

IODP EXP 358 Daily Geomechanics Report

Report #062 20190110

RTG Team

RTG Supervisor(s)	David Castillo / Thomas Finkbeiner / Demian Saffer
RTG Watch Lead (00:00-12:00)	Emily Wisbey
RTG Watch Lead (12:00-24:00)	Toby Colson

Well Status

Site Name:	C0002	Hole Name:	R
Water Depth:	1,939.0 m	RT-MSL:	28.5 m
0600h Hole Depth:	5,052.0 mBRT (5049.0 mTVD)	Section TD:	5,667.5 mBRT (5,664.5 mTVD)
Section #:	1	CSG Depth/Size:	4757.0 mBRT 11-3/4" inches
Static MW:	1.39 sg	Current ECD:	1.436sg @ 600gpm sg
FIT/LOT/ XLOT:	1.46sg FIT @ 4,757mBRT.		
Current formation/ lithology:	Shale		
Sensor Offsets from the Bit:	arcVISION 675: (APWD: 6.919 m, Resistivity: 7.631 m, GR: 7.682 m) TeleScope 675: (IWOB: 11.699m, Direction + Inclination: 16.064 m) <i>*Note arcVISION and TeleScope are behind 12-1/4" HRR Underreamer</i>		
Other BHA Offsets from the Bit:	8-1/4" x 12-1/4" HRR-8000 reamer: 1.46 m 10-5/8" Stabilizer: 21.771 m Top of BHA: 341 m		
Current Operations:	RIH 8-1/2" x 12-1/4" LWD BHA (BHA #21) from 530 - to the C2R window. Trouble shot pipe handler. Reamed down to 4,838mBRT, continued attempting to work past 4,838mBRT.		

Geomechanics Alert

GREEN	<p>Green = Projected model remains accurate White = Unanticipated deviation from model which <i>should not</i> affect drilling Yellow = Unanticipated deviation from model which <i>may</i> affect drilling Red = Imminent requirement to stop drilling</p>
Basis for Alert Level + Recommendations	<p>1.39 sg remains recommended MW for Section 1. Observation suggests hole cleaning remains a key factor in current wellbore condition.</p>

Principal Findings

N/A

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Observations Summary

Fracture Gradient	N/A
Pore Pressure	No indications of overpressure observed.
Wellbore Breakout	N/A
Tensile Failure	N/A
Drilling Parameters	N/A
Other	N/A

Analysis

Drilling Experience Analysis

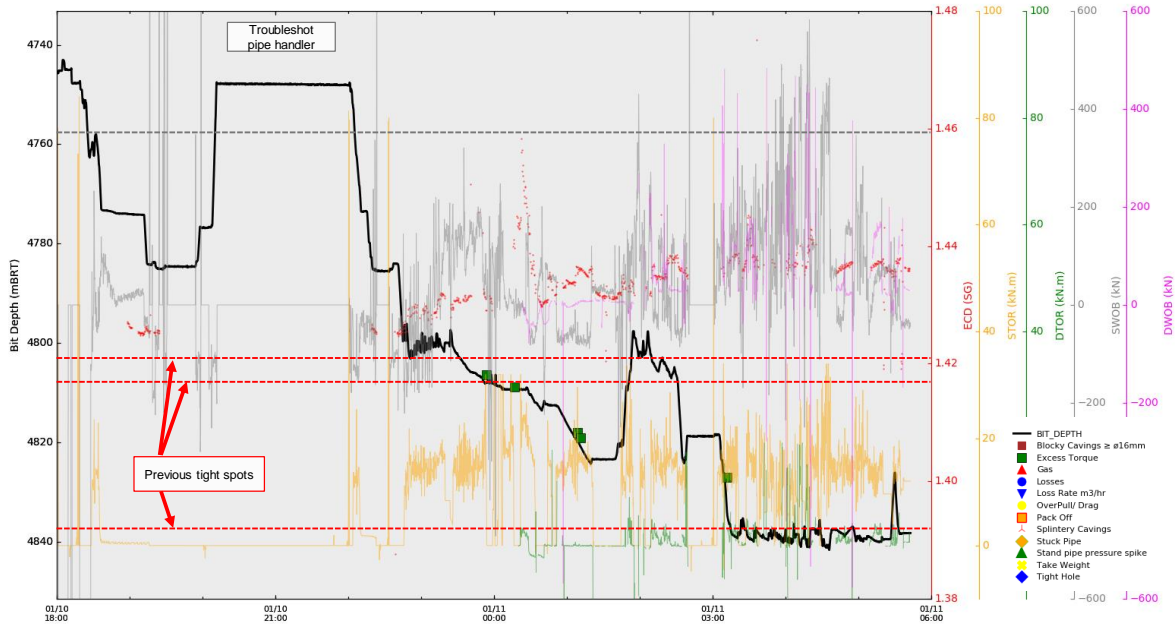


Figure 1 Drilling experiences over the last 24 hrs

- No serious issues passing through window or the tight spots near 4,805 mBRT; however, the hole has been taking weight at ~4,838mBRT from 0315 hrs.

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Cuttings and Cavings Analysis



Figure 2 Example of cuttings/cavings > ϕ 4mm (taken from 400cc RTG Samples)

- From 02:00 on the 11th January 2018 RTG samples over 4mm sieve the abundance of fresh platy fragments is greater than that of when drilling/underreaming section in the days prior (dominated by fresh and rounded blocky fragments).
- Tuff continues to be present, mostly in small, rounded pieces (<10mm), though large pieces are present.
- Trace (5%) moderate-sized cement fragments (~10+mm) continue to appear.
- Figure 2 approx. corresponds to when the bit reached ~4,838mBRT.

LWD Data Analysis

N/A

SFIB Analysis

No further updates.

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Geomechanical Model Review

No change in the current stress model.

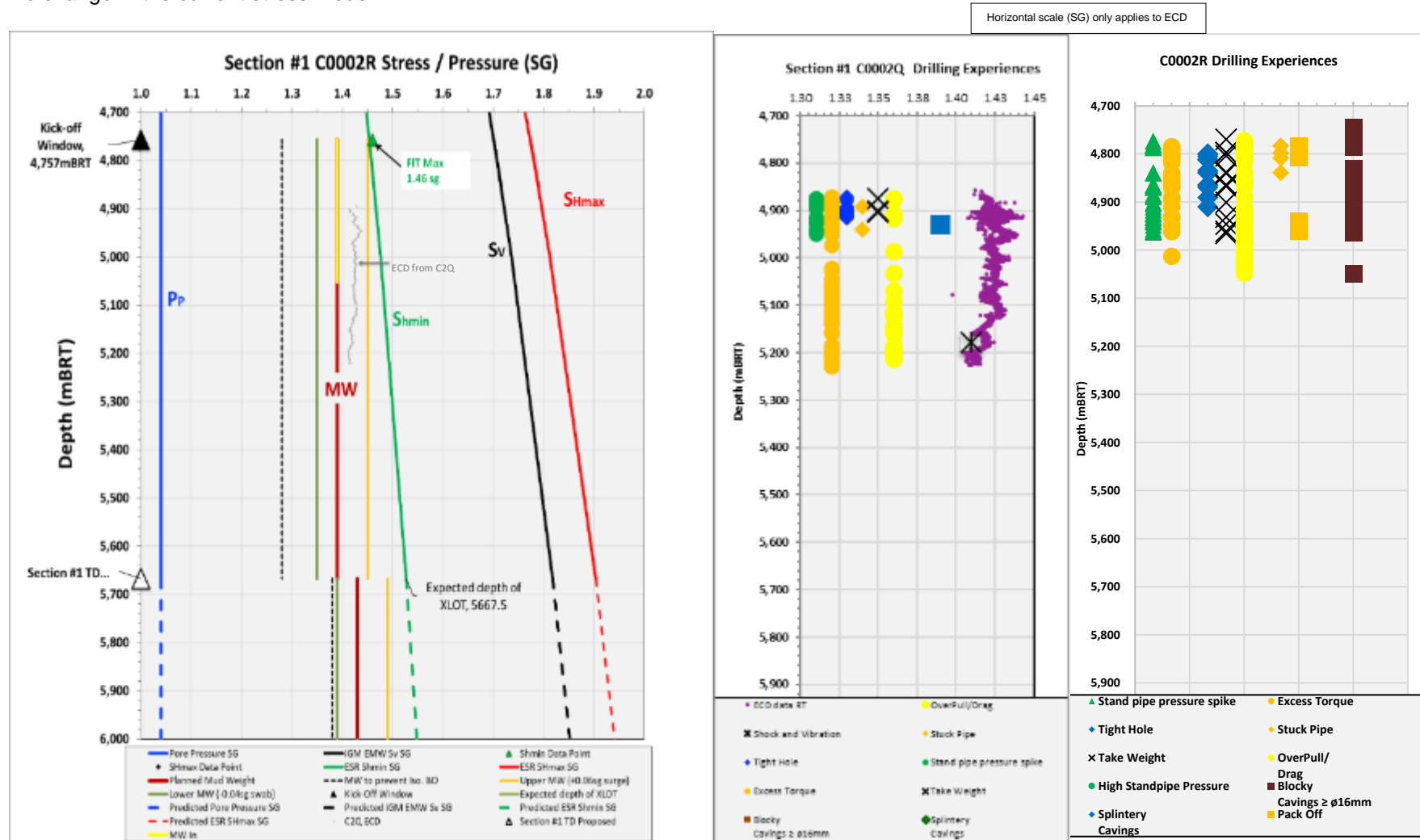


Figure 3 Current stress model for Section #1

Figure 4 C0002Q Drilling Experiences

Figure 5 C0002R Drilling Experiences