Reference to true meridian was determined in some cases using a solar transit, in others solar observations were used or the directions of previous surveys were referenced. In the Case of this survey Vernon Glaze's notes do not indicate what his methods were, however I have photographs of him using a Transit without a solar attachment. These photos are taken in the same time period and in the same area near Dayville as the survey under consideration here. The improved technology did improve accuracy of measurements. Specific to this survey and considering Vernon Glaze, it is apparent there was an improvement in the accuracy of his measurements.

In ether case the accuracy of the measurements reported in an early survey was highly dependent of the terrain, ranging from very good over level ground through not so good as the terrain became more steep, brushy or broken. It depended on the surveyor, the good ones were remarkable in regard to good accuracy. The early surveyors pertinent to this survey maintained normal and acceptable accuracy considering the available technology.

Modern surveying technology and techniques have virtually eliminated significant measurement errors. As we proceed through this report there are occasions where we are comparing our measurements with those early surveys. While some of those measurements are apparently different than returned in the early surveys, based on my experience, I find those measurements to be reasonably consistent when comparing early technology with that of the present.

## HISTORY OF RELEVANT EARLY SURVEYS along with Comments

The Original Survey was performed by William H. Byars, under GLO contract No. 197, in July of 1873. Pertinent portions of the survey notes from that survey will be given and discussed later in this report.

In 1913, Vernon Glaze, Grant County Surveyor Performed a Survey for J. C. Moore. A copy of the field notes from that survey state:

Set at SW cor. 36, ran line to NW cor. Sec. 1.

Next, Intersected with the line from S1/4 Sec. 13 to S1/4 Sec. 14 to re-set SW cor Sec. 13

Marked a large rock which came at the corner. 2 notches S 4 north, 1east TP 13 S R28E WM

Part of Natural rim, in place.

## Comment #1

It is apparent that no distance measurements were made by Glaze when he re-established this corner. Also and more importantly, the topography along the north- south line across the Township (Set at SW cor. 36, ran line to NW cor. Sec. 1.) and the east-west line between found ½ corners ½ mile each way (from S1/4 Sec. 13 to S1/4 Sec. 14) would allow line of sight projections. He simply projected N-S & E-W lines to an intersect at his re-established position for the SE corner of Section 14. Based on a subsequent survey by Glaze in 1914, it is apparent that Glaze had recovered original evidence along the north-south line described above in his notes at Sec. Cor. 25-26-35-36; ¼ S11/S12; Sec. Cor. 1-2-11-12; ¼ S2/S1 and Twp. Cor. 35-36 T12S & 1-2 T13S.

We found: Very distinct marks on the North face of a 4' high vertical rock outcropping, Visible marks are:

T13

S

28

E WM