

Fermat-1

Page 1 of 3

DAILY GEOLOGICAL REPORT

Licence / State:

RT - SEAFLOOR:

DGR 9

Seadrill: West Triton

14 December 2008

VIC/P46

76.7m

Date: 22 December 2008

Report Period: 06:00 – 06:00 hrs AEDT **Rig:**

Days From Spud: 8

 Current Hole Size:
 311mm (12.25")
 WATER DEPTH RT:
 38.7 m MSL

 RT:
 38.0 m MSL

 Depth @ 06:00 Hrs EST:
 1563m MDRT
 PTD:
 4000.0 m MDRT

1562.25m TVDRT Spud Date:

-1524.25m SS

24 Hr Progress: 407m

06:00 - 06:00 EST

<u>Current Operation:</u> Drilling ahead 12 ¼" hole in the Paaratte Formation at 20m/hr.

AFE Cost (Drill)\$ (C&S)\$ Cost To Date:

(P&A)\$

Casing Data	Hole Size	Depth	Casing Size	Wt:	Type	Shoe Depth	LOT
1	914 mm (36")	119m	762mm (30")		X52	116m	
2	444mm (17.5")	999m	340mm(13.375")	68lb/ft	NT80HE	987m	15.0ppg EMW
3	311mm(12.25")		244mm(9.675")				

Mud Data	Type:	Wt:	Visc:	WL:	PH:	KCI:	CI -:	PV/YP:	Rmf
16:00	KCI Polymer	9.6	78	4.4	8.5	8.5%	44k	21/27	-

Bit Data	No.	Make	Туре		Size	Hours	Meters	Condition
Present	4	Reed	PDC	RSR616M -A10	311mm (12.25")	23.5	536	
Last	3	Hughes	Rock	GT-1	311mm (12.25")	2	28	0 0 NO A E I NO BHA

Surveys	Type	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
36	MWD	1230.79	2.72	225.15	1230.41	15.96	225.85
40	MWD	1436.37	2.94	228.54	1435.74	25.97	226.34
43	MWD	1525.13	3.06	228.31	1524.38	30.63	226.63

Fluid Loss	Interval MDRT	Total or Rate (bbl)	Remarks
Mud	1156-1563	Up to 60bbl/hr	Losses over shakers.

OPERATIONS SUMMARY

Previous 24 hrs Operations Summary at 06:00 hrs AEDT

Drilled ahead 311mm (12.25") hole 1156-1563m.

Anticipated operations:

Drill ahead 311mm (12.25") hole.



Fermat-1

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Page 2 of 3

DGR 9

FORMATION TOPS								
FORMATION	ACTUA	L TOP	High / Low	High / Low	PROGNOSED TOP			
	(MDmRT)	(mSS)	Prognosis	Normanby-1	(MDmRT)	(mSS)		
Heytesbury Group	76.7	-38.7	0m	10 High	76.7	-38.7		
Nirranda Group	492	-454	49m Low	145 High	443.0	-405.0		
Dilwyn Formation	576	-538	38m Low	152 High	538.0	-500.0		
Pember Mudstone	963	-925	15m Low	255 High	948.0	-910.0		
Pebble Point Formation	1075	-1037	47m Low	227 High	1028.0	-990.0		
Timboon Sandstone	1092	-1054	44m Low	236 High	1048.0	-1010.0		
Paarratte Formation	1245	-1207	22m Low	251 High	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
1156-1530m	Nil	

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

GEOLOGICAL SUMMARY

INTERVAL ROP (m/hr)	LITHOLOGY	GAS (Peak / BG) Composition %
1156-1245	Timboon Sandstone	0.04u BG
	Sandstone with interbedded Claystone and Siltstone	100
10-41.6m/hr	SANDSTONE: (40-80%) Quartzose, clear to translucent, frosted,	
31.5m/hr avg	medium light grey in part, medium to predominantly coarse to very coarse, angular to subrounded, poor to moderate sorting, clean, common coarse nodular pyrite, trace limonite stained quartz, common carbonaceous fragments, common smoky/coarse milky quartz float, disaggregated, fair porosity, no fluorescence. CLAYSTONE: (60-20%) Dark grey to brown black, moderately silty, slightly calcareous in part, common carbonaceous/coaly fragments, micromicaceous, trace muscovite, soft to plastic, massive to blocky in part SILTSTONE: (10-30%) Dark grey to olive, slightly calcareous in part, commonly carbonaceous, common lithic fragments, soft, blocky.	



1045 1440m	Decretta Formation	0.17u BG
1245-1440m	Paaratte Formation Interbedded Sandstone, Claystone and Siltstone with occasionally	0.17u BG 100
5-48m/hr	thin Coal seams.	100
32m/hr avg	SANDSTONE: (30-90%) Quartzose, clear to translucent, frosted, grey	
3211/111 avg	brown in part, fine to predominantly medium, coarse in part, subangular	
	to subround, rounded in part, moderate sorting, predominantly clean,	
	silty/argillaceous matrix in part, trace pyritic cement and pyrite nodules,	
	trace carbonaceous material, common coarse milky quartz float,	
	disaggregated, poor to fair porosity, no fluorescence.	
	SILTSTONE: (0-45%) Dark grey to olive grey to yellowish grey, locally	
	very argillaceous grades to silty claystone in part, slightly arenaceous,	
	micromicaceous, moderately abundant carbonaceous specks, trace lithic	
	fragments, soft to firm, blocky to subfissile.	
	CLAYSTONE: (10-70%) Dark grey to brown black, locally moderately to	
	very silty grades to argillaceous siltstone in part, locally common	
	carbonaceous material and carbonaceous microlaminae, occasionally	
	white kaolinitic/arenaceous inclusions, micromicaceous, soft, massive to	
	amorphous.	
	COAL: (0-10%) Black, subbituminous, dull to subvitreous lustre,	
	occasionally disseminated pyrite, platy to uneven fracture, brittle, blocky	
	to platy in part.	
1440-1530m	Thinly interbedded Sandstone, Siltstone and Claystone	0.09u BG
0.40.0	SANDSTONE: (50-90%) Quartzose, clear to translucent, frosted, grey	100
3-42m/hr	brown in part, fine to predominantly medium, coarse in part, subangular	
18.5m/hr avg	to subround, rounded in part, moderate sorting, predominantly clean,	
	silty/argillaceous matrix in part, trace pyritic cement and pyrite nodules,	
	trace carbonaceous material, trace coal, common coarse milky quartz	
	float, disaggregated, with minor silica cement, occasionally carbonate	
	cemented very fine sandstone aggregates poor to fair porosity, no fluorescence.	
	SILTSTONE: (5-45%) Dark grey to olive grey to yellowish grey, locally	
	very argillaceous grades to silty Claystone in part, slightly arenaceous,	
	micromicaceous, moderately abundant carbonaceous specks, trace lithic	
	fragments, soft to firm, blocky to subfissile.	
	CLAYSTONE: (0-45%) Dark grey to brown black, locally moderately to	
	very silty grades to argillaceous siltstone in part, locally common	
	carbonaceous material and carbonaceous microlaminae, occasionally	
	white kaolinitic/arenaceous inclusions, micromicaceous, soft, massive to	
	amorphous.	

REMARKS:

DGR 9 links to DDR 12

Carbide lag check @ 1421m, hole in gauge. 18u TG

LWD Offsets from Bit:

Run 2:

GR: 4.9m Res: 4.85m ECD: 4.14m Survey: 12.96m Sonic: 22.37m

Geologists: Roman Leslie / Greg Clota