

Fermat-1

DAILY GEOLOGICAL REPORT

DGR 7

Date: Report Period: Days From Spud: Current Hole Size:	20 December 2008 06:00 – 06:00 hrs AEDT 6 444mm (17.5")	Licence / State: Rig: RT - SEAFLOOR: WATER DEPTH RT:	VIC/P46 Seadrill: West Triton 76.7m 38.7 m MSL 38.0 m MSL
Depth @ 06:00 Hrs EST:	1027m MDRT 1027m TVDRT -989m SS	PTD: Spud Date:	4000.0 m MDRT 14 December 2008
24 Hr Progress: 06:00 – 06:00 EST Current Operation:	28m POH 311mm (12.25") drillout/j u	ink run assembly	
AFE Cost (Drill)\$	(C&S)\$ (P&A)\$		Cost To Date:

Casing Data	Hole Size	Depth	Casing Size	Wt:	Туре	Shoe Depth	LOT
1	914 mm (36")	119m	762mm (30")		X52	116m	
2	444mm (17.5")	999m	340mm(13.375")	68lb/ft	NT80HE	987m	14.9ppg EMW

Mud Data	Туре:	Wt:	Visc:	WL:	PH:	KCI:	CI -:	PV/YP:	Rmf
20:45	KCI Polymer	9.4	177	5.8	10.5	9.0%	42k	17/25	-

Bit Data	No.	Make	Туре		Size	Hours	Meters	Condition
Present	3	Hughes	Rock	GT-1	311 (12.25")	2	28	
Last	2	Hughes	Rock	MXL-T00	444mm (17.5")	21	880	2 2 LT G E I LN TD

Surveys	Туре	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
28	MWD	990.9	2.28	226.4	990.77	4.98	228.55

Fluid Loss	Interval MDRT	Total or Rate (bbl)	Remarks

OPERATIONS SUMMARY

Previous 24 hrs Operations Summary at 06:00 hrs AEDT

Continued to pick up drillpipe whilst RIH. Drilled out float collar, shoe track and 340mm (13.375") casing shoe from 974-987m. Displaced to KCI Polymer mud from 984m. Cleaned rat hole from 987-999m. Worked junk basket. Drilled 3m new formation to 1002m. Circulated hole clean and worked junk basket. Performed FIT with 9.3ppg mud - 960psi (15.0ppg EMW). Drilled ahead 311mm (12.25") hole 1002-1027m. Worked junk basket. POH.

Anticipated operations:

Make up new 311mm (12.25") drilling assembly. RIH. Drill ahead.



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FORMATION TOPS								
FORMATION	ACTUA	L TOP	High / Low	High / Low	PROGNOSED TOP			
	(MDmRT)	(mSS)	Prognosis	Offset	(MDmRT)	(mSS)		
Heytesbury Group	76.7	-38.7	0m		76.7	-38.7		
Nirranda Group	492	-454	49m Low		443.0	-405.0		
Dilwyn Formation	576	-538	38m Low		538.0	-500.0		
Pember Mudstone	963	-925	15m Low		948.0	-910.0		
Pebble Point Formation					1028.0	-990.0		
Timboon Sandstone					1048.0	-1010.0		
Paarratte Formation					1223.0	-1185.0		
Skull Creek Mudstone					1703.0	-1665.0		
Nullawarre Greensand					1823.0	-1785.0		
Belfast C & B Mudstone					1878.0	-1840.0		
Belfast A Mudstone					2163.0	-2125.0		
Flaxman Formation					2938.0	-2900.0		
Waarre Formation Unit C					3228.0	-3190.0		
Waarre Formation Unit B					3533.0	-3495.0		
Waarre Formation Unit A					3588.0	-3550.0		
Eumeralla Formation					3988.0	-3950.0		
Total Depth					4000.0	-3962.0		

HYDROCARBON SHOW SUMMARY

INTERVAL	LITHOLOGY & HYDROCARBON FLUORESCENCE	GAS
999-1027m	LIMESTONE: Dull yellow green mineral fluorescence only. No cut no residue.	0.025u

GAS	MD (m)	Peak	Background	Chromatograph
Trip Gas				
Connection Gas				

GEOLOGICAL SUMMARY

INTERVAL ROP (m/hr)	LITHOLOGY	GAS (Peak / BG) Composition %
999-1027m	Sandstone with interbedded Siltstone	0.025U BG
	SANDSTONE: (80-85%) Quartzose, clear to translucent to light grey	100
2.9-69.2m/hr	(smokey quartz), frosted, with minor yellow-white milky quartz and trace	
35.5m/h avg	to moderately abundant muscovite (up to ~2%), fine to granular,	
	subangular to subrounded, poorly sorted (bimodal), trace pyrite cement	
	on grain boundaries, trace microcrystalline pyrite granules,	
	disaggregated with minor pyrite-cemented fine to medium sandstone	
	aggregates, no fluorescence.	
	SILTSTONE: (15-20%) Dark olive-grey to dusky brown to light grey,	
	moderately calcareous, commonly pyritic, common lithic fragments, soft	
	to very hard, blocky to subfissile.	
	LIMESTONE: (Tr) Echinoderm/coralline fragments and amorphous	
	limestone, dull yellow green mineral fluorescence only, no cut, no	
	residue.	



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REMARKS:

DGR 7 links to DDR 10

Pieces of ground bit nozzle recovered form Junk Basket.

LWD Offsets from Bit:

Run 2: TBA

Geologists: Roman Leslie / Greg Clota