

DAILY GEOLOGICAL REPORT

Date:	13 September 2009	Rig:	Ocean Patriot
Report Number:	8	Bit Diameter:	12.25 in
Report Period:	06:00 - 06:00 Hours	Last Casing:	13 3/8" @ 805.8 m MDRT
Spud Date:	05-Sep-2009 21:00 Hours	LOT:	12.35 ppg EMW @ 805.8 m MDRT
Days From Spud:	7.4	Mud Weight:	10.00 ppg
Depth @ 0600 Hrs:	2037.0 m MDRT	ECD:	10.35 ppg
	2037.0 m TVDRT	Mud Type:	KCL/Klastop/Polymer
	-2015.5 m TVDSS	Mud Chlorides:	50000.00 mg/L
Lag Depth:	2019.0 m MDRT	Est. Pore Pressure:	9.14 ppg
Last Depth:	1605.0 m MDRT	DXC:	1.1
Progress:	432.0 m	Last Survey:	1913.35 m MDRT
Water Depth:	74.0 m	Deviation:	Inc. 0.48°
RT:	21.5 m		Az. 64.16°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled 12.25 in hole with surveys from 1605.0 to 2037.0 m MDRT.

NEXT 24 HOURS: Drill ahead to TD of 2061.5 m MDRT. Circulate hole clean and POOH.

CURRENT OPERATION @ 06:00 HRS (13-Sep-2009): Drilling 12.25 in hole in the Middle Eastern View Group at 15 m/hr.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 1595.0 to 1645.0 m MDRT (-1573.5 to -1623.5 m TVDSS)
ROP (Range): 12.0 to 33.0 m/h
Av. ROP: 21.0 m/h

SANDSTONE interbedded with minor SILTSTONE and COAL seams.

SANDSTONE: clear to translucent, minor opaque grains, fine to medium grained, minor coarse grains, poorly sorted, sub-angular to sub-rounded, moderate siliceous cement, weak calcareous cement, rare pyritic cement, trace silty matrix, common quartz overgrowths, trace to common nodular pyrite, rare lithics fragments, predominantly loose, minor moderately hard to hard aggregates, fair visible porosity, fair inferred porosity, no fluorescence.

SANDSTONE: clear to translucent, minor opaque grains, fine to coarse grained, predominantly medium grained, moderately sorted, angular to sub-rounded, weak to moderate siliceous cement mainly as quartz overgrowths, rare pyritic cement, rare light grey to white argillaceous to silty matrix, trace to rare nodular pyrite, trace lithics, common quartz overgrowths, loose, trace moderately hard aggregates, fair to poor visible and inferred porosity, no fluorescence.

SILTSTONE: light to medium brown, light brown grey, light olive grey, common disseminated and nodular pyrite, rare pyrite veins, trace carbonaceous specks, common micro mica, soft to firm, sub-blocky to blocky.

COAL: black, brownish black, sub vitreous, rare vitreous, soft to brittle, angular to sub-blocky, sub-conchoidal.

INTERVAL: 1645.0 to 1752.0 m MDRT (-1623.5 to -1730.5 m TVDSS)
ROP (Range): 7.0 to 46.0 m/h
Av. ROP: 23.0 m/h

Interbedded SANDSTONE, SILTSTONE with minor CARBONACEOUS CLAYSTONE and COAL seams.

SANDSTONE: clear to translucent, fine to coarse grained, predominantly fine to medium grained, poorly sorted, sub-angular to sub-rounded, moderate siliceous cement, trace pyritic cement, common to abundant white argillaceous to silty matrix (Kalonitic), common nodular pyrite, trace lithics and carbonaceous material, loose, minor friable aggregates, poor inferred porosity, no fluorescence.

SILTSTONE: medium brown to brown grey, light to medium olive grey, sandy and in part grading to a very fine Sandstone, trace common disseminated and nodular pyrite, trace carbonaceous specks, common micro mica, soft to firm, sub-blocky to blocky.

CARBONACEOUS CLAYSTONE: dark brown to dark brown grey, dark grey to grey black, dark olive grey, trace to common disseminated pyrite, common micro-micaceous, moderately hard, sub-fissile to sub-blocky.
COAL: black to grey black, dark brown, dull to earthy luster, in part sub-vitreous, angular to sub-conchoidal fracture.

INTERVAL: 1752.0 to 1820.0 m MDRT (-1730.5 to -1798.5 m TVDSS)
ROP (Range): 14.0 to 70.0 m/h
Av. ROP: 26.0 m/h

Interbedded SILTSTONE and SANDSTONE.

SILTSTONE: medium to dark brown grey, medium olive grey, medium to dark grey, sandy and in part grading to a very fine Sandstone, carbonaceous, trace common disseminated and nodular pyrite, common micro mica, firm to moderately hard, in part very hard, sub-blocky to blocky.

SANDSTONE: white to light grey, clear to translucent, very fine to fine grained, predominantly fine grained, poorly sorted, sub-angular to sub-rounded, weak siliceous cement, minor pyritic cement, common to abundant silty matrix, common disseminated and nodular pyrite, trace carbonaceous specks, rare lithics, predominantly loose, common friable aggregates, poor inferred & visible porosity, no fluorescence.

SANDSTONE: clear to translucent, fine to medium grained, moderately sorted, sub-angular to sub-rounded, weak siliceous cement, common argillaceous to silty matrix, common nodular pyrite, trace carbonaceous specks, rare lithics, loose, minor moderately hard to hard aggregates, poor inferred & visible porosity, no fluorescence.

INTERVAL: 1820.0 to 1870.0 m MDRT (-1798.5 to -1848.5 m TVDSS)
ROP (Range): 10.0 to 56.0 m/h
Av. ROP: 23.0 m/h

Interbedded SANDSTONE and SILTSTONE with minor COALS.

COAL: black to brownish black, dark brown, dull to earthy luster, in part sub-vitreous, angular to sub-conchoidal fracture, grading to carbonaceous shale

SANDSTONE: translucent, transparent, very light grey, very fine to fine, well sorted, sub angular to sub rounded, weak siliceous cement, localised pyritic cement, abundant white clay matrix, rare carbonaceous material, trace nodular pyrite, grades to sandy SILTSTONE, predominantly disaggregated, minor loose, poor visible porosity, no fluorescence.

SILTSTONE: pale brown, light olive grey to olive grey, brownish grey, argillaceous to arenaceous, sandy and in part and grading to a very fine Sandstone, minor to very carbonaceous in part, common micro mica, soft to firm, sub-blocky to blocky, fissile in part.

INTERVAL: 1870.0 to 1959.0 m MDRT (-1848.5 to -1937.5 m TVDSS)
ROP (Range): 2.0 to 112.0 m/h
Av. ROP: 30.0 m/h

Interbedded SANDSTONE and SILTSTONE with minor Coals.

COAL: black, occasional brownish black, sub vitreous, minor earthy, firm, brittle in part, sub conchoidal to angular fracture, grading to carbonaceous Claystone.

SANDSTONE: very light grey to light grey, translucent, transparent, very fine to fine, well sorted, sub angular to sub rounded, minor aggregates with weak siliceous cement, abundant slightly calcareous white clay matrix, trace lithics, trace pyrite, grading to arenaceous SILTSTONE, predominantly disaggregated to

friable, fair visible porosity, no fluorescence.

SILTSTONE: light brownish grey, light olive grey, are, minor carbonaceous material / laminae, rare micro-mica, weakly dolomitic in part, firm, sub-blocky to blocky.

INTERVAL: 1959.0 to 1983.0 m MDRT (-1937.5 to -1961.5 m TVDSS)
ROP (Range): 14.0 to 101.0 m/h
Av. ROP: 34.0 m/h

SANDSTONE.

SANDSTONE : translucent, transparent, very light grey to light grey, light olive grey, very fine to fine, well sorted, sub rounded, rare aggregates with siliceous cement, trace to abundant white clay matrix, slightly calcareous in part, trace dark lithics, trace carbonaceous material, predominantly loose, rare friable to moderate hard aggregates, good inferred porosity, fair to good visible porosity, no fluorescence.

HYDROCARBON FLUORESCENCE

No Shows

GAS SUMMARY

Background Gas							
INTERVAL (m MDRT)	Total Gas (Units)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
1605.0 - 1645.0	0	9	0	0	0	0	0
1645.0 - 1752.0	0	9	0	0	0	0	0
1752.0 - 1820.0	0	6	2	0	0	0	0
1820.0 - 1870.0	0	3	1	0	0	0	0
1870.0 - 1959.0	0	11	0	0	0	0	0
1959.0 - 1983.0	0	9	0	0	0	0	0

MUDLOGGING EQUIPMENT / PERSONNEL

Gas lag is not accurate due to off-line pump being used to boost riser.
 Swapped to CVGT gastrap at lag of 2009 metres.

MWD

Sensor Offsets: Run 2
 GR : 16.45 m
 Res : 16.37 m
 Directional : 24.45 m
 Sonic : 33.83 m
 Density : 39.78 m
 Neutron : 41.76 m

Formation Name	Prognosed Depths			Actual Depths			Diff. TVT (m)	Picks Based On
	MD (m)	TVDRT (m)	TVDSS (m)	MD (m)	TVDRT (m)	TVDSS (m)		
Recent Carbonates	118.0	118.0	(96.5)	95.5	95.5	(74.0)	22.5 H	Offset Stratigraphy
Torquay Group (Reefal Carbonate)	138.0	138.0	(116.5)	131.0	131.0	(109.5)	7.0 H	ROP
Torquay Group (Marl)	718.0	718.0	(696.5)	715.0	715.0	(693.5)	3.0 H	ROP
Oligocene Sandstones (Lower Torqay Group)	1023.0	1023.0	(1001.5)				-	
Demons Bluff Formation	1398.0	1398.0	(1376.5)	1393.5	1393.5	(1372.0)	4.5 H	LWD Lithology
Upper Eastern View Group	1478.0	1478.0	(1456.5)	1480.5	1480.5	(1459.0)	2.5 L	LWD
Middle Eastern View Group	1868.0	1868.0	(1846.5)	1870.0	1870.0	(1848.5)	2.0 L	Lithology LWD

SURVEY DATA

MD (m)	Inc (°)	Azi (°)	TVD (m)	TVDSS (m)	V.Sec (m)	Dogleg (°/100ft)	E/W (m)	N/S (m)
1530.2	0.55	90.58	1530.2	1508.7	0.83	0.06	5.14	0.83
1596.3	0.49	77.67	1596.3	1574.8	0.89	0.06	5.73	0.89
1625.5	0.47	69.82	1625.5	1604.0	0.96	0.07	5.97	0.96
1682.7	0.41	85.01	1682.6	1661.1	1.05	0.07	6.39	1.05
1767.9	0.46	80.24	1767.9	1746.4	1.14	0.02	7.03	1.14
1858.3	0.33	65.19	1858.3	1836.8	1.31	0.05	7.62	1.31
1913.4	0.48	64.16	1913.3	1891.8	1.48	0.08	7.98	1.48

WELLSITE GEOLOGISTS

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