Mud Logging Unit: Yes
Gas Detector: Total Gas and Chromatograph
Lithology: Cuttings
Sampling: 10m intervals from 1000m to TD
Mud Logging Company: Geoservices
Mud Logging Engineers: Mike Bowden, Jason Hall, Mike Wilson

Mud Type: Water Based Mud
Density (ppg): 8.5 - 9.2
Viscosity: 35 - 45
Chlorides: 30,000 - 50,000 mg/l

Hole Size: 12.25" from 1000m to 1500m
Hole Size: 8.5" from 1500m to TD

Bit Record:
Bit #1: 12.25" PDC, 1000m to 1500m
Bit #2: 8.5" PDC, 1500m to TD

Casing Record:
9.625" casing set at 1500m MD

Logging Suite:
Run 1: MWD/LWD, 1500m to TD
Gamma Ray, Resistivity, Density, Neutron

Drilling Fluid Losses:
Minor losses encountered at 1650m
Total losses: 120 bbls

Gas Readings:
Background gas: 0.5 - 1.2 units
Connection gas: 2.1 units at 1720m
Trip gas: 3.8 units at 1850m
Maximum gas: 4.2 units at 1850m

Hydrocarbon Shows:
1720m: Trace oil stain in sandstone
1850m: Fluorescence in sandstone

Formation Tops:
Top Sandstone: 1720m MD
Base Sandstone: 1850m MD

Comments:
Well drilled without significant problems.
Thank you for choosing Geoservices.
Thank you to Mike, Jason, Mike and Mike.

Drilling Data and Events

Drilling Data:
Spud Date: 15/03/2019
Total Depth: 1850m MD
Total Depth: 1850m TVD
Rig: Ensco 92
Operator: Shell
Well Name: Shell Ensco 92 Exploration Well
Location: North Sea
Water Depth: 120m
Rig Type: Semi-submersible
Drilling Contractor: Ensco
Mud Logging Company: Geoservices
Mud Logging Engineers: Mike Bowden, Jason Hall, Mike Wilson

Events:
15/03/2019: Spud well
16/03/2019: Reached 1000m MD
17/03/2019: Reached 1500m MD
18/03/2019: Reached TD of 1850m MD
19/03/2019: Logging operations
20/03/2019: Logging operations
21/03/2019: Logging operations
22/03/2019: Logging operations
23/03/2019: Logging operations
24/03/2019: Logging operations
25/03/2019: Logging operations
26/03/2019: Logging operations
27/03/2019: Logging operations
28/03/2019: Logging operations
29/03/2019: Logging operations
30/03/2019: Logging operations
31/03/2019: Logging operations
01/04/2019: Logging operations
02/04/2019: Logging operations
03/04/2019: Logging operations
04/04/2019: Logging operations
05/04/2019: Logging operations
06/04/2019: Logging operations
07/04/2019: Logging operations
08/04/2019: Logging operations
09/04/2019: Logging operations
10/04/2019: Logging operations
11/04/2019: Logging operations
12/04/2019: Logging operations
13/04/2019: Logging operations

7850
7900
7950
8000
8050
8100
8150
8200
8250
8300
8350
8400
8450

GR
Collar Locator
Amplified Amplitude
Amplitude
Short Joint
BLI 8428
Total Depth 8430

9 Collar Locator -1
0 GR (GAPI) 150
0 Amplitude (mV) 100
0 Amplified Amplitude (mV) 10
200 Variable Density 1200

HALLIBURTON

Main Pass

Scale 1:240