. Dinwoodies, cabin brs. S.24° 23'E.

80.08 The cor. of secs. 28, 29, 32 and 33.

Land, gently rolling; soil rich sandy and clay loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; growth of sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

N.0° 03'W., bet. secs. 28 and 29.

Chains

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

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

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

1913

dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high. W. of cor.

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, marked on brass cap

T30S | R13W
S20 | S21
S29 | S28

1913

Dig pits, 18 x 18 x 12 ins., in each secs., $5\frac{1}{2}$ ft. dist. and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.,

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; medium grow of sage brush, yellowtop weeds, and scattering grease wood and grass.

No timber.

From this cor. SW. cor. of A. B. Dinwoodies lumber cabin 12 x 16 ft., brs. N.72° 30'E., 12.08 chs. dist.

Sw. cor. of lumber cabin, 12 x 16 ft., brs. N.14°E., 3.4 chs. dist.

East, on a random line bet. secs. 21 and 28.

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

80.08 Intersect N. and S. line, 3 lks. S. of the cor. of secs.

Chains

21, 22, 27 and 28.

Thence I run

S.89° 59'W., on true line bet. secs. 21 and 28.

Over gently rolling land; through undergrowth of sage brush, yellow top weed, and scattering grease wood and grass.

40.04 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S21
¼
S28
1913

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.

73.70 Road, brs. NW. and SE., Lund to Newhouse.

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

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; medium growth of sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

Dec. 9: At this cor. I set off 22° 48'S., on the decl. arc; and at 11h 52m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 11'.

N.0° 03'W., bet. secs. 20 and 21.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

16.50 Road, brs. NW. and SE., Lund to Newhouse.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S20 | S21
¼
1913

Chains

Dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. 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, marked on brass cap

T30S	R13W
S17	S16
S20	S21

1913

Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; medium growth of sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

N.89° 59'E., on a random line bet. secs. 16 and 21.

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

80.12 Intersect N. and S. line 3 lks. S. of the cor. of secs. 15, 16, 21 and 22.

Thence I run

S.89° 58'W., on true line bet. secs. 16 and 21.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

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

S16
$\frac{1}{4}$
S21
1913

Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft.

Chains

dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

80.12 The cor. of secs. 16, 17, 20 and 21.

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; medium undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass,

No timber.

N.0° 03'W., bet. secs. 16 and 17.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

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

S17 | S16
$\frac{1}{4}$ |
1913

Dig pits, 18 x 18 x 12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

41.65 Road, brs. N.75°W., and S.75°E., Newhouse to Minersville.

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, marked on brass cap

T30S, R13W
S8 | S9
S17 | S16
1913

Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth

Chains

sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

N.89° 58'E., on a random line bet. secs. 9 and 16.

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

80.14 Intersect N. and S. line 7 lks. S. of the cor. of secs. 9, 10, 15 and 16.

Thence I run

S.89° 55'W., on true line bet. secs. 9 and 16.

Over gently rolling land, through undergrowth of sage brush , yellow top weeds, and scattering grease wood and grass.

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

S 9
$\frac{1}{4}$
S16
1913

Dig pits, 18 x 18 x 12 ins., E. and W., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.

80.14 The cor, of secs. 8, 9, 16 and 17.

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

Dec. 9, 1913

Dec. 10: At 1h 53m p.m.,l.m.t., I set off 38° 14' on the lat. arc; 22° 54'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16

Chains

and 17.

Thence I run

N.0° 03'W., bet. secs. 8 and 9.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S8 ¼ | S9

1913

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.

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, marked on brass cap

T30S S5	R13W S4
S8	S9

1913

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; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

N.89° 55'E., on a random line bet. secs. 4 and 9.

40.00 Set temp. ¼sec. cor.

80.10 Intersect N. and S. line 5 lks. S. of the cor. of secs. 3, 4, 9 and 10.

Chains

Thence I run

S.89° 53'W., on true line bet. secs. 4 and 9.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

40.05 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S 4
¼
S 9
1913

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.

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

Land, gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, yellowtop weeds, and scattering grease wood and grass.

No timber.

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

40.00 Set temp. ¼ sec. cor.

84.69 Intersect N. bdy. of Tp. 21 lks. W. of the cor. of secs. 4. 5. 32 and 33, heretofore described.

Thence I run

S.0° 08'W., on true line bet. secs. 4 and 5.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering greasewood and gr

83.00 Road, Newhouse to Minersville bears NW. and SE.

44.82 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S5 | S4
¼

1913

Chains

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.

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

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, yellow top weeds, and scattering grease wood and grass,

No timber.

Dec. 10, 1913

Dec. 11: At 8h 23m a.m.,l.m.t., I set off 38° 09', on the lat. arc; 22° 57'S., on the decl. arc; and determine a meridian with the solar at the standard cor. of secs. 31 and 32, on S. bdy. of Tp., which is an iron post, 3 i ins. in dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general.

Thence I run

N.0° 03'W., bet. secs. 31 and 32.

Over gently rolling land, through undergrowth of sage brush, and grease wood and scattering grass.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S31 | S32
¼ |

1913

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.

41.10 Road, brs. E. and W.

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, marked on brass cap

Chains

T30S S30	R13W S29
S31	S32

1913

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; soil rich sandy loam, medium texture, 8 to 10 ins. deep on subsoil of clay; undergrowth sage brush, grease wood and scattering grass.

No timber.

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. N. of the co.r of secs. 28, 29, 32 and 33.

Thence I run

N.89° 59'W., on true line bet. secs. 29 and 32.

Over gently rolling land,, through undergrowth of sage brush, grease wood and scattering grass.

40.04 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S29
¼
S32
1913

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.

80.08 The cor. of secs. 29, 30, 31 and 32.

Land gehtly rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, grease wood and scattering grass.

No timber.

Chains	
	West, on a random line bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect W. bdy. of Tp. 7 lks. N. of the cor. of secs. 25, 30, 31 and 36, heretofore described.
	Thence I run
	N.89° 57'E., on true line bet. secs. 30 and 31.
	Over rolling mountainous land, through undergrowth of sage brush, grease wood and grass.
	Descend.
13.61	Road, brs. N. and S., Lund to Newhouse.
34.00	Foot of mountain, 100 ft. below sec. cor., brs. N. and S.
	Thence over gently rolling land
39.96	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap
	S30 $\frac{1}{4}$ / S31 1913
	Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist,; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
79.96	The cor. of secs. 29, 30, 31 and 32.
	Land of the W. 34.00 chs. rolling mountain foot:, sloping E.; Soil sandy loam, medium texture, and stony. Land of the remaining portion, rolling; soil sandy loam, medium texture, on a subsoil of clay; undergrowth sage brush, grease wood and grass.
	No timber.
	N.0° 03'W., bet. secs. 29 and 30.
	Over gently rolling land, through undergrowth of sage brush, grease wood and grass.
40.00	Set an iron post, 3 ft. long, 1 in . in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap

Chains

S30 ¼ | S29

1913

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.

From this cor. SE. cor. of lumber cabin, 12 x 16 ft., brs. N.9° 50'W., 1.81 chs. dist.

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, marked on brass cap

T30S | R13W
S19 | S20
S30 | S29

1913

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; soil rich sandy loam, medium texture, on a subsoil, of clay; undergrowth of sage brush, grease wood and grass. No timber.

From this cor. SW. cor., of lumber cabin, 12 x 16 ft., brs. N.42° 10'E., 2.19 chs.

Dec. 11: At this cor. I set off 22° 58'S., on the decl. arc; and at 11h 53m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 11!

S.89° 59'E., on a random line bet. secs. 20 and 29.

40.00 Set temp. ¼ sec. cor.

80.04 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 20, 21, 28 and 29.

Thence I run

West, on true line bet. secs. 20 and 29.

Over gently rolling land, through undergrowth of scrub sage brush, yellow top weeds and scattering grass.

Chains	
40.02	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap S20 $\frac{1}{4}$ S29 1913 Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
80.04	The cor. of secs. 19, 20, 29 and 30. Land, gently rolling; soil rich sandy loam, medium texture, on subsoil of clay; undergrowth of scrib sage brush, yellow top weeds, and scattering grass. No timber.
	S.89° 57'W., on a random line bet. secs. 19 and 30.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.88	Intersect W. bdy. of Tp. 5 lks. N. of the cor. of secs. 19, 24, 25, and 30, heretofore described.
	Thence I run N.89° 55'E., on true line bet. secs. 19 and 30. Over rolling mountain foot, through undergrowth of sage brush, grease wood and grass. Descend.
26.25	Road, brs. N. and S., Lund to Newhouse.
32.00	Foot of mountain, 165 ft. below sec. cor., brs. N. and S. Thence over gently rolling land, through white sage and grass undergrowth.
39.88	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap S19 $\frac{1}{4}$ S30 1913 Dig pits, 18 x 18 x 12 ins., E. and W., of post, 3 ft.

Chains

dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high N. of cor.

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

Land, of W. 32.00 chs. rolling mountain foot; soil sandy loam and very stony; slopes E., undergrowth of sage brush, grease wood and grass. Land of the remaining portion, gently rolling; soil rich sandy loam, medium texture, on subsoil of clay; undergrowth of white sage and grass. No timber.

N.0° 03'W., bet. secs. 19 and 20.

Over gently rolling land, through undergrowth of white sage brush, grass and scattering yellow top weeds.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S19 ¼ | S20

1913

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.

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, marked on brass cap

T30S | R13W
S18 | S17
S19 | S20

1913

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; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth white sage brush, grass and scattering grease wood.

Chains.

No timber.

East on a random line bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

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

Thence I run

N.89° 57'W., on true line bet. secs. 17 and 20.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grass.

24.55 Road, brs. N.30°W., and S.30°E.,

40.01 Set an iron post, 3 ft. long, 1 in. in dia. 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S17
¼
S20
1913

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,

Enter white sage brush, and scattering yellow top weeds.

41.65 Road, brs. NW. and SE., Lund to Newhouse.

80.02 The cor. of secs. 17, 18, 19 and 20.

Land gently rolling; soil rich sandy loam, medium texture, on subsoil of clay; undergrowth on E. half mile sage brush, yellow top weeds, and scattering grass; on W. half, white sage brush, scattering yellow top weeds and grass.

No timber.

Dec. 11, 1913.

Dec. 12: At 8h 24m a.m., l.m.t., I set off 38° 12', on the lat. arc; 23° 01'S., on the decl. arc; and determine a meridian with the solar at the cor. of secs. 17, 18, 19

Chains.

and 20.

Thence I run

S.89° 55'W., on a random line bet. secs. 18 and 19.

40.00 Set temp. ¼ sec. cor.

79.86 Intersect W. bdy. of Tp., 5 lks. N. of the cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence I run

N.89° 53'E., on true line bet. secs. 18 and 19.

Over rolling mountain foot, through undergrowth of sage brush, graase wood, and grass.

Descend.

23.00 Foot of mountain, 75 ft. below sec. cor., brs. N. and S.

Thence over rolling land, through undergrowth of white sage and grass.

23.96 Road, brs. N. and S., Lund to Newhouse.

39.86 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S18
¼
S19
1913

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.

79.86 The cor. of secs. 17, 18, 19 and 20.

Land of the W. 23.00 chs., rolling mountain foot; soil sandy loam and very stony; slopes E.; land of the remaining portion, gently rolling; soil rich sandy loam, medium texture, on subsoil of clay; undergrowth, sage brush, grease wood, grass and white sage.

No timber.

N.0° 03'W., bet. secs. 17 and 18.

Over rolling land, through undergrowth of white sage, and grass.

Chains.

19.10 Road, brs. NW. and SE., Lund to Newhouse.

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

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

1913

Dig pits, 18 x 18 x 12 ins., N. and S., of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high W. of cor.

64.15 Road, brs.N.75°W., and S.75°E., Minersville to Newhouse.

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

T30S | R13W
S7 | S8
S18 | S17

1913

Dig pits, 18 x 18 x 12 ins., in each sec., $5\frac{1}{2}$ ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth, white sage brush and grass.

No timber.

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

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

80.00 Intersect N. and S. line 5 lks. N. of the cor. of secs. 8, 9, 16 and 17.

Thence I run

N.89° 55'W., on true line bet. secs. 8 and 17.

Over gently rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

Chains	
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap S 8 $\frac{1}{4}$ S17 1913 Dig pits, 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist.; and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high N. of cor.
50.75	Wash, 25 lks. wide, 1 ft. deep, course S.30°E. Leave yellow top and sage brush; enter white sage and grass, brs. N. and S.
80.00	The cor. of secs. 7, 8, 17 and 18. Land, gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth on E. 50.00 chs., sage brush, yellow top weeds, and scattering grease wood and grass; on remaining portion white sage and grass. No timber.

S.89° 53'W., on random line bet. secs. 7 and 18.

40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.78	Intersect W. bdy. of Tp. 9 lks. N. of the cor. of secs. 7, 12, 13 and 18, heretofore described.

Thence I run

N.89° 49'E., on true line bet. secs. 7 and 18.

Over rolling land, through undergrowth of white sage and grass.

25.08	Road, brs. NW. and S.60°E., Minersville to Newhouse.
39.78	Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap S 7 $\frac{1}{4}$ S18 1913

Chains

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.

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

Land, rolling, gently slope to the E.; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth of white sage brush and grass.

No timber.

Dec. 12: At this cor. I set off 23° 04'S., on the decl. arc; and at 11h 54m l.m.t., observe the sun on the meridian; the resulting lat. is 38° 13'.

N.0° 03'W., bet. secs. 7 and 8.

Over rolling land, through undergrowth of white sage, grass and scattering grease wood.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S7 ¼ | S8

1913

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.

69.70 Wash, 30 lks. wide, 6 ft. deep, course S.30°E.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, marked on brass cap

T30S	R13W
S6	S5
S7	S8

1913

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.

Chains

Land rolling; soil rich sandy loam, medium texture, on subsoil of clay; undergrowth white sage brush, grass and scattering grease wood.

No timber.

S.89° 55'E., on a random line bet. secs. 5 and 8.

40.00 Set temp. ¼ sec. cor.

79.98 Intersect N. and S. line, 3 lks. N. 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 rolling land, through undergrowth of sage brush, yellow top weeds and scattering grease wood and grass.

39.99 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S 5
¼
S 8
1913

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.

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

Land, rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, yellow top weeds, and scattering grease wood and grass.

No timber.

S.89° 49'W., on a random line bet. secs. 6 and 7.

40.00 Set temp. ¼ sec. cor.

79.68 Intersect W. bdy. of Tp. 3 lks. N. of the cor. of secs. 1, 6, 7 and 12, heretofore described.

Chains

Thence I run

N.89° 48'E., on true line bet. secs. 6 and 7.

Over rolling land, through undergrowth of sage brush, yellow top weeds, and scattering grease wood and grass.

39.68 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S 6
¼
S 7
1913

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.

74.38 Wash, 30 lks. wide, 6 ft. deep, course S.30°E.

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

Land rolling; soil sandy loam, medium texture, on a subsoil of clay; undergrowth sage brush, yellow top weeds, and scattering grease wood and grass;

No timber.

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

40.00 Settemp. ¼ sec. cor.

84.40 Intersect N. bdy. of Tp. 11 lks. W. of the cor. of secs. 5, 6, 31 and 32 heretofore described.

Thence I run

S.0° 02'W., bet. secs. 5 and 6.

Over gently rolling land, through undergrowth of sage brush, grease wood and grass.

44.40 Set an iron post, 3 ft. long, 1 in. in dia., 24 ins. in the ground, for ¼ sec. cor., marked on brass cap

S6 | S5
¼
1913

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

Chains

dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.

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

Land gently rolling; soil rich sandy loam, medium texture, 8 to 10 ins. deep, on subsoil of clay; undergrowth sage brush, grease wood and grass.

No timber.

Dec. 12, 1913.

GENERAL DESCRIPTION

This township is located on the west side of Escalante desert, and is exposed to the south and east. There is a high range of mountains to the west of this township extending north and south. There is considerable wind in this section from the north and south in the spring of the year.

The land of this township is generally gently rolling with a general drainage to the SE. The soil is generally a rich sandy loam of medium texture, and from 8 to 10 ins. deep on a subsoil of clay, and will produce abundant crops with irrigation, and fair crops without irrigation.

The township is generally covered with a medium growth of sage brush, grease wood, yellow top weeds and grass, which affords excellent grazing for sheep and cattle during the winter months.

There is no timber found on this township.

There are no natural springs or streams of water found on this township. W. H. Dinwoodie found water in the NE. quarter of sec. 33 at a depth of 105 feet.

There are a number of lumber cabins built on the south half of this township, but no living in them, except E.E. Dinwoodie, in the SW. quarter of sec. 28; W. H. Dinwoodie, in the NE. quarter of sec. 33, W C. Dinwoodie in the NW. quarter of sec. 33, and A. N. Downs in the NW. quarter of sec. 31.

There are no indications of mineral found on this township.

Ralph B. Greely

U. S. Surveyor.

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BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, Ralph Gentry, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the boundaries and subdivision lines of Ts. 30S., Rs. 10, 12 and 13 W.; Ts. 27, 28, 29 and 30 S., R. 17 W.; T. 29 S., R. 18 W., and T. 27 S., R. 16 W.,

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 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.	
P. B. Cox	May 10, 1913	Dec. 13, 1913	Chainman
Sidney Fels	May 9, 1913	Dec. 13, 1913	Chainman
Sam Brooks	May 9, 1913	Aug. 16, 1913	Moundman
Robert T. Collier	June 14, 1913	Sept. 12, 1913	Flagman
Earl H. James	June 10, 1913	July 23, 1913	Axeman
Wm. C. Johansen	Sept. 13, 1913	Oct. 31, 1913	Flagman
Alton Hiatt	Aug. 18, 1913	Dec. 13, 1913	Moundman

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

Ralph Gentry
U. S. Surveyor.

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FINAL OATH OF UNITED STATES SURVEYOR.

I, Ralph Gentry, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 15 day of April, 1913, and Supp'l special instructions dated Oct. 25, 1913, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the boundaries and subdivision of Ts. 30 S., Rs. 10, 12 and 13 W.; Ts. 27, 28, 29 and 30 S., Rs. 17 W.; T. 29 S., R. 18 W.; and T. 27 S., R. 16 W., of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the foregoing field notes in books "A" to "K" inclusive 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.

Ralph Gentry
U. S. Surveyor.

Subscribed by said Ralph Gentry, and sworn to before me this 17th day of April, 1914

SEAL

N. C. Thoresen
G. L. Surveyor General for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,
Salt Lake City, Utah, January 25, 1915.

The foregoing field notes of the survey of the Subdivisional lines of Township No. 30 South, Range No. 13 West; resurvey of the North Boundary of Township No. 30 South, Range No. 13 West; and resurvey of the Second Guide Meridian, West, through Tp. No. 30 South, between Ranges 13 and 14 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry under his special instructions dated April 15, 1913 and supplemental special instructions dated October 25, 1913, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the resurveys and surveys they describe, are hereby approved.

N. C. Thoresen
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-403

E.H.

FIELD NOTES

OF THE SURVEY OF THE

RELOCATION OF THE NATURAL BRIDGES NATIONAL MONUMENT, THE CIGARETTE CAVE AND THE SNOW FLAT CAVE,

~~Of the~~ ~~Meridian,~~

In the State of UTAH.

EXECUTED BY

DANIEL B. MILLER.

AND

JOS. C. THOMA

In the capacity of U. S. Surveyors, under instructions dated April 25th, 1912, issued by the United States Surveyor General to govern surveys ~~included~~ in The relocation of the Natural Bridges, the Cigarette Cave and the Snow Flat Cave.

~~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 October 22nd, 1912.

Survey completed November 10th, 1912.

BOOK A-403

INDEX DIAGRAM.

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31	32	33	34	35	36

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Survey commenced October 22, 1912, and executed with a Young & Sons light mountain transit No. 10, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

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

At the United States Location Monument "Cigarette", established by William B. Douglass, United States Examiner of Surveys, in 1908, on top of a rock ledge, forming the alcove, known as Cigarette Spring Cave, near the head of a south branch of Road Canyon, on the south side of the same, at a point near the edge of the ledge directly over the centre of the opening of the alcove, which is

A cross (X) cut in the rock ledge, with the letters CIGARETTE, over which is set a stone 16x12x3 ins., in a m ound of stone, marked U S L M CIGARETTE on the N. face, from which

A pinion 5 ins. diam. bears S. 8° E., 74 lks. dist. mkd. U S L M C B T

A pinion 6 ins. diam. bears S. 52° W., 95 lks. dist., mkd. U S L M C B T

October 22, I set off 37° 23' N. on the lat. arc; 11° 05' S. on the decl. arc, and at 10 a. m., l. m. t., determine the meridian with the solar and mark a point thereof by setting a flag on the north rim of the canyon, about 55 chs. N. of my station.

October 22, At app. noon I set off 11° 07' S. on the decl. arc, and observe the sun on the meridian for lat. and time. The resulting lat. is 37° 22' N., and I find my watch to be 5^m 18^s slow of l. m. t.

October 22, I set off 37° 22' N. on the lat. arc; 11° 9'

Chains

S. on the decl. arc, and at 3 p. m. l. m. t. determine the meridian with the solar. The meridian thus determined bears N. 0° 01' E. in reference to the meridian as determined with the a. m. solar.

October 22: At my station above described I observe Polaris as follows:

Tel. D.	°	'	"		Watch time. H.	M.	S.
Star	1	30	00		4	54	43
Flag	0	00	00		0	00	00
Flag	0	00	00		0	00	00
Star	1	29	30		4	57	19
R.							
Star	1	27	00		4	58	45
Flag	0	00	00		0	00	00
Flag	0	00	00		0	000	00
Star	1	26	30		5	00	08
Mean	1	28	00		4	57	44
Watch slow of l. m. t.						5	18
L. m. t. of observation					5	03	02

U. C. of Polaris Oct. 22, 1912 . . 11^h 24.7^m
L. m. t. of observation 5 03.0
Time int. to next U. C. . . . . 6^h 21.7^m

E. az. of Polaris . . . . . 86.9' or 1° 26' 54"
Angle E., flag to star 1 28 00
0° 01' 06"

Flag bears N. 0° 01' 06" W.

I therefore conclude the adjustments of the solar are satisfactory.

October 22, 1912.

October 23: I set my transit over the U. S. L. M. Cigarette, previously described, and direct the telescope on the flag which bears N. 0° 01' 06" W. of the Polaris mer. To determine the bearing and dist. to the cor. of secs. 1, 2, 35 and 36, Tps. 39 and 40 S., R. 19 E. of the S. L. B. and Mer., I deflect an angle to the left of 8° 08', which makes the bearing of this line N. 8° 09' W. I then direct the telecope to the cor. of secs. 1, 2, 35 and 36, and deflect an an angle to the right of 84° 27' and measure a base of 6.54 chs. This makes the bearing of the base, N. 76° 18' E. I set my transit over the east end of the base line and measure, by a repetition of angles, the angle between the U. S. L. M. Cigarette and the cor. of secs. 1, 2, 35 and 36, the result is 79° 25' 20", which makes the third angle of this triangle

Chains.

16° 07' 40".

To compute the dist. I proceed as follows:

Colog sin 16°07'40"	0.5562984
log sin 79°25'20"	9.9925564
log 6.54	0.8155777
log 23.144	1.3644325

Thus, the U. S. L. M. Cigarette bears S. 8° 09' E., 23.144 chs. dist. from the cor. of secs. 1, 2, 35 and 36, Tps. 39 and 40 S., R. 19 E.

The cor. of secs. 1. 2. 35 and 36, Tps. 39 and 40 S., R. 19 E., is a

Three inch iron post, 3 ft. long, 24 ins. in the ground, mkd. on the brass cap T 39 S in the N. half, R 19 E S 35 in the NW., R 19 E S 36 in the NE., T 40 S in the S. half, R. 19 E S 2 in the SW. and R 19 E S 1 in the SE. quadrant; mound of stone W. of cor. From which

A pine 18 ins. diam. bears S. 11° 30' W., 74 lks. dist., mkd. T40S R19E S2 BT.

A cedar 24 ins. diam. bears N. 53° E., 70 lks. dist., mkd. T39S R19E S36 BT.

A cedar 30 ins. diam. bears N. 89° W., 9 lks. dist., mkd. T39S R19E S35 BT.

Note: I designate this cor. the base for the coordinates, and assume it to be N. 100.000 and W. 100.000 chains.

To compute the coordinates of the U. S. L. M. Cigarette, I proceed as follows:

Cos. 8° 09'	9.9955915	Sin. 8° 09'	9.1515694
Log. 23.14	1.3643634	Log. 23.14	1.3643634
Log. 22.906	1.3599549	Log. 3.281	0.5159328

100.000chs. - 22.906 leaves 77.094

100.000chs. - 3.281 leaves 96.719

Thus the coordinates of the U. S. L. M. Cigarette are N. 77.094 and W. 96.719 chs.

From the U. S. L. M. Cigarette the E. tip of Bears Ears bear N. 11° 24' W.

October 22, 1912.

October 23: I return to the U. S. L. M. Cigarette and direct my telescope to the flag which bears N. 0° 01' W.

of the Polaris meridian and deflect an angle to the left of 78° 18', and lay off a base S. 78° 19' W., 24.21 chs. and designate the western end of the base "B".

I establish a point "C" by placing a flag on a high ridge. The angle at the point "B" between the U. S. L. M. Cigarette and the point "C" is, by a repetition of angles, is 86° 41', which makes the bearing between points "B" and "C" N. 8° 22' W.

I proceed to the point "C", and by a repetition of angles I deflect an angle to the right from the U. S. L. M. Cigarette, of 154° 12' and chain a base line of 88.97 chs. and establish a flag at the western end of same; I designate this point "D" and rechain the base. The result of the second chaining is 88.93 chs. I therefore call the true length of the base 88.95 chs.

The angle at point "C" between the U. S. L. M. Cigarette and point "B" is 24° 19'.

To compute the triangle U.S.L.M.Cig., "B" and "C", I proceed as follows:

Colog sin 24°19'	0.3853353	Colog sin 24°19'	0.3853353
log sin 86°41'	9.9992720	log sin 69°00'	9.9701517
log 24.21 chs.	1.3839948	log 24,21 chs.	1.3839948
log 58.695chs.	1.7686021	log 54.889chs.	1.7394818

The angle at U.S.L.M.Cig. between points "B" and "C" is 69° 00'

Thus, the line U.S.L.M.Cig. - "B" bears S. 78° 19' W., 24.21 chs. dist.

The line U.S.L.M. Cig. - "C" bears N. 32° 41' W., 58.695 chs.

The line "B"-"C" bears N. 8° 22' W., 54.889 chs., and

The base line "C"-"D" bears N. 58° 29' W., 88.95 chs. dist.

To determine the coordinates of point "B", I proceed as follows:

log cosine 78°19'	9.3064303	log sin. 78°19'	9.9909077
log. 24.21 chs.	1.3839948	log. 24.21 chs.	1.3839948
log. 4.903 chs.	0.6904251	log. 23.708	1.3749025
- 77.094		+96.719	
N. 72.191 chs.		W. 120.427	

To determine the coordinates of point "C", I proceed as follows:

Cos sin 32°41'	-9.9251408	log sin. 32°41'	-9.7323902
Log. 58.70	1.7686381	Log. 58.70	1.7686381
Log. 49.405 -	1.6937789	Log. 31.697 -	1.5010283
+ 77.094		+ 96.719	
N. 126.499		W. 128.416	

To determine the coordinates of point "D", I proceed as follows:

Log cosin 58°29'	-9.7182912	log sin 58°29'	-9.9306883
Log. 88.95	-1.9491460	Log 88.95	1.9491460
Log. 46.498 -	1.6674372	Log. 75.829 -	1.8798343
+126.499		+128.416	
N. 172.997		W. 204.245	

October 23, 1912.

October 25, 1912: I proceed to a point about 20 chs. W. of the U. S. L. M. Snow Flat, which I designate as point "I". At this point I observe Polaris as follows; using the E. tip of Bears Ears to abserve on:

Tel. D.	°	'	"	h.	m.	s. (Watch time)
Star	18	21	00	5	09	20
B.Ears	00	00	00	0	00	00
B.Ears	00	00	c00	0	00	00
Star	18	20	00	5	11	20
R.						
Star	18	20	00	5	14	10
B.Ears	00	00	00	0	00	00
B.Ears	00	00	00	0	00	00
Star	18	20	00	5	16	10
Mean	18	20	15	5	12	30
Watch slow of l. m. t.				0	10	18
L. m. t. of observation				5	22	48

U. C. of Polaris Oct. 25,1912	11^h	12.9^m
L.m.t.of obs'n. Oct. 25,1912	5	22.8
Hour angle of Polaris	5^h	50.1^m

E. azimuth of Polaris - 88' - 1° 28' 05"
Angle E., Bears Ears to star 18 20 15
N. 16° 52' 20" W.

Thus, Bears Ears, from point "I" bears N. 16° 52' 20" W.

October 25, 1912.

October 26: I proceed to the top of a ridge about one half mile south of the U. S. L. M. Snow Flat, from which the flags left at points "C" and "D" are plainly visible. By repetition of angles, I find the angle between points "C" and "D" to be 19° 34' 20". I designate this point just established, point "E". From point "D" at point "E", I deflect an aggle to the right of 89° 03', and measure 3.40 chs. and designate

this as point "G", this point being more conspicious for observations from the N. I erect a large flag at this station.

From the point "D", I deflect an angle to the right of 165° 34' 40", which is the angle from point "D", at point "E", to the flag placed on the U. S. L. M. Snow Flat, which monument I designate as point "F"

From point "F", at point "E", I deflect an angle to the left of 23° 56', and measure 33.83 chs, which point I designate point "H".

The angle between points "E" and "F" at point "H", I find to be 116° 39' 30".

The angle between points "E" and "H" at point "F", I find to be 39° 24' 20", which I call 39° 24' 30", which makes the three angles of the triangle check.

To compute the triangle "E" "F" "H", I proceed as follows:

Colog sin 39°24'30"	0.1973336	Colog sin 39°24'30"	0.1973
Log sin. 116°39'30"	9.9511907	Log sin 23°56'00"	9.6081
Log. 33.83 chs.	1.5293020	Log. 33.83 chs.	1.5293
Log. 47.624 chs.	1.6778263	Log. 21.618 chs.	1.3348

Thus, the length of line "E"-"F" is 47.624 chs. and the length of line "F"-"H" is 21.618 chs.

From the line "E"-"H", at point "H", I deflect an angle to the left of 177° 13' 30", which is the angle between points "E" and "I" at point "H", and measure the distance, which is 14.94 chs.

At point "I" from the east tip of Bears Ears, I deflect an angle to the left of 160° 08' 40", which is the angle between Bears Ears and point "H".

Computing back the bearings of the several lines are as follows:

I - H	S.	2°	59'	00"	W.
H - F	N.	63°	33'	00"	E.
H - E	S.	0°	12'	30"	W.
E - F	N.	24°	08'	30"	E.
E - G	N.	52°	23'	10"	W.
E - D	S.	38°	33'	50"	W.
E - C	S.	18°	59'	30"	W.

and

Having the bearings of the three sides and the distance of one of them in the triangle "C" - "D" - "E", I proceed to compute same as follows:

Colog sin 19°34'20"	0.4749619	Colog sin 19°34'20"	0.4749619
Log sin 77°28'30"	9.9895395	Log sin 82°57'10"	9.9967066
Log 88.95 chs.	1.9491460	Log 88.95 chs.	1.9491460
Log 259.207 chs.	2.4136474	Log 263.521 chs.	2.4208145

Thus, line "C"-"E" is N. 18° 59' 30" E., 263. 521 chs.

Line "D"-"E" is N. 38° 33' 50" E., 259.207 chs.

To compute the coordinates of point "E", I proceed as follows:

LogCosin 18°59'30"	9.9756918	LogSin 18°59'30"	9.5124584
Log 263.521 chs.	2.4208153	Log 263.521 chs.	2.4208153
Log 249.176chs.	2.3965071	Log 85.758 chs.	1.9332737
+ 126.499		- 128.416	
N. 375.675 chs.		W. 42.658 chs.	

To determine the coordinates of point "G", I proceed as follows.

LogCosin 52°23'10"	9.7855698	Log sin 52°23'10"	9.8988029
Log 3.40 chs.	0.5314789	Log 3.40 chs.	0.5314789
Log 2.075 chs.	0.3170487	Log 2.693 chs.	0.4302818
+ 375.675		+ 42.658	
N. 377.750 chs.		W. 45.351 chs.	

To determine the coordinates of point "F", I proceed as follows:

LogCosin 24°08'30"	9.9602505	Log sin 24°08'30"	9.6117171
Log 47.624 chs.	1.6778259	Log 47.624 chs.	1.6778259
Log 43.459 chs.	1.6380764	Log 19.478 chs.	1.2895430
+ 375.675		- 42.658	
N. 419.134 chs.		W. 23.180 chs.	

To determine the coordinates of point "H", I proceed as follows:

LogCosin 0°12'30"	9.9999971	Log sin 0°12'30"	7.5606352
Log 33.83 chs.	1.5293020	Log 33.83 chs.	1.5293020
Log 33,830 chs.	1.5292991	Log 0.123 chs.	-1.0899372
+ 375.675		-42.658	
N. 409.505 chs.		W. 42.535 chs.	

To determine the coordinates of point "I", I proceed as follows:

LogCosin 2°59'00"	9.9994110	Log sin 2°59'30"	8.7163829
Log 14.94 chs.	1.1743506	Log 14.94 chs.	1.1743506
Log 14.920 chs.	1.1737616	Log 0.778 chs.	-1.8907335
+ 409.505		- 42.535	
N. 424.425 chs.		W. 41.757 chs.	

October 26, 1912.

October 28: I return to point "I", previously established, and deflect an angle to the left from the E. tip of Bears Ears, of 24° 01' 30" and measure 58.21 chs., which point I designate point "K".

The line "I"-"K" is therefore N. 40° 53' 50" W., 58.21 chs.

To determine the coordinates of point "K", I proceed as

follows:

Log cosin 40°53'50"	9.8784558	Log sin 40°53'50"	9.8160451
Log 58.21 chs.	1.7649976	Log 58.21 chs.	1.7649976
Log 44.000 chs.	1.6434534	Log 38.110 chs.	1.5810427
+ 424.425		+ 41.757	
N. 468.425 chs.		W. 79.867 chs.	

The angle between points "G" and "I" at point "K" is

20° 03' 40".

The bearing of the line G-K is therefore N. 20° 50' 10" W.

To determine the distance between points "G" and "K", I

proceed as follows:

Coordinates of "K":	N. 468.425	W. 79.867
" " of "G",	N. 377.750	W. 45.351
	90.675	34.516

Log. 34.516	1.5380205	
Log. 90.675	1.9574876	
Logtan	9.5805329	20° 50' 23"
		20° 50' 10"
		00° 00' 13" error between

computed bearing and that which was obtained in the

field.

With the right tirangle as the line G-K as the hypothenuse,

we have:

Colog sin 69°09'50"	0.0293734	Colog sin 69°09'50"	0.0293734
Log sin 20°50'10"	9.5510791	Log sin 90°	10.0000000
Log 90.675 chs.	1.9574876	Log. 90.675 chs.	1.9574876
Log 34.5096 chs.	1.5379401	Log 97.020 chs.	1.9868610
34.5160 chs.			
.0064 chs. error			

Thus, the bearing of the line G-K is N. 20° 50' 10" W.,

and this dist. is 97.020 chs.

From the point "K", I produce the line G-K, N. 20° 50' 10"

W., and measure 8.14 chs., which point I designate,

point "L".

To determine the coordinates of point "L", I proceed as

follows:

Log cosin 20°50'10"	9.9706266	Log sin 20°50'10"	9.5510791
Log 8.14 chs.	0.9106244	Log 8.14 chs.	0.9106244
Log. 7.608 chs.	0.8812510	Log 2.896 chs.	0.4617035
+ 468.425		+ 79.867	
N. 476.033 chs.		W. 82.763 chs.	

From point "K", at point "L", I deflect an angle to the

left of 158° 48' and measure a distance of 4.90 chs.,

which point I designate point "M".

To determine the coordinates of point "M", I proceed as

follows:

LogCos 0°21'50"	9.9999912	Log sin 0°21'50"	7.8028432
Log 4.90 chs	0.6901961	Log 4.90 chs.	0.6901961
Log 4.900 chs.	0.6901873	Log 0.031 chs.	-2.4930393
+ 476.033		- 82.763	
N. 480.933 chs.		W. 82.732 chs.	

Hence the line L-M is N. 0° 21' 50" E., 4.90 chs.

From the point "L", at point "M", I deflect an angle to the left of 175° 46' 30" and measure a distance of 13.53 chs., which point I designate point "N".

The course of the line M-N is therefore N. 4° 35' 20" E., and the distance is 13.53 chs.

To determine the coordinates of point "N", I proceed as follows:

LogCosin 4°35'20"	9.9986056	Log sin 4°35'20"	8.9031205
Log 13.53 chs.	1.1312978	Log 13.53 chs.	1.1312978
Log 13.487 chs.	1.1299034	Log 1.082 chs.	0.0344183
+ 480.933		- 82.732	
N. 494.420 chs.		W. 81.650 chs.	

To determine the course of the line K-N, I proceed as follows:

Coordinates of point "N",	N. 494.420 chs.	W. 81.650 chs.
" " " "K",	N. 468.425 "	W. 79.867 chs.
difference	25.995 chs.	1.783 chs.

Log 1.783 chs.	0.2511513
Log 25.995 "	1.4148898
Log tan 3° 55' 30"	8.8362615

In the right triangle, with the line K-N as the hypothenuse, and 25.995 chs. as the given side, I proceed as follows:

Colog sin 86° 04' 30"	0.0010198
Log 25.995 chs.	1.4148898
Log. sin 90° -	10.0000000
Log 26.056 chs.	1.4159096

Hence, the line K-N is N. 3° 55' 30" W., 26.056 chs. dist.

I return to point "I" and deflect an angle to the left, which is the angle between the east tip of Bears Ears and point "N". The bearing of the line I-N therefore is N. 29° 40' 20" W.

October 28: At point "I", I set off 13° 11' S. on the decl. arc, and, at app. noon observe the sun on the meridian, the resulting lat. is 37° 27' N.

October 28: 1912.

October 31: I send the flagman to the west and on top of a prominent knoll, and designate this point as point "O".

The angle between points "G" and "O", at point "K", is to the right 135° 12'.

Making the bearing of the line K-O N. 65° 38' 10" W.

I proceed to point "O" and the angle between points "K" and "N", at point "O" is to the left 4° 35' 30".

The angle between points "K" and "G" is to the right, at "O", 10° 33' 30".

The angle between points "G" and "C", at point "O" is to the right, 29° 28'.

The bearings of the several lines are therefore as follows:

Line O-N N. 70° 13' 40" W.,

Line O-K N. 65° 38' 10" W.,

Line O-G N. 55° 04' 40" W., and

Line O-C N. 25° 36' 40" W.

Having the bearings of the three sides and the distance of one of them, I proceed to compute the distances of the other two sides in the triangle K-N-O, as follows:

Colog sin 4°35'30"	1.0966172	Colog sin 4°35'30"	1.0966172
Log sin 113°41'50"	9.9617447	Log sin 61°42'40"	9.9447635
Log 26.056 chs.	1.4159077	Log 26.056 chs.	1.4159077
Log 298.037 chs.	2.4742696	Log 286.608 chs.	2.4572884

The distance of line K-O is 298.037 chs., and

The distance of the line N-O is 286.608 chs.

Having the bearings of the three sides and the distance of one of them (97.020 chs), I proceed to compute the distances of the other two sides in the triangle G-K-O, as follows:

Colog sin 10°33'30"	0.7369880	Colog sin 10°33'30"	0.7369880
Log sin 135° 12' 00"	9.8479637	Log sin 34°14'30"	9.7502651
Log 97.020 chs.	1.9868613	Log 97.020 chs.	1.9868613
Log 373.090 chs.	2.5718130	Log 297.940 chs.	2.4741144

The distance of line K-O as per this computation is 297.940 chs. I take a mean of 298.037 chs. and 297.940 chs. and call the true distance of the line K-O, 297.988 chs.

The distance of line G-O is 373.090 chs.

I compute the bearing of the line C-G as follows:

Coordinates of point "G";	N. 377.750	W. 45.351
" " " " "C";	N. 126.499	W. 128.416
difference	251.251 chs.	83.065 chs.

Log 83.065 chs.	1.9194181
" 251.251 "	2.4001078
Log tan 18°17'40"	9.5193103

In the right triangle, with the line C-G as the hypothenuse, I proceed as follows:

Colog sin 71°42'20"	0.0225252
Log sin 90°	10.0000000
Log 251.251 chs.	2.4001078
Log 264.626 chs.	2.4226330

Therefore, the course and distance of the line C-G is

N. 18° 17' 40" E., 264.626 chs.

Having the bearings of the three sides and the distance of one of them (264.626 chs.), I proceed to compute the distances of the other two sides of the triangle C-G-O, as follows:

Cologsin 29°28'00"	0.3081081	Colog sin 29°28'00"	0.3081081
Log sin106°37'40"	9.9814489	Log sin 43°54'20"	9.8410287
Log 264.626 chs.	2.4226325	Log 264.626 chs.	2.4226325
Log 515.454 chs.	2.7121895	Log 373.052 chs.	2.5717693

The course and distance of the line C-O is N. 25° 36' 40" W., 515.454 chs. dist.

The distance of the line G-O as per this com putation is 373.052 chs. The distance of the line G-O as per a previous computation is 373.090 chs. The difference between the two is 3.8 lks., I therefore call the true distance 373.090 chs.

To determine the coordinates of point "O", I proceed as follows.

Line N - O

Log cosin 70°13'40"	9.5292785	Log sin 70°13'40"	9.9736103
Log 286.608 chs.	2.4572858	Log 286.608 chs.	2.4572858
Log 96.954 chs.	1.9865643	Log 259.709 chs.	2.4308961
+ 494.420		+ 81.650	
N. 591.374 chs.		W. 351.359 chs.	

Line K - O

Logcosin 65°38'10"	9.6154559	Log sin 65°38'10"	9.9594916
Log si297.988chs.	2.4741988	Log 297.988 chs.	2.4741988
Log 122.929 chs.	2.0896547	Log 271.456 chs.	2.4336904
+ 468.425		+ 79.867	
N. 591.354 chs.		W. 351.323 chs.	

Line G - O

Logcos 55°04'40"	9.7577481	Log sin 55°04'40"	9.9137767
Log 373.090 chs.	2.5718136	Log 373.090 chs.	2.5718136
Log 213.581 chs.	2.3295617	Log 305.908 chs.	2.4855903
+ 377.750		+ 45.351	
N. 591.331 chs.		W. 351.259 chs.	

Line C - O

Logcosin 25°36'40"	9.9550855	Log sin 25°36'40"	9.6357457
Log 515.454 chs.	2.7121899	Log 515.454 chs.	2.7121899
Log 464.810 chs.	2.6672754	Log 222.810 chs.	2.3479356
+ 126.499		+ 128.416	
N. 591.309 chs.		W. 351.226 chs.	

Line N-O	N. 591.374	W. 351.359		
" K-O	N. 591.354	W. 351.323		
" G-O	N. 591.331	W. 351.259		
" C-O	N. 591.309	W. 351.226		
Mean	N. 591.342	W. 351.292	coordinates	

for point "O".

To determine the course and distance of a line connecting points "I" and "O", I proceed as follows:

Coordinates of "O"	N. 591.342	W. 351.292
" " "I"	N. 424.425	W. 41.757
	166.917	309.535

Log 166.917 chs.	2.2225006
" 309.535 "	2.4907097
Log tan 28°20'10"	9.7317909

90° 00' 00"
- 28° 20' 10"
N. 61° 39' 50" W., bearing of line I-O.

In the right triangle with the line I-O as the hypothenuse, I proceed as follows:

Colog sin 61°39'50"	0.0554293
Log sin 90°	10.0000000
Log 309.535 chs.	2.4907097
Log 351.673 chs.	2.5461390

Hence, the bearing and distance of the line I-O is

N. 61° 39' 50" W., 351.673 chs.

At point "O", with the telescope on point "N", I turn an angle to the left of 113° 14' 30", which is the angle at "O", between point "N" and the E. tip of Bears Ears. The course of this line is N. 3° 28' 10" W.

To determine the location of the E. tip of Bears Ears, I compute the triangle I-O-E. Tip of Bears Ears", having the bearing of the three sides and the distance (351.673 chs.) of one of them.

(On November 9, with my transit on the E. tip of Bears Ears

I turn the angle between points "I" and "O" and find it to be 13° 23' 30", which I consider a close check; however in computing the triangle I have used 13° 24' 10".)

Colog sin 13°24'10"	0.6348958	Colog sin 13°24'10"	0.6348958
Log sin 44°47'30"	9.8479001	Logsin 121°48'20"	9.9293380
Log 351.673 chs.	2.5461390	Log 351.673 chs.	2.5461390
Log 1068.895 chs.	3.0289349	Log 1289.356 chs.	3.1103728

The bearing and distance of line "I"-"E. tip Bears Ears is N. 16° 52' 20" W., 1289.356 chs.

The bearing and distance of line "O"-"E. tip Bears Ears is N. 3° 28' 10" W., 1068.895 chs.

To determine the coordinates of the E. tip of Bears Ears, I take both lines "O" "E. tip of Bears Ears" and "I"-"E. tip of Bears Ears" and take the mean, as follows:

Log cosin 3°28'10"	9.9992033	Log sin 3°28'10"	8.7818719
Log 1068.895 chs.	3.0289348	Log 1068.895 chs	3.0289348
Log 1066.935 chs.	3.0281381	Log 64.685 chs	1.8108067
+ 591.342		+ 351.292	
N. 1658.277 chs.		W. 415.977 chs.	

Log cosin 16°52'20"	9.9808849	Log sin 16°52'20"	9.4627547
Log 1289.356 chs.	3.1103729	Log 1289.356 chs.	3.1103729
Log 1233.837 chs.	3.0912578	Log 374.221 chs.	2.5731276
+ 424.425		+ 41.757	
N. 1658.262 chs.		W. 415.978 chs.	
N. + 1658.277		W. +415.977	
N. 1658.270 chs.	Mean	W. 415.9775	coordinates of

the E. tip of Bears Ears.

October 31, 1912.

November 3: I proceed to the natural mound on the east end of the ledge rock forming the girder of a natural formation, spanning a small wash tributary on the north to Armstrong Canyon, being the Owachomo Bridge (The Bridge of the rock mound) commonly referred to as the "Little Bridge".

Approximate lat. 37° 37' N., longitude 110° 01' W. of Greenwich.

At this point, I observe Polaris as follows:

Tel. D.	°	'	"	Watch time. h.	m.	s.
Star	23	48	00	5	45	00
Flag	00	00	00	0	00	00
Flag	00	00	00	0	00	00
Star	23	49	00	5	47	30
R.						
Star	23	51	00	5	48	30
Flag	00	00	00	0	00	00
Flag	00	00	00	0	00	00
Star	23	52	00	5	50	30
Mean	23	50	00	5	47	52

Mean 23° 50' 00"	5h	47m	52s
Watch fast of L. M. T.		33	55
L. M. T. of observation	5h	13m	57s

U. C. of Polaris Nov. 3, 1912.	10h	37.5m.
L. M. T. of observation	5	13.9
Time int. to next U. C.	5h	23.6

E. az. of Polaris	86'	Or 1°	26'
Angle west; flag to star		23	50
Flag bears	N.	25°	16' E.

Note: The flag observed on was placed on a high ridge, about 20 chains N.E. of my station.

This astonomical point is designated as point "Z" on the plat.

From point "Z", a flag placed on Cor. No. 1, of the Natural Bridge National Monument, on the S. side of Armstrong Canyon, bears S. 59° 49' 50" E.

Cor. No. 1, is a sandstone, 20x18x6 ins. firmly set in a mound of stone on solid rock; mkd. COR NO 1 NBNP on the NW. face, PL on the SW. face. Witnessed by three bearing trees.

To determine the distance accross Armstrong Canyon from Point "Z", I lay off a base line of N. 65° 13' 10" E., 22.35 chs. From point "Z", Cor. No. 1 bears S. 59° 49' 50" E.; and from the E. end of the base line, Cor. No. 1 bears S. 17° 08' 30" W. I compute as follows:

Colog sin 76°58'20"	0.0113247	Colog sin 76°58'20"	0.0113247
Log sin 54° 57' 00"	9.9130989	Log sin 48° 04' 40"	9.8716036
Log 22.35 chains	1.3492775	Log 22.35 chains	1.3492775
Log 18.78 chs.	1.2737011	Log 17.07 chs.	1.2322058

I place a flag on top of a ridge in some old cuttings in the scrub cedar timber, which I take to be the surveyed line of the east boundary of the Natural Bridge National Monument. I find that this flag bears N. 17° 08' 30" E., I use this bearing as my random line and by a series of double back and foresights I continue this course, and start chaining from the 18.78 chain point from Cor. No. 1 established by triangulation. (continuous measurement.)

40.33 Fall 15 lks. W. of the ½ M. P., which is

A sand stone 18x8x8 ins. above ground, firmly set; mkd. ½ M on the S.; PL on the E. and NBNP on the W. faces. Witnessed by two bearing trees.

79.75 Fall 17 lks. W. of the 1 M. P., which is

A sandstone, 10x4x12 ins. above ground, firmly set; mkd.

Chains.

1 MP on the N., PL on the E. and NBNP on the W. faces.
Witnessed by bearing trees.

I continue N. 17° 08' 30" E. on the same random line, on the second mile of the east broudary of the Natural Bridge National Monument.

39.516 Fall 4 lks. E. of the 1½ N. P., which is
A sandstone, 8x5x8 ins. above ground, firmly set; mkd. PL on the east face; other marks illegible.
Witnessed by two bearing trees.
The above distance is the mean of two sets of chaining. First chaining, 39.486; second 39.546chs.

79.536 Fall 9 lks. W. of the 2 M. P., which is
A sand stone, 6x8x6 ins. above ground, firmly set; mkd. PL on the E., 2 MP on the S. and NBNP on the W. faces.
Witnessed by four bearing trees.

November 3, 1912.

November 4: I return to the 2 M. P. on the E. Boundary of the Natural Bridge National Monument, and continue N. 17° 08' 30" E., on the same random line of the day previous.

40.00 Fall 3 lks. W. of the 2½ M. P., which is
A sandstone, 14x10x8 ins. above ground, firmly set; mkd. PL on the E., ½M on the S. and NBNP on the W. faces.
Witnessed by two bearing trees.

61.13 Fall 1 lk. W. of a small mound of stone on the south rim of White Canyon. This point I designate as point "P".
From point "P", Cor. No. 3 of the Natural Bridge National Monument, which is plainly visible on the N. rim of White Canyon, bears N. 17°-02'-20"-E.
To determine the distance across White Canyon, I lay off a base, from point "P", of S. 77° 26' 40" E., 8.00 chs.
From the east end of the base line, Cor. No. 3 bears N. 6° 38' 40" W.
To compute the line P-Cor. No. 3; I proceed as follows:

Colog sin 23° 41'	0.3961183	Colog sin 23°41'
Log sin 70° 48'	9.9751451	
Log 8.00 chs.	0.9030900	
Log 18.809 chs.	1.2743534	
+ 61.130		
79.939 chs.		

79.94 Cor. No. 3 of the Natural Bridge National Monument.

At point "Z", I discover that it is impossible to see the same point on the E. tip of Bears Ears that was taken from the various stations in the vicinity of Cigarette and Snow Flat Cave Springs. I can, however, distinguish a lone pine tree. The bearing of this tree from station "Z" is N. 70° 45' E.

The bearing of this pine tree from station "P" is N. 86° 31' 30" E.

It is impossible to see Bears Ears from Cor. No. 1 of the Natural Bridge National Monument.

In order to determine a base for the triangle, I compute the course and distance between points "P" and "Z" as follows:

I call Cor. No. 1 N. 0.00 chs. and W. 0.00 chs.

I compute the coordinates of point "Z" in reference to cor. No. 1 as follows.

Cosin 59°49'50"	9.7011870	Sin 59°49'50"	9.9367866
Log 17.073 chs.	1.2323098	Log 17.073 chs	1.2323098
Log 8.580 chs.	0.9334968	Log 14.760 chs.	1.1690964

The coordinates of point "Z" are N. 8.580 chs. and W. 14.760 chs.

To compute the coordinates of point "P" in reference to Cor. No. 1; I proceed as follows:

Cos. sin 17°08'30"	9.9802666	Sin 17°08'30"	9.4694322
Log. 220.416 chs.	2.3432431	Log 220.416	2.3432431
Log 210.624 chs.	2.3235097	Log 64.965	1.8126753

The coordinates of point "P" are N. 210.624 chs. and E. 64.969 chs.

"P" N.	210.624	E.	64.969
"Z" N.	- 8.580	W.	±14.760
	202.044 chs.		79.729 chs.

	Log. 79.729	1.9016163
	Log. 202.044	2.3054460
Tan 21° 32' 10"		9.5961703

The course of line "Z"-"P" is N. 21° 32' 10" E.

In the right triangle with the line "Z"-"P" as the hypothe-

nuse , and 202.044 chs. as the given side, I compute the length of the line "Z"-"P", as follows:

Colog sin 68° 27' 50"	0.0314300
Log sin 90°	10.0000000
Log 202.044 chs.	2.3054460
Log 217.208 chs.	2.3368760

The line "Z"-"P" bears N. 21° 32' 10" E., 217.208 chs.

November 4, 1912.

November 8: I proceed to the point in the E. tip of "Bears Ears", which I designate point "W". I turn an angle to the right of 76° 48' 20", which is the angle between point "I" and the large pine tree, distinguished from points "P" and "Z". I designate this point "Y". I proceed to point "Y" and turn an angle to the right of 88° 27' 20", which is the angle between points "I" and "Z". This angle makes the bearing of the line "Z"-"Y" N. 70° 46' E. I take the mean of N. 70° 45' E. and N. 70° 46' E. and call the true bearing of the line "Z"-"Y" N. 70° 45' 30" E.

With my instrument still at point "Y", I turn an angle to the right of 15° 46' 50" , which is the angle between points "Z" and "P". This makes the bearing of the line "Y"-"P", S. 86° 32' 20" W. I hold this bearing in preference to the one obtained from point "P", as the flag left at "P" was in plain view and more readily defined than the point which I had to sight on from point "P".

With my instrument still at point "Y", I turn an angle to the left of 102° 22' 30" which is the angle between points "I" and "W".

November 8, 1912.

November 10: With the instrument at point "I", I turn an angle to the left of 0° 49', which is the angle between points "W" and "Y", which makes the bearing of the line "I"-"Y", N. 17° 41' 20" W. I call the angle between points "I" and "W" at "Y" 102° 22' 40" instead of 102° 22' 30" as was actually turned.

To compute the triangle "I"-"W"-"Y", having the bearing of

three sides and the distance of the line "I"-"W", I proceed as follows:

Cologsin 102°22'40"	0.0102141	Colog sin 102°22'40"	0.0102141
Log sin 0° 49' 00"	8.1539075	Log sin 76° 48' 20"	9.9883810
Log 1289.356 chs.	3.1103729	Log 1289.356 chs.	3.1103729
Log 18.815 chs.	1.2744945	Log 1285.192 chs.	3.1089680

Line "I"-"Y" bears N. 17° 41' 20" W., 1285.192 chs.

Line "Y"-"W" bears N. 59° 56' E., 18.815 chs.

To determine the coordinates of point "Y", I proceed as follows:

Log cos 17°41'20"	9.9789655	Log sin 17°41'20"	9.4826568
Log. 1285.192 chs.	3.1089680	Log 1285.192 chs.	3.1089680
Log 1224.421 chs.	3.0879335	Log 390.503 chs.	2.5916248
+ 424.425		+ 41.757	
N. 1648.846 chs.		W. 432.260 chs.	coordinates

of point "Y".

To compute the triangle "P"-"Y"-"Z", having the bearings of all the sides and the distance of the line "Z"-"P", I proceed as follows:

Cologsin 15°46'50"	0.5655051	Colog sin 15°46'50"	0.5655051
Log sin 114°59'50"	9.9572855	Log sin 49°13'20"	9.8792384
Log 217.208 chs.	2.3368758	Log 217.208 chs.	2.3368758
Log 723.880 chs.	2.8596664	Log 604.810 chs.	2.7816193

The course and distance of the line "P"-"Y" is N. 86° 32' 20" E., 604.810 chs.

The course and distance of the line "Z"-"Y" is N. 70° 45' 30" E., 723.880 chs.

To determine the coordinates of the point "P", I proceed as follows:

Log cos 86°32'20"	8.7808287	Log sin 86°32'20"	9.9992071
Log 604.810 chs.	2.7816190	Log 604.810 chs.	2.7816190
Log 36.513 chs.	1.5624477	Log 603.707 chs.	2.7808261
-1648.846		+ 432.260	
N. 1612.333		W. 1035.967 chs.	coordinates

of point "P".

To determine the coordinates of point "Z", I proceed as follows:

Log cos 70°45'30"	9.5179257	Log sin 70°45'30"	9.9750350
Log 723.880 chs.	2.8596666	Log 723.880 chs.	2.8596666
Log 238.557 chs.	2.3775923	Log 683.442 chs.	2.8347016
- 1648.846		+ 432.260	
N. 1410.289 chs.		W. 1115.702 chs.	coordinates

of point "Z".

The course and distance from "Cigarette Cave Spring" Monument to East Bears Ear is N. 11° 24' 55" W. 1618.10 chs.

November 10, 1912.

GENERAL DESCRIPTION:

The land embraced within the boundaries of Tps. 37, 38 and 39 S., R. 19 E. and T. 37 S., Rgs. 17 and 18 E., if the surveys were projected as shown on the accompanying plat, consists of high aridmesas, covered with a dense growth of scrub pinion, juniper and cedar timber, dotted with large areas of open flats or parks which produce a rank growth of sage brush. The mesas are broken with deep canyons and washes and have a general slope to the south. The soil is usually of a sandy loam and very shallow and is not well adapted to farming. Large herds of cattle graze over the mesas, in fact so great a number, as the range is over stocked and feed scarce.

Our party took eight head of mules and two wagons as far as Knighn Springs, where it was necessary to abandon the wagons and proceed to the Natural Bridges with a pack train. With some work, principally the cutting out of trees, I feel sure that with small expense, a good road could be constructed from Road Canyon to the Natural Bridges.

An abundant supply of water was found at Cigarette, Snow Flat and Knighn Springs, also at a small spring north of the road and about eight miles from Snow Flat Cave. No natural spring was found in the vicinity of the bridges, the party existing on rain and snow water found in holes, in the neighboring sandstone ledges.

In the execution of this survey great care was taken in turning angles, many of which were read eight times or more and the mean taken. The same precision was taken in selecting and chaining the base lines. The base lines were taken as long as possible and all double chained.

At the more prominent triangulation points, large targets and flags were constructed of poles, upon which were fastened strips of red and white bunting.

I desire to call attention to the plotting of the field notes of William B. Douglass, U. S. Examiner of Surveys, on a plat furnished as a guide, entitled "Diagram

showing positions of the National Monument Reservations of the Natural Bridges and Prehistoric Cave Springs with reference to Public Land Surveys in unsurveyed Tp. 36 S., R. 22 E., S. L. Mer., Utah. Surveyed by Wm. B. Douglass, U. S. Examiner of Surveys, Sept. 13 to 18th, 1908, under Special Instructions of May 15th and July 8, 1908." By comparing the field notes of this survey with the plat referred to, it will be seen that the two are not in conformity.

The plat accompanying and forming a part of this report, is drawn to scale, with the exception of the lines "P"-"Y" and "Z"-"Y" which are platted short of the true length, however great care has been exercised in recording the correct data thereon. I did not deem it advisable to consume the time necessary to make this correction.

Very respectfully submitted,

Jos. C. Shanna

U. S. Surveyors.

BOOK A-403

CERTIFICATE OF ASSISTANTS.

We, the undersigned, hereby certify upon honor that we assisted, to the best of our skill and ability, — Jos. C. Thoma ——————, U. S. Surveyor, during the periods and in the capacities stated opposite our several signatures, in surveying all those parts or portions of the relocation of the Natural Bridge National Monument, the Cigarette Cave and the ——————— Snow Flat Cave, in San Juan Co., ——————

of the ——————— Meridian, in the State of — Utah, ——————

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.	
Ben Kinsey	Oct. 18, 1912	Nov. 18, 1912.	Chainman.
Walter M Gavin	Octo 18, 1912	Nov. 18, 1912.	"
C R Hummel	Octo 18, 1912	Nov. 16, 1912.	Flagman.

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

Jos C. Thoma
U. S. Surveyor.

FINAL OATH OF UNITED STATES SURVEYOR.

I, Jos. C. Thoma, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for Utah bearing date of the 25th day of April, 1912, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Relocation of the Natural Bridges National Monument, the Cigarette Cave and the Snow Flat Cave in San Juan Co., of the ~~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 and in the specific manner described in the field notes~~, and that the foregoing are the original field notes of such survey.

Jos. C. Thoma
U. S. Surveyor.

Subscribed by said Jos. C. Thoma, and sworn to before me this 19 day of March, 1913.

Thomas Hull
U. S. Surveyor General for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, June 7, 1913.

The foregoing field notes of the survey of the Relocation of the Natural Bridges National Monument, the Cigarette Cave and the Snow Flat Cave in San Juan County,

executed by Jos. C. Thoma under his special instructions dated April 25, 1912, ~~191~~, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hull
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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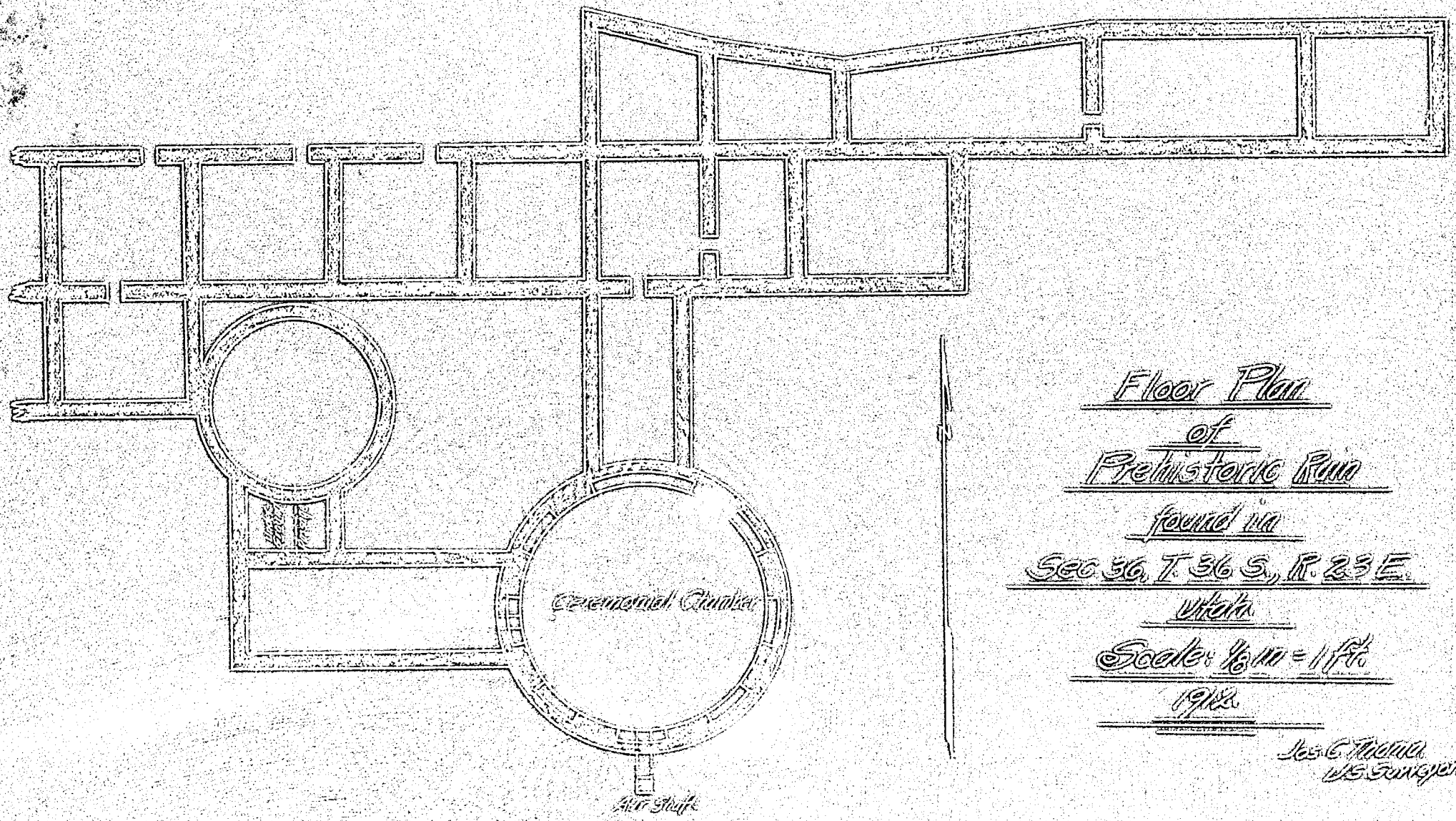

Floor Plan
of
Prehistoric Ruin
found in
Sec 36, T. 36 S., R. 23 E.
Utah.
Scale: 1/8 in = 1 ft.
1912.

Jas. G. Thoma
U.S. Surveyor.