Javier Miranda

As petrophysicists, we usually rely on well-log measurements to estimate rock properties and perform other formation evaluation analyses. Part of a reliable result is having data acquired with tools you can depend on based on your understanding of their principles and their limitations. That understanding can be achieved by reading and reviewing tool manuals and other information, such as publications related to such tools, and through visits to the tool vendor's shop. We recently did that after an invitation to the headquarters of one of the most well-known logging companies in the world with a long tradition in wireline and logging-while-drilling (LWD) services.

Halliburton invited a group of petrophysicists from different operating and consulting companies based in Houston to their North Belt Campus for a Wireline Showcase, where tools were on display, as well as the experts from the company who oversee these tools' data acquisition and applications. More than 100 colleagues attended the two-day event.

The tools on display were for openhole and casedhole logging, including gamma ray, resistivity, porosity logs, formation testing and sampling, casing and cement evaluation, fiber VSP, imaging, rotary sidewall coring, well integrity, and production logging tools, among others. The following technologies were on display:

- Demonstration of the unit, cable, and capstan running the ultrasonic acoustic tool in test well – CAST XRT
- Demonstration of openhole technologies: formation testing, coring, and imager – RDT-HRSCT-STX8
- Display of latest-generation production logging tool and pulsed-neutron IntelliFlow and IntelliSat
- DAS VSP in test well

In addition, attendees met with field engineers, operations management, and subject-matter experts regarding these tools and applications. Figure 1 provides a summary of the tools, while Fig. 2 illustrates the showcase test well layout, highlighting the stations used for live demonstrations.

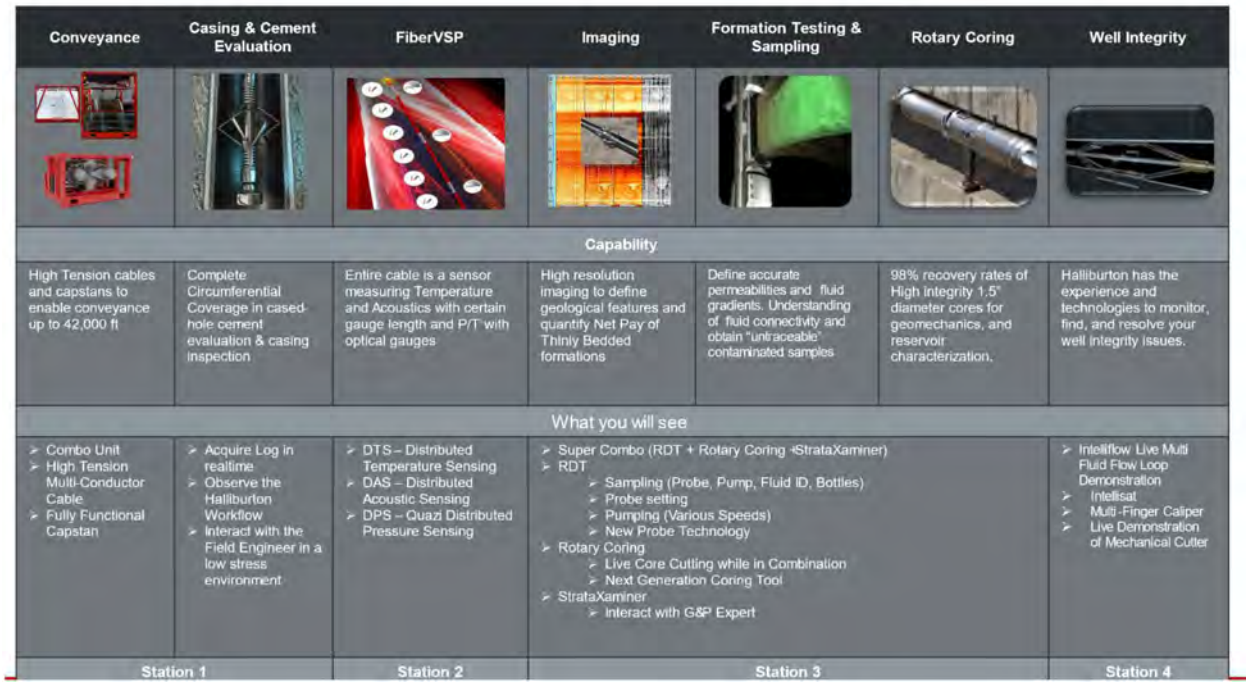


Fig. 1—Summary of tools on display during the wireline show with their capabilities

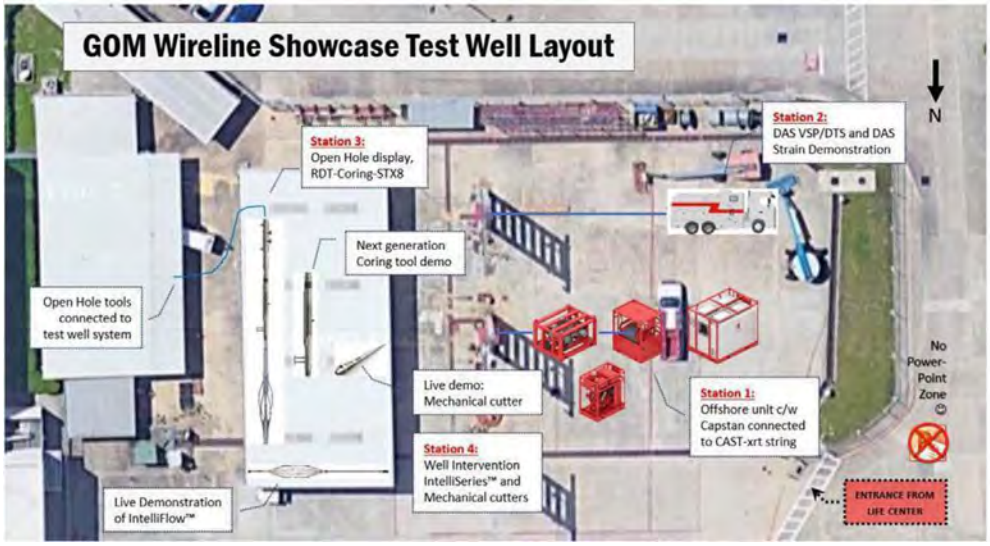


Fig. 2—Showcase test-well layout with stations used for display

A distributed acoustic sensing (DAS) vertical seismic profile (VSP) in a test well acquired with fiber included a cabin to show the acquisition process.

DAS VSP tool in test well with VSP acquired with fiber, as shown by Simon Shaw, with multiple applications.

John Savage explains the capabilities of casedhole tools in the show.

John Savage showing one of the casedhole tools.

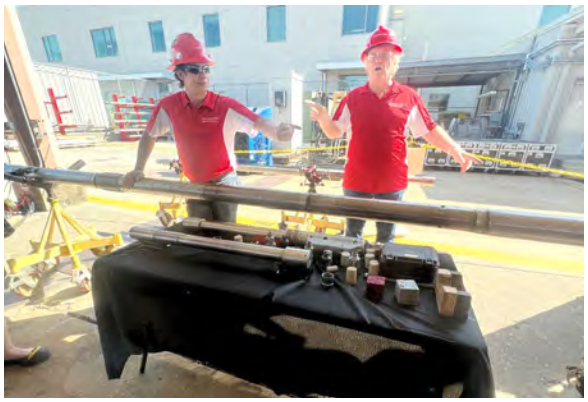
A PLT tool on display works in a water-filled pipe to show the tool's capabilities and how previous challenges have been addressed in this version. The screen on the left side showed us the real-time readings.

Multiple experts and petrophysicists convened for this learning experience, including Tony van Zuilekom, pressure and sampling product champion.

Eglee Lopez and Peter Barrett show how the StrataXaminer borehole image tool can adjust for challenging borehole conditions.

Charlie Jackson discusses the rotary sidewall coring tool on display, which enables the acquisition of bigger samples.

Eglee Lopez and Peter Barrett show the capabilities of the StrataXaminer borehole image tool.



Their expert operators show the rotary sidewall coring tool on display.

Gibran Hashmi explains the process usually implemented with the formation tester and sampling tool.

Sharing a good learning experience with camaraderie.

Gibran Hashmi shows the pads used with the formation tester and sampling tool depending on reservoir conditions and challenges.

Halliburton oil well cementing truck from the early 1900s.

Gibran Hashmi shows the formation tester and sampling tool.

Taking a selfie with Mr. Halliburton and one of his most famous inventions.

Part of the Halliburton engineers that demonstrated their wireline tools and capabilities, all of them involved in field data acquisition for several years.

We want to express our gratitude to the Halliburton team for organizing and inviting us to the Halliburton Wireline Showcase in October. We really enjoyed the presentations and tools displayed, as well as the upcoming development and applications, break, and lunch discussions, etc. As petrophysicists, we appreciate the time, effort, and planning their team put into this. We especially want to thank Rohin Naveena-Chandran, business development manager for wireline in the Gulf of Mexico region, for his invitation. Thanks also to Natalia Cordry, global senior marketing manager, for reviewing this article and providing additional photos.