

## DAILY GEOLOGICAL REPORT

DGR 19

<b>Date:</b>	13 <sup>th</sup> September 2008	<b>Licence / State:</b>	VIC/P44
<b>Report Period:</b>	06:00 – 06:00 Hours EST	<b>Rig:</b>	OCEAN PATRIOT
<b>Days From Spud:</b>	19	<b>RT - SEAFLOOR:</b>	87.8m
<b>Current Hole Size:</b>	311mm (12¼")	<b>WATER DEPTH</b>	67.0m MSL
		<b>RT:</b>	20.8m MSL
<b>Depth @ 06:00 Hrs EST:</b>	2042m MDRT	<b>PTD:</b>	2047m MDRT
	1757.4m TVDRT		
	-1736.6m SS MSL	<b>Spud Date:</b>	03:15 hrs 25 <sup>th</sup> August,08
<b>24 Hr Progress:</b>	91m		
<b>06:00 – 06:00 EST</b>			
<b>Current Operation:</b>	Pulling out of hole, back reaming, with the 311mm (12¼") directional assembly.		
<b>Nope Cost (Drill)\$</b>	<b>(C&amp;S)\$</b> 37.4 million	<b>Cost To Date:</b>	
	<b>(P&amp;A)\$</b>		

Casing Data	Hole Size	Depth	Casing Size	Wt:	Type	Shoe Depth	LOT
	914 mm (36")	131.7m	762mm (30")	461 kg/m (310 lb/ft)	Conductor	131.7m	n/a
	445mm (17.5")	657m	340mm (13.375mm)	101 kg/m (68 lb/ft)	L80 BTC	652m	2.21sg (18.4ppg)
	311mm (12.25")	2042m					

Mud Data	Type:	Wt:	Visc:	WL:	PH:	KCl:	Cl -:	PV/YP:	Rmf:
	KGlycol	11.0	60	4.0	8.5	8.2	57k	27/63	

Bit Data	No.	Make	Type	Size	Hours	Meters	Condition
<b>Current</b>	5	Hughes	Mill	MXL-1X 311mm (12¼")	43.2	482	In hole
<b>Previous</b>							

Surveys	Type	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
	MWD	2022.1	60	119	1747.6	667	119
Projected	MWD	2042.0	60	118	1757.4	685	119

## OPERATIONS SUMMARY

**Previous 24 hrs Operations Summary at 06:00 hrs EST**

Drill 311mm (12¼") directional hole from 1951m to total depth at 2042m. **Henry 2 reached total depth at 18:00hrs on 12<sup>th</sup> September 2008.** Circulate hole clean. Pull out of the hole back reaming, 1920m to 1350m at 06:00hrs.

**Anticipated Operations:**

Pull out of hole. Run in hole with the cementing mule shoe and set abandonment / sidetrack plugs. Make up and run in hole with the 311mm (12¼") directional assembly. Sidetrack the well as Henry 2DW1.

FORMATION	FORMATION TOPS					
	ACTUAL TOP		High / Low	High / Low	PROGNOSED TOP	
	(mMDRT)	(mSS MSL)	Prognosis (m)	Henry 1	(MDmRT)	(mSS MSL)
SEA LEVEL	20.8	0.0			20.8	0.0
HEYTSBURY GP	87.8	-67.0	1.0 High	0.5 High	88.8	-68.0
MEPUNGA FM	720.0	-699.2	0.2 Low	56.1 High	720.0	-699.0
DILWYN FM / WANGERRIP GP	848.0	-827.1	24.1 Low	24.4 High	824.0	-803.0
PEMBER MUDSTONE	1092.5	-1066.1	12.1 Low	31.4 High	1086.7	-1054.0
PEBBLE POINT FM	1132.5	-1101.1	22.1 Low	21.8 High	1113.6	-1079.0
MASSACRE SHALE	1207.0	-1168.3	33.3 Low	18.6 High	1173.9	-1135.0
TIMBOON FM	1222.0	-1181.4	36.4 Low	17.2 High	1184.7	-1145.0
PAARATTE FM	1443.0	-1361.5	28.5 Low	37.0 High	1389.4	-1333.0
SKULL CREEK MDST	1682.0	-1543.2	19.2 Low	97.8 High	1637.1	-1524.0
K85 UNCONFORMITY	1956.0	-1693.7m	35.7m Low	103.3 High	1885.8	-1658.0
WAARRE A	1956.0	-1693.7m	35.7m Low	103.3 High	1885.8	-1658.0
EUMERALLA FM	2002.0	-1716.8m	33.8m Low	114.7 High	1935.8	-1683.0
TOTAL DEPTH	2042.0	-1736.6m			1977.0	-1703.6

**HYDROCARBON SHOW SUMMARY**

INTERVAL	LITHOLOGY & HYDROCARBON FLUORESCENCE	GAS
1956 – 1975m 10 – 29 m/hr Av: 19 m/hr	<b>WAARRE "A" FORMATION 1956.0m MDRT 1714.5m TVDRT (-1693.7m SS MSL)</b>  <u>SANDSTONE</u> : white, very light brownish grey, translucent, clear, very fine to medium grained, moderate sorting, sub angular to sub rounded, minor weak calcareous cement, common off white argillaceous matrix, rare carbonaceous specks, poor inferred porosity, no fluorescence.	450 – 720 / 100 U 97/2/1/trace /trace CO2: 1996ppm
1975 – 2002m 2 – 41 m/hr Av: 16 m/hr	<u>SANDSTONE</u> : translucent, clear, minor light grey, fine to medium grained, sub angular to sub rounded, weak calcareous cement, rare white argillaceous matrix, trace fine grained glauconite, minor carbonaceous fragments, predominately loose quartz grains, fair to good inferred porosity, no fluorescence.  Note: CaCO3 LCM material added to the mud system.	387 U / 100 97/2/1/trace 1994m  CO2: 7436ppm 1996.5m

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

**GEOLOGICAL SUMMARY**

INTERVAL ROP (m/hr)	LITHOLOGY	GAS (Peak / BG) Composition
1940 – 1956m 5 – 20 m/hr Av: 10 m/hr	<u>SILTSTONE</u> : medium dark grey, medium to dark brownish grey, argillaceous, minor carbonaceous fragments/specks, rare nodular pyrite, minor to common glauconite, rare Limestone fragments, moderately hard to locally hard, sub blocky.	13 U 95/4/1  CO2: 600 ppm
	<b>WAARRE "A" FORMATION 1956.0m MDRT 1714.5m TVDRT (-1693.7m SS MSL)</b>	

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1956 – 1975m 10 – 29 m/hr Av: 19 m/hr	FINE GRAINED SANDSTONE WITH INTERBEDDED SILTSTONE. <u>SANDSTONE</u> : white, very light brownish grey, translucent, clear, very fine to medium grained, moderate sorting, sub angular to sub rounded, minor weak calcareous cement, common off white argillaceous matrix, rare carbonaceous specks, poor inferred porosity, no fluorescence. <u>SILTSTONE</u> : medium grey, medium brownish grey, argillaceous, rare carbonaceous specks, trace glauconite, firm, dispersive in part, sub blocky.	BG: 100 U 97/2/1  PG: 1960-1974m 720 / 100 U 97/2/1/tr/tr CO2: 1996ppm
1975 – 2002m 2 – 41 m/hr Av: 16 m/hr	SANDSTONE WITH MINOR INTERBEDDED SILTSTONE. <u>SILTSTONE</u> : medium grey, medium brownish grey, argillaceous, minor carbonaceous specks, firm, sub blocky. <u>SANDSTONE</u> : translucent, clear, minor light grey, fine to medium grained, sub angular to sub rounded, weak calcareous cement, rare white argillaceous matrix, trace fine grained glauconite, minor carbonaceous fragments, predominately loose quartz grains, fair to good inferred porosity, no fluorescence. Note: CaCO <sub>3</sub> LCM material added to the mud system.	387 U / 100 97/2/1/trace 1994m  CO2: 7436ppm 1996.5m
	<b>EUMERALLA FORMATION 2002.0m MDRT 1737.6m TVDRT (-1716.8m SS MSL)</b>	
2002 – 2042m 4 – 30 m/hr Av: 13 m/hr	SILTSTONE WITH INTERBEDDED SANDSTONE. <u>SANDSTONE</u> : off white, clear to translucent, very fine to fine, occasionally medium, moderately sorted, sub-angular to sub-round, weak to moderately calcareous cement, common to abundant off white argillaceous matrix, occasional lithics and carbonaceous specks, friable, loose grains, common rock flour, poor to fair inferred porosity, poor visual porosity, no fluorescence. <u>SILTSTONE</u> : pale brown, minor medium to dark brown grey, argillaceous, occasional carbonaceous specks, soft to dispersive, firm in part, amorphous, sub-blocky.	192 U / 30 97/2/1/trace 2018m  CO2: 3490ppm 2008m

**REMARKS:**LWD Sensor Offsets from the Bit:

GR: 11.54m  
Resistivity: 11.49m  
D & I: 19.44m  
HeFar: 36.29m  
Density: 35.25m  
Sonic: 34.86m