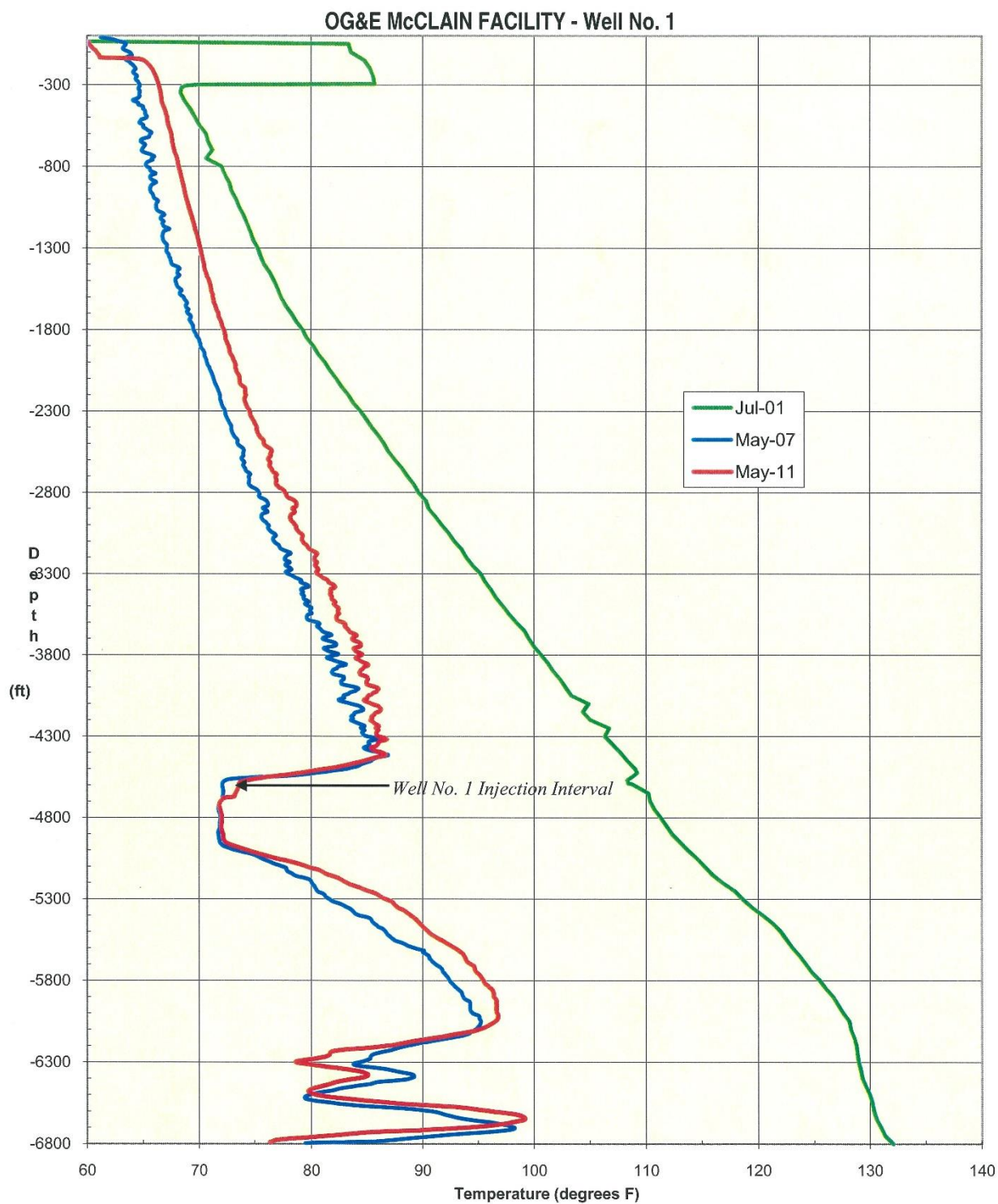


Differential Temperature Survey – May 2, 2011

A Differential Temperature Survey was performed on the morning of May 2, 2011. Weatherford Wireline Services (Weatherford, located in Oklahoma City, Oklahoma), provided wireline, logging tools, and pressure control services for the Differential Temperature Survey. The well had been shut-in for 85 hours prior to commencing the Differential Temperature Survey. The downward velocity of the temperature tool was approximately 35 feet per minute from the surface to 6,795 feet.

The Differential Temperature Survey depicts a natural temperature gradient from the surface to a depth of 6,795 feet. A cooling effect on the survey identifies the majority of the long-term injection to have excited the wellbore in the upper perforations in the Pawhuska Formation from 4,566 feet to 4,950 feet. Lesser injection intervals within the Pawhuska Formation are identified from 6,120 feet to 6,230 feet, 6,278 feet to 6,320 feet, 6,402 feet to 6,512 and below 6,790 feet to the top of fill in the wellbore. Figure 1 is a plot of the 2011, 2007, and 2001 Differential Temperature Surveys. The Differential Temperature Survey confirms there is no evidence of vertical fluid movement out of the permitted injection interval into an underground source of drinking water through vertical channels adjacent to the wellbore.

SHUT-IN TEMPERATURE vs. DEPTH



2011 Temp Log: Run 85 hours after pumping stopped (Weatherford)
 2007 Temp Log: Run 38 hours after pumping stopped (GCWA)
 2001 Temp Log: Run following original completion