

Reservoir Analysis Sonde Tool

Introduced to Mexican Market, Quickly Improves Hydrocarbon Production

Objectives

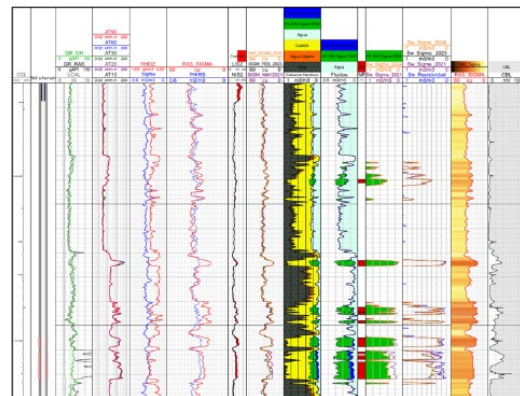
- Introduce and improve acquisition processing and interpretation times for the operator using the Reservoir Analysis Sonde (RAS) tool.
- Calculate current reservoir fluid saturation using cased-hole RAS log in Sigma mode.
- Perform time-lapse monitoring with information from previous openhole and Sigma logs.
- Provide a comprehensive field saturation evaluation with high-quality data, earning additional assignments.

Our Approach

- In partnership with the operator's Geosciences group, the Weatherford Interpretation and Evaluation Services (IES) team reviewed the reservoir conditions (porosity and salinity), giving particular attention to zones with increased saturation in order to gauge their potential for hydrocarbon production.
- Using the RAS tool, Weatherford wireline and IES engineers proposed one pass in Sigma mode in an effort to gauge fluid saturation, execute fluid time-lapse monitoring, and integrate harvested data.
- Weatherford engineers began wireline operations on logistics while the IES team secured preliminary well information for review and integration. A petrophysical evaluation was computed to represent the original conditions of the reservoir while Sigma logs from other available tools provided an evaluation of fluid saturation in the reservoir.
- The wireline field team acquired data provided by the RAS tool in Sigma mode, following safety and quality standards.

Value to Customer

- The combination of the RAS tool and the IES analysis decreased acquisition time 40%. Processing and interpretation time decreased 50%. Together, they enabled faster, more accurate decision making, compared to previous operations.
- Weatherford showed the operator a safe and quality option in the acquisition, processing, and interpretation of pulsed neutron logs that can be readily used for fluid saturation monitoring.
- The RAS Sigma log allowed the operator to identify the intervals with the highest water saturation and confirm zones of the reservoir holding hydrocarbon production potential.



The Weatherford Reservoir Analysis Sonde tool improved acquisition, processing, and interpretation time in Mexico for faster and more accurate decision making.

LOCATION

Tabasco, Mexico

FIELD

Cinco Presidentes

WELL TYPE

Deviated

FORMATION

Sandstones

HOLE SIZE AND ANGLE

8-1/2 in., 38.63°

CASING TYPE

7 in.

LINER SIZE

2-7/8 in.

TEMPERATURE

194°F (90°C)

DEPTH

Total logged interval: 426 ft (130 m)

PRODUCTS/SERVICES

- RAS tool
- Interpretation and Evaluation Services

