IODP EXP 358 Daily Geomechanics Report

Report #042 20181221

RTG Team

RTG Supervisor(s)	David Castillo / Thomas Finkbeiner / Demian Saffer
RTG Watch Lead (00:00-12:00)	Kan Aoike
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
Current Depth:	4,772 (4,771)	mBRT (mTVD)	**Section TD:**	5,667.5 (5,664.5)	mBRT (mTVD)
Section #:	0		**CSG Depth/Size:**	4757.0 11-3/4	mBRT inches
Static MW:	1.37	sg	**Current ECD:**	(1.40)	sg
FIT/LOT/ XLOT:	1.46sg FIT @ 4,757mBRT.				
Current formation/ lithology:	Shale				
Sensor Offsets from the Bit:	N/A				
Other BHA Offsets from the Bit	N/A				
Current Operations:	RIH with 10 5/8” window mill assembly and dressed window (POOH from 00:45 Dec.22).				

Geomechanics Alert

GREEN	Green = Projected model remains accurate White = Unanticipated deviation from model which *should not* affect drilling Yellow = Unanticipated deviation from model which *may* affect drilling Red = Imminent requirement to stop drilling
Basis for Alert Level + Recommendations	Wellbore shows no current signs of deterioration during operations. 1.37 sg remains recommended MW for Section 1.

Principal Findings

N/A

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Observations Summary

Use this space to discuss any observations while drilling, running casing etc.

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

Analysis

Drilling Experience Analysis

Some high torque noted whilst dressing window with 10 5/8" milling assembly (Figure 1). However, typically drifting with minimal resistance. Some 'fill' may be evident at the bottom of the hole from the torque seen when bit at the bottom half meter of the hole. RTG considers this to be normal for current operations.

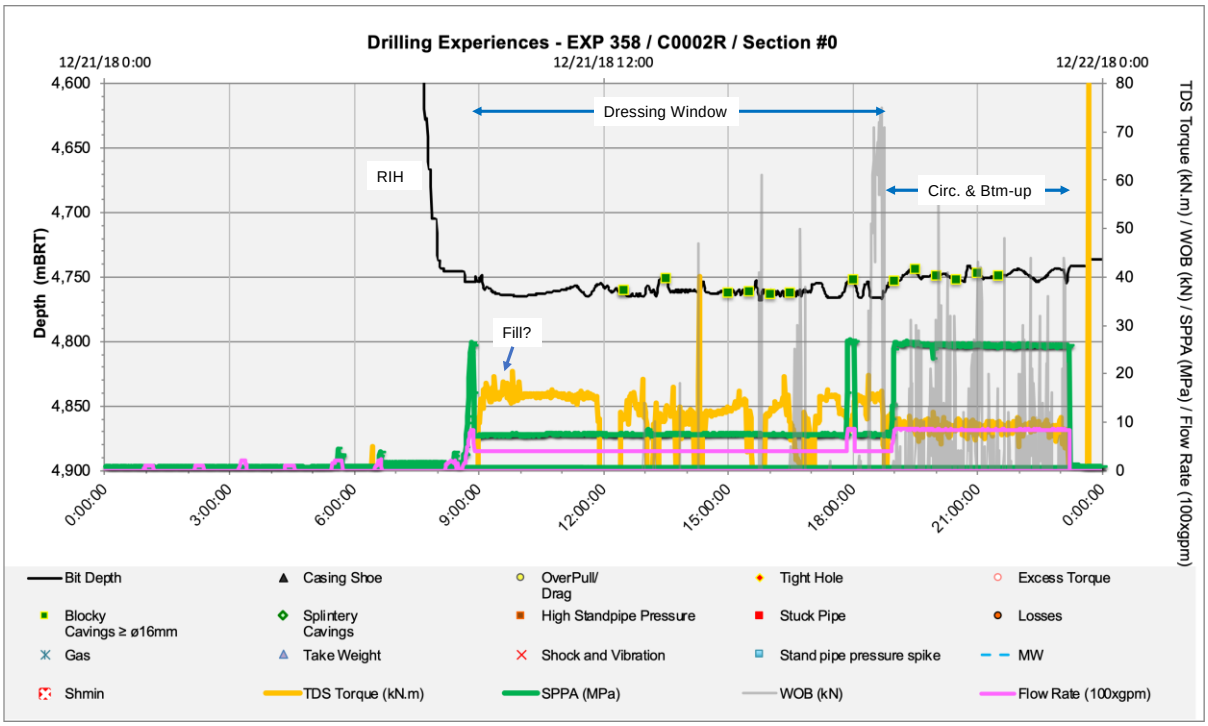

Figure 1 Drilling experiences over the last 24hrs

Cuttings Analysis

N/A

Cavings Analysis

During window dressing, both fresh and rounded blocky cavings/cuttings > ø4mm were coming up with fine cuttings at abundance of ~3%. Once circulation and bottoms up started, they slightly increased up to 15 % (Figure 2). Grain sizes of the most cavings/cuttings were generally less than ø1 cm (ø2.5 cm at maximum) (Figure 3).

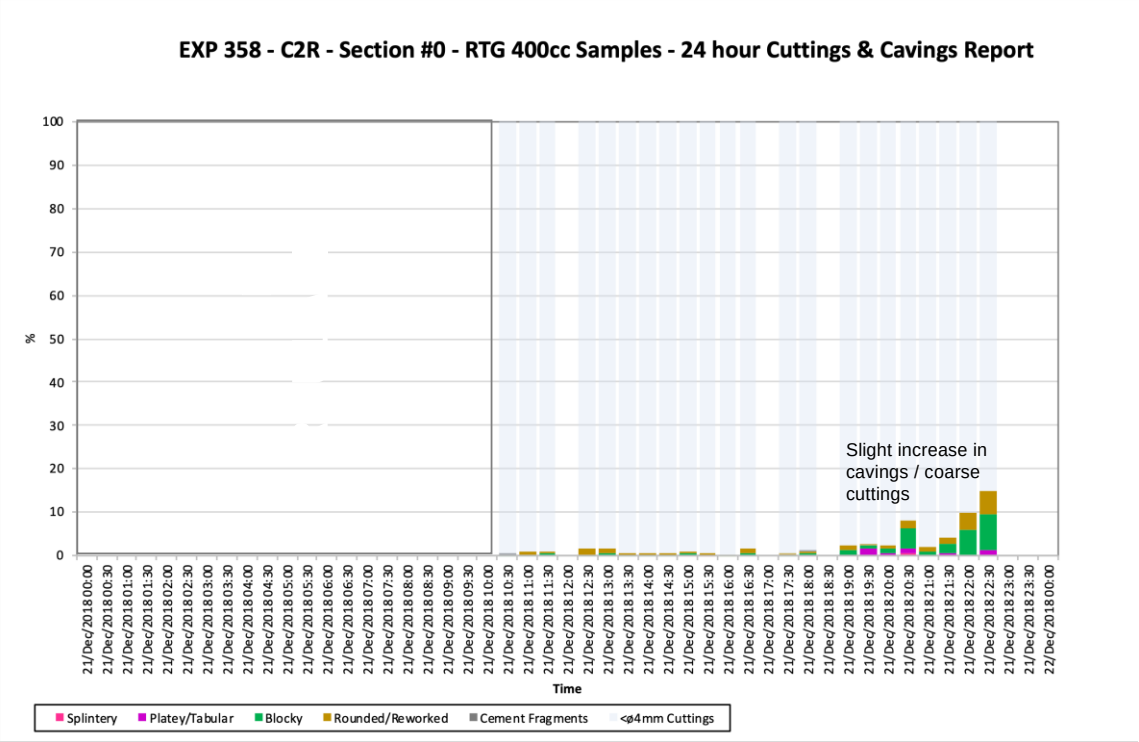

Figure 2 Analysis of cuttings/cavings > ø 4mm (taken from 400cc RTG Samples) over last 24hrs.

Figure 3 Example of cuttings/cavings > ø 4mm (taken from 400cc RTG Samples).

LWD Data Analysis
N/A

SFIB Analysis
N/A

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Geomechanical Model Review

No change in the current stress model.

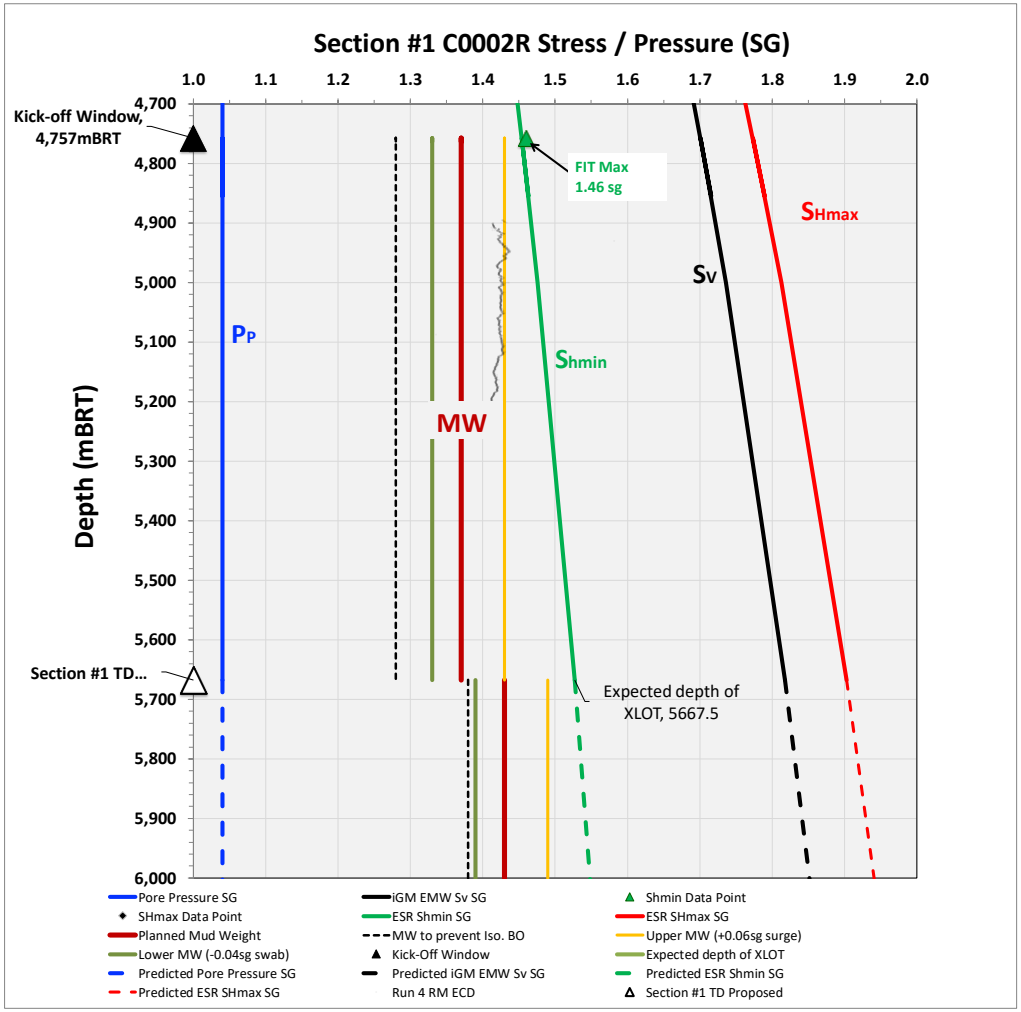

Figure 1 Current stress model for Section #1

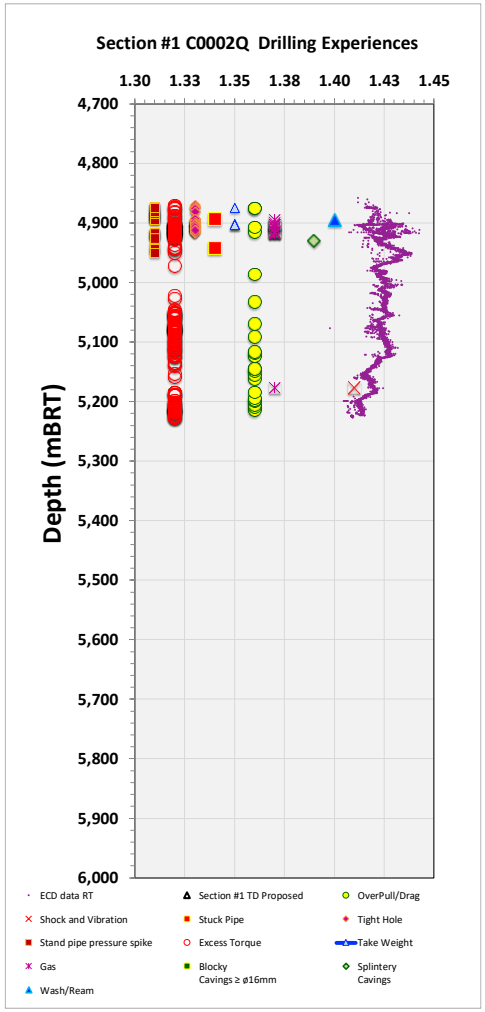

Figure 2 C0002Q Drilling Experiences