

31 Dec 2005

From: Ron King/ Geoff Webster  
To: J Ah-Cann

**DRILLING MORNING REPORT # 20**

**Culverin 1**

Well Data							
Country	Australia	MDBRT	3473.0m	Cur. Hole Size	12.250in	AFE Cost	\$ 22699889
Field	Gippsland Basin	TVDBRT	3469.3m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	71.0m	Shoe TVDBRT	1511.8m	Daily Cost	\$ 0
Rig	OCEAN PATRIOT	Days from spud	15.44	Shoe MDBRT	1511.8m	Cum Cost	\$ 11635849
Wtr Dpth(MSL)	585.0m	Days on well	18.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	956
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					
Current Op @ 0600 Drilling ahead 311 mm (12 1/4") hole at 3524.0 mMDRT.							
Planned Op Drill ahead 311 mm (12 1/4") hole							

**Summary of Period 0000 to 2400 Hrs**

RIH to 3330.0 mMDRT. Logged down over sandstone from 3335.0 mMDRT to 3343m MDRT . Reamed down to bottom. Commenced drilling ahead from 3402.0 mMDRT to 3473m MDRT

FORMATION	
Name	Top
Latrobe	2824.00m
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
TD	

**Operations For Period 0000 Hrs to 2400 Hrs on 31 Dec 2005**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	TI	0000	0130	1.50	3402.0m	Continued to RIH with 12 1/4" BHA. Shallow pulse test MWD with 750 GPM and 750 psi, good test
IH	P	TI	0130	0300	1.50	3402.0m	Picked up 27 joints 5" DP from catwalk
IH	P	TI	0300	0900	6.00	3402.0m	Continued to RIH with 12 1/4" BHA and 5" DP from Derrick to 3330m MDRT
IH	P	RW	0900	1200	3.00	3402.0m	Reamed and washed from 3330m MDRT to 3380m MDRT. Performed confirmation pass with LWD tools across interval
IH	P	RW	1200	1230	0.50	3402.0m	Washed and reamed last single to bottom
IH	P	DA	1230	2400	11.50	3473.0m	Drilled ahead 311mm (12 1/4") hole from 3402m MDRT to 3473m MDRT, Average ROP = 6.2m/hr, Flow rate = 875 GPM, WOB = 17 - 24 klbs, Rotary RPM = 80 - 110, Bit RPM = 190 - 220, Tq = 5000 - 9500 ft/lbs,

**Operations For Period 0000 Hrs to 0600 Hrs on 01 Jan 2006**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0600	6.00	3524.0m	Continued to drill 311mm (12 1/4") hole from 3473m MDRT to 3524m MDRT Average ROP = 8.5m/hr, WOB = 20-24 klbs, Rotary RPM = 110, DH RPM = 228, Tq = 4500-8000 ftlb, Flow = 872 GPM Encountered drilling break at 3481m MDRT to 3487m MDRT, flow checked well (76m/hr, Gas = 45 units) Max Gas = 92 units @ 3500m MDRT

**Operations For Period Hrs to Hrs on**

**Phase Data to 2400hrs, 31 Dec 2005**

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m

## Phase Data to 2400hrs, 31 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	292.5	17 Dec 2005	31 Dec 2005	450.50	18.771	3473.0m

## WBM Data

Cost Today \$ 302

Mud Type:KCL-NaCl-Polymer	API FL: 3.6cc/30min	Cl: 84000mg/l	Solids(%vol): 10%	Viscosity 62sec/qt
Sample-From: Active Pit	Filter-Cake: 1/32nd"	K+C*1000: 7%	H2O: 90%	PV 17cp
Time: 20:30	HTHP-FL: 12.0cc/30min	Hard/Ca: 200mg/l	Oil(%): 0%	YP 33lb/100ft²
Weight: 10.20ppg	HTHP-cake: 1/32nd"	MBT: 6	Sand: 1.5	Gels 10s 8
Temp: 29C°		PM: 0.1	pH: 9	Gels 10m 11
		PF: 0.05	PHPA: 1ppb	Fann 003 7
				Fann 006 9
				Fann 100 30
				Fann 200 42
				Fann 300 50
				Fann 600 67
Comment NaCl 8%. Ditch magnet recovery = 142 grams				

## Bit # 4

Bit # 4				Wear	I	O1	D	L	B	G	O2 NO	R
				Bitwear Comments:								
Size ("):	12.250in	IADC#	M422	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run				
Mfr:	REED HYCALOG	WOB(avg)	22.00klb	No.	Size	Progress		71.0m	Cum. Progress		71.0m	
Type:	PDC	RPM(avg)	110	2	28/32nd"	On Bottom Hrs		11.8h	Cum. On Btm Hrs		11.8h	
Serial No.:	211406	F.Rate	875.00bpm	4	18/32nd"	IADC Drill Hrs		11.5h	Cum IADC Drill Hrs		11.5h	
Bit Model	RSX 616	SPP	4000psi			Total Revs			Cum Total Revs		0	
Depth In	3402.0m	HSI				ROP(avg)		6.02 m/hr	ROP(avg)		6.02 m/hr	
Depth Out		TFA	2.197									
Bit Comment												

## BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)	9500ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	365.00klb	Torque(Off.Btm)	4000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	355.00klb	Torque(On.Btm)	7000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	365.00klb			D.P. Ann Velocity	176fpm
BHA Run Description		Annular velocity based on 900gpm					

## BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M 244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
Mud Motor	8.54m	9.625in	6.135in	963271	
X/O	1.22m	9.438in	2.875in	S18819-11	Non-mag integral blade string stab
Stab	1.81m	12.125in	2.875in	694776	
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

## Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
3404.40	3.5	54.9	3400.80	94.1	77.3	53.6	0.2	

Survey								
MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N-S (m)	E-W (m)	DLS (deg/30m)	Tool Type
3432.80	3.6	52.0	3429.16	95.7	78.3	55.0	0.2	
3461.32	3.5	52.0	3457.63	97.4	79.4	56.4	0.1	
3490.24	3.4	50.3	3486.49	99.1	80.5	57.8	0.1	

Bulk Stocks					
Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	15.8	0	390.3
Fresh Water	m3	29	26.6	0	163.2
Drill Water	m3	0	24	0.1	379.6
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2	12P160	6.000	10.20	97	102	4200	10.38	3440.0	30	350	3.00	40	440	4.00	50	525	5.00
3	12P160	6.000	10.20	97	102	4200	10.38	3440.0	30	350	3.00	40	440	4.00	50	525	5.00

Casing					
OD (in)	Csg Shoe MD (m)	Csg Shoe TVD (m)	Csg Landing Depth MD (m)	Csg Landing Depth TVD (m)	LOT/FIT (ppg)
	650.30	650.30	604.40	604.40	
	1511.77	1511.77	603.50	603.50	

Personnel On Board		
Company	Pax	Comment
DOGC	40	
DOGC	3	extra Crane operator, dogman, welder
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	
M-1 AUSTRALIA PTY LTD	3	One swaco hand for new shaker being assessed for Diamond
GEOSERVICES OVERSEAS S.A.	6	
HALLIBURTON AUSTRALIA PTY LTD - SPERRY SUN	5	One trainee
Total	75	

HSE Summary				
Events	Date of last	Days Since	Descr.	Remarks
Abandon Drill	26 Dec 2005	5 Days	Held weekly abandon rig drill	Carry out environmental audit by Nexus shorebase personnel.
Environmental Issue	29 Dec 2005	2 Days	Environmental Audit	
Fire Drill	26 Dec 2005	5 Days	Held weekly fire drill	
JSA	31 Dec 2005	0 Days	Deck = 8, Drill = 7, Welding = 2, Marine = 1	
Man Overboard Drill	30 Dec 2005	1 Day	Held Man Over Board Drill	
Safety Meeting	26 Dec 2005	5 Days	Weekly safety meetings with all crew members.	
STOP Card	31 Dec 2005	0 Days	Safe = 4, Un-safe = 4	

Shakers, Volumes and Losses Data				
Available	2,956bbl	Losses	100bbl	
Active	409.8bbl	Equipment	100bbl	
Equip.	Descr.	Mesh Size		
Shaker1	VSM 100	4 x 165		

## Shakers, Volumes and Losses Data

Hole	2,046.2bbl		Equip.	Descr.	Mesh Size
Reserve	500bbl		Shaker2	VSM 100	4 x 165
			Shaker3	VSM 100	1 x 120, 3 X 165
			Shaker4	BEM650	1 X 120, 3 x 165

## Marine

Weather on 31 Dec 2005								Rig Support	
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.0nm	15kn	45.0deg	1015.0mbar	20C°	0.5m	45.0deg	2s	1	247.0
								2	269.0
								3	198.0
								4	262.0
								5	366.0
								6	359.0
								7	298.0
								8	284.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks			
Far Grip		20:30	Off Location	Item	Unit	Used	Quantity
				Diesel	CuMtr		340
				Fresh Water	CuMtr		61
				Drill Water	CuMtr		50
				Cement G	Mt		0
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89

Depart Ocean Patriot ETA Melbourne 2 Jan 2006 @ 02:00

SOF's:

Fuel 340m3, Potable water 61m3, Drill water 50m3, silica cmt 54t, barite 89t.

Pacific Wrangler	20:30		Standby Ocean Patriot	Item	Unit	Used	Quantity
				Diesel	CuMtr		467.4
				Fresh Water	CuMtr		175
				Drill Water	CuMtr		320
				Cement G	Mt		132
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		42

Loaded electric line logging tools in Eden, sail to Ocean Patriot

## Helicopter Movement

Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today