

Longtom-4 P



Date:	25-07-2008	Last Casing:	273 mm (10.75") @ 2590.8 mMDRT
Report Number:	2	Leak Off Test:	1.64 sg EMW
Report Period:	24hrs to 24:00	Current hole size:	241 mm (9.5")
Depth @ 2400 Hrs:	2819 mMDRT	Mud Weight:	1.45 sg
Last Depth:	2600 mMDRT	ECD:	1.55
Progress:	219 m	Mud Type:	SOBM
TD Lithology:	Sandstone	Vis:	85 sec/qt
Water Depth:	55.97 m (LAT)	Mud Fluid Loss:	2.0cc/30min
RT Elevation:	41.06 m (LAT)	Bit Type:	Smith M716PXC

OPERATIONS SUMMARY

24 HOUR SUMMARY
00:00 - 24:00:

RIH with 9½" BHA from 982m to 2525m. Washed down and tagged cement at 2551m. Drilled cement from 2551m to shoe at 2591m and rat hole to 2600m. Drilled 4m of new formation, circulated bottoms up and performed FIT to 14ppg EMW. Drilled from 2604m to 2819m.

06:00 Update

Drilled 9½" hole from 2819m to 2841m - coring point. Circulated 1.5 x bottoms up at 750 gpm, 180rpm. Flow checked well and POOH back reaming at 60m/h ROP to recapture LWD/MWD missed data over intervals from 2800m - 2790m, 2755m - 2745m and 2725m - 2715m. Continued POOH from 2715m to shoe at 2600m. Flow checked well.

NEXT 24 HOURS:

Run core barrel and cut core.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT (mTVDSS)	Description
2600.0 – 2632.0 (2310.2 – 2329.2) ROP 7 – 55m/hr Avg. 25m/hr	Interbedded Siltstone, Sandstone and Claystone, with trace Coal. SILTSTONE (0-50%): medium to dark grey, firm to hard, blocky to sub blocky, minor argillaceous matrix, trace carbonaceous fragments. CLAYSTONE (5-95%): medium dark grey to dark grey, firm to moderately hard, sub-blocky to blocky, trace quartz silt, non calcareous. SANDSTONE (0-90%): white to very light grey, clear to predominantly translucent grains, returned loose, very fine to medium grained, predominantly fine to medium, angular to sub rounded, moderate to high sphericity, moderately well sorted quartz, trace light grey argillaceous matrix, trace weathered feldspar grains, common bit generated rock flour, poor to fair inferred porosity. No shows. COAL (0-5%): brownish black to black, firm, brittle, sub vitreous lustre.
2632.0 – 2683.0 (2329.2 – 2359.8) ROP 9 – 40m/hr	Claystone, minor Sandstone. CLAYSTONE (95-100%): medium dark grey to dark grey, firm to moderately hard, sub-blocky to blocky, trace quartz silt and silty laminae, non calcareous. SANDSTONE (0-5%): medium light grey to light grey, predominantly clear to translucent quartz grains, soft friable aggregates, very fine to fine grained, well

Avg. 25m/hr	sorted, sub angular to sub rounded, moderately spherical, trace to minor light grey argillaceous matrix, non calcareous, minor reddish brown rounded lithic grains, rare greyish black carbonaceous material, poor visual porosity. No shows
2685.0 – 2762.0 (2361.0 – 2409.4) ROP 8 – 81m/hr Avg. 43m/hr	Sandstone with minor Claystone and trace Coal. SANDSTONE (70-100%): very light grey to light grey, predominantly clear to translucent quartz grains, rare rose quartz, dominantly soft friable aggregates, trace loose grains, minor rock flour, very fine to fine grained, well sorted, sub angular to rounded, moderately to very spherical, dominantly moderately spherical, trace to minor light grey argillaceous matrix, non calcareous, rare reddish brown rounded lithic grains, minor greyish black to black carbonaceous material, rare greenish grey glauconite(?) grains, poor visual and fair inferred porosity. No shows. Becoming dominantly loose and medium grained below 2710m. CLAYSTONE (0-30%): predominantly as above COAL (Tr): black, vitreous, blocky, sub conchoidal fracture, moderately hard to hard
2762.0 – 2821.0 (2409.4 – 2448.6) ROP 5 – 100m/hr Avg. 44m/hr	Claystone with minor Sandstone and Coal stringers. CLAYSTONE (10-70%): medium grey to medium dark grey, firm, blocky, rarely sub fissile in part, rare carbonaceous laminae, common to abundant quartz silt grains, grading in part to SILTSTONE. SANDSTONE (30-90%): very light grey to light grey, predominantly clear to translucent loose quartz grains, minor soft friable aggregates, fine to medium grained, predominantly fine, well to very well sorted, sub angular to sub rounded, spherical, very light grey argillaceous matrix in part, minor greyish black to black carbonaceous material, poor visual and inferred porosity. No shows.
2821.0 – 2841.0 (2448.6 – 2503.6) ROP 13 – 27m/hr Avg. 24m/hr	Sandstone with minor Claystone, trace Coal. SANDSTONE (95-100%): white to very light grey, clear to translucent, trace orange stained, quartz grains, dominantly loose, common soft friable aggregates, very fine to medium grained, dominantly fine to medium grained, moderate to well sorted, sub angular to sub rounded, spherical, very light grey argillaceous matrix, poor visual and fair inferred porosity. No shows CLAYSTONE (0-5%): predominantly as above COAL (Tr): black, vitreous, blocky, sub conchoidal fracture, hard, sandy

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
2600-2841	Nil

GAS SUMMARY:

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
2600-2632	0-0.14	4-1221	0-12	0-14	0	0	0	0
2632-2685	0-0.14	52-1536	0-35	0-16	0-1	0-3	0	0
2685-2762	0.12-1.1	1017-17028	21-675	10-209	0-28	0-32	0-5	0-2
2762-2821	0.06-1.2	258-18336	15-157	13-70	2-6	3-9	0-2	0-2
2821-2841	0.46-2.3	730-19632	25-401	15-204	2-19	4-26	0-5	0-2
2721.5	4.28	37486	675	209	21	25	4	3
2761.0	5.25	40612	812	307	33	40	7	5
2823.5	3.12	27552	734	227	30	31	7	5

SURVEYS

MD	ANGLE	Azi	TVD					
2740.27	50.60	184.48	2436.43					
2770.05	50.01	184.85	2455.46					
2798.55	47.70	183.57	2474.21					

FORMATION TOPS

WD = 55.97 m LAT RTE = 41.06 m LAT								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	78.5	-57	n/a	97.0	-55.97			
Lakes Entrance	-	-						
Latrobe	1299.2	-1223.8		1291	-1214.6	9.2 Hi		
K/T Boundary	-	-						
Un-named Volcanics	1690.5	-1561.7		1695	-1562.8	1.1 Lo		
Chimaera	1724.1	-1590.7		1710	-1575.8	14.2 Hi		
Kipper Shale	1757.4	-1619.5		1755	-1614.6	4.9 Hi		
Admiral Formation	2179	-1983.9		2215	-2015.9	32 Lo		
500 Sands	2287.8	-2077.7		2316	-2101.7	24 Lo		
400 Sands	2418.8	-2187.3		2494	-2241.5	54.2 Lo		
300 Sands	2544.2	-2278.6		2564	-2288.2	9.6 Lo		
200 Sands	2696.3	-2367.2		2683	-2359.8	23.2 Hi		
100 Sands	2819.9	-2439.5		2821	-2448.6	9.1 Lo		
50 Sands	2970.4	-2527.4						
Emperor Volcanics	3041.8	-2569.1						
TD	3080.0	-2591.4						

COMMENTS:

Communication with the rotary steerable down-hole motor was lost during the run from 2663m. Without control the BHA had a dropping tendency.

The neutron tool lost communication for three short intervals, 2719-2723m, 2748-2754m, 2790-2799m and reaming out of hole over these intervals was done during POOH to reacquire lost data.

MWD/LWD Sensor Offsets BHA #1

Sensor	Distance to bit	Record Rate
Gamma Ray	9.70 m	2 seconds
Resistivity	12.75 m	2 seconds
Thermal Neutron Porosity	13.15 m	4 seconds
Density	10.96 m	4 seconds
Spectroscopy	13.30 m	4 seconds
Ultrasonic Caliper	11.33 m	4 seconds
Pressure Whilst Drilling	9.87 m	4 seconds
Direction & Inclination	20.07 m	

Tools have 194 hours (circulation time above 400GPM) of available data storage.

Water depth and RT elevation are referenced to LAT.

- RT to Sea Level (LAT) = 41.06m
- RT to Sea Bed = 97.03m
- Water Depth = 55.97m (LAT)

WELLSITE GEOLOGISTS: Cliff Menhennitt Hamish Little