

Expro Excellence

Downhole Camera provides clarity for future Well Intervention program

Sustainable Energy Solutions | Geothermal



Objectives and background

- A high producing geothermal production well required the gate assembly of the Upper Master Valve to be replaced and an intervention to determine the condition of the 13 3/8" production casing
- During the operation to replace the gate assembly, the Lower Master Valve stem parted leaving the Lower Master Valve partially open
- The Customer subsequently decided to run Expro's ViewMax camera to inspect the Upper and Lower Master Valves, and once remediated to then re-deploy the ViewMax camera to inspect the 13 3/8" production casing

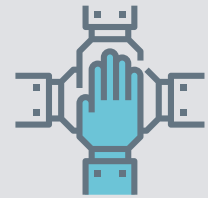
Expro Excellence

- Expro partnered with a local Wireline provider for the conveyance scope
- For the Xmas Tree and Master Valve inspection, the down view and side view features of the View Max camera were used to check the condition of the Lower Master gate and valve bore. The visual inspection provided the necessary clarity for the customer to proceed with the Upper Master Valve gate replacement
- The subsequent intervention with the View Max camera revealed a gap between two casing assemblies at 764.68m where a float collar was located. There were jagged and sharp spots which indicates the gap might have been caused by corrosion. Four cementing ports were also seen on the casing wall at 766.13m close to where the liner hanger was located

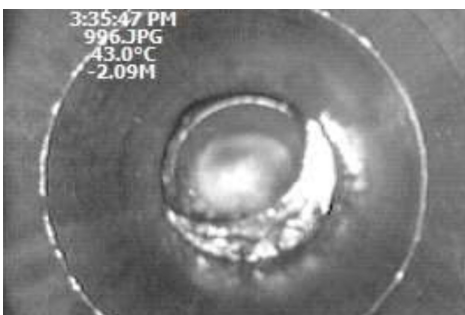
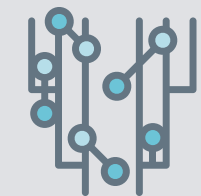
Value to the client

- The objective for both camera runs were to provide insight into two different downhole challenges on the same well
- The camera runs confirmed master valve and 13-3/8" production casing condition which was instrumental in helping the customer to design subsequent well interventions
- The clarity and confidence from the camera have further built trust and rapport with the customer proving high temperature cameras add value to intervention strategies on complex geothermal wells

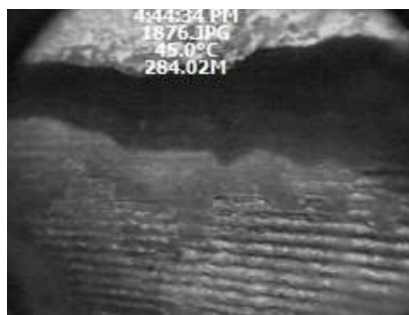
Partnership



Well integrity



Down view image showing lower master gate position



Side view image showing casing gap