

Longtom-3



Date:	24-07-2006	Last Casing:	406 mm (16") @ 995.3 mMDRT
Report Number:	8	Leak Off Test:	1.62 sg EMW @ 1008.0 mMDRT
Report Period:	24hrs to 24:00	Current hole size:	241 mm (9 1/2")
Depth @ 2400 Hrs:	3214 mMDRT	Mud Weight:	1.45 sg
Last Depth:	2675.0 mMDRT	ECD:	1.5 sg (calculated)
Progress:	539 m	Mud Type:	SBM Petrofree
TD Lithology:	Sandstone and Siltstone	V: 6 / 3	15 / 14
Water Depth:	56.7 m	Mud Fluid Loss:	2.8 cc
RT Elevation:	21.5 m	Bit Type:	SMITH M716PXC 5x18, 2x16 jets

OPERATIONS SUMMARY

24 HOUR SUMMARY	Drill 9 1/2" pilot hole with RST assembly as per directional plan from 2675.0m MDRT to 3214m MDRT.
00:00 - 24:00:	
06:00 Update	Drilling ahead at 3345 mMDRT in the Admiral Formation.
NEXT 24 HOURS:	Drill ahead 9 1/2" hole through the Admiral Formation and Emperor volcanics.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
2675 - 2682 ROP 20 – 83 m/hr Av 35 m/hr	<p>Sandstone and Siltstone. Sandstone in this section has poor porosity and occurs dominantly as soft aggregates with 40-80% argillaceous matrix.</p> <p>SANDSTONE: (90%) off white, light yellowish grey, 60% soft aggregate, 40% loose, very fine to medium, dominantly fine to medium, moderately well sorted, sub angular to rounded, 40 – 80% argillaceous matrix, common lithic and carbonaceous grains, feldspar grains, occasional inter laminations of silt, poor visual porosity.</p> <p>SILTSTONE: (10%) brownish grey, brownish black, very soft to sub firm, sub blocky to blocky, sub fissile in part, carbonaceous specks, occasionally very carbonaceous and gradational to Carbonaceous Siltstone, inter-laminated with very fine sand in part.</p>
2682 – 2761 ROP 6.7 –138 m/hr Av 26 m/hr	<p>Massive Siltstone with trace Sandstone</p> <p>SILTSTONE: (95–100%) dark brownish grey, very soft to soft, sub blocky – blocky, common carbonaceous specks, occasionally very carbonaceous, argillaceous in part.</p> <p>SANDSTONE: (trace – 5%) off white, light grey, light brownish grey, very fine to fine, soft aggregates, to loose grains, sub angular to rounded, well sorted, poor – fair visual porosity, no shows.</p>
2761 – 2820 ROP 13 – 93 m/hr Av 42 m/hr	<p>Silty Claystone grading to Claystone with depth, trace Sandstone at the base of the section.</p>

	<p>SILTSTONE; (0-100%) dark brownish grey, brownish grey, soft, sub blocky to blocky, trace carbonaceous specks, occasional carbonaceous laminae, massive uniform, gradational to SILTY CLAYSTONE.</p> <p>CLAYSTONE: (0-100%) dark brownish grey, brownish black, soft – sub firm, sub blocky, occasionally splintery, very rare carbonaceous specks, uniform and homogenous.</p> <p>SANDSTONE: (trace) clear – translucent, occasionally yellow stained grains, yellowish brown, off white, aggregates to loose sand, very fine to fine grained sub rounded to rounded, well sorted, weak siliceous cement, fair to good inferred porosity.</p>
<p>2820 – 2850 ROP 34 – 130 m/hr Av 65 m/hr</p>	<p>Interbedded Claystone Siltstone and minor Sandstone</p> <p>CLAYSTONE: (50-80%) olive grey, brownish grey, soft – sub firm, sub blocky, occasionally splintery, very rare carbonaceous specks, uniform and homogenous.</p> <p>SILTSTONE: (30-50%) brownish grey, very soft to soft, sub blocky, common carbonaceous specks, occasionally arenaceous and gradational to very fine SANDSTONE.</p> <p>SANDSTONE: (trace – 5%) clear – translucent, occasional orange grains, light grey, dominantly loose, very fine to fine, sub rounded – rounded, well sorted, good inferred porosity.</p>
<p>2850 – 2880 ROP 12.5 – 105 m/hr Av 37 m/hr</p>	<p>Sandstone and Siltstone. Siltstone becoming more dominant with depth</p> <p>SANDSTONE:(20-60%) clear – translucent, occasionally yellow stained, light yellowish brown, very fine to fine, 20% loose, 80% very soft aggregates, carbonaceous grains, 20-30% argillaceous matrix, fair to good visual porosity.</p> <p>SILTSTONE: (40-80%) brownish grey, brownish black, very soft, sub blocky, arenaceous to very argillaceous, occasionally grading to CLAYSTONE, common carbonaceous specks.</p>
<p>2880 – 3016 ROP 10 – 109 m/hr Av 33 m/hr</p>	<p>Siltstone and Claystone with minor Sandstone.</p> <p>SILTSTONE (40-60%): brownish grey, brownish black, very soft, sub blocky, arenaceous to very argillaceous, common carbonaceous specks.</p> <p>CLAYSTONE (20-80%): olive grey, light - dark brownish grey, soft – sub firm, sub blocky to blocky, occasionally splintery, homogenous.</p> <p>SANDSTONE (5-20%): clear – translucent, loose to off white, light brown, yellowish white very soft aggregates, commonly loose, very fine to fine, occasional medium, rounded, well sorted, commonly carbonaceous grains, argillaceous matrix, good inferred porosity, no show.</p>
<p>3016 – 3026 ROP 44 – 105 m/hr Av 77 m/hr</p>	<p>Sandstone with Siltstone and Claystone</p> <p>SANDSTONE (10-30%): light grey – white, dominantly aggregate (70%), transparent loose (30%), fine – medium grained, dominantly fine, moderate well sorted, sub rounded to well rounded, argillaceous (20-30%), fair to good visual porosity.</p> <p>SILTSTONE (30-50%): dark - medium grey, very soft, blocky, argillaceous, arenaceous in part, carbonaceous specks.</p>

	CLAYSTONE (20-70%): light grey, massive, firm, blocky - sub blocky, non carbonaceous, homogenous.
3026 – 3050 ROP 25 – 106 m/hr Av 52 m/hr	<p>Claystone and Siltstone with trace Sandstone</p> <p>CLAYSTONE: (80-90%) light grey, massive, firm, blocky - sub blocky, non carbonaceous, non calcareous.</p> <p>SILTSTONE: (10-20%) dark - medium grey, very soft, blocky, argillaceous, arenaceous in part, carbonaceous specks.</p> <p>SANDSTONE: (trace) light grey – white, dominantly aggregate, transparent loose, fine – medium grained, dominantly fine, moderate sorted, moderate rounded, rare well rounded, argillaceous, fair to good visual porosity, no shows.</p>
3050 – 3126 ROP 10 – 133 m/hr Av 28 m/hr	<p>Sandstone, with interbedded Siltstone and Claystone</p> <p>SANDSTONE: (20-70%) light olive grey, mottled light greenish grey / olive grey, dominantly very soft aggregate, very fine – fine, occasional medium grained, well sorted, sub rounded to well rounded, 40-70% argillaceous matrix, trace carbonaceous grains, feldspar grains, trace chlorite stained matrix, poor - fair visual porosity.</p> <p>SILTSTONE: (0-70%) medium grey, very soft, blocky, argillaceous, arenaceous in part, carbonaceous specks.</p> <p>CLAYSTONE: (0-20%) light grey, common brownish grey, olive grey, splintery, firm, blocky - sub blocky, non calcareous.</p>
3126 – 3200 ROP 9.5 – 113 m/hr Av 32 m/hr	<p>Massive siltstone with trace Coal, trace Sandstone at the top of the section</p> <p>SILTSTONE: dark brownish grey, brownish grey, soft to firm, common carbonaceous specks, very argillaceous.</p> <p>COAL: (trace) dull black, blocky, firm, hackly fracture, argillaceous in part.</p> <p>SANDSTONE: (trace – 10%) (some of this sand would be cavings from the above interval): transparent, loose, fine – medium, dominantly fine, moderate sorted, rounded, argillaceous, good visual porosity, no shows.</p>
3200 – 3214 ROP 14 – 83 m/hr Av 24 m/hr	<p>Sandstone and Siltstone</p> <p>SANDSTONE: 70% clear to translucent, 30% light greyish yellow, very soft aggregates, very fine to fine, trace carbonaceous grains, lithic grains, 20-30% argillaceous matrix, fair – good inferred porosity.</p> <p>SILTSTONE: brownish grey, brownish black, very soft to soft, sub blocky, trace to common carbonaceous specks, arenaceous to very argillaceous and gradational to CLAYSTONE.</p>

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
	No fluorescence observed

GAS SUMMARY:

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
2675 - 2682	0.056	409	7	1	1	3	1	0
2682 - 2761	0.135	225	2	1	4	0	0	0
2761 - 2820	0.2	729	23	10	8	5	2	2
2820 - 2850	0.4	3010	41	8	7	4	3	2
2850 - 2880	0.6	483	58	12	6	2	2	1
2880 - 3016	0.6	4713	68	15	7	3	3	1
3016 - 3026	0.36	2722	46	11	6	1	3	1
3026 - 3050	0.31	2754	45	11	6	2	2	2
3050 - 3126	0.6	5092	114	26	8	5	8	1
3126 - 3200	0.45	3112	81	21	7	4	9	0
3200 - 3214	0.62	4817	134	34	11	11	17	4
3201 peak sandstone	1.5	12578	289	63	14	11	7	1

SURVEYS

MD	ANGLE	Azi	TVD	MD	ANGLE	Azi	TVD
2650.38	56.50	189.65	2134.8	3023.95	52.18	190.41	2345.6
2678.68	54.27	190.26	2263.2	3051.31	56.23	190.20	2360.6
2707.93	56.10	189.90	2166.6	3079.77	55.69	189.95	2376.5
2737.07	56.27	190.01	2182.9	3108.82	55.85	189.24	2392.9
2765.66	56.34	190.08	2198.7	3136.72	55.73	189.71	2408.6
2794.26	55.90	190.30	2214.7	3165.72	55.99	189.65	2424.8
2831.31	55.16	190.31	2230.0	3194.38	55.36	188.87	2441.0
2850.19	54.42	181.84	2246.6				
2878.68	54.27	190.26	2263.2				
2908.23	53.56	190.33	2280.6				
2937.13	54.47	190.58	2297.6				
2966.04	56.10	191.84	2314.1				
2994.91	57.40	191.74	2329.9				

FORMATION TOPS

WD = 56.7 m RTE = 21.5 m								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	56	78	n/a	78.2	56	No depth	1077.5	
Lakes Entrance	1172	1150	64	1156.0	1133.5	16.5 HI	64.3	-0.3
Latrobe	1237	1214	241	1221.0	1197.8	16.2 HI	262	+21.0
K/T Boundary	1505	1455	30	1500.5	1460.44	5.4 LO		
Un-named Volcanics	1544	1485	37	1569.0	1514.9	30.0 LO	21	n/a
Kipper Shale	1595	1522	508	1651	1566.4	44.4 LO	505.6	
Admiral Formation (Nexus)	2474	2030	124	2578	2072	42 LO		
Admiral Formation (Apache)	2692	2154						
500 Sands	2692	2154	59					
400 Sands	2794	2213	134					
300 Sands	3028	2347	41					
200 Sands	3100	2388	59					

100 Sands	3203	2447	53					
Observed un-named Sands from cuttings								
Sand 2850 – 2880m				2850	2225			
Sand 3016 – 3026m				3016	2320			
Sand 3050 – 3126m				3050	2338.5			
Sand 3200 – 3230m				3200	2423			
Emperor Volcanics	3296	2500	18+					
TD	3327	2518						

COMMENTS:

Anadril LWD sensor to bit distances:

Vibration = 11.47m

Directional = 12.12m m

Ecoscope LWD tool not run.

WELLSITE GEOLOGISTS:

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