

30 Dec 2005

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

**DRILLING MORNING REPORT # 19**

**Culverin 1**

Well Data							
Country	Australia	MDBRT	3402.0m	Cur. Hole Size	12.250in	AFE Cost	\$ 22699889
Field	Gippsland Basin	TVDBRT	3398.5m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	17.0m	Shoe TVDBRT	1511.8m	Daily Cost	\$ 593639
Rig	OCEAN PATRIOT	Days from spud	14.44	Shoe MDBRT	1511.8m	Cum Cost	\$ 14178590
Wtr Dpth(MSL)	585.0m	Days on well	18.35	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	955
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					
Current Op @ 0600		RIH with 5" DP to mMDRT.					
Planned Op		Drill ahead 311 mm (12 1/4") hole.					

**Summary of Period 0000 to 2400 Hrs**

Drilled ahead from 3385.0 mMDRT to 3402.0 mMDRT. POOH for bit trip. Downloaded LWD memory. Made up new PDC bit and new motor. Started to RIH.

**FORMATION**

Name	Top
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	
Near 70.3 Ma Sand	
TD	
TD	

**Operations For Period 0000 Hrs to 2400 Hrs on 30 Dec 2005**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	P	DA	0000	0200	2.00	0.0m	Drilled 311mm (12 1/4") hole from 3385m to 3397m MDRT String wt 350klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 4-25klbs, 4200psi, 890gpm. Boost riser while drilling. ROP average 3.86m/hr (including connections) Survey results @3375m, 3.7deg, 76.2 azimuth
IH	TP (RE)	DA	0200	0230	0.50	3390.0m	Elmagco auxillary brake problems. fault find and make repairs. Continue with 50% power available to Elmagco
IH	P	DA	0230	0830	6.00	3402.0m	Drilled 311mm (12 1/4") hole from 3390m to 3402m MDRT String wt 355klbs, Tq 4-14000ftlbs, 100-150 rpm surface, 180-256rpm DH, WOB 18-25klbs, 3900-4300psi, 875gpm. Boost riser while drilling. Average ROP = 2m/hr
IH	P	TO	0830	0930	1.00	3402.0m	Flow checked and POOH from 3402m to 2867m, pulled tight @ 55klbs overpull
IH	P	REA	0930	1000	0.50	3402.0m	Made up top drive and back ream from 2867m to 2819m
IH	P	TO	1000	1630	6.50	3402.0m	Continued to POOH from 2819m to 268m, flow checked @ casing shoe. Calibrated MWD caliper @ 1475m
IH	P	TO	1630	1830	2.00	3402.0m	POOH with 311mm (12 1/4") BHA, remove radioactive source from LWD, broke off bit (4-6-WT-S-X-1-RO-PR) and laid out mud motor
IH	P	TO	1830	2030	2.00	3402.0m	Picked up LWD from derrick and download data. Racked back same in derrick
IH	P	RS	2030	2100	0.50	3402.0m	Serviced top drive and pipe handler. Checked compensator chains
IH	P	TI	2100	2300	2.00	3402.0m	Picked up new motor (Sperrydrill 6/7 5 stage w/ 0 degree bend), made up new bit (Reed RSX616M) and RIH with 311mm (12 1/4") BHA
IH	P	TI	2300	2400	1.00	3402.0m	Loaded radio active source into LWD and initiate tools

**Operations For Period 0000 Hrs to 0600 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	0600	3.00	3402.0m	Continued to RIH with 12 1/4" BHA and 5" DP from Derrick

**Operations For Period Hrs to Hrs on**

### Phase Data to 2400hrs, 30 Dec 2005

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	25.75	05 Nov 2005	14 Dec 2005	25.75	1.073	0.0m
ANCHORING(A)	44.75	14 Dec 2005	15 Dec 2005	70.50	2.937	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	100.50	4.187	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	117.00	4.875	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	118.00	4.917	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	172.00	7.167	1525.0m
INTERMEDIATE HOLE(IH)	268.5	17 Dec 2005	30 Dec 2005	440.50	18.354	3402.0m

### WBM Data

**Cost Today \$ 21860**

Mud Type:KCL-NaCl-Polymer	API FL: 4.0cc/30min	Cl: 82500mg/l	Solids(%vol): 10%	Viscosity 60sec/qt
Sample-From: Active Pit	Filter-Cake: 1/32nd"	K+C*1000: 7%	H2O: 90%	PV 16cp
Time: 2100	HTHP-FL: 11.8cc/30min	Hard/Ca: 260mg/l	Oil(%): 0%	YP 28lb/100ft²
Weight: 10.20ppg	HTHP-cake: 1/32nd"	MBT: 7	Sand: 1	Gels 10s 7
Temp: 32C°		PM: 7	pH: 7	Gels 10m 9
		PF: 0.04	PHPA: 1ppb	Fann 003 5
				Fann 006 7
				Fann 100 27
				Fann 200 37
				Fann 300 44
				Fann 600 60
Comment NaCl 8%.				

### Bit # 3

					4	6	WT	S	X	2	RO	PR
				Bitwear Comments:								
Size ("):	12.250in	IADC#	M422	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run				
Mfr:	REED HYCALOG	WOB(avg)	13.20klb	No.	Size	Progress	17.0m	Cum. Progress	1877.0m			
Type:	PDC	RPM(avg)	100	2	28/32nd"	On Bottom Hrs	6.0h	Cum. On Btm Hrs	96.7h			
Serial No.:	211010	F.Rate	20.26bpm	4	18/32nd"	IADC Drill Hrs	8.0h	Cum IADC Drill Hrs	81.5h			
Bit Model	RSX 616	SPP	3800psi			Total Revs	1463	Cum Total Revs	2870			
Depth In	1525.0m	HSI				ROP(avg)	2.83 m/hr	ROP(avg)	19.41 m/hr			
Depth Out	3402.0m	TFA	2.197									
Bit Comment												

### Bit # 4

										NO	
				Bitwear Comments:							
Size ("):	12.250in	IADC#	M422	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run			
Mfr:	REED HYCALOG	WOB(avg)		No.	Size	Progress		Cum. Progress		0.0m	
Type:	PDC	RPM(avg)		2	28/32nd"	On Bottom Hrs		Cum. On Btm Hrs		0.0h	
Serial No.:	211406	F.Rate		4	18/32nd"	IADC Drill Hrs		Cum IADC Drill Hrs		0.0h	
Bit Model	RSX 616	SPP				Total Revs		Cum Total Revs		0	
Depth In	3402.0m	HSI				ROP(avg)		N/A	ROP(avg)		0.00 m/hr
Depth Out		TFA	2.197								
Bit Comment											

### BHA # 3

Weight(Wet)	40.00klb	Length	268.4m	Torque(max)	14000ft-lbs	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String	350.00klb	Torque(Off.Btm)	3000ft-lbs	D.C. (2) Ann Velocity	384fpm
		Pick-Up	350.00klb	Torque(On.Btm)	6000ft-lbs	H.W.D.P. Ann Velocity	176fpm
		Slack-Off	360.00klb			D.P. Ann Velocity	176fpm
BHA Run Description		Annular velocity based on 900gpm					
BHA Run Comment							

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.25m	12.250in		211010	Reed Hycalog RSX 616M
Mud Motor	8.58m	9.625in	6.135in	963006	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	A639	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
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		

#### BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String		Torque(Off.Btm)	D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)	H.W.D.P. Ann Velocity	176fpm
		Slack-Off			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
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
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	Incl	Azim	TVD	Vsec	N-S	E-W	DLS	Tool Type
(m)	(deg)	(deg)	(m)	(deg)	(m)	(m)	(deg/30m)	
3375.00	3.7	54.0	3371.50	92.3	76.2	52.1	0.2	MWD

#### Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	3.42	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	100	27.1	0	406.1
Fresh Water	m3	26	25.1	0.5	160.8
Drill Water	m3	0	78.3	-0.4	403.5
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	MW	Eff (%)	SPM	SPP	Flow	Depth	SPM1	SPP1	Flow1	SPM2	SPP2	Flow2	SPM3	SPP3	Flow3

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
		(in)	(ppg)		(SPM)	(psi)	(bpm)	(m)	(SPM)	(psi)	(bpm)	(SPM)	(psi)	(bpm)	(SPM)	(psi)	(bpm)
2	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	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	extra Crane operator, dogman, welder
DOGC	3	
ESS	8	
NEXUS	5	
FUGRO SURVEY LTD (ROV)	3	
DOWELL SCHLUMBERGER	2	One swaco hand for new shaker being assessed for Diamond
M-1 AUSTRALIA PTY LTD	3	
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	4 Days	Held weekly abandon rig drill	Carry out environmental audit by Nexus shorebase personnel.
Environmental Issue	29 Dec 2005	1 Day	Environmental Audit	
Fire Drill	26 Dec 2005	4 Days	Held weekly fire drill	
JSA	29 Dec 2005	1 Day	Deck = 6, Mech = 3, Drill = 7, Welder = 2, Marine = 1	
Safety Meeting	26 Dec 2005	4 Days	Weekly safety meetings with all crew members.	
STOP Card	29 Dec 2005	1 Day	Safe = 2	

Shakers, Volumes and Losses Data																	
Available		3,204bbl		Losses		0bbl		Equip.		Descr.		Mesh Size					
Active		360.1bbl						Shaker1		VSM 100		4 x 165					
Hole		2,103.9bbl						Shaker2		VSM 100		4 x 165					
Reserve		740bbl						Shaker3		VSM 100		4 x 120					
								Shaker4		BEM650		4 x 165					

Marine									
Weather on 30 Dec 2005								Rig Support	
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.0nm	15kn	0.0deg	1014.0mbar	18C°	0.5m	0.0deg	2s	1	247.0
Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments		2	269.0
272.0deg	456.00klb	4578.40klb	1.0m	270.0deg	7s			3	198.0
Comments					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						Standby Ocean Patriot		Item		Unit		Used		Quantity			
								Diesel		CuMtr				347			

				Item	Unit	Used	Quantity
				Fresh Water	CuMtr		67
				Drill Water	CuMtr		50
				Cement G	Mt		0
				Cement HT (Silica)	Mt		54
				Barite Bulk	Mt		89
Depart Ocean Patriot 07:00 for Crystal Ocean, (Fuel on board = 355m3) Arrive Ocean Patriot 15:43 from Crystal Ocean (Fuel on board = 347m3) Fuel hose caught in Prop.							
Pacific Wrangler		18:30	Enroute to Eden	Item	Unit	Used	Quantity
				Diesel	CuMtr		484
				Fresh Water	CuMtr		185
				Drill Water	CuMtr		320
				Cement G	Mt		132
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		42
Depart for Crystal Ocean @ 16:50 from Ocean Patriot. Fuel on board = 487.2m3). Unable to transfer fuel to Crystal Ocean, Depart for Eden @ 18:30 (Fuel on board = 484m3)							

Helicopter Movement				
Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	0910 / 0933	9 / 12	