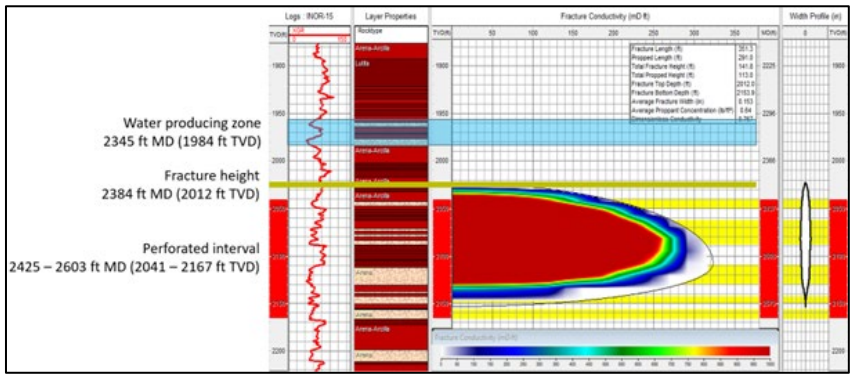
Amplifrac™ Advanced Proppant-Suspension Fluid Increases Hydraulic Fracturing by 760% in Oldest Oil Field in Colombia



Final post-match fracture geometry

Objectives

- Reduce formation damage and increase well productivity rate by creating preferential high-conductivity channels.
- Avoid contact with the water-producing zone by controlling the growth in fracture wing height.

Our Approach

- Weatherford fluid experts met with the customer to discuss the technical and operational support required during the planning and execution stages of the operation.
- To meet all the objectives, Weatherford recommended the Amplifrac advanced proppant-suspension fluid to optimize proppant replacement, enhance reservoir contact, and maximize production. This low-viscosity fluid delivers high proppant-carrying capacity while requiring low horsepower for injection.
- A thorough analysis of the pumping diagnostic enabled the final pumping schedule to be adjusted, ideally to avoid contact with the water-producing zone.

Value to Customer

- Using the Amplifrac 8 fluid enabled the customer to contact as much drain area as possible (fracture length - Lf), and, at the same time, control growth in fracture wing height (Hf).
- The Weatherford solution increased production by 760%.
- The well initially showed a production of 180 BOPD and, after three months, the well stabilized production at 115 BOPD.

LOCATION
Colombia

WELL TYPE
Producer

FIELD
Infantas Oriente

FORMATION
Mugrosa

HOLE SIZE AND ANGLE
8-1/2 in., 34°

CASING SIZE AND TYPE
7 in., 23#

TEMPERATURE
112°F (44.4°C)

PERFORATED INTERVALS
2,425 to 2,603 ft (739 to 793 m)

PRODUCTS/SERVICES
- Amplifrac 8 advanced proppant-suspension fluid
- SandSure™ fines-control agent (as a proppant flowback)
- Ceramic proppant (42,600 lb of 20/40)

Weatherford®