MI SWACO
A Schlumberger Company

# WATER-BASED MUD REPORT No.9

| | | | | | |
|---|---|---|---|---|---|
| **Operator :** | **University of Texas** | **Field/Area :** | Green Canyon | **Depth/TVD :** | 8142 ft/8142 ft |
| **Report For :** | Tom Pettigrew | **Description :** | Block 955 | **Date :** | **14-May-17** |
| **Well Name :** | OCS-G 30344 Hole H002 | **Location :** | Offshore | **Spud Date :** | |
| **Contractor/Rig:** | Helix/Q4000 | **Water Depth :** | 6664 | **Mud Type :** | WBM Other (M-I SWACO) |
| **Report For :** | David Cobb | **Log-It # :** | 254627 | **Activity :** | Logging |

| DRILLING ASSEMBLY | CASING | MUD VOLUME (bbl) | | CIRCULATION DATA | | |
|---|---|---|---|---|---|---|
| 7469 ft, 5.875 in Drill Pipe | | Hole | Active Pits | Pump Make | NOV HEX II | NOV HEX II |
| 2 ft, 8.5 in Sub | | 292.6 | #N/A | Pump Liner x Stk | 4.5x11.8in | 4.5x11.8in |
| 120 ft, 8.5 in Drill Collar | | Total Circulating Volume | | Pump Capacity | 4.87 gal/stk | 4.87 gal/stk |
| 3 ft, 8.5 in Stabilizer | | #N/A | | Pump stk/min | 71@100% | @100% |
| 30 ft, 8.5 in Drill Collar | | Depth Drilled Last 24 hr | | Flow Rate | 346.00 gal/min | |
| 3 ft, 8.5 in Stabilizer | | 30 ft | | Pump Pressure | psi | |
| Nozzles 5x20 / x 1/32" | | Volume Drilled Last 24 hr | | Bottoms Up | 6.64 min/ 471.15 stk | |
| 9.875in | | 2.98 bbl | | Total Circulation | 0 min/ 0stk | |

| MUD PROPERTIES | | | | | | PRODUCTS USED Last 24 hr | | |
|---|---|---|---|---|---|---|---|---|
| Sample From | | Pad Mud @ 03:30 | Sweeps @ 21:00 | | | **Products** | **Size** | **Amount** |
| FlowLine Temp | °F | 80 | 80 | | | | | |
| Depth/TVD | ft | 8122 / 8122 | 8142 / 8142 | | | | | |
| Mud Weight /Temp | lb/gal @ °F | 10.5 @ 80 | 11.5 @ | | | | | |
| Funnel Viscosity | sec/qt | 80 | | | | | | |
| Rheology Temp | °F | 80 | 80 | | | | | |
| R600/R300 | | 44 / 29 | 127 / 97 | | | | | |
| R200/R100 | | 23 / 18 | 83 / 66 | | | | | |
| R6/R3 | | 8 / 7 | 36 / 34 | | | | | |
| PV | cP | 15 | 30 | | | | | |
| YP | lbf/100ft² | 14 | 67 | | | | | |
| 10s/10m/30m Gel | | 7 / 12 / | 35 | | | | | |
| API Fluid Loss | cc/30min | 8.6 | | | | | | |
| HTHP Fluid Loss | cc/30min | | | | | | | |
| Cake APT/HT | 1/32" | 1 / | | | | | | |
| Solids | %vol | 10 | | | | | | |
| Oil/Water | %vol | 0/90 | | | | Drilling Fluids Supervisor | | 1.0 |
| Sand | %vol | 0.1 | | | | Drilling Fluids Supervisor | | 1.0 |
| MBT | lb/bbl | 7.5 | | | | | | |
| pH / Temp | | 8.5 @ 80 | | | | **SOLIDS CONTROL EQUIPMENT Last 24 hr** | | |
| Alkal Mud (Pm) | | 0.4 | | | | **Type** | **Model/Size** | **Hrs Used** |
| Pf/Mf | | 0.2 / 0.5 | | | | | | |
| Chlorides | mg/L | 18000 | | | | | | |
| Hardness (Ca++) | | 2400 | | | | | | |
| | | | | | | **MUD PROPERTY SPECS min-max** | | **Actual** |
| | | | | | | | - | |
| | | | | | | | - | |
| | | | | | | | - | |

**REMARKS AND TREATMENT**

Building 10.5 ppg. Mud using the Hi Side Blender, with the 16 ppg. Mud and Seawater. Adding Duovis, and PolyPac R to the 10.5 ppg. Mud. Building 11.5 ppg. Hi Vis Sweeps.
Ordered another 900 bbls of 16.0 ppg Fresh Water Based Mud for the next pilot hole.

**REMARKS**

Drilled to 8,142' with 10.5 ppg. mud. Performed core 6CS, 7CS, and 8CS. Pumped a 10.5 ppg HI Vis Sweep and circulated 10.5 ppg Pad Mud in the hole. POOH to 7670 while rigging up for wireline operations.

| TIME DISTRIBUTION Last 24 hrs | | MUD VOL ACCTG (bbl) | | SOLIDS ANALYSIS | | | RHEOLOGY & HYDRAULICS | |
|---|---|---|---|---|---|---|---|---|
| Drilling | 2 | Water Added | 560 | NaCl | %vol / lb/bbl | 0.81 / 9.43 | n | |
| Coring Operations | 13 | Mud Received | | KCl | %vol / lb/bbl | 0 / 0 | k | |
| Condition Hole | 1 | Mud Returned | | Low Gravity | % / lb/bbl | 3.04 / 27.64 | Tauy | |
| Trip (Programmed) | 2 | Other Subsurface | 25 | Bentonite | % / lb/bbl | 0.79 / 7.22 | Bit loss/%, psi/% | |
| Rig Up / Tear Down | 3 | Other Subsurface | 150 | Drill Solids | % / lb/bbl | 2.49 / 22.66 | Bit HHP/HIS | |
| Wireline Logs | 3 | Other Subsurface | 145 | Weight Material | % / lb/bbl | 6.15 / 88.31 | Jet Velocity, ft/s | |
| | | Other Subsurface | 130 | Chemical Conc | lb/bbl | | Va Pipe, ft/min | |
| | | Other Subsurface | 130 | Inert/React | | 2.7 | Va Collars, ft/min | |
| | | Other Subsurface | 267 | Average SG Solids | | 3.6 | CVa Pipe, ft/min | |
| | | | | | | | CVa Collars, ft/min | |
| | | | | | | | ECD at Shoe, lb/gal | |
| | | | | | | | ECD at TD, lb/gal | |

| M-I Engineer | Phone | email | Whse Phone | Rig Phone | Daily cost | Cumulative Cost |
|---|---|---|---|---|---|---|
| Begona Sanchez | 281-942-4001 | GLopez27@slb.com | 985-303-6218 | 281-942-4001 | | |
| Karey Louviere | 281-942-4001 | klouviere@slb.com | | | | |