# JetStream<sup>®</sup> RFID Circulation Sub Saves Operator 1.5 Days of Rig Time Valued at \$350,000



The JetStream RFID circulation sub has a large total flow area and no reduction in ID after actuation, which enables full through-bore flow and boosts annular velocity.

## **Objectives**

- Actuate a circulation sub above a conventional underreamer without limiting the through-bore flow.
- Clean debris from the shoe track to prepare the liner for cementing.
- Clean the 6 1/2-in. pilot hole to prepare the section for enlargement.

### **Our Approach**

- Weatherford deployed the JetStream sub above other bottomhole assembly (BHA) components that included a conventional underrreamer. Because the JetStream sub has a large inside diameter (ID) and no ball seats, the driller was able to access and use tools on the lower end of the BHA to perform multiple operations during the same trip.
- The team deployed preprogrammed RFID tags to actuate the JetStream sub above the liner. Using the split-flow position, the sub cleared large pieces of debris from under the shoe track.
- A second set of RFID tags actuated the JetStream sub a second time to clean the 6 1/2-in. pilot hole.
- A third party activated the conventional underreamer using a ball-drop method. The ball passed through the ID of the JetStream sub and reached the underreamer with no issue.

LOCATION Caspian Sea

WELL TYPE Offshore, oil

FORMATION Chalk limestone

HOLE SIZE 6-1/2 x 8 in.

**DEPTH IN** 12,034 ft (3.668 m)

**DEPTH OUT** 12,053 ft (3,674 m)

PRODUCTS/SERVICES JetStream RFID circulation sub



# JetStream<sup>®</sup> RFID Circulation Sub Saves Operator 1.5 Days of Rig Time Valued at \$350,000

# **Our Approach (continued)**

• The sub logged all downhole events throughout the operation, which lasted 219 hours. The data was stored in the tool's internal memory and automatically converted into a vertical strip chart, which enabled the operator to validate tool performance.

#### Value to Client

- The unrestricted ID and full through-bore flow of the JetStream sub enabled the driller to activate the sub and a ball-actuated underreamer in the same trip. By minimizing the number of trips, the JetStream sub saved the operator 1.5 days of offshore rig time valued at approximately US \$350,000.
- The large total flow area of the sub promoted high annular velocity and turbulent flow, which contributed to better hole cleaning.
- By successfully clearing debris from the shoe track, the JetStream sub enhanced the quality of the cementing job, which improved wellbore integrity.



\* JetStream is a registered trademark of Weatherford in the US.

#### weatherford.com

© 2014-2016 Weatherford. All rights reserved. 11316.02

Weatherford products and services are subject to the Company's standard terms and conditions, available on request or at weatherford.com. For more information contact an authorized Weatherford representative. Unless noted otherwise, trademarks and services marks herein are the property of Weatherford and may be registered in the United States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract tetweenes with exist.