

### **Exhibit 31: Supporting Data**

**(a) Barber #12 Density Log:** Digital presentation of Density log with cut-offs and net porosity shaded and tabulated. The presentation shows the PE curve establishing the sand, dolomite, limestone lithology. The curve is shaded to the right of 3.14 (dolomite) value to indicate limestone. Perforated intervals are shown. I have also presented the spectral Gamma Ray curve shown as GR-KTH. This curve removes the Uranium effects that make the rocks look artificially shaley.

**(b) Barber #12 ROP and Density Log:** This presentation shows the drilling time log ROP correlated to the Density porosity log. The purpose is to demonstrate that a cut-off of 2 minutes per foot drilling time yields the same net porosity value as the density log. The proportional drilling break so defined will be applied to the Conoco Barber Federal #1 drilling time log.

**(c) Conoco Barber-Fed #1 Net Porosity Estimate:** The drilling time curve of the Conoco well is presented correlated to the gamma ray and drilling time log for the Sapiient Barber #12. By applying the Sapiient Barber #12 proportional drilling time cut-off (developed in exhibit 29b above), I estimate net porosity of 40 feet for the Conoco well.

**(d) Barber #12 Mudlog:** Copy of the mudlog across the Tubb interval. Shows the mixed lithology and the source of the ROP curve. The lithology is laterally variable and beds become more or less dolomitic and more or less limey. I also used two core descriptions and other mudlogs from the Monument Tubb Pool to establish my interpretation of Tubb lithology.

**(e) Conoco Barber-Federal #1 Mudlog:** A copy of the mudlog we were able to get from Conoco's March 2001 Cross-section exhibit. These data were digitized to use in exhibit 9 above. This is included to show the source document.

**(f) Barber #12 Log Analysis:** The complete log analysis based on the digital data set is presented. The analysis is restricted to the net porosity delineated in exhibit 29a. The proportional response of the PE curve is used to calculate a matrix density for each interval based on a two-mineral model shown by the shading in columns. The resulting density porosity is entered into a normal carbonate Archie Equation solution of water saturation ( $S_w$ ) using the formation water resistivity supplied to us by the Midland office of Baker-Hughes (vendor of our logs).

The spreadsheet shows the resulting total of Phi-h (calculated per 0.5 ft and summed), and average values of Porosity and Water Saturation  $S_w$ . Porosity,  $S_w$ , and Phi-h are utilized in Sapiient's engineering calculations.

**(g) DST Data for Initial BHP Estimate:** Sapiient did an exhaustive search of all its well records for any measured initial pressure. Apparently Cross Timbers put this well down the pipeline without any sort of initial measured SIBHP or even an initial SITP. Therefore we have estimated one from these data. The exhibit is a collection of 6 pages. Page one is a tabulation of the wells and the data used to estimate an average initial BHP of 2597 psi that Sapiient used in its calculation. Page two is a plat showing the spatial distribution of the data. It is correlative and proximal. The last four pages are copies of the source-scout tickets reporting the DST's and pressures.