

Garfish-1



Date:	07-06-2008	Last Casing:	340 mm (13 ? ") @ 746.5 mMDRT
Report Number:	6	Leak Off Test:	2.09 sg EMW
Report Period:	24hrs to 24:00	Current hole size:	216 mm (8 ½")
Depth @ 2400 Hrs:	2081.0 mMDRT	Mud Weight:	1.32 SG
Last Depth:	1365.0 mMDRT	ECD:	1.39 SG
Progress:	716 m	Mud Type:	KCL/Polymer
TD Lithology:	Volcanics	V: 6 / 3	14/12
Water Depth:	56.3 m	Mud Fluid Loss:	5.5
RT Elevation:	39.9 m	Bit Type:	Smith RSX519M

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:

Drilled 8.5in hole from 1365m to 2082m. Shut well in at 2077m and flow check - false alarm due to malfunction of Flow-Show gauge.

06:00 Update

Drilled 8.5in hole from 2082m to 2145m. At 2100m, weighted up mud from 1.21ppg to 1.32ppg.

NEXT 24 HOURS:

Continue to drill 8 ½" hole to coring point.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
1468-1590 ROP: 17-138 m/hr AV: 71 m/hr	<p>ARGILLACEOUS CALCILUTITE (100%): varying from soft, subblocky, slightly lighter olive grey; to medium dark olive grey, firm, subblocky to blocky, with rare foraminifera, trace pyrite streaks and microlaminae, trace light orange translucent crystalline calcite, grading to Calcareous Claystone.</p> <p>GLAUCONITIC CALCARENITE (trace): light olive grey speckled greyish green, firm to moderately hard, subfissile, crystalline, with bioclasts not distinguishable, with common medium to coarse sand-sized impure greyish green glauconite.</p>
1590-1620 ROP: 9-83 m/hr AV: 58 m/hr	<p>FORAMINIFERAL CALCILUTITE (100%): light olive grey to medium light grey, medium grey, firm, subblocky to blocky, dispersive, abundant Foraminifera fine to medium grain size, trace larger Foraminifera and fossil fragments, rare nodular pyrite, trace framboidal pyrite, abundant medium light grey argillaceous matrix.</p>
1620-1688 ROP: 34-128 m/hr AV: 78 m/hr	<p>Sandstone with subordinate coal and mudstone, including single sandstone intervals from 1629.5 to 1636.5 m and 1638 to 1688 m.</p> <p>SANDSTONE (95-100%): quartzose, white to very light grey, trace light brownish grey and pale yellowish orange, returned loose, clear to translucent grains, coarse to granule, predominantly very coarse to granule, very angular to rounded, predominantly very angular to sub rounded, low to high sphericity, tabular in part, moderately well sorted, trace pyrite frosting on some very coarse to granule grains, trace nodular pyrite, trace argillaceous matrix, trace lithic grains, minor bit fractured grains, good inferred porosity. No Shows.</p> <p>COAL (0-5%): brownish black to black, firm, brittle, sub blocky to sub conchoidal</p>

	fracture, sub vitreous to vitreous lustre.
1688-1760 ROP: 19-112 m/hr AV: 65 m/hr	<p>Interbedded sandstone, calcareous claystone and coal; thick sandstone bed at 1697 to 1709 m, otherwise thin to medium bedded. 90% coal in 1720 m sample.</p> <p>SANDSTONE (10-95%): quartzose, white to very light grey, trace light brownish grey, returned loose, fine to very coarse, predominantly fine to medium, common coarse to very coarse, angular to rounded, predominantly angular to sub rounded, moderate to high sphericity, poorly sorted, trace pyrite frosting and intergranular cement evident on coarser grains, trace nodular pyrite, trace mica, trace light grey argillaceous matrix, good inferred porosity. No Shows.</p> <p>COAL (0-90%): brownish black to black, firm, brittle, sub blocky to sub conchoidal fracture, sub vitreous to vitreous lustre.</p> <p>CALCAREOUS CLAYSTONE (0-50%): light grey to medium grey, medium dark grey, moderately firm to firm, sub blocky to blocky, slightly dispersive, minor disseminated pyrite, locally abundant, moderately to strongly calcareous, grading to Claystone.</p>
1760-1910 ROP: 17-120 m/hr AV: 59 m/hr	<p>Interbedded sandstone, carbonaceous claystone and trace coal.</p> <p>SANDSTONE (20-80%): quartzose, white to very light grey, trace light brownish grey, returned loose, very fine to medium grained, predominantly fine to medium, minor very fine to fine, angular to sub rounded, predominantly sub angular to sub rounded, moderate to high sphericity, well sorted, trace to rare light grey argillaceous matrix, fair inferred porosity. No Shows.</p> <p>CARBONACEOUS CLAYSTONE (20-80%): medium dark grey to dark grey, moderately firm to predominantly firm, sub blocky to blocky, slightly dispersive, minor disseminated pyrite, abundant carbonaceous material, weakly calcareous.</p> <p>COAL (Tr-10%): as above.</p>
1910-2051 ROP: 20-118 m/hr AV: 62 m/hr	<p>Interbedded sandstone, carbonaceous siltstone and coal; intermittent thick sandstone units up to 8 m thick.</p> <p>SANDSTONE (10-70%): quartzose, very light grey, loose, very fine upper to medium upper, poorly sorted, angular to subangular, with 1-2% coarse to granule transparent subangular quartz.</p> <p>SILTSTONE (30-90%): light to medium brownish grey, soft to mainly firm to moderately hard, subblocky to blocky to subfissile, non calcareous, commonly highly micaceous, commonly with black carbonaceous to coaly microlaminae, with rare pyrite crystalline masses up to coarse sand-size.</p> <p>CLAYSTONE (5-10%): light brown, firm to moderately hard, subfissile, waxy texture, non calcareous.</p> <p>COAL (tr-10%): black, moderately dull to moderately bright, moderately hard to hard, moderately brittle, wavy sheared subfissile fracture, rarely with associated pyrite lenses.</p> <p>At 2030-2040 m, 5% VOLCANICS: very light yellow-orange, firm to moderately hard, flakey, light grey groundmass with extensive clay seams and coatings, non calcareous; inferred eroded from underlying Un-named Volcanics Formation.</p>
2051-2072 ROP: 14-82 m/hr AV: 43 m/hr	<p>Un-named Volcanic Formation.</p> <p>VOLCANICS (15-30%): light grey to light greenish grey, speckled light orange yellow, speckled dark grey, moderately hard, blocky, non calcareous; light grey groundmass, locally apparent with veinlets of light yellow clay, lenses of coarsely crystalline sulphide (galena?) distinct from microcrystalline pyrite masses, locally</p>

	<p>with randomly oriented acicular grey crystals. No fluorescence. SANDSTONE (10-80%): light grey, loose, fine lower to medium upper, moderately sorted, subangular to rounded, transparent to translucent quartz. Inferred uphole. No fluorescence. SILTSTONE 5-30%: as above.</p>
<p>2072-2091 ROP: 2-43 m/hr AV: 10 m/hr</p>	<p>Hard ?Basalt flows, very low ROP, high resistivity to 2085 m.</p> <p>BASALT (5-10%): dark greenish grey to greenish black, hard, blocky, locally with fine to medium grained phenocrysts distinguishable. VOLCANICS (30-80%): very light grey to pale green, soft, subblocky, non calcareous, rarely with clusters of pyrite crystals. SANDSTONE (5-10%): as above. SILTSTONE (5-10%): as above. CLAYSTONE (tr-10%): very light brown to light olive, firm, subfissile, waxy texture, non calcareous.</p>
<p>2091-2110 ROP: 10-64 m/hr AV: 41 m/hr</p>	<p>Top Chimaera Formation: Interbedded sandstone and siltstone</p> <p>SANDSTONE (35-60%): light grey, loose, bimodal coarse upper to granule, moderately sorted; subordinate fine lower to medium lower, moderately well sorted; subangular to subrounded, rarely well rounded, translucent quartz. No fluorescence. SILTSTONE (20-35%): brownish grey, dark yellowish brown to dusky brown, moderately hard, blocky to subfissile, non calcareous, rarely with carbonaceous microlaminae, grading to claystone.</p>
<p>2110-2132 ROP: 2-81 m/hr AV: 38 m/hr</p>	<p>Sandstone with minor siltstone interbeds; high resistivity at 2120 – 2123 m corresponds to calcite-cemented sandstone.</p> <p>SANDSTONE (45-70%): as above, coarse upper to very coarse upper, rare granules, mainly angular fragments, minor subrounded spheroidal quartz grains; trace medium dark grey metasedimentary lithics. Includes 10% fine to coarse sandstone aggregates, hard angular flakes, strongly calcite cemented, no visible porosity, very bright light yellow direct fluorescence but no cut, inferred calcite mineral fluorescence. SILTSTONE (20-50%): grading to claystone, brownish grey, dark yellowish brown, dusky brown, commonly with carbonaceous material or microlaminae; common loose very coarse sand-sized pyrite nodules. CLAYSTONE (tr-5%): very light brown to light olive, firm, subfissile, waxy texture, non calcareous.</p>

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
1468-2120	Nil hydrocarbon fluorescence, trace mineral fluorescence.
2120-2125	10% very bright, light yellow direct fluorescence from calcite-cemented sandstone, no cut, inferred mineral fluorescence .
2125-2132	Nil hydrocarbon fluorescence, trace mineral fluorescence.

GAS SUMMARY:

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
1468-1590	0.04-0.15	315-	3-14	6-10	-	-	-	-

		1436						
1590-1620	0.06-0.19	514-1650	9-52	9-25	-	-	-	-
1620-1690	0.04-0.57	506-5081	17-212	8-86	-	-	-	-
1690-1760	0.04-0.92	120-9027	17-273	7-85				
1760-1790	0.13-0.53	1034-5332	32-135	12-35				
1790-1910	0.08-0.64	208-5604	0-216	7-62				
1910-2051	0.13-0.50	394-3742	14-341	7-131	0-14	0-23		
2051-2072	0.11-0.20	359-1102	25-105	20-52	0-7	0-24		
2072-2091	0.08-0.17	66-1102	2-105	0-52	0-7	0-12		
2091-2110	0.20-0.32	380-1775	33-133	10-57	1-4	3-10		
2094 peak	0.32	1162	84	39	4	8		
2110-2132	0-08-0.14	41-846	2-39	2-21	0-2	0-5		

SURVEYS

MD	ANGLE	Azi	TVD					
1569.44	0.83	16.38	1569.4					
1599.08	0.79	17.89	1599.0					
1745.75	1.09	4.99	1745.7					
1893.73	1.24	353.25	1893.6					
2040.91	1.64	351.03	2040.8					

FORMATION TOPS

<i>WD = 56.3 m</i>								
<i>RTE = 39.9 m</i>								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	96.0	-56	n/a	96.2	-56.3	-		
Lakes Entrance	1201	-1161		1184	-1144	17 hi		
Latrobe	1611	-1571		1615	-1575	4 lo		
K/T Boundary	1917	-1877						
Un-named Volcanics	2045	-2005		2051	-2011	6 lo		
Chimaera	2071.5	-2031.5		2091	-2051	19.5 lo		
Kipper Shale	2101	-2061						
Admiral Formation	2220	-2180						
500 Sands	2278	-2238						
400 Sands	2378.5	-2338.5						
300 Sands	2441	-2401						
200 Sands	N/A	N/A						
100 Sands	2467	-2427						
Emperor Volcanics	2489	-2449						

TD	2520	-2480						
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COMMENTS:**Sampling interval:**

Changed from 30 to 10 m sampling interval at 1500 m per programme. The programmed change from 10 to 5 m sampling interval at 1980 m was delayed to 2055 m because of the high ROP.

Top Un-named Volcanics:

The formation top is picked on the top of a distinctive high-gamma interval, in accord with Longtom-3P.

MWD sensor offsets:

GR: 8.59m

Resistivity at bit: 4.04 m

Resistivity Shallow: 9.43m

Resistivity Medium: 9.30m

Resistivity Deep: 9.12m

Directional: 15.42m

WELLSITE GEOLOGISTS: Cliff Menhennitt Bill Leask