# **Santos**

### **GALLOWAY - 1**

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**DGR 07** 

#### DAILY GEOLOGICAL REPORT

 Date:
 04 August 2006
 Licence / State:
 P39 (V) / VIC

 Report Period:
 06:00 - 06:00 Hours
 Rig:
 Ensign 32

 Days from Spud:
 6
 GL:
 2.7m

Days from Spud:6GL:2.7mCurrent Hole Size:12.25"RT:8.6m

**Depth @ 0600 Hrs:** 636m MDRT **PTD:** 2281m MDRT (-1338mSS)

-516m TVDSS **Spud Date:** 04:30 hrs 29/07/06

**24 Hr Progress:** 178m

**Current Operation:** Running in hole with Geopilot Rotary Steerable BHA to drill the 12.25" Tangent section

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

(P&A)\$

Casing Data	Hole Size	Depth	Casing Size	Wt:	Туре	Shoe Depth	LOT
(Conductor)		100m	20"			60m	
	17.5"	320m	13.375"	54.5	J55 BTC	317m	EMW= 20.0 ppg
	12.25"		9.625"	47.0	N80 BTC		

	Mud Data	Type:	Wt:	Visc:	WL:	PH:	KCI%:	CI -:	PV/YP:	Rmf:
Ī		KCL	9.1	47	3.8	9.0	5.8	28000	15 / 24	-

Bit Data	No.	Make	Type		Size	Hours	Meters	Condition
	1	Reed	Rock	T11C	17.5"	0.45	20	0-0-NO-A-O-I-RR-BHA
	2RR1	Reed	Rock	T11C	17.5"	2.95	200	1-1-NO-A-0-I-RR-TD
	3	Reed	Rock	T11	12.25"	9.6	316	0-0-NO-x-0-I-x-BHA
	4	Hycalog	PDC	RSX516S	12.25"			

Surveys	Type	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
	MWD	584.89	64.27	121.3	506.13	208.19	119.18
	MWD	598.88	66.35	122.11	511.97	220.89	119.33
	MWD	622.25	70.37	121.24	520.59	242.59	119.54
Projected	MWD	636.52	72.82	120.71	525.10	256.12	119.61

#### **OPERATIONS SUMMARY**

#### **Previous 24 hrs Operations Summary:**

Drill 12.25" directional hole from 458m to 636m building angle to 72°. Circulate hole clean. Pull out of hole to pick up Geopilot assembly. Layout motor. Hold safety meeting with crew. Make up Geopilot Rotary Steerable Assembly. Sperry-Sun bit breaker not fitting in rig's rotary table and was modified by welder. Continue to make up 12.25" BHA. Shallow test MWD. Pick up 6.5" drilling jars and extra 4.5" HWDPs and run in hole.

#### **Anticipated operations:**

Run in hole to bottom. Drill 12.25" directional hole, holding angle at ~71 degrees to casing point at ~1600m.

MWD Sensor to Bit: GR=13m, Survey=9m

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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	

<sup>\*\*</sup> 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
440-510m ROP: 2.2-3.4 Ave: 3.0	INTERBEDDED CALCARENITE AND CALCILUTITE CALCARENITE: (80-100%) Light to medium grey brown, pale grey, offwhite, cream, fine to dominantly medium grained, rare coarse grained, subangular, locally common clear calcite cemented, argillaceous in part, decreasing fossil fragments of bryozoa and echinoid spines (trace), minor bi-valve fragments, trace glauconite, moderately hard to hard, friable in part. CALCILUTITE: (0-20%) Light brown, light to medium grey, light brown grey, argillaceous, trace loose quartz grains, trace dark brown lithic fragments, soft to firm, dispersive.	Nil – Trace
510-580m ROP: 1.6-3.9 Ave: 3.3	CALCARENITE INTERBEDDED WITH MINOR CALCILUTITE CALCARENITE: (90-100%) Pale grey, light brown, off white, cream, dominantly fine to medium grained, minor coarse grained, trace echinoid spine & bryozoa fragments, trace shell fragments, trace lithic fragments, moderately hard to hard. CALCILUTITE: (0-10%) Light brown, light to medium grey, light brown grey, argillaceous, trace loose quartz grains, trace dark brown lithic fragments, soft to firm, dispersive.	Nil – Trace
580-636m ROP:2.6-3.6 Ave:3.2	CALCARENITE INTERBEDDED WITH MINOR CALCILUTITE CALCARENITE: (60-90%) Pale grey, light brown, off white, cream, dominantly fine to medium grained, trace echinoid spine & bryozoa fragments, trace shell fragments, trace lithic fragments, moderately hard to hard.  CALCILUTITE: (10-40%) Light brown, light to medium grey, light brown grey, argillaceous, trace loose quartz grains, trace dark brown lithic fragments, soft to firm, dispersive.	Nil – Trace