

Township 21 South, Range 70 East.

Chains

Survey executed with W. and L. E. Gurley solar transit No. 262684 used by Wilson McConkie, Public Land Surveyor and Buff and Buff solar transit No. 9983 and Young and Son solar transit No. 8518 used by James W. Hardison, Surveyor. These instruments, property of the General Land Office, are equipped with Smith solar attachments and full vertical circles; the horizontal limb of each instrument is provided with two double verniers placed opposite to each other and reading to single minutes of arc, which is also the least count of the vertical circles. The instruments were in good condition and having been placed in satisfactory adjustment prior to the initiation of the survey and having been tested and found free from appreciable error, were approved by the district cadastral engineer in the assignment instructions.

Transit lines were carried forward from the meridian established by observation of Polaris, taking the mean of direct and reversed sights at each station and checking all deflections by repetition of angles, and the accuracy frequently checked by observations of Polaris and the sun throughout the progress of the survey.

Measurements were made with steel tapes 5 chains in length checked by comparison with a Lufkin standard tape 66 ft. in length, measurements were made on the slope, vertical angles obtained with clinometers maintained in good adjustment and the horizontal equivalents entered in the field notes. Along the E. bdy. Ts. 17, 18, 19 and 20 S., R. 69 E., two sets of measurements were made. No differences greater than 4 links in any half mile were obtained. The mean distances are shown in the field notes.

February 18, 1939, at the standard cor. of Ts. 16 S., Rs. 69 and 70 E., which is an iron post 3 ins. diam., set, mkd. and witnessed as described in the field notes of the resurvey of the 4th Standard Parallel South under Group 160, latitude 36° 30' N., and longitude 114° 13' W., Polaris was observed at western elongation, making six observations, three each with telescope in direct and reversed positions and marking the mean line thus determined with a nail driven in a stake firmly set in the ground about 10 chs. north.

Azimuth of Polaris at western elongation..... 1° 16'.2

February 20, 1939, the azimuth of Polaris was laid off to the east and the meridian thus determined marked by a stake driven firmly in the ground 10 chs. N.

Although extensive retracements were made, no evidence of original corners was found along the 5th Standard Parallel thru Rs. 68 and 69 E., or along the E. boundaries of Ts. 17, 18, 19 and 20 S., R. 69 E.

The closing corner of Ts. 17 S., Rs. 69 and 70 E., was reestablished at record distance west of the standard corner of Ts. 16 S., Rs. 69 and 70 E. From this corner, a line was surveyed south and iron post corner monuments, established thereon at record distances from the north to and including the standard corner of Ts. 20 S., Rs. 69 and 70 E.

FOURTH STANDARD PARALLEL SOUTH

By the method of repetition of angles, deflect 90° to the left from the meridian established at the standard corner of Ts. 16 S., Rs. 69 and 70 E., an iron post, 3 ins. diam., as described in the official record.
Thence

West along the 4th Standard Parallel S. along the S. bdy. Sec. 36, T. 16 S., R. 69 E.

28.92

Set an iron post, 3 ft. long, 3 ins. diam., 18 ins. in the ground to bedrock, with a limestone 8x6x4 ins., mkd. X, deposited at base and in a mound of stone to top, for closing cor. of Ts. 17 S., Rs. 69 and 70 E., with brass cap mkd.