

Trefoil-2

Date : 19 Oct 2009

Geology Report Number : 13

(associated DDR # 19)

Well Details

Depth MDBRT:	2271.0m	Rig:	Kan Tan IV	Date:	19 Oct 2009
Depth TVDBRT:	2271.0m	Progress:	27.0m	Report Start:	0000
Depth TVDSS:	2245.0m	RTE agl:		Report End:	2400
Hole Size:	12.250in	GLE amsl:	0 (m)	Days On Location:	18.38
Hole Size Carbide:		Last Csg Size:	13.375in	Days since Spud:	13.67
Water Depth (MSL)	69.0m	Last Csg Shoe:	930.0m		
RT-ASL(MSL)	26.0m	F.I.T. / L.O.T.:	/ 15.15ppg		

Operations Summary

24hr Summary:	Pulled out of hole for bit trip.
Forward Plan:	Trip in and drill 311mm (12-1/4") hole to section TD.

WBM Data

Mud Type:	KCI POLYMER	Flowline Temp:		Cl:	44000mg/l	Low Gravity Solids:		Viscosity	56sec/qt
Sample From:	4	MWD Circ Temp:		Hard/Ca:	320mg/l	High Gravity Solids:		PV	16cp
Time:	2045	Glycol CP Temp:		MBT:	15	Solids (corrected):		YP	28lb/100ft ²
Weight:	9.20ppg	Glycol:		PM:	0.2	H2O:	94%	Gels 10s	11
ECD TD:		Nitrates:		PF:	0.3	Oil:		Gels 10m	15
ECD Shoe:		Sulphites:		MF:	1.2	Sand:	%	Fann 003	10
ECD Cuttings:		API FL:	4.2cc/30min	pH:	9	Barite:		Fann 006	12
KCI Equiv:	9%	API Cake:	1/32nd"	PHPA Excess:				Fann 100	28
								Fann 200	38
								Fann 300	44
								Fann 600	60

Shakers, Volumes and Losses Data

Engineer : MikeLawrance / Kosta Georgiou

Available	2815.3bbl	Losses	161.6bbl	Equip.	Descr.	Mesh Size	Hours
Active	188.0bbl	Downhole		Shaker 1	Brandt VSM 300	20 top/50bottom	16
Mixing	350.0bbl	Surf+ Equip	161.6bbl	Shaker 2	Brandt VSM 300	20 top/50bottom	8
Hole	1171.3bbl	Dumped		Shaker 3	Brandt VSM 300	20 top/50bottom	18
Slug	30.0bbl	De-Gasser		Shaker 4	Brandt VSM 300	20 top/50bottom	12
Reserve	1076.0bbl	De-Sander					
Kill		De-Silter					
		Centrifuge					

Comment

Formation Tops

Formation	Prognosed		Actual		Diff.	Thickness MD (m)	Pick Criteria
	MDBRT (m)	TVDSS (m)	MDBRT (m)	TVDSS (m)	+ / - TVD (m)		
Torquay Group	95.00	69.00	95.00	69.00	0.00	823.00	Sea floor
Lower Miocene Seismic Marker	904.00	878.00	918.00	892.00	-14.00	244.00	GR increase
Upper Angahook	1168.00	1142.00	1162.00	1136.00	6.00	169.00	GR decrease, res increase
Angahook Volcanics Equiv	1323.00	1297.00	1331.00	1305.00	-8.00	238.00	GR decrease, res increase
Lower Angahook	1564.00	1538.00	1569.00	1543.00	-5.00	281.00	GR decrease, res increase
Demons Bluff	1839.00	1813.00	1850.00	1824.00	-11.00	255.00	Res increase
Eastern View Coal Measures	2092.00	2066.00	2105.00	2079.00	-13.00	0.00	Res decrease

Lithology Summary

Interval MDBRT (m) From To	ROP (m/hr)	Lithology
2244.00 - 2271.00	Min:5 Avg:12 Max:48	Interbedded SANDSTONE and CLAYSTONE, thin coal bed at 2265 mMDRT. SANDSTONE (15-85%): very light grey, olive grey, predominantly very fine grained, at times 30% fine, 20% coarse, 10% very coarse clear quartz grains, subrounded to subangular (shattered), well to poorly sorted, subspherical, friable to loose, trace lithic fragments, 80% rock flour, poor visual porosity, no hydrocarbon indications. CLAYSTONE (15-75%): olive grey, medium grey, soft to firm, subblocky, trace lithic fragments, dolomite, glauconite. COAL (0-10%): Black, firm, subblocky to blocky, trace finely disseminated pyrite.

Gas Data

Depth Interval (m)	Gas Type	Total Gas (%)	C1 (%)	C2 (%)	C3 (%)	iC4 (%)	nC4 (%)	C5 (%)	CO2 (%)
2244.00 - 2271.00	Drilled	0.074	0.0352	0.0011	0.0009	0.0009	0.0004	0.0007	

06:00 Hrs Update

Time:	06:00 Hrs on 20 Oct 2009
Depth:	2271 mMDRT/ 2271 mMDRT
Progress Since Midnight (m):	0
Status @ 0600hrs:	Prepare to make up 9 5/8" casing hanger and setback.
Formation:	Eastern View Coal Measures
Lithology:	No drilling
ROP:	No drilling
Gas:	No drilling

Wellsite Geologist(s)

(Days) - Dennis Archer (Nights) - Brenton Richards