

## DAILY GEOLOGICAL REPORT

DGR 18

<b>Date:</b>	15 August 2006	<b>Licence / State:</b>	P39 (V) / VIC
<b>Report Period:</b>	06:00 - 06:00 Hours	<b>Rig:</b>	Ensign 32
<b>Days from Spud:</b>	17	<b>GL:</b>	2.7m
<b>Current Hole Size:</b>	8.5"	<b>RT:</b>	8.6m
<b>Depth @ 0600 Hrs:</b>	1680m MDRT	<b>PTD:</b>	2281m MDRT (-1338mSS)
	-847m TVDSS	<b>Spud Date:</b>	04:30 hrs 29/07/06
<b>24 Hr Progress:</b>	20m		
<b>Current Operation:</b>	Running in hole with 8.5" directional BHA at 150m, following trip to clean balled-up bit		
<b>Nope Cost</b> (Drill)\$	(C&S)\$	<b>Cost To Date:</b>	
	(P&A)\$		

Casing Data	Hole Size	Depth	Casing Size	Wt:	Type	Shoe Depth	LOT
(Conductor)		100m	20"			60m	
	17.5"	320m	13.375"	54.5	J55 BTC	317m	EMW= 20.0 ppg
	12.25"	1606m	9.625"	47.0	N80 BTC	<b>1598m *</b>	EMW= 16.7 ppg

\* 9.625m Casing Shoe revised to 1598m based on MWD

Mud Data	Type:	Wt:	Visc:	WL:	PH:	KCl%:	Cl -:	PV/YP:	Rmf:
	KCL-PHPA	9.9	51	5.5	9.0	5.5	30000	18 / 29	0.17 @ 75°F

Bit Data	No.	Make	Type	Size	Hours	Meters	Condition
(@ 24:00)	6	Hycalog	TC	HP21G	8.5"	-	Drill out trip #1
	7	Reed	PDC	RSX272	8.5"	-	Drill out trip #2
	8	Hycalog	PDC	RSX616M	8.5"	3.2	41
	9	Hycalog	PDC	RSX616M	8.5"	3.2	20
	9RR	Hycalog	PDC	RSX616M	8.5"	-	-

Surveys	Type	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
	MWD	1596.1	71.07	117.39	827.25	1164.87	118.97
	MWD	1620.16	71.72	118.44	834.93	1187.67	118.95
	MWD	1647.79	69.84	118.53	844.03	1213.76	118.94

## OPERATIONS SUMMARY

**Previous 24 hrs Operations Summary:**

Complete testing replacement hydraulic pump and Top Drive System. Rubber O-ring debris and broken strands of metal wire found in hydraulic ports and hydraulic manifold. Run in hole from casing shoe to 1621m. Observe string hanging up at 1621m. Wash & ream from 1621m to 1650m with intermittent hangups. Troubleshoot and fix MWD depth sensor. Wash & ream from 1650m to 1660m with intermittent hangups. Drill ahead 8.5" directional hole from 1660m to 1680m. ROP dropped to 2 m/hr. Pump sweeps and spot KCL pill at bit for 10 mins in an attempt to clear suspected balled-up bit. No significant change in ROP. Pump out of hole to casing shoe. Pull out of hole and download MWD memory data. Bit balled up with one jet blocked. Clean bit, load radioactive sources, shallow test MWD and run in hole to 150m at 06:00hrs.

**Anticipated operations:**

Run in hole with Geopilot & MWD. Drill ahead 8.5" directional hole dropping angle to 10°.

**Sensor Distances:**

Surveys 8.96m, Gamma Ray 11.43m, Resistivity 13.79m, Pressure 16.32m, Density 22.46m, Porosity 26.55m

#### FORMATION TOPS (Preliminary Field picks)

FORMATION	ACTUAL TOP		High/Low	High/Low	PROGNOSED TOP	
	(MDmRT)	(TVDmSS)	To Prognosis	To East Reeve-1	(MDmRT)	(TVDmSS)
Jemmy's Point	5.9	2.7	-	-	6	3
Tambo River (Coquina)	143.0	-134.4	30.6m High	30.8m High	180	-165
Gippsland Limestone	235.0	-225.9	5.9m Low	0.2m High	230	-220
Lakes Entrance Formation					1876 **	-960 **
Latrobe Coarse Clastics					2098	-1155
Latrobe N. asperus (Coal)					2163	-1220
Total Depth					2281	-1338

\*\* Revised Prognosis

#### HYDROCARBON SHOW SUMMARY

INTERVAL	LITHOLOGY & HYDROCARBON FLUORESCENCE	GAS

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

INTERVAL ROP (min/ft)	LITHOLOGY	GAS (Peak / BG) Composition
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1660-1680m ROP:3.4-11.6 Ave: 9.0	<p>INTERBEDDED MARL AND CALCAREOUS CLAYSTONE</p> <p>MARL: (90%) Light to medium grey, minor dark grey, minor medium green grey, trace off white lithic fragments, trace fossil fragments, firm to moderately hard, soft in part, argillaceous, subblocky.</p> <p>CALCAREOUS CLAYSTONE: (10%) Light to medium grey to green grey, occasional dark grey, argillaceous, trace fossil fragments, firm to moderately hard, subblocky.</p>	Trace