TOWNSHIP 17 SOUTH, RANGE 64 EAST

Survey commenced March 21, 1938, and executed with Young and Sons light mountain transit No. 8518 and Buff and Buff light mountain transit No. 9983, used by James W. Hardison, Public Land Surveyor; Young and Sons light mountain transit No. 8394, used by Wilson McConkie, Public Land Surveyor; and Buff and Buff light mountain transit No. 9210, used by J. Glenn Dyer, Public Land Surveyor. Each instrument is equipped with a Smith solar attachment and full vertical circle; the horizontal limb of each transit 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 latitude and declination arcs and vertical circles. These instruments were approved for use on this survey by the district cadastral engineer, conditional upon satisfactory field tests as stated in the assignment instructions dated January 4, 1938, and supplemental assignment instructions dated January 25, 1938.

The instruments were in good condition and adjustment at the time of this survey. The country over which the lines were extended being all open desert, the solar attachments were not used, and all azimuths in this record are referred to true meridians determined by observations made upon Polaris during the progress of the survey, by the method of deflection angles and calculated courses, and the lines were carried forward by double fore and back sights.

The measurements were made with Lallie steel ribbon tapes, 5 and 8 chains in length; each tape is graduated every link for the first 100 links, and thereafter at intervals of 10 links. The tapes were tested by comparison with a Lufkin standard steel tape and found to be correct. The measurements were made on the slope; the vertical angle of each interval determined by clinometers kept in good adjustment, and the slope measurements properly reduced to true horizontal distances, which are recorded in these field notes.

The data furnished with the special instructions give the geographic position of the southeast corner of T. 17 S.,R. 64 E., approximately as follows: latitude 36° 25' N., longitude 114° 46.5' W.

The latitude as given in the special instructions was checked by observations in T. 20 S.,R. 64 E., and T. 20 S.,R. 65 E., of this group, and found to be correct.

March 21, 1938, at the corner of Tps. 17 and 18 S., Rs. 64 and 65 E., hereinafter described, approximate latitude 36° 25' N. and approximate longitude 114° 46.5' W., at 7h 22m.00s p.m. by my watch which reads correct 120th meridian standard time, as determined by comparison with radio time signals; I observe Polaris at western elongation, making four observations, two each with the telescope in direct and reversed positions, and mark the mean point in the line thus determined, on a peg driven firmly in the ground about 12 chs. north.

Azimuth of Polaris at western elongation N. 1° 16.9' W.

March 22, after sunrise, I lay off the azimuth of Polaris 1° 16.9' to the east and mark the meridian thus determined by a tack in a peg driven firmly in the ground about 12 chs. north. I make 6 repetitions of the angle and the multiple angle reads 7° 51½'.

INDEPENDENT RESURVEY OF EAST BOUNDARY OF T. 17 S.,R. 64 E.

Independent Resurvey superseding the survey executed by R. H. Woods and W. H. Myrick, U.S. Deputy Surveyors, in 1881.

Beginning at the cor. of Tps. 17 and 18 S., Rs. 64 and 65 E., which is an iron post, 3 ins. diam., firmly set, with brass cap properly marked, and witnessed as described in the field notes of T. 18 S., R. 64 E., resurveyed under this group.

North, bet. secs. 31 and 36, by projection of the meridian established by Polaris observation.

Over nearly level desert land, through scattering undergrowth, over a gentle NE. slope.