

DAILY GEOLOGICAL REPORT

Date:	14 November 2008	Rig:	Ocean Patriot
Report Number:	16	Bit Diameter:	216 mm
Report Period:	06:00 - 06:00 Hours	Last Casing:	340 mm Casing @ 1532.1 mMDRT
Spud Date:	05-Nov-2008 03:30 Hours	LOT:	1.34 sg EMW @ 1532.1 mMDRT
Days From Spud:	9.1	Mud Weight:	1.15 sg
Depth @ 0600 Hrs:	2955.0 mMDRT	ECD:	N/A
	-2932.4 mTVDAHD	Mud Type:	KCL / Polymer
Lag Depth:	N/A	Mud Chlorides:	550000.00 mg/L
Last Depth:	2804.0 mMDRT	Last Survey:	2938.52 mMDRT
Progress:	151.0 m	Deviation:	Inc. 1.23°
Water Depth:	517.3 m		Az. 64.27°
RT:	21.5 m		

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled ahead 216mm hole to 2892.0 mMDRT. Performed 17 stand wiper trip. Drilled ahead to 2955.0 mMDRT. Pulled out of hole. Picked up new bit #4 and backup LWD tools and commenced running in the hole.

NEXT 24 HOURS: Continue to run in hole to 340mm casing shoe. Slip and cut drilling line. Run in hole and drill ahead new 216mm (8-1/2") hole to TD.

CURRENT OPERATION

@ 06:00 HRS (14-Nov-2008): Running in the hole with new bit #4 and LWD / MWD tools.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 2720.0 to 2765.0 mMDRT (-2697.4 to -2742.4 mTVDAHD)
ROP (Range): 73.0 to 168.0 m/h
Av. ROP: 109.0 m/h

Massive CALCAREOUS CLAYSTONE

CALCAREOUS CLAYSTONE (100%): Olive grey, minor medium light grey to medium grey, trace to minor micromicaceous, trace very fine to fine floating quartz grains, trace ooids and fossils, rare carbonaceous material, trace nodular and disseminated pyrite, nil to trace glauconite, firm to hard, dominantly firm, common brittle, minor hard, very hard in part, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.

INTERVAL: 2765.0 to 2815.0 mMDRT (-2745.4 to -2792.4 mTVDAHD)
ROP (Range): 66.0 to 170.0 m/h
Av. ROP: 99.0 m/h

CALCAREOUS CLAYSTONE with interbedded SILTSTONE and SANDSTONE at the base

CALCAREOUS CLAYSTONE (35 to 90%): Olive grey to medium dark grey, dominantly medium grey, trace to minor micromicaceous, nil to common silt, trace very fine to fine floating quartz grains, rare carbonaceous material, trace nodular and disseminated pyrite, trace glauconite, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.

SILTSTONE (5 to 50%): Dominantly olive black, common dusky yellowish brown to brownish black, arenaceous grading to argillaceous in part, abundant very fine to coarse glauconite, grades to GLAUCONITIC SILTSTONE, minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, trace ammonites, trace ooids, soft to firm, sub-blocky.

SANDSTONE (Nil to 20%): Clear to translucent, very fine to very coarse, dominantly very fine to fine, trace medium to very coarse, moderately sorted, angular to rounded, dominantly sub-angular to sub-rounded, minor angular and rounded, trace strong pyrite cement/matrix, trace argillaceous cement/matrix in part and

grading to ARGILLACEOUS SANDSTONE, abundant glauconite, very hard aggregates where pyrite cement, soft aggregates where argillaceous cement, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence.

INTERVAL: 2815.0 to 2845.0 mMDRT (-2792.4 to -2822.4 mTVDAHD)
ROP (Range): 57.0 to 247.0 m/h
Av. ROP: 138.0 m/h

SANDSTONE with SILTSTONE and CALCAREOUS CLAYSTONE interbeds

SANDSTONE (30 to 40%): Clear to translucent, very fine to very coarse (coarsening with depth), dominantly very fine to fine, trace to abundant medium, nil to minor coarse to very coarse, dominantly moderately sorted to well sorted, sub-angular to rounded, dominantly sub-rounded, common sub-angular, abundant rounded, nil to common well rounded (coarse to very coarse grains), trace to rare strong pyrite cement/matrix, dominantly nil to trace moderate siliceous cement, trace pyrite and glauconite inclusions, abundant glauconite, trace brittle to very hard aggregates where pyrite cement, dominantly disaggregated, nil visible porosity, poor to fair inferred porosity, no hydrocarbon fluorescence.

SILTSTONE (30 to 35%): Dominantly olive black, common dusky yellowish brown to brownish black, arenaceous in upper part grading to argillaceous with depth, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, rare to minor mica flakes, trace pyrite, trace ammonites and ooids, soft to firm, sub-blocky.

CALCAREOUS CLAYSTONE (10 to 35%): Medium light grey to medium dark grey, dominantly medium grey, minor to common olive grey, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace glauconite, grades to CALCILUTITE in part, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.

INTERVAL: 2845.0 to 2900.0 mMDRT (-2822.4 to -2877.4 mTVDAHD)
ROP (Range): 17.0 to 208.0 m/h
Av. ROP: 110.0 m/h

Massive SANDSTONE with minor SILTSTONE and CALCAREOUS CLAYSTONE beds

SANDSTONE (70 to 90%): Clear to translucent, common opaque, fine to very coarse, dominantly coarse to very coarse, minor to common fine, abundant medium, moderately sorted to well sorted, sub-angular to well rounded, dominantly sub-rounded, abundant sub-angular, abundant rounded, minor well rounded (coarse to very coarse grains), trace strong calcareous cement, trace strong pyrite cement/matrix, nil to trace strong siliceous cement with fused grain boundaries, abundant glauconite and rarely grading to GLAUCONITIC SANDSTONE in part, trace pyrite and glauconite inclusions, rare fissile quartz shards, nil to trace mica flakes with depth, nil to trace fossils, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, good to very good inferred porosity, no hydrocarbon fluorescence.

SILTSTONE (5 to 25%): Dominantly olive black, common dusky yellowish brown, dominantly argillaceous, common arenaceous, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, minor mica flakes, trace pyrite, trace ammonites and ooids, soft to firm, sub-blocky.

CALCAREOUS CLAYSTONE (5%): Medium light grey to medium dark grey, dominantly medium grey, minor olive grey, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace glauconite, grades to CALCILUTITE in part, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.

INTERVAL: 2900.0 to 2952.0mMDRT (-2877.4 to -2929.4mTVDAHD)
ROP (Range): 23.0 to 203.0 m/h
Av. ROP: 82.0 m/h

SANDSTONE and GLAUCONITIC SANDSTONE with minor SILTSTONE and CLAYSTONE interbeds

SANDSTONE (20 to 70%): Clear to translucent, abundant opaque, medium to very coarse, dominantly coarse to very coarse, abundant medium, well sorted, sub-angular to well rounded, dominantly sub-rounded to rounded, common sub-angular, abundant well rounded, trace strong calcareous cement, trace pyrite cement/matrix, trace glauconite and glauconitic staining, trace pyrite lens and inclusions, trace mica flakes, rare fissile quartz shards, brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, very good inferred porosity, no hydrocarbon fluorescence.

GLAUCONITIC SANDSTONE (10 to 50%): Medium dark grey to olive black, common medium grey, dark

greenish grey in upper section, clear to translucent, very fine to medium, dominantly very fine to fine aggregates, dominantly medium disaggregated grains, well sorted, sub-angular to rounded, dominantly sub-rounded to sub-angular, common rounded, minor moderately strong calcareous cement, minor moderately strong siliceous cement, trace argillaceous cement/matrix and grading to ARGILLACEOUS SANDSTONE, common to abundant light grey argillaceous matrix, common brownish grey silty matrix in part, very fine to medium glauconite grading to GREENSAND in part, trace mica flakes, trace fine pyrite nodules, trace lithics, trace carbonaceous material, abundant friable to moderately hard aggregates, dominantly brittle to moderately hard, rarely friable, firm where argillaceous and silty, disaggregated, nil to very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence.

SILTSTONE (10 to 15%): Dominantly olive black, common dusky yellowish brown, greenish black in part, common medium dark grey with depth, argillaceous and grading to SILTY CLAYSTONE in part, common arenaceous becoming dominantly arenaceous with depth, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace to abundant very fine floating quartz grains and grading to SILTY SANDSTONE, trace to minor mica flakes, trace pyrite, soft to brittle, dominantly firm, sub-blocky.

CLAYSTONE (5 to 15%): Medium dark grey to olive grey, minor to common medium light grey, moderately calcareous to common non calcareous in part with depth, trace micromicaceous, trace very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace carbonaceous material and laminae, brittle to hard, blocky to fissile, dominantly sub-fissile, trace blocky, common sub-blocky, common fissile to splintery.

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
2720.0 - 2765.0	0.04	450	3	2	0	0	0
2765.0 - 2815.0	0.11	828	40	14	3	3	1
2815.0 - 2845.0	6.2	6738	3283	927	163	154	59
2845.0 - 2900.0	0.16	1045	126	66	16	20	12
2900.0 - 2952.0	0.02	90	25	9	1	2	1

Gas Peak							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
2828.5	10	12729	6203	1790	325	312	125
2843.5	4.83	40390	2750	826	149	145	57
2853.5	5.1	6767	2216	673	126	121	33

SAMPLE QUALITY

Collected 20.0 m sample intervals from 2720.0 to 2780.0 mMDRT.

Collected 10.0 m sample intervals from 2780.0 to 2800.0 mMDRT.

Collected 5.0 m sample intervals from 2800.0 to 2850.0 mMDRT.

Collected 10.0 m sample intervals from 2850.0 to 2900.0 mMDRT.

Collected 5.0 m sample intervals from 2900.0 to 2910.0 mMDRT.

Collected 10.0 m sample intervals from 2910.0 to 2952.0 mMDRT.

Isotube samples collected -

Depth	Max Gas
1. 2818.0 mMDRT	5.3%
2. 2825.0 mMDRT	8.0%
3. 2829.0 mMDRT	10.03%

MUDLOGGING EQUIPMENT / PERSONNEL

Currently using backup depth system whilst repairs made to geolograph.
Chromatograph recalibrated during wiper trip.

MWD

Run #5, Bit Run #4: 216 mm LWD Tool offsets to bit to be advised.

Replaced faulty AFR with backup tool.

Debug of Bat Sonic data processing required. Debug software supplied from Sperry Houston. Bat Sonic backup tool run in current string to preserve recorded data for processing.

WIRELINING

Wireline logging crew on site. Wireline tools to arrive this afternoon.

REMARKS

Drilled ahead 216mm (8 1/2") hole to 2892.0 mMDRT. Circulated out high gas at the Gurnard Formation target. The well was flow checked and a 17 stand wiper trip was conducted for hole conditioning and investigation of well stability. Drilling of the 216 mm hole then continued to 2955.0 mMDRT where low ROP indicated a bit replacement was required. The bit was pulled from the hole. The BHA was racked back while the Bat Sonic and AFR tools were laid out and replaced with backup tools. The LWD / MWD recorded data was recovered for processing. New Bit #4, a Hughes HC506-ZX PDC, was made up with the BHA and LWD/MWD tools and commenced running in the hole.

WELLSITE GEOLOGISTS

Greg Fawns / Adam Cruickshank