



# DAILY GEOLOGICAL REPORT

**WELL:** Glenaire-01      **REPORT No.:** 09      **DAYS FROM SPUD:** 9      **DATE:** 17/09/06  
**PL:** PEP 160      **0000 hrs Depth:** 1778 m      **LAST DEPTH:** 1255 m      **PROGRESS:** 523 m  
**LOCATION:** Otway Basin      **Rig:** Ensign 32      **RT elevation:** 76.1 m      **PTD:** 3945 m  
**Northing:** 5 840 813 m N      **Easting:** 499 810 m E      **Ground Level:** 70.0m  
**NEARBY WELLS:** Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

**0600 OPS:** Drill ahead with 216mm hole at 1853m.

**PREVIOUS 24 Hours Operations:** Drill out cement and shoe track, drill new 216mm hole to 1258m, perform FIT to 1000PSI (eq MW = 13.7ppg), drill ahead with 216mm hole to 1778m.

**Comment:** At around 1546m appears to be a quartz lined fracture zone. From just above this fracture interval the sandstones appear to be gas saturated, however the intergranular porosity of these sandstones is interpreted as being extremely low – insufficient for any significant accumulation or production potential.

The detrital coal below 1680m has no fluorescence but gives a very weak dull yellow crush cut – signifies probable maturation of the sediments.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
1330 - 1540 (55)	<p>SILTY CLAYSTONE, (70%) off white to light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (30%) off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p>	TG 5 – 89.2 (45) (96:2:1:tr:tr)
<b>Fluorescence</b>	Nil	

1540 – 1680 (40)	<p>SILTY CLAYSTONE, (80%) light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence. Vein quartz is present in sample around 1546m.</p>	TG 65 - 254 (90) (95:3:1:tr:tr)
<b>Fluorescence</b>	Nil	

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1680 – 1778 (23)	<p>SILTY CLAYSTONE, (80%) light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace to rarely common black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace to rarely common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p> <p>COAL: (trace) (detrital) black, earthy to subvitreous luster, platy fracture, very argillaceous in part, moderately hard, brittle.</p> <p>FLUORESCENCE: The coal has no fluorescence but gives a very dull yellow crush cut.</p>	65 – 432 (80) (95:3:1:tr:tr)
<b>Fluorescence</b>	Nil in the sandstone but: The coal has no fluorescence but gives a very dull yellow crush cut.	
1778 – 1853 (16)	<p>SILTY CLAYSTONE, (90%) off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile.</p> <p>SANDSTONE, (10%) off white to light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p> <p>COAL, black to very dark brown grey, earthy to subvitreous, blocky to platy to subconchoidal fracture, very argillaceous in part, hard, brittle.</p>	TG 35 – 705 (85) (96:3:1:tr:tr)
<b>Fluorescence</b>	Nil in the sandstone, but: The coal has no fluorescence but gives a weak dull yellow crush cut.	
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