



## DAILY GEOLOGICAL REPORT

<b>WELL:</b> Shenandoah #1	<b>REPORT No.:</b> 10	<b>DAYS FROM SPUD:</b> 10	<b>DATE:</b> 10/08/07
<b>PEL:</b> EP 98	<b>00:00 DEPTH:</b> 217mKB	<b>LAST 24hr DEPTH:</b> 162mKB	<b>PROGRESS:</b> 55m
<b>LOCATION:</b> Beetaloo Basin	<b>RIG:</b> Century Rig 7	<b>KB:</b> (Final Survey) 232.55m	<b>9 5/8" Csg:</b> m
<b>GEOLOGIST:</b> M. D. Berry		<b>GL:</b> (Final Survey) 226.75m	<b>PTD:</b> 2,900m

**NEARBY WELLS:** Balmain #1

**06:00 Depth/Operation:** 217mKB / Currently stuck in the hole.  
**Operations 00:00 to 06:00:** Stuck in the hole with limited movement.  
**Previous 24 Hours Operations:** Continue drilling from 162m to 201m. Lost circulation; work pipe until hole unloaded. drill ahead to 216.5m at which point a trace of H2S was registered on the rig floor. POOH 3 stands and replace Washington rubber. Make up jars into BHA and RIH. Ream from 160m to 175m; lost circulation at 175m. Keep circulating hole up to 400psi with no returns. Install rotating head rubber. Continue circulating at 400psi with no returns. Work pipe up (100k lbs) and down (40k lbs). The hole unloaded with a pressure blow out. The crew left the rig floor while this occurred. There was no detectable H2S or hydrocarbons. At this point the pipe was stuck.

Formation Tops	Actual Depths (m)			Prognosed Depths (m)			Diff to Prog. H/L	Diff to Balmain H/L
	MDKB	TVD	TVDSS	MDKB	TVD	TVDSS		
Undifferentiated Tertiary	5.8	5.8	+227	5.8	5.8	+227	-	-
Jinduckin Formation	51.5	51.5	+181.3	54.8	54.8	+178	+3.3	+3.3
Tindall Limestone	84.2	84.2	+148.6	83.8	83.8	+149	-0.4	-0.4
Antrim Volcanics				265.3	265.3	-32.5		
Bukalara Sandstone				348.3	348.3	-115.5		
Hayfield Mudstone				406.3	406.3	-173.5		
Hayfield Sand				782.2	782.2	-549.4		
Jamison Sandstone				856.3	856.3	-623.5		
Kyalla Formation				940.8	940.8	-708		
Moroak Sandstone				1551.8	1551.8	-1319		
Velkerri Formation				1641.8	1641.8	-1409		
Bessie Creek Sandstone				2481.8	2481.8	-2249		
Total Depth				2900.0	2900.0	-2667.2		



## DAILY GEOLOGICAL REPORT

Interval (m) ROP (min/m) Average ROP	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
--	-----------------------	---

**Formation: Tindall Limestone**

190 -216m ROP: 1.4 – 23.2 Min/m Ave = 2.5	<p>Limestone: 100%: White, buff, pale yellow and pale grey, hard to very hard, angular and blocky, micritic, microcrystalline, also granular, sucrosic texture, trace calcite crystals possibly representing fracture mineralisation, locally dolomitic, no visible matrix porosity development, no show.</p> <p>The limestone does have large caverns which cause the bit to drop from between 1m – 2m. Two very large drops occurred at 158-159m and 187-188m. These are causing severe drilling problems.</p> <p>Siltstone: Trace; Pale red brown and light grey, firm to hard, blocky, dolomitic and locally slightly calcareous.</p> <p>Chert: Trace: Medium grey, extremely hard, angular, conchoidal fracture, translucent in part, occasionally displays very thin outer calcareous layer confirming its origin as broken fragments of nodular concretions of chert from the limestone.</p>	BG = Nil
<b>Fluorescence</b>	No Fluorescence	
<b>Gas Flaring</b>	No Flare	

**Formation:**

<b>Fluorescence</b>		
<b>Gas Flaring</b>		