

IODPEXP 358 Daily Geomechanics Report

Report #001 20181110 Final 4862

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
RTG Office Support	N/A

Well Status (as of 06:00 on 11 Nov. 2018)

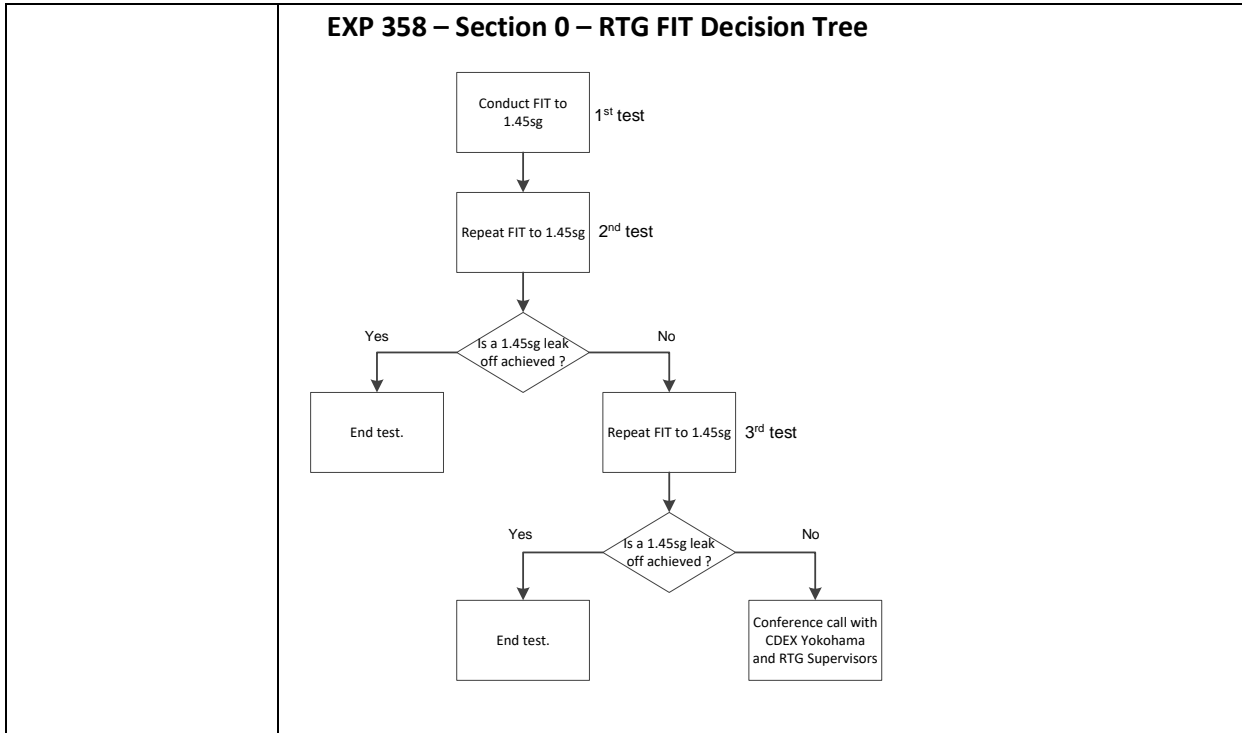
Site Name:	C0002	Hole Name:	Q
Water Depth:	1,939.0 m	RT-MSL:	28.5 m
Current Depth:	4,862.0 mBRT (4,860.0) mTVD	Section TD:	4,866.0 mBRT (4,864.0) mTVD
Section #:	0	CSG Depth / Size:	- mBRT
Static MW:	1.33 sg	Current ECD:	- sg
Current formation/ lithology:	Shale		
Sensor Offsets:	-		
Current Operations:	Milled 11-3/4" casing window and drilling a rat hole to 4862mBRT (4m short of desired depth). Milling commenced at 17:35 Nov.9 and proceeded from 02:00 Nov.10. Bit got out CSG at 04:20. No success to go down below 4862 mBRT. Suspected the lower mill has been under gauge. Decided POOH for replacing mills. POOH from 13:40 and Bit on deck at 04:00 Nov.11. Confirmed middle and lower mills being severely worn out. RIH again from 05:20. 135 mBRT as of 06:00.		

Geomechanics Alert

GREEN	<p>Green = Projected model remains accurate</p> <p>White = Unanticipated deviation from model which <i>should not</i> affect drilling</p> <p>Yellow = Unanticipated deviation from model which <i>may</i> affect drilling</p> <p>Red = Imminent requirement to stop drilling</p>
Basis for Alert Level + Recommendations	<p><i>Recommendation for upcoming FIT.</i></p> <p>If the apparent FIT of the first and second cycles indicates that fluid is leaking into cracks in either weak bedding planes or cement voids, RTG recommends that pumping is continued to establish a linear pressure build-up. If a maximum pressure equivalent to about 1.45 SG is achieved on the 1st cycle, a 2nd cycle would be performed to ensure repeatability. If the targeted 1.45 SG is only achieved on the 2nd cycle, a 3rd third cycle would be performed to ensure repeatability. Irrespective of the observed maximum pressures during the confirmed linear pressure build (leakage into cracks may or may not occur), a mud weight recommendation will be based on the FIT results.</p>

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Principal Findings

N/A

Observations Summary

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

Fracture Gradient	
Pore Pressure	
Wellbore Breakout	
Tensile Failure	
Drilling Parameters	
Other	

Analysis

LWD Log Analysis

N/A

Drilling Experience Analysis

N/A

Cuttings Analysis

N/A

Cavings Analysis

Solid materials coming up to the shakers consist of blocky cement fragments, shale cavings/cuttings, sealant (BaroLift fibers) and metal chips. According to the Geoservices report, proportions of shale, cement and metal at lag depth of 4862.3 mBRT (09:30) are 20%, 70 % and 10%, respectively. During circulation & bottoms-up, total volume of the solid materials declined while proportion of shale cavings increased to 70% or so. Cavings adhered with cement were very few.

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Both rounded larger cavings ($\varnothing 2\sim 4\text{cm}$) and smaller but sharp-edged cavings were observed in similar proportion. The former cavings are regarded as those remaining in the original hole since X348 while the latter cavings are considered as those produced in the new hole. Angular, platy and tabular types comprise the sharp-edged cavings, but no splintery cavings were recognized. Incipient anisotropic failure in the new rat hole is expected.



SFIB Analysis

N/A

FIT Analysis

N/A

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Geomechanical Model Review

No changes to pre-drill geomechanical model, pending the results of 13.3/8" repeat FIT.

