

Fermat-1

Page 1 of 4

DAILY GEOLOGICAL REPORT

DGR 24

VIC/P46

76.7m

Date: 6 January 2009

Report Period: 06:00 – 06:00 hrs AEDT **Rig:** Seadrill: West Triton

Days From Spud: 23

 Current Hole Size:
 216mm (8.5")
 WATER DEPTH RT:
 38.7 m MSL 38.0 m MSL

 Depth @ 06:00 Hrs EST:
 3450m MDRT
 PTD:
 4000.0 m MDRT

3446.3m TVDRT **Spud Date:** 14 December 2008

Licence / State:

RT - SEAFLOOR:

-3408.3 SS **24 Hr Progress:** 380m

06:00 - 06:00 EST

Current Operation: Drilling 216mm (8.5") hole

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

(P&A)\$

Casing Data	Hole Size	Depth	Casing Size	Wt:	Type	Shoe Depth	LOT/FIT
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")	2807	244mm(9.675")	53.5lb/ft	P110	2800.3m	- / 16.0ppg EMW

Mud Data	Type:	Wt:	Visc:	WL:	PH:	KCI:	CI -:	PV/YP:	Rmf
22:30	KCI Polymer	10.6	54	5.8	9.0	6.8%	41k	16/36	-

Bit Data	No.	Make	Туре		Size	Hours	Meters	Condition
Present	6	Security	PDC	SE3653Z	216mm (8.5")	38	643	
Last	5	Reed	PDC	RSX616M- A10	311mm (12.25")	19.3	410.5	1 1 LT G X I BU TD

	Surveys	Туре	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
	95	MWD	3347.40	4.21	152.14	3343.95	74.78	200.25
ĺ	96	MWD	3376.97	4.39	156.43	3373.43	76.34	199.05
ĺ	97	MWD	3406.76	4.66	160.93	3403.13	78.14	197.94

Fluid Loss	Interval MDRT	Total or Rate (bbl)	Remarks
•			

OPERATIONS SUMMARY

Previous 24 hrs Operations Summary at 06:00 hrs AEDT

Drilled 216mm (8.5") hole 3070-3450m.

Anticipated operations:

Drill ahead 216mm (8.5") hole.



Fermat-1

Page 2 of 4

DAILY GEOLOGICAL REPORT

DGR 24

FORMATION TOPS							
FORMATION	ACTUA	L TOP	High / Low	High / Low	PROGN	OSED 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	1705	-1666	1m Low	258 High	1703.0	-1665.0	
Nullawarre Greensand	1850	-1811	26m Low	232 High	1823.0	-1785.0	
Belfast C & B Mudstone	1905	-1866	26m Low	232 High	1878.0	-1840.0	
Belfast A Mudstone	2160	-2120	5m High	253 High	2163.0	-2125.0	
Flaxman Formation	2873	-2832	68m High	363m Low	2938.0	-2900.0	
Waarre Formation Unit C	3186	-3145	45m High	385m Low	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
3060-3065m	Sandstone: Trace dull yellow green patchy fluorescence, very weak slow	117u Max/12u BG
	diffuse milky cut, no residue.	
3065-3282	Trace yellow-orange mineral direct fluorescence; no cut	12u BG
3282-3345	Trace yellow-orange mineral direct fluorescence; no cut	16u BG
3345-3415	Trace yellow-orange mineral direct fluorescence; no cut	17U BG

GAS	MD (m)	Peak	Background	Chromatograph
Drilled Gas	3062	117u	12u	94:3:2:1:Tr
	3350	78u	18u	92:3:3:Tr:1
	3406	94u	32u	94:3:2:0:0
	3414	118u	32u	93:3:3:0:0
Trip Gas				
Connection Gas				

GEOLOGICAL SUMMARY

INTERVAL ROP (m/hr)	LITHOLOGY	GAS (Peak / BG) Composition %
3060-3070	Massive Sandstone with minor interbedded Siltstone	12u BG
	SANDSTONE: (70-80%) Quartzose, grey brown, dark yellow brown,	95:3:2:Tr
5-30m/hr	very fine to fine, subangular to subround, well sorted, strong	
15m/hr avg	dolocalcareous cement, moderately strong siliceous cement in part,	Peak @ 3062
	trace carbonaceous materiel, rare glauconite, moderately hard, very	117u
	poor porosity. Fluorescence: (3060-3065m) Trace dull yellow green	94:3:2:1:Tr
	patchy fluorescence, very weak slow diffuse milky cut, no residue.	
	SILTSTONE: (20-30%) Olive black to brown black, very argillaceous	
	grades to silty claystone, micromicaceous, common light grey	
	arenaceous inclusions, trace lithic fragments, trace carbonaceous	
	material, moderately hard, blocky.	

	Fermat-1	Page 3 of 4
PETROLEUM	DAILY GEOLOGICAL REPORT	DGR 24

3070-3186	Siltstone with interlaminated Sandstone and minor Limestone	8u BG
	SANDSTONE: (0-20%) Quartzose, medium grey, very fine to fine,	92:4:3:1
10-36m/hr	subangular to subround, well sorted, moderately strong siliceous	
23m/hr avg	cement, weak calcareous cement in part, locally common	
	argillaceous/silty matrix, trace biotite, trace lithic fragments, firm to	
	moderately hard, very poor to nil porosity, no fluorescence.	
	LIMESTONE: (0-10%) Calcarenite to Calcisiltite, dark yellow brown, fine	
	to silty, micritic, locally cryptocrystalline, slightly dolomitic, trace coralline	
	fragments, trace carbonaceous material, hard, brittle, no porosity, dull	
	orange mineral fluorescence only.	
	SILTSTONE: (80-100%) Olive black to brown black, very argillaceous	
	grades to silty claystone, micromicaceous, locally light grey very fine	
	grained arenaceous inclusions, trace lithic fragments, trace	
	carbonaceous material, trace to locally common white vein calcite below	
	3140m, moderately hard, blocky.	
3186-3280	Waarre Formation Unit Cb	10u BG
	Massive Siltstone with interlaminated Sandstone	92:3:4:0:1
9.0-25.3 m/hr	SANDSTONE: (0-15%) Lithic Arenite, medium grey to olive grey, very	
19.2 m/hr avg	fine to fine, silty in part grades to arenaceous siltstone in part,	
	subangular, well sorted, weak calcareous cement, silty/argillaceous	
	matrix, trace biotite, friable, very poor porosity, no fluorescence.	
	SILTSTONE: (85-100%) Dark grey to olive grey, locally very argillaceous	
	grades to silty claystone in part, common very fine grained arenaceous	
	inclusions, trace carbonaceous flecks, trace disseminated pyrite,	
	micromicaceous, slightly chloritic in part, locally arenaceous inclusions,	
	firm, massive to blocky.	
3280-3345	Waarre Formation Unit Ca	16u BG
	Thinly interbedded Siltstone and Sandstone	16u BG 91:4:4:0:1
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-	
	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular,	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60- 70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite,	
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions,	
12.5-27.6 m/hr 19.1 m/hr avg	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky.	91:4:4:0:1
12.5-27.6 m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone	91:4:4:0:1 17u BG
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-	91:4:4:0:1
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey,	91:4:4:0:1 17u BG 92:4:3:0:1
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained,	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut SILTSTONE: (20-85%) Dark grey to olive grey, locally very argillaceous	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1 Peak @ 3414
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut SILTSTONE: (20-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1 Peak @ 3414 118u
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut SILTSTONE: (20-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite,	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1 Peak @ 3414
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut SILTSTONE: (20-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions,	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1 Peak @ 3414 118u
12.5-27.6 m/hr 19.1 m/hr avg 3345-3450 8-38m/hr	Thinly interbedded Siltstone and Sandstone SANDSTONE: (15-50%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; medium grey to olive grey, range very fine to medium, predominantly very fine to fine grained, silty in part, subangular, poorly sorted, slight to moderate calcareous cement, silty/argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, no fluorescence SILTSTONE: (50-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite, micromicaceous, slightly chloritic in part, locally arenaceous inclusions, firm, massive to blocky. Thick interbedded Siltstone and Sandstone SANDSTONE: (15-80%) Sandstone: Quartz-litharenite, quartz 60-70%/lithics 30-40%; white and pale grey to medium grey to olive grey, range from very fine to coarse, predominantly very fine to fine grained, subangular to well rounded, moderately sorted, slight to moderate calcareous cement, argillaceous matrix, trace biotite, friable to moderately hard, very poor porosity, nil to 10% very dull yellow-green direct fluorescence (mineral), no cut SILTSTONE: (20-85%) Dark grey to olive grey, locally very argillaceous grades to silty claystone in part, common very fine grained arenaceous inclusions, trace carbonaceous flecks, trace disseminated pyrite,	91:4:4:0:1 17u BG 92:4:3:0:1 Peak @ 3350.2 78 u 92:3:3:tr:1 Peak @ 3414 118u

	Fermat-1	Page 4 of 4
PETROLEUM	DAILY GEOLOGICAL REPORT	DGR 24

REMARKS:

DGR 24 links to DDR 27.

Low Gas readings 3150-3188m whilst repairing gas trap agitator.

Waarre Ca picked at 3280mRT -3276mSS (37m High to Prognosis)

LWD Offsets from Bit:

Additional mud parameters:

Rm 0.1141 @ 23.7C Rmf 0.0884 @ 23.4C Rmc 0.1356 @ 23.7C

Barite - 4.2% (62.42lb/bbl)

Run 4:

GR: 4.58m Res: 4.53m ECD: 3.82m Survey: 12.62m Sonic: 21.97m Neutron: 29.27m Density: 28.40m Caliper: 27.93m

Geologists: Greg Clota/BrianRicketts