

**Basker-4**

Date : 18 May 2006

Geology Report Number : 16

( associated DDR # 22 )

**Well Details**

Depth MDRT:	3438.0m	Rig:	OCEAN PATRIOT	Date:	18 May 2006
Depth TVDBRT:	3259.1m	RTE amsl:	21.5m	Report Start:	00:00
Depth TVDSS:	3237.6m	LAT amsl:	154.5m	Report End:	24:00
Progress:	51.0m	Last Csg Size:	13.375in	Days On Location:	20.44
Hole Size:	12.250in	Last Csg. Shoe (TVD):	987.2m	Days since Spud:	80.50
Hole Size Carbide:		Last Csg. Shoe (MD):	998.5m		
		F.I.T. / L.O.T.:	12.50ppg /		

**Operations Summary**

24hr Summary:	<p>POOH and changed BHA and picked up new bit and junk sub. RIH drilled interval 3387-3438m MDRT.</p> <p>3387-3944 mMDRT An interbedded sequence of mainly Silty to Carbonaceous Claystones, Argillaceous Sandstone and minor Sandstone. ROP 1- 21m/hr 6.1m/hr average ROP Background gas 1.2%TG</p> <p>Preliminary pick for top of the "Zone 6.1" is 3394.6m MDRT = 3216m TVDRT.</p> <p>3394-3426 mMDRT ROP 1.8- 27m/hr 9.3m/hr average ROP Background gas 2.8%TG An interbedded sequence of clean, coarser grained quartz Sandstones (generally 3-5m thick) with variably Carbonaceous to Silty Claystones and variably Argillaceous quartz Sandstones.</p> <p>Preliminary pick for top of the "Zone 7" is 3426.2m MDRT = 3247.5m TVDRT.</p> <p>3426-3438 mMDRT ROP 2.7- 15.5m/hr 6.8m/hr average ROP Background gas 1.4%TG An interbedded sequence of Silty Claystone, Argillaceous Sandstone and Sandstone.</p>
Forward Plan:	Drill ahead through the Unit (1) volcanics to TD. Pull out of the hole for Wireline Logging.

**WBM Data**

Mud Type: PHPA/KCL/Glycol	Flowline Temp:	Cl:	44500mg/l	Low Gravity Solids:	Viscosity	71sec/qt
Sample From: Active pit	MWD Circ Temp:	Hard/Ca:	620mg/l	High Gravity Solids:	PV	22cp
Time: 19:45	Glycol CP Temp:	MBT:	5	Solids (corrected):	YP	45lb/100ft <sup>2</sup>
Weight: 9.50ppg	Glycol: 1.8%vol	PM:	0.3	H2O: 91%	Gels 10s	11
ECD TD:	Nitrates:	PF:	0.05	Oil: 0%	Gels 10m	20
ECD Shoe:	Sulphites:	MF:	0.55	Sand: .5	Fann 003	10
ECD Cuttings:	API FL: 4.5cc/30min	pH: 8.8	Barite:		Fann 006	14
KCl Equiv: 8%	API Cake: 1/32nd"	PHPA Excess:			Fann 100	44
					Fann 200	57
					Fann 300	67
					Fann 600	89

**Formation Tops**

Formation	Prognosed		Actual		Diff.	Thickness (MD)	Pick Criteria
Reservoir Zone 4 L Sand	3435.00	3137.00	3355.00	3154.90	-17.90	39.60	LWD GR-RES
Reservoir Zone 6.2	3456.28	3210.00	3394.60	3194.50	15.50	31.60	LWD
Reservoir Zone 7	3474.00	3242.00	3426.20	3226.00	16.00	0.00	LWD
Volcanics (Unit 1)	3505.66	3254.00	3266.31	3244.80	9.20	27.19	



Oil Shows										
From	To	Formation	Lithology	White Light			UV Light			Rating
				Stain	Cut	Residue	Fluor.	Cut Fluor.	Residue	
3405.00m	3415.00m			nil	nil	nil	dull to mod bright yell white	weak sometimes fair bluish	yellowish white	WEAK becoming FAIR OIL SHOW
		Description:	Varying WEAK to tending FAIR OIL SHOW - 2-20% dull to moderately bright yellowish white and bluish white pinpoint UV sample fluorescence from washed cuttings, slow diffusing weak bluish solvent cut which intensifies after several minutes to fair whitish blue, moderate whitish yellow residue ring UV light.							
3415.00m	3420.00m			nil	nil	nil	dull to mostly mod bright yell white	dull tending mod bright yell white	medium strength yellowish white	FAIR becoming GOOD OIL SHOW
		Description:	FAIR tending GOOD OIL SHOW - 25-30% dull to mostly tending moderately bright yellowish white and bluish white pinpoint UV sample fluorescence from washed cuttings, slow diffusing weak bluish solvent cut which intensifies after several minutes to fair whitish blue, moderate whitish yellow residue ring UV light							
3420.00m	3440.00m			nil	nil	nil	dull to mostly mod bright yell white	dull tending mod bright yell white	peak tending medium strength yellowish white	WEAK OIL SHOW
		Description:	Significantly decreasing 5-10% of fluorescence compared to samples above - possible cavings or cuttings come out of hole behind their correct lag due to 'stringout effect'.							

Gas													
Depth Range	Gas Type	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)	C1/C2 (ppm)	C1/C3 (ppm)	F1* (ppm)	F2* (ppm)	F3* (ppm)
3387.00 - 3394.00	Trip Gas	1.76	12348	1050	525	98	156	163	11.76	23.52	75.75	254	2,454.29
Comment:													
3387.00 - 3394.00	Background	1.20	8767	898	432	76	114	95	9.76	20.29	92.28	190	2,660
Comment:													
3387.00 - 3394.00	Background	1.20	8277	776	393	73	124	116	10.67	21.06	71.35	197	1,985.28
Comment:													
3389.00 - 3394.00	Peak	1.50	11306	967	459	82	140	135	11.69	24.63	83.75	222	2,344.98
Comment:													
3394.00 - 3426.00	Background	2.80	21041	1974	968	153	292	207	10.66	21.74	101.65	445	6,324.59
Comment:													
3401.00 - 3406.00	Peak	6.20	50582	3992	1781	264	441	251	12.67	28.4	201.52	705	16,215
Comment:													
3401.00 - 3406.00	Peak	6.20	50582	4002	1781	264	458	313	12.64	28.4	161.6	722	13,339.7
Comment: Sandstone with 2- 20% hydrocarbon fluorescence													
3410.00 - 3415.00	Peak	4.40	34633	3063	1445	214	397	245	11.31	23.97	141.36	611	11,242.4
Comment: Gas peak associated with 10-15% pinpoint WEAK tending FAIR OIL SHOWS.													
3418.00 - 3423.00	Peak	3.90	27611	2982	1510	241	458	309	9.26	18.29	89.36	699	10,161.51
Comment: Gas peak associated with sandstone ctgs with 20-25% pinpoint FAIR OIL SHOWS. High resistivity peak at 3418m MDRT correlated to 'hard band' with increased hard cemented aggregates at this depth.													
3422.00 - 3427.00	Peak	2.50	16484	1884	1062	182	372	280	8.75	15.52	58.87	554	5,828.87
Comment:													
3426.00 - 3438.00	Background	2.40	7708	888	586	114	254	226	8.68	13.15	34.11	368	2,400.14
Comment:													
3438.00 - 3443.00	Peak	2.40	16087	1556	906	158	326	266	10.34	17.76	60.48	484	4,479.73
Comment: Sandstone, with 5 - 10% hydrocarbon fluorescence													

F1\*: C1 / C5      F2\*: iC4 + nC4      F3\*: (C2 + C3) / (C5 / (iC4 + nC4))

Survey								
MDRT (m)	Incl. (deg)	Corr. Az (deg)	TVDBRT (m)	'V' Sect (deg)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
3412.73	2.5	279.4	3234.07	922.2	0.3	-64.1	-920.1	MWD

**06:00 Hrs Update**

Time:	06:00 Hrs on 19 May 2006
Depth:	3469 / 3290
Progress Since Midnight:	31
Drilling Status:	Drilling 311mm (12 1/4") hole at 3469m MDRT
Formation:	Currently drilling the Volcanics (Unit 1) Top volcanics at 3445 mMDRT
Lithology:	Top Volcanics (Unit1) picked at 3445 mMDRT, 3247.5 mRTTVD. Volcanics weathered to Claystone:
ROP:	
Gas:	

**Wellsite Geologist(s)**

(Days) - Mike Woodmansee (Nights) - Stuart Duff

**Lithology Report**

Depth Interval		Main Lithology	Lithology %	Qualifier	Description
Depth (mRT)	Depth Range				
3235.0	3240.0	Clyst	80	sly	Claystone, medium to dark greyish brown, soft to firm, sub-blocky to amorphous, 70% siliceous clay, 30% siliceous silt, 4% coal, trace of pyrite.
3240.0	3245.0	Sst	15	arg	Sandstone, lt olive gy to light and medium shades of brownish grey, very soft to friable, sub-blocky to amorphous, sub-angular to rounded, to well sorted, slightly elongated to slightly spherical, 30% siliceous clay, 15% siliceous silt, 55% siliceous sand, 60% very fine grained, 40% fine grained, 2% coal, trace of pyrite, 10% porosity, hydrocarbon show.
3250.0	3255.0	Sst	30		Sandstone, clr-transl quartz grains, loose, sub-angular to sub-rounded, to moderately sorted, elongated to slightly spherical, 10% siliceous clay, 90% siliceous sand, 10% fine grained, 70% medium grained, 20% coarse grained, 0.2% pyrite cement, trace of pyrite, 20% porosity.
3265.0	3270.0	Clyst	10	carb	Claystone, dk gy/brn, to brnsh/blk, soft to friable, sub-blocky to sub-fissile, 60% siliceous clay, 40% siliceous silt, 4% coal, trace of pyrite.
3270.0	3275.0	Sst	30		Sandstone, wh, clr-transl, loose, sub-angular to rounded, to moderately sorted, elongated to slightly spherical, 5% siliceous clay, 95% siliceous sand, 40% medium grained, 55% coarse grained, 5% very coarse grained, 0.2% pyrite cement, trace of pyrite, 20% porosity, no hydrocarbon show.
3275.0	3280.0	C	5		Coal, blk vitreous, firm, sub-blocky, trace of pyrite.
3280.0	3285.0	Sst	58		Sandstone, wh, clr-transl, loose to friable, sub-angular to sub-rounded, to well sorted, elongated to slightly spherical, 10% siliceous clay, 90% siliceous sand, 40% medium grained, 50% coarse grained, 10% very coarse grained, trace of pyrite cement, trace of pyrite, 20% porosity.
3395.0	3400.0	Sst	10	arg	Sandstone, varying whitish grey to light brown to greyish brown with conspicuous white 'rock flour' this sample, very soft to moderately hard, sub-blocky to blocky, sub-angular to rounded, very well sorted, slightly elongated to spherical, 20% siliceous clay, 20% siliceous silt, 60% siliceous sand, 90% very fine grained, 10% fine grained, trace of coal/lignite, 10% porosity.
3395.0	3400.0	Sst	70		Sandstone, light grey overall comprising clr-transl quartz grains, loose to moderately hard, sub-angular to sub-rounded, moderately sorted, slightly elongated to spherical, 100% siliceous sand, 5% very fine grained, 10% fine grained, 65% medium grained, 10% coarse grained, 0.4% calcite cement, trace of pyrite, 16% porosity.
3395.0	3400.0	Clyst	20	carb	Claystone, dark brnsh/gy to brnsh/blk with minor blackish brown, firm to moderately hard, sub-blocky to sub-fissile, 80% siliceous clay, 15% siliceous silt, 5% siliceous sand, 95% very fine grained, 5% fine grained, 2% coal, trace of pyrite, 2% coal/lignite.
3417.5	3420.0	Sst	10	arg	Sandstone, varying whitish grey to light brown to greyish brown, very soft to moderately hard, sub-blocky to blocky, sub-angular to rounded, very well sorted, slightly elongated to spherical, 20% siliceous clay, 20% siliceous silt, 60% siliceous sand, 90% very fine grained, 10% fine grained, trace of coal/lignite, 10% porosity.
3417.5	3420.0	Clyst	20	carb	Claystone, dark brnsh/gy to brnsh/blk with minor blackish brown, firm to moderately hard, sub-blocky to sub-fissile, 80% siliceous clay, 15% siliceous silt, 5% siliceous sand, 95% very fine grained, 5% fine grained, 2% coal, trace of pyrite, 2% coal/lignite.
3417.5	3420.0	Sst	70		Sandstone, light grey overall comprising clr-transl quartz grains, varying disaggregated to variably calcite cemented aggregates (giving deep yellowish mineral fluorescence), loose to hard, sub-angular to sub-rounded, poor sorted to moderately sorted, slightly elongated to spherical, 100% siliceous sand, 5% very fine grained, 10% fine grained, 65% medium grained, 10% coarse grained, 0.5% calcite cement, trace of pyrite, trace of mica, 15% porosity, hydrocarbon show.
3430.0	3435.0	Sst	20		Sandstone, light grey overall comprising clr-transl quartz grains, varying disaggregated to



Lithology Report					
Depth Interval		Main Lithology	Lithology %	Qualifier	Description
Depth (mRT)	Depth Range				
					variably calcite cemented aggregates (giving deep yellowish mineral fluorescence., loose to hard, sub-angular to sub-rounded, poor sorted to moderately sorted, slightly elongated to spherical, 100% siliceous sand, 5% very fine grained, 10% fine grained, 65% medium grained, 10% coarse grained, 2% calcite cement, trace of pyrite cement, 1% dolomite cement, trace of pyrite, trace of mica, 15% porosity, hydrocarbon show.
3430.0	3435.0	Sst	40	arg	Sandstone, which grey, light brown, clr , very soft to soft, sub-blocky to blocky, sub-angular to rounded, well sorted , slightly elongated to spherical, 30% siliceous clay, 30% siliceous silt, 40% siliceous sand, 90% very fine grained, 10% fine grained, trace of coal/lignite, trace of coal, 10% porosity.
3435.0	3440.0	Clyst	30	slty	Claystone, med to dk brnish/gy, very soft to soft, amorphous to sub-blocky, 55% siliceous clay, 30% siliceous silt, 15% siliceous sand, 95% very fine grained, 5% fine grained, 2% coal, trace of pyrite, 2% coal/lignite.