SELECTION OF AN INTERVAL FOR MASSIVE HYDRAULIC STIMULATION IN WELL DP 23-1, DESERT PEAK EAST EGS PROJECT, NEVADA

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ABSTRACT

As part of a DOE-industry cost-shared EGS project at Desert Peak East, Nevada, the feasibility of performing a massive hydraulic stimulation on an existing dry hole (DP 23-1) is being investigated. Using cuttings from this well and cores from a nearby hole, the stratigraphic sequence in the project area has been re-evaluated. Furthermore, detailed information on lithology and mineralogy in well DP 23-1 has been derived from a systematic examination of cuttings, using petrography and X-ray diffraction techniques. A wellbore image log obtained over a significant portion of the open hole has been analyzed in terms of the distribution and orientation of natural fractures and borehole failure phenomena (tensile fractures and breakouts). The features analyzed from the image log are compared with lithology, mineralogy, drilling rate and other geophysical logs to help determine the most prospective interval for stimulation.

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