Daily Progress Report (page 1 of 2)

Project: UT GoM² Marine Test
Vessel: Q4000
Client: University of Texas
Date: Sat 20th May 2017
DPR No.: # G22

General: On Site GC-955 at UT-GOM2-1-H005 - in Hole - coring

Daily meeting:
Crew boat today with supplies

Coring Operations:

0412
Core 9FB @ 8151-8161 ft RKB
The core was cut using the 9.5 lb/gal mud with the following average drilling parameters: ROP=40 ft/hr, 60 RPM, WOB=5 tons, SW flow rate = 84 gpm. This was a good coring run with clean a pick up from BHA with a 15 min autoclave 'cooling' stop at the sea bed to experiment with further cooling of the autoclave. On recovery the ball valve was closed and the autoclave was left in the cold shuck for 55 mins before a pressure of only 746 psi was measured in the service van. On this occasion the set pressure was 4015 psi and hence the boost did not function as expected and there was no accumulator function. The pressure was increased to 3250 psi before being transferred to PCATS. The DST record showed that autoclave did not seal until close to the surface and was probably aided by at least partial dissociation of gas hydrates. Core recovery was 321 cm as measured by the X-ray image in PCATS (includes a number of voids).

1153
Core 10FB @ 8161-8166 ft RKB
A short 5' core was cut using the 10.5 lb/gal mud with the following average drilling parameters: ROP=33 ft/hr, 60 RPM, WOB=10 tons, mud flow rate = 42-84 gpm . During the coring process the cement pumps (mud pumps) stopped temporarily (~30 s). At approximately 5 ft into formation bit reached very high torque (as much as 30 klbs) and released, causing the drill string to spin in reverse momentarily. Coring was discontinued immediately at this point. On recovery the ball valve was closed but there was an indication there maybe a slight leak (which proved to be wrong) and hence the tool was moved quickly out of the cold shuck to the service van where the pressure was found to be 3255 psi. It was then placed in the cold path before being transferred to PCATS.

1710
Core 11FB @ 8166-8176 ft RKB
After the difficulties experience during the last core the main objective of core 11FB was to advance through what is interpreted on the logs as a water bearing zone before another short gas hydrate interval beneath it. Consequently the pump rates were increased significantly at the expense of the core quality to ensure that a clean hole was developed for the next core (12FB) which is back in a gas hydrate interval. The tool was deployed in the BHA before a core was cut using the 10.5 lb/gal mud with the following average drilling parameters: ROP=46 ft/hr, 60 RPM, WOB=0 tons, mud flow rate = 210 gpm. After picking up from BHA and retrieving to the rig floor the ball valve was closed and the autoclave was left in the cold shuck for 45 mins before a pressure of 3002 psi was measured in the service van. The autoclave was placed in the cold bath while PCATS was being prepared.

2152
Core 12FB @ 8176-8185 ft RKB
The tool was deployed in the BHA before a core was cut using the 10.5 lb/gal mud with the following average drilling parameters: ROP=22 ft/hr, 60 RPM, WOB=5 tons, mud flow rate = 61-122 gpm. Weight came on bit 1 ft early hence the run was stopped after a 9 ft advance. Generally a good coring run with clean a pick up from BHA, however on recovery the ball valve was only half closed trapping sediment in the ball follower and hence having zero pressure. Recovery was 1.75 m.

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Core processing Operations:

Core 9FB UT-GOM2-1-H005-09FB - Logged in PCATS. Total length 321 cm but including voids created during partial gas hydrate dissociation. This core was cut into 3 sections and transferred to 1.2 m storage chambers. Sections 1 and 3 were put on degassing manifolds and section 2 was kept for long term storage as a possible experimental core for transport to UT.

Core 10FB UT-GOM2-1-H005-10FB - The core became stuck during the attempted transfer into PCATS. Efforts are ongoing to see how this core might be recovered.

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