



Project Memo 8

Operator: Devon Energy

Job Number: 2013-119

Well name: Lava Tube 27

Time: 06.00

To: Buddy Strain

From: D Robichaux D McCutcheon

CC: D Moody, L Nixon, D Eby

Subject:

Snubbing rig up & Drill pipe engagement with the intention of removal

Introduction

Rig up Snubbing unit for well kill operation and the removal of 5." 19.5 lb/ft, S-135 DP. To run diagnostics in order to ascertain the way forward and the recovery of the well.

Current Situation

The 9-5/8" casing is set at 4110 ft. An 8-3/4 hole was drilled to 12065 ft with a mud density of 9.2 ppg. WWC personnel arrived on location with the Well pressure at 2550 psi.

Objective

To rig up ISS snubbing unit for drill pipe removal and well kill operations. RIH with a Skirted wash over assembly & mill severed drill pipe Top Of Fish to an acceptable clean surface that wire line can pass through and that a High pressure pack off can pass over then seal on. Run a gauge run to determine access and end of Drill pipe, providing information on way forward for future operations.

Procedures (Circulate kill weight mud, circulate LCM, squeeze as necessary)

Mobilize the following equipment (all 10,000 psi rated):

- A. 10,000 psi working pressure choke manifold with 2 Hyd chokes.
- B. Cementing company pump truck.
- C. Wire line pressure control equipment consisting of 5,000 psi working pressure wire line BOPs and grease tubes with enough length to cover the entire tool string to be run.
- D. At least two full opening tested safety valves
- E. Crossovers from wire line BOPs to drill pipe
- F. Pump in sub for both W/L and E/L work(Connection 41/2 IF)

Snubbing procedure

1. Rig up BOP stack
2. Rig up snubbing unit & related equipment
3. Pressure test all lines, BOP's and Valves to 250psi low and 5000psi high
4. Pick up Skirted wash over assembly



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5. Close Lower 5" pipe rams
6. RIH tag TOF document parameters & depth
7. Mill over TOF at calculated depth (@18") or until instructed otherwise by WWCI/Devon/Weatherford
8. Mark pipe and POOH
9. Pick up High pressure pack off assembly with R type profile plug in place
10. RIH with High pressure pack off assembly to TOF ensure correct space out
11. Continue RIH & engage TOF
12. Pick up to 10-K over pull and slack off to neutral calculated weight
13. Bleed off pressure above Lower 5" pipe rams and confirm O/S pack off sealing
14. Equalize pressure and open Lower 5" pipe rams
15. Pick up on fish not to exceed 250-K
16. Note: If pick up weight is above 250-K assumption can be made we are stuck and pulling against bridge. Move to pipe recoveries mode.
17. Note: 80,000lb of 19.5ppf drill pipe is estimated at shoe depth of 4,110'
18. Note: If pick up weight is greater than 80-K circulate hole with WBM as the assumption can be made that the drill pipe has parted at or below the shoe and within the open hole section. Move to below steps
19. Note: If pick up weight is less than 80-K, the assumption can be made that the drill pipe has parted at or above the shoe and not within open hole section. Move to below steps
20. Rig up wire line
21. Pull profile plug
22. Pick up wire line Gauge tools with CCL
23. RIH with wire line gauge tools & attempt to run to bottom or where ever we find a restriction / damage or end of drill pipe?
24. Information gained from the gauge run will determine Steps 16 and 17 Notes.
25. Bridge plugs will be set in the 2 lowest tool joints prior to POOH with fish.