

# IODP EXP 358 Daily Geomechanics Report

## Report #073 20190121

### 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)	Emily Wisbey

### 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:	4,818.0 mBRT 11-3/4" ESET inches
Static MW:	1.39 sg	Current ECD:	- sg
FIT/LOT/ XLOT:	N/A Note: 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:	Continued attempting to free the drill out cement BHA.		

### Geomechanics Alert

<b>GREEN</b>	<b>Green</b> = Projected model remains accurate <b>White</b> = Unanticipated deviation from model which <i>should not</i> affect drilling <b>Yellow</b> = Unanticipated deviation from model which <i>may</i> affect drilling <b>Red</b> = Imminent requirement to stop drilling
<b>Basis for Alert Level + Recommendations</b>	1.39 sg remains recommended MW for Section 1. No further change in wellbore condition has been observed.

### Principal Findings

Rock fragments that have been described as "tuff" which firstly occurred from 4840 mBRT in Hole C2R were reexamined by the Science Party and it was confirmed that those fragments are not composed of "tuff" but "cement" based on petrological analyses with XRD, XRF and polarized microscope. The false interpretation was because the apparent "tuff" fragments did not show staining reaction with phenolphthalein and dissolution reaction with hydrochloric acid, and were distinctly softer than cement fragments definitely sourced in the C2P annulus (near window). The current interpretation is that cement was injected into the damaged bedding planes and fractures near 4840 mBRT during the 2014 cement squeeze operations in the annulus of Hole C2P. The mixing of cement and C2P drilling fluids (and cuttings powder) would have contaminated the cement sufficiently to produce a false test using hydrochloric acid. The trajectory data indicates that the separation between Holes C2R and C2P may only be ~1m near 4840 mBRT. Hole C2R probably intersected the 2014 injected cement zone formed around the C2P at 4840 mBRT.

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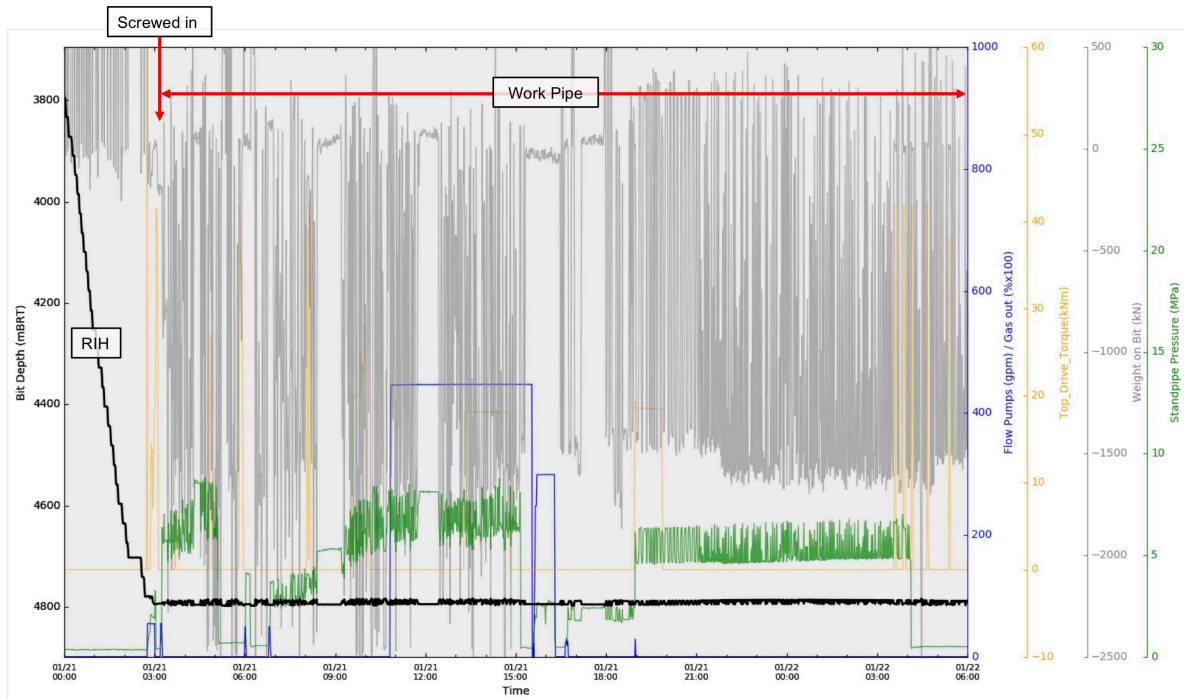
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### Observations Summary

Fracture Gradient	N/A
Pore Pressure	N/A
Wellbore Breakout	N/A
Tensile Failure	N/A
Drilling Parameters	N/A
Other	N/A

### Analysis

#### Drilling Experience Analysis



**Figure 1 Drilling Experiences over last 27hrs**

No particular indication related to borehole condition was observed.

#### Cuttings and Cavings Analysis

N/A – Only circulating the riser.

#### LWD Data Analysis

N/A

#### SFIB Analysis

No further updates.

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### Geomechanical Model Review

No change in the current stress model.

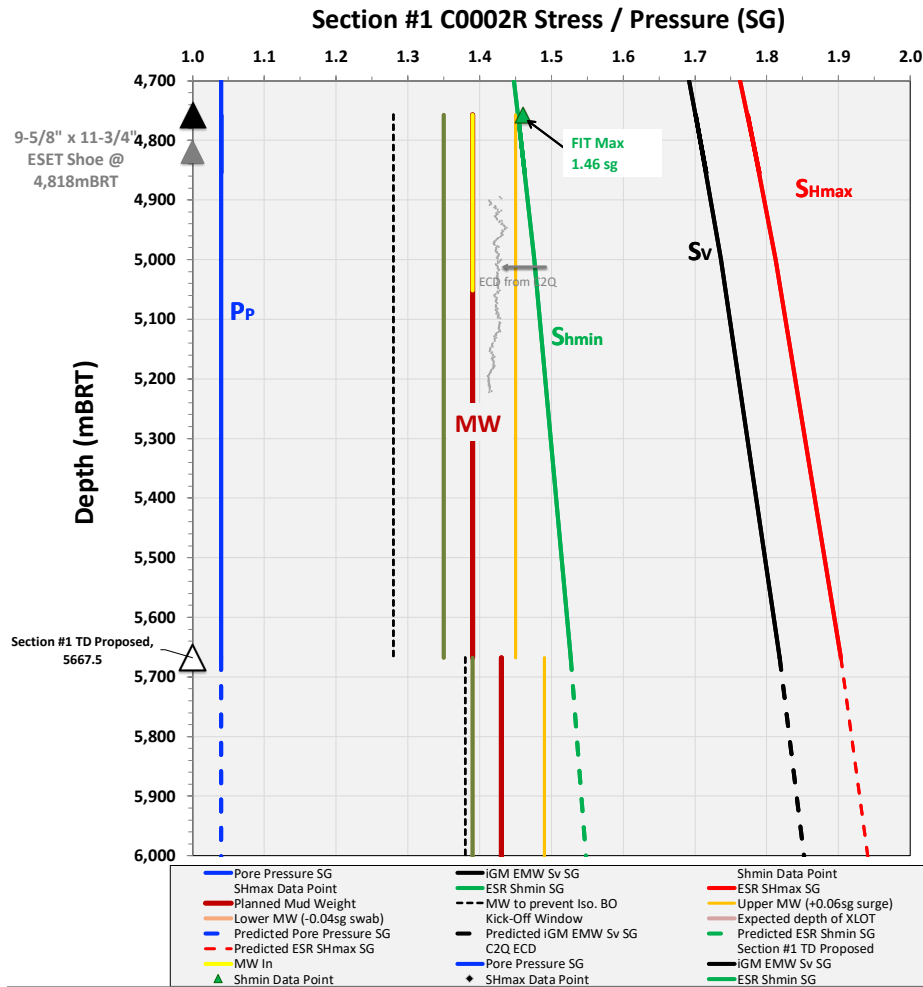


Figure 2 Current stress model for Section #1