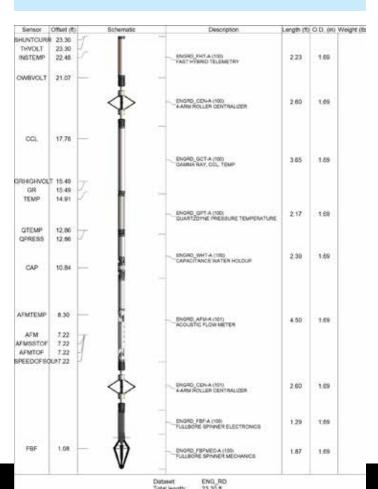


Production logging consists of several measurements to evaluate fluid movement in and out of wellbores, is a technic that traces its origin to the 1930s, with much evolution since then. Mostly is used to determine fluid and flow properties commonly measured with a spinner flowmeter (a blade that rotates when fluid moves past it) which requires a calibration process to compensate friction in the spinner bearings and effects from fluid viscosity (nonlinear velocity responses). EngRD is adding to his regular tool string a new acoustic flowmeter that allows measuring flow rates on real-time as well as fluid density. Our telemetry allows us to send 100 samples per second to surface opening a window of opportunity to gather way more data while logging using a susceptible and accurate temperature sensor, and a fast response quartz pressure sensor. You can make qualitative conclusions about fluid entries





using our acoustic flowmeter and our temperature sensor, particularly in very low-flow rate zones in which a spinner may not be sensitive enough to those ranges. Of course, our Gamma Ray and Casing Collar Locator provide depth control and correlation with completion components. Another advantage is our dual operation mode: Real-Time / Memory. Our tool string always run recording all data to the memory in case you need to have a backup. To use the tools on a Slickline or Coiled Tubing operation, you need to add a Battery Housing, a Battery pack, and our Depth Time System (DTS). The tools are rated to 177 deg C, 15,000 psi of working pressure, and sour service ready. For surface data acquisition, you need a Warrior 8 System.

