Longtom- 3 ST1

Date:	03-08-2006	Last Casing:	406 mm (16") @ 995.32 mMDRT
Report Number:	4	Leak Off Test:	1.62 sg EMW @ 1008.0 mMDRT
Report Period:	24hrs to 24:00	Current hole size:	343 mm (13½ ")
Depth @ 2400 Hrs:	1726	Mud Weight:	1.44 sg
Last Depth:	1217	ECD:	1.47 sg
Progress:	509m	Mud Type:	SBM Petrofree
TD Lithology:	Massive Claystone with minor Sandstone	V: 6 / 3	14 / 13
Water Depth:	56.0 m	Mud Fluid Loss:	3.6 cc
RT Elevation:	21.5 m	Bit Type:	Reed Hycalog RSX616M TFA 1.67

OPERATIONS SUMMARY

24 HOUR SUMMARY

00:00 - 24:00: Drilling ahead to 13 ½" directional hole 1726m, ROP declining.

06:00 Update Pulling out of the hole for a bit change. Current depth 1060m.

NEXT 24 HOURS: Pull out of the hole, down load the LWD, Inspect / change bit, RIH & drill ahead 13 1/5" hole through the Kipper Shale and Admiral Formation.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
1217- 1244 ROP: 7.7-134 m/hr Av: 49 m/hr	**Sandstone and minor Siltstone** SANDSTONE: (80%) clear – translucent, light brown, loose to friable aggregates, very fine to medium, dominantly fine, trace loose coarse grains, argillaceous and silty matrix to 40%, trace carbonaceous grains, trace glauconite, trace lithics, fair inferred porosity, no shows. SILTSTONE: (20%) brownish grey, very soft – sub firm, sub blocky, glauconitic in part, carbonaceous grains, commonly very sandy and gradational to SILTY SANDSTONE.
1244 – 1285 ROP: 7.5-90 m/hr Av: 39 m/hr	**Massive coarse grained Sandstone** SANDSTONE: (100%) clear – translucent, orange brown staining on grains, loose, medium to very coarse, dominantly very coarse, angular, moderately well sorted, common pyrite nodules, common carbonaceous smearing, good inferred porosity, no shows.
1285 – 1400 ROP: 4 – 110 m/hr Av: 35 m/hr	**Sandstone with minor Siltstone Carbonaceous Siltstone and Coal** SANDSTONE: (80-100%) clear – translucent, orange brown staining on grains, loose, medium to very coarse, dominantly very coarse, angular, moderately well sorted, common pyrite nodules, occasional light brown to off white argillaceous

	matrix, good inferred porosity, no shows. SILTSTONE: (5-20%) brownish grey, brownish black, very soft – soft, very carbonaceous, carbonaceous laminae, commonly gradational to CARBONACEOUS SILTSTONE. CARBONACEOUS SILTSTONE: (nil-15%) dull black, brownish black, soft to firm, blocky, rare sub fissile. COAL: (nil – 5%) black, dull black, soft – firm, blocky, uneven fracture, very silty in part.
1400 – 1484 ROP: 11.5 –120 m/hr Av: 47 m/hr	**Sandstone with minor Siltstone and Coal** SANDSTONE: (90-95%) clear – translucent, loose, fine – very coarse, poorly sorted, sub rounded to angular, trace pyrite, good inferred porosity, no shows. SILTSTONE: (5 – 10%) light to medium brownish grey, soft, friable, sub blocky to blocky, arenaceous, common carbonaceous grains and carbonaceous laminae, sandy in part. COAL: (nil-trace) black, dull black, sub vitreous, blocky, hackly fracture, silty.
1484 – 1546 ROP: 12.6 –94.0 m/hr Av: 41.2 m/hr	**Top KT Boundary: 1484.0 mMDRT (1476.8 mTVDRT/1455.3 mTVDSS)** **Sandstone with minor Siltstone grading to Silty Claystone with depth and trace Coal.** SANDSTONE (40-78%): clear, translucent, white, light grey, loose to soft aggregates, medium to coarse, dominantly coarse, rare very coarse, sub angular to rounded, dominantly sub rounded, moderately well sorted, common coaly fragments and lithics, trace pyrite nodules, fair to good inferred porosity, no shows. SILTSTONE (20-30%): brownish grey, rare black brown, soft, arenaceous, very carbonaceous in part, common carbonaceous laminae. SILTY CLAYSTONE (30-43%): medium to dark brownish grey, dark grey, sub firm to firm, rare soft, carbonaceous, micromica, rare very fine disseminated pyrite. gradational to SILTSTONE in part. COAL (Trace to 2%): black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part.
1546 – 1561 ROP: 23.4 –114.6 m/hr Av: 56.6 m/hr	**Top Unnamed Volcanics: 1546.0 mMDRT (1535.3 mTVDRT/1513.8 mTVDSS)** **Volcanics 15m thick based on resistivity** **Volcanic** VOLCANIC: off white, light greenish white, occasionally mottled, very light yellowish brown / off white / light green, commonly weathered to claystone, common fine to rare medium quartz, trace weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, trace remnant crystalline structure in part.
1561 – 1603 ROP 24 – 113 m/hr Av: 57 m/hr	**Sandstone and Silty Claystone with Volcanic (cavings)** SANDSTONE: (30-70) clear – translucent, loose, medium to very coarse, sub rounded to very angular, poorly sorted, trace pyrite cement, trace pyrite nodules, good inferred porosity. SILTY CLAYSTONE: (10-30%) brownish grey, very soft – soft, arenaceous to argillaceous, common carbonaceous specks and laminae, trace very fine pyrite,

	gradational to SILTSTONE. VOLCANIC: (cavings) (40-5%) off white, light greenish white, occasionally mottled, very light yellowish brown / off white / light green, commonly weathered to claystone, common fine to rare medium quartz, trace weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, trace remnant crystalline structure in part.
1603 – 1670 ROP: 7 – 67 m/hr Av: 22.0 m/hr	**Top Kipper Shale: 1603.0 mMDRT (1587.4 mTVDRT/1565.9 TVDSS)** **Massive Claystone and Silty Claystone section with occasional Sandstone and trace Coal** CLAYSTONE (10-70%): light to dark grey, dominantly light grey, light brownish grey in part, firm, blocky, arenaceous, very common carbonaceous specks, rare carbonaceous laminae, trace very fine pyrite, gradational to SILTY CLAYSTONE in part. SILTY CLAYSTONE (5-50%): brownish grey, soft to firm, sub blocky to blocky, arenaceous to argillaceous, common carbonaceous specks and laminae, trace lithics, very fine pyrite, gradational to SILTSTONE in part. SANDSTONE (25-50%): clear – translucent, rare light grey, weak aggregates, rare loose, medium to very coarse, dominantly coarse, sub rounded to very angular, dominantly sub rounded, moderately sorted, trace white argillaceous matrix, weak siliceous cement, trace pyrite cement, trace pyrite nodules, fair inferred porosity, no show. COAL (Tr-5%): brownish black, sub vitreous to dull, brittle, moderately hard, hackly fracture, silty and argillaceous in part.
1670 – 1727 ROP: 5.8 – 42 m/hr Av: 13 m/hr	**Massive Claystone with minor Sandstone and trace Coal** CLAYSTONE: (50-85%) medium – dark grey, brownish grey, rare medium to light grey, soft – firm, sub blocky, carbonaceous in part, silty in part. SANDSTONE: (15-50%) clear – translucent to off white, fine to medium, rare coarse to very coarse grains, dominantly loose to occasionally soft aggregates, sub angular to rounded, moderately sorted, aggregates have up to 20% argillaceous matrix, trace pyrite cement, fair to good inferred porosity. COAL: (trace%) brownish black to black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part

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)
1217 - 1244	0.2	1818	30	3	7	1	99	0
1234 peak carbonaceous	1.3	11098	123	9	8	1	100	0
1244 - 1285	0.22	2087	87	10	7	3	97	0
1263 peak sandstone	1.2	10116	254	27	10	4	93	0
1285 - 1400	0.4	3534	138	20	11	6	75	1
1288 peak sandstone	5.4	39511	1651	194	49	37	97	3
1400 - 1484	0.6	4294	345	93	21	18	51	0
1436 peak sandstone	4.1	29617	1736	385	51	57	61	6

1484-1547	1.95	13957	859	201	31	36	37	1
1495 peak sandstone	2.62	19216	1119	234	36	41	49	4
1547-1603	0.72	5060	319	83	20	19	43	1
1574 peak sandstone	5.08	35681	2215	590	77	105	56	12
1603-1670	0.68	5380	320	89	19	26	28	3
1605 peak sandstone	1.53	11617	596	141	24	32	35	4
1670 - 1727	0.25	2493	110	25	10	9	21	1

SURVEYS

Tie in point to Longtom -3 ST1 is 1005.00m

MD	ANGLE	Azi	TVD	MD	ANGLE	Azi	TVD
1215.91	9.27	209.43	1215.0	1503.19	18.35	192.44	1495.1
1245.7	11.37	207.87	1244.3	1532.38	20.42	194.25	1522.6
1274.91	12.35	202.92	1272.9	1560.70	22.63	193.78	1549.0
1302.82	11.96	197.44	1300.2	1589.24	25.05	193.92	1575.1
1331.4	12.06	190.49	1328.2	1617.93	27.10	193.48	1600.8
1361.03	11.81	186.49	1357.2	1646.65	28.11	190.90	1626.3
1389.55	11.73	186.02	1385.1	1675.46	28.74	188.38	1651.6
1417.57	12.12	187.22	1412.5	1703.59	29.2	185.09	1676.2
1445.79	14.01	188.59	1440.0				
1474.65	16.31	190.72	1467.8				

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	77.5	56	1096	77.5	56		1104	+8
Lakes Entrance	1172.0	1150.0	64	1182	1160.0	10.0 LO	33.5	-30.5
Latrobe	1236	1214.0	234	1216	1193.5	20.5 HI	261.8	+27.8
K/T Boundary	1476	1448	37	1484	1455.3	7.3 LO	61.3	+24.3
Un-named Volcanics	1515	1485	37	1546	1513.8	28.8 LO	15	n/a
Kipper Shale	1555	1522	201	1603	1565.9	43.9 LO		
Admiral Formation (Nexus)	1777	1723	163					
Admiral Formation (SRD)	1963	1889	N/A					
500 sand	1963	1889	154					
400 sand	2166	2043	117					
300 sand	2366	2160	77					
200 sand	2502	2237	47					
100 sand	2584	2284	44					
Emperor Volcanics	2661	2328	N/A					
TD	2733	2370						

COMMENTS:

Prognosed measured depths for the formations have been adjusted to the directional plan Longtom-3 ST1 Plan1 Rev1 (2)

Anadrill Schlumberger LWD sensor to bit distances: Resistivity: 11.78m Gamma 11.83m, Ultrasonic Caliper 26.9m, Density: 26.90, Neutron Porosity 27.95m.

LWD Neutron Density and Porosity values are suspect, this is due in part to the hole being of low angle and therefore the LWD tools sensors not having consistent contact with the well bore. Also the hole orientation is near parallel to the magnetic field. This results in the tool not being able to determine which way is down and hence a lot of the data points are measuring the mud to the side and above the LWD tool. Once the hole angle exceeds 30deg the tool should be able to determine its orientation and commence measuring formation densities in only the down direction where the detector pad will be in contact with the formation.

WELLSITE GEOLOGISTS:

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