

Chains

Survey commenced Oct. 4, 1914, and executed with a Buff & Buff solar transit, No. 8028, 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 latitude and declination arcs.

The instrument was examined, tested on the meridian at Salt Lake City, and found correct, and was approved by the Asst. Supervisor of Surveys, July 23, 1914.

All measurements were made with 500 link steel tapes along the slope of the surface. The slope angles were read with Leitz clinometers and the horizontal distances reduced by the Standard Field tables. A 100-link standard steel tape was used periodically for testing.

At my camp near the center of Sec. 27, in lat. $40^{\circ}45'N.$, long. $116^{\circ}20'W.$, I set off $40^{\circ}45'N.$ on the lat. arc; $4^{\circ}17'S.$ on the decl. arc; and at 3 h 49 m, p.m., l.m.t., and determine a meridian with the solar and mark a point thereof on a stone firmly set in the ground 5.00 chs. N. of my station.

At 6 h 43 m, p.m., l.m.t., I observe Polaris at eastern elongation in accordance with the Manual, and mark the line thus determined by a stake driven in the ground 5.00 chs. N. of my station. October 4, 1914.

October 5, 1914: At 7 h 0 m, a.m., l.m.t., I lay off the azimuth of Polaris $1^{\circ}30'$ to the west, and mark a point in the meridian thus determined by a cross on the stone already set 5.00 chs. N. of my station; this mark falls 0.36 ins. east of the meridian established by the solar.

At 7 h 29 m, a.m., l.m.t., I set off $40^{\circ}45'N.$ on the lat. arc; $4^{\circ}31'S.$ on the decl. arc; and mark the meridian determined with the solar by cutting a small groove in the stone already set 5.00 chs. N. of my station; this mark falls 0.29 ins. east of the meridian established by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians respectively about $0'19''$ west and $0'15''$ east of the meridian established by Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the meridian at 8 h 0 m, a.m. is $17^{\circ}40'E.$

From the cor. of secs. 31 and 32, on the S. Bdy. of the Tp., already described, Thence

North on Sectional Guide Meridian bet. secs. 31 and 32.

Over rolling hills thru dense sage; desc.

16.00 Wash, 3 ft. deep, course $N.80^{\circ}W.$

19.50 Spur, 20 ft. above cor., bears E. and W.

23.30 Wash, 3 lks. wide, 2 ft. deep, course W.

25.30 Wash, 12 lks. wide, 1 ft. deep, course W.

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

$\frac{1}{4}$ S31	S32
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dig pits 18x18x12 ins. N. and S. of cor. 3 ft. dist. and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

40.70 Wash, 3 ft. wide, 1 ft. deep, course $S.70^{\circ}W.$ Asc.

56.70 Ridge, 30 ft. above cor., bears E. and W.

64.80 Wash, 10 lks. wide, 4 ft. deep, course W.

69.00 Trail, bears $N.70^{\circ}E.$ and $S.70^{\circ}W.$

70.50 Ridge, 20 ft. above wash, bears E. and W. Desc.

78.00 Wash, 8 lks. wide, 1 ft. deep, course $N.80^{\circ}W.$

79.35 Beowawe-Carlin road, bears $N.60^{\circ}E.$ and $S.60^{\circ}W.$

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 mkd:

T34N	R50E
S30	S29
S31	S32

1914

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

Soil, clay loam & gravelly, hard pan 18 ins. below surface.

Undergrowth, sagebrush. No timber. Good grass.