By the attached temperature survey the top of the cement between the 8 5/8" & 13 3/8" after pumping the initial 1000 sxs of class "C" was picked at 270'. By looking at this survey it can be seen that the top could be anywhere from 270' to 300'. It took an additional 1150 sxs of Class "C" with 2726# Lodense, 7800# gilsonite, 425# Cello flake and 500# of CaCl<sub>2</sub> to cement this annulus using 1" tog. down the 8 5/8" x 13 3/8" annulus. It is apparant that at least one and possibly more than one hole was present in the 8 5/8" from the top of the casing bowl at 152' to top of the cement at 300'. This allowed cement down the 13  $3/8" \times 8 5/8"$  annulus into the 3 5/8" csg. This accounts for the excessive amount of cement needed to fill up from 300' back to the surface.

## Summary:

1. 3 5/8" Intermediate casing stuck. Casing became parted in several places.

- 2. Cleaned out inside parted 8 5/8" casing. 3. Ran 7<sup>+</sup> protective string inside 8 5/8" casing and cemented to surface.