From: John Hawkins
To: Brandon Bradbury
Cc: DST_JUS_OROGO; Corey Thomson; Dusty Schneider; Tim Wood
Subject: Paramount et al Laird 2K-29. WID 1980 Variation Request
Date: August 4, 2023 8:11:21 AM

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Good morning Brandon,

Request for Variation to 2K-29 Well abandonment program.

Well abandonment operations at Paramount et al Laird 2K-29. WID N1980 Operations has been completed as per Step # 18 in the Abandonment Program. The permanent bridge plug (DB-10 PBP) at 3015 mKB has been drilled out. The tubing string was run in the hole 74 m below the bridge plug to 3089 mKB to confirm the 114.3 mm tubing is clear to the end of the tubing string at 3087.7 mKB.

However, an obstruction was tagged at 3089 mKB which is in the Nahanni Open Hole section of the wellbore and runs from 3074.0 mKB to 3599 mKB. Rotation of the 92 mm Tri-Cone Bit for 1 hr without gaining additional depth. Circulation from tubing bottom at 3089 mKB shows signs of calcite scale and small formation debris. This suggests the open hole section may collapsed or scaled to a smaller ID.

Paramount requests a variance from the program to cement off Nahanni formation from 3074.0 mKB to 3599 mKB by the following operations:

Step 19: Establish feed rate into Nahanni formation with fresh non-saline water. Pump open hole capacity + annulus + 114 mm capacity of 11.2 m3 - fresh non-saline water into formation. Confirm wellbore is dead.

Step 20: Pull and stand 60.3 mm tubing string

Step # 21: Wireline set 114 mm cement retainer 3028 mKB. This is 46 m up into 177.7 mm casing. It is also 2 m above Baker “FAB-1” Packer set at 3030.04 mKB and 13 m above Baker Ultra Pak Seal-Bore Packer at 3041.17 mKB.

Step # 22: Pressure test 114. mm 18.97 kg/m L-80 tubing from surface to cement retainer at 3028 mKB to 7.0 MPa.

Step # 23: Run in 60.3 mm tubing string with cement stinger. Sting into cement retainer at 3028 mKB.

Step # 24: Mix and pump 12.0 m3 – Thermal Cement thru cement retainer into formation. Upon completion sting out of retainer. Circulate and balance 0.50 m3 of cement on top of Cement retainer. This will exceed the minimum requirement of 30 m cement above successfully tested cement retainer

Step # 25: Pull and laydown 7 joints tubing. Backwash 60.3 mm tubing and 114 mm casing at 2968 mKB. Pull up tubing to 2950 mKB for night. Wait overnight for cement to harden

Step # 26: Tag and record cement depth top with 1800 daN weight.

Step # 27: Pull 60.3 mm tubing string.

Step # 28: Wireline run in hole and tag cement top. Wireline cut 114 mm tubing within 5.0 m of cement top. Pull out wireline.

Step # 29: Pull and laydown 114 mm tubing

Step # 30: Log and noise temp well from cut 114 mm tubing string to surface to determine cement top across porous intervals.

Step # 31: Wireline set 177.8 mm PBP within 15 m above cut 114 mm tubing

Step # 32: Run in tubing string.

Step # 33: Rig in cement unit. Mix and circulate 1.6 m3 – Thermal Cement on top of 177.8 mm PBP

At this point the well abandonment will continue as programed.

Best regards,

Jonn