

# Geothermal Well Drilling

## Load Cell

Industry: Energy

### Summary

#### Customer Challenge

Geothermal energy is the heat derived from the Earth's interior, harnessed for various applications such as electricity generation and heating by utilizing the natural heat reservoirs found beneath the Earth's surface. A customer has a conventional geothermal system and needs to drill a deep well into the Earth in order to tap into its natural heat reservoirs.

#### Interface Solution

Interface's IPCD Pressure Compensated Downhole Load Cell is a highly accurate load cell that was developed specifically for downhole tension and compression measurements in high temperature, high pressure well conditions, such as drilling to build or develop geothermal infrastructure. Precise tool string force measurements can be monitored real time through customer instrumentation.

#### Results

The customer effectively managed forces on the toolstring throughout the well drilling process, thereby preventing costly tool separation or damage.

### Materials

- IPCD Pressure Compensated Downhole Load Cell
- Customer Instrumentation

### How It Works

1. The IPCD Pressure Compensated Downhole Load Cell is attached at the top of the tool string.
2. During the well drilling, the IPCD measures the forces between the cable head and the tool string.
3. Connected to the customer's instrumentation, actual cable head tension is closely monitored during drilling process to access geothermal energy.
4. Interface's proprietary and maintenance free dry pressure compensation technology minimizes measurement errors from pressure effect.

