

Longtom-3



Date:	19-06-2006	Last Casing:	406 mm (16") @ 995.3 mMDRT
Report Number:	2	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:	1440.0 mMDRT	Mud Weight:	1.28 sg
Last Depth:	1022.0.0 mMDRT	ECD:	1.62 sg
Progress:	418 m	Mud Type:	SBM Petrofree
TD Lithology:	Sandstone, Silty Claystone, Siltstone and trace Coal	V: 6 / 3	14 / 13
Water Depth:	56.7 m	Mud Fluid Loss:	4.0 cc
RT Elevation:	21.5 m	Bit Type:	PDC Reed 616, 6x18jets

OPERATIONS SUMMARY

24 HOUR SUMMARY

00:00 - 24:00:

Drill ahead from 1022m to 1440.0m. Unable to build to target angle. Pulled out of the hole from 1440m to 1319m, excess over-pull (30-50klbs) observed, work pipe and commence back reaming from 1328m MDRT to 1185m MDRT. Pulled out of hole wet, flow checked and pumped slug. Pulled out of hole from 995m MDRT.

06:00 Update

Breaking down BHA, lay out PD Exceed rotary steerable assembly.

NEXT 24 HOURS:

Make up drillpipe. Make up mud motor and bent sub, load sources and initialize LWD, shallow test LWD. Run into the hole and steer and rotate as required for directional control.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
1008.0 – 1156.0 ROP 4 -143m/hr Av 31 m/hr	<p>Argillaceous Calcilutite gradational to Marl.</p> <p>ARGILLACEOUS CALCILUTITE (100%): light to medium grey, occasionally light olive grey, very soft to soft, very argillaceous in part and gradational to MARL, trace very fine glauconite, trace very fine pyrite, rare very fine carbonaceous specks.</p>
1156.0 – 1221.0 ROP 29 -138m/hr Av 89 m/hr	<p>Top Lake Entrance Formation 1156.0 mMD (1155.0 mTVD)</p> <p>Massive Marl gradational to Argillaceous Calcilutite, trace fine Sandstone below 1180m.</p> <p>MARL (100%): light to medium grey, occasionally light olive grey, occasionally slightly greenish grey, very soft to soft, sticky in part, gradational to ARGILLACEOUS CALCILUTITE in part, trace very fine pyrite, trace micro-fossils (forams) rare very fine carbonaceous specks.</p> <p>ARGILLACEOUS SANDSTONE (trace below 1180m) light olive grey, very fine to fine, grades to Siltstone in part, friable to firm, sub-angular to rounded, moderately sorted, trace carbonaceous specks and grey to white lithics, argillaceous matrix,</p>

	<p>very weak silicious cement, very poor visual porosity, no shows.</p>
<p>1221.0 – 1246.0 ROP 38 -134m/hr Av 74 m/hr</p>	<p>Top Latrobe Formation 1221.0 mMD (1219.3 mTVD)</p> <p>Argillaceous Sandstone with minor Marl cavings from above.</p> <p>ARGILLACEOUS SANDSTONE (70-60%): brownish black, dusky brown, dark grey in part, rare pale yellow, medium to coarse, dominantly medium, friable to firm, sub-rounded to sub-angular, dominantly sub-rounded, moderately sorted, disseminated pyrite and carbonaceous specks, rare grey to white lithics, argillaceous matrix, weak calcareous cement, moderate visual porosity, no shows.</p> <p>MARL (30-40%): (probably cavings) light to medium grey, occasionally light olive grey, rarely greenish grey, soft to very soft, firm in part, sticky in part, gradational to ARGILLACEOUS CALCILUTITE in part, trace crystalline calcite and rare quartz, trace very fine disseminated pyrite, rare very fine carbonaceous specks.</p>
<p>1246.0 – 1295.0 ROP 32 -199m/hr Av 7 m/hr</p>	<p>Coarse Sandstone interbedded with minor Argillaceous Sandstone and trace coal.</p> <p>SANDSTONE (80-97%): light grey, very coarse to coarse, dominantly coarse, rare medium, dominantly loose, rare friable aggregate, sub-rounded to sub-angular, dominantly sub-rounded, moderately sorted, quartz grains dominantly transparent - translucent, rarely pyrite nodule, argillaceous matrix, very weak silicious cement, good inferred porosity, no shows.</p> <p>ARGILLACEOUS SANDSTONE (2-10%): brownish black, dusky brown, pale yellowish green, medium to fine, dominantly medium, friable to firm, sub-angular to rounded, dominantly sub-rounded, moderately sorted, micaceous, disseminated pyrite and carbonaceous specks, rare grey to white lithics, dominantly argillaceous matrix, weak calcareous cement, moderate to good visual porosity, no shows.</p> <p>COAL (Nil-5%): dark grey to black, firm, sub blocky to blocky, subconchoidal fracture, argillaceous in parts, trace very fine pyrite streaks.</p>
<p>1295.0 – 1347.0 ROP 14 -101m/hr Av 37 m/hr</p>	<p>Interbedded Silty Claystone, Sandstone and Coal.</p> <p>SANDSTONE (20-40%): light grey, coarse to medium, dominantly medium, well rounded to sub-angular, dominantly rounded, moderately sorted, dominantly loose, rarely friable aggregate, quartz grains transparent to translucent, rare pyrite nodules, argillaceous matrix, very weak silicious cement, good inferred porosity, no shows.</p> <p>SILTY CLAYSTONE (60-20%): light to medium grey, brown, rarely yellowish brown, moderately hard, blocky, conspicuous micromica, carbonaceous specks in places, rare arenaceous in parts, grading to SILTSTONE.</p> <p>COAL (3-5%): dark grey to black, firm, sub blocky to blocky, sub-vitreous to vitreous, subconchoidal fracture, argillaceous in parts, minor sub-fissile, locally minor pyrite bands.</p>
<p>1347.0 – 1400 ROP 23 -101m/hr Av 52 m/hr</p>	<p>Interbedded sequence of Sandstone, Siltstone, Silty Claystone and minor Coal</p> <p>SANDSTONE (20-70%): light grey, coarse to medium, dominantly medium, friable, well-rounded to sub-angular, dominantly rounded, moderately sorted, dominantly loose, rarely aggregate, quartz grains transparent to translucent, trace mica, argillaceous matrix, very weak silicious cement, good inferred porosity, no</p>

	<p>shows.</p> <p>SILTSTONE (5-30%): medium grey to dark grey, firm to moderately hard, trace micromica, sometimes with increased fine sand content.</p> <p>SILTY CLAYSTONE (8-50%): light to medium grey, brown, rarely yellowish brown, moderately hard, blocky, conspicuously micromaceous, carbonaceous specks in places, rare arenaceous in parts.</p> <p>COAL (2-15%): dark grey to black, firm, sub blocky to blocky, sub-vitreous to vitreous, subconchoidal fracture, argillaceous in parts, minor sub-fissile, locally minor pyrite laminae.</p>
<p>1400 – 1440 ROP 20-124 m/hr Av 38 m/hr</p>	<p>Silty Claystone interbedded with Sandstone, Siltstone and thin Coals.</p> <p>SANDSTONE: (20-50%) light grey, coarse to medium, dominantly medium, friable, well-rounded to sub-angular, dominantly sub-rounded, moderately sorted, dominantly loose, rarely aggregate, quartz grains transparent to translucent, argillaceous matrix, very weak siliceous cement, good inferred porosity, no shows.</p> <p>COAL: (nil-trace) dark grey to black, firm, sub blocky to blocky, sub-vitreous to vitreous, subconchoidal fracture, argillaceous in parts, minor sub-fissile, locally minor pyrite laminae.</p> <p>SILTSTONE: (5-10%) medium grey to dark grey, firm to moderately hard, traces of micromica, sometimes with increased fine sand content.</p> <p>SILTY CLAYSTONE: (40-75%) very light to medium grey, brown grey, firm to moderately hard, occasionally soft, blocky to sub-blocky, micromaceous, rare carbonaceous specks, occasionally silty in parts.</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)
1022 Trip Gas	0.5	719	186	38	17	35	30	8
1008-1156	0.15	1206	7	1	3	3	2	1
1156-1221	0.26	1774	15	2	1	2	3	0
1221-1246	0.13	1089	18	2	2	1	4	2
1227 peak	0.38	3367	33	2	1	1	4	0
1246-1295	0.29	2331	91	9	4	4	3	0
1289 peak assoc with coal	1	9087	268	25	7	5	3	0
1295-1347	0.25	1987	74	5	1	1	2	0
1323 peak assoc with	0.79	6988	244	16	4	3	5	1

coal								
1347-1440	0.11	478	18	7	1	0	0	0
1354 peak assoc with coal	0.81	7001	251	26	5	5	6	1
1400-1440	0.25	1582	90	0	3	0	0	0
1402 peak	0.65	5397	297	26	5	5	6	1

No connection gas observed

SURVEYS

MD	ANGLE	Azi	TVD	MD	ANGLE	Azi	TVD
999.9	2.37	353.41	999.7	1220.41	9.47	189.48	1218.7
1018.26	2.23	356.04	1018.0	1249.66	10.96	194.37	1247.5
1047.01	1.01	290.32	1046.8	1278.46	14.31	197.37	1275.6
1077.01	6.03	203.50	1076.7	1307.30	16.74	194.01	1303.4
1105.81	7.59	191.48	1105.3	1336.21	18.51	192.10	1330.9
1134.21	8.42	183.60	1133.4	1364.03	19.19	191.62	1357.2
1162.67	7.78	184.31	1161.6	1420.18	20.0	193.9	1410.13
1192.07	8.75	184.32	1190.7			1	

FORMATION TOPS

<i>WD = 56.7 m</i>								
<i>RTE = 21.5 m</i>								
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	65	1156.0	1133.5	16.5 HI	64.3	-0.7
Latrobe	1237	1214	268	1221.0	1197.8	16.2 HI		
K/T Boundary	1505	1455						
Un-named Volcanics	1544	1485						
Kipper Shale	1595	1522						
Admiral Formation	2474	2030						
%500 Sands	2692	2154						
400 Sands	2794	2213						
300 Sands	3028	2347						
200 Sands	3100	2388						
100 Sands	3203	2447						
Emperor Volcanics	3296	2500						
TD	3327	2518						

COMMENTS: Prognosed depths are based on 5 July Supplementary Drilling Program. Trip gas recorded at 1022m 0.5%.

Sperry-Sun LWD sensor to bit distances:

- Gamma = 9.7 m
- Porosity = 13.0 m
- Density = 10.9 m
- SpectroShort = 13.3 m
- Acoustic Caliper = 11.3 m
- Down hole pressure = 9.9 m
- Directional = 20 m

WELLSITE GEOLOGISTS:

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