

**From : Chris Roots / Nathan Peri**  
**OIM : Dennis Gore**

**Well Data**

Country	Australia	Measured Depth	1560.0m	Current Hole Size	311mm	AFE Cost	\$41,512,831
Field		TVD	1471.0m	Casing OD	340mm	AFE No.	5746043
Drill Contractor	DOGC	Progress	0.0m	Shoe MD	652.0m	Daily Cost	\$1,014,803
Rig	Ocean Patriot	Days from spud	15.87	Shoe TVD	652.0m	Cum Cost	\$19,691,711
Water Depth (LAT)	66.3m	Days on well	16.58	F.I.T. / L.O.T.	/ 2.20sg	Planned TD	2552.0m
RT-SL(LAT)	21.5m	Current Op @ 0600	Continued RIH to bottom from 652mRT.				
RT-ML	87.8m	Planned Op	RIH to bottom at 1560m and drill ahead to TD ~1977m.				
Rig Heading	217.0deg						

**Summary of Period 0000 to 2400 Hrs**

POH from 1368m to the shoe at 652m. Flow checked the well and pumped a slug. Continued to POH laying out FEWD tools. Picked up new bit and FEWD tools. RIH and tagged up in the wellhead at 93m (casing XO). Unable to pass through or pull out. Worked tools and pulled free. POH and inspected the BHA. Changed out the PDC bit for a rock bit.

**Formations**

Name	Top (MD)	Top (TVD)	Comment
Pebble Point	1132.5m	1121.9m	22.1m Low
Massacre Shale	1207.0m	1189.1m	33.3m Low
Timboon Fm	1222.0m	1202.2m	36.4m Low
Paarratte Fm	1443.0m	1382.3m	28.5 Low

**Operations For Period 0000 Hrs to 2400 Hrs on 09 Sep 2008**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	P	TO	0000	0300	3.00	1560.0m	Continued to POH from 1368m to 1020m. Observed 17-22 t (40-50klbs) overpull.
PH	P	WTH	0300	0330	0.50	1560.0m	Pulled tight at 1020m, worked pipe through to 954m overpull 22-31 t (50-70klbs). Made up TDS, pumped out from 954m to 935m (1 x std) at 2270 L/min (600gpm).
PH	P	TO	0330	0430	1.00	1560.0m	Continued to POH on elevators from 934m to the casing shoe at 652m with 9-13 t (20-30klbs) overpull.
PH	P	FC	0430	0500	0.50	1560.0m	Flow checked at the shoe. Pumped a 1.4sg (12ppg) slug.
PH	P	TO	0500	0600	1.00	1560.0m	Continued to POH from 652m to 300m.
PH	P	HBHA	0600	1100	5.00	1560.0m	Racked back 127mm (5") HWDP and 210mm (8") DC's. Laid out FEWD tools and broke out the rock bit.
PH	P	HBHA	1100	1300	2.00	1560.0m	Picked up new 311mm (12-1/4") PDC bit. Picked up new FEWD tools to 48m.
PH	P	HBHA	1300	1430	1.50	1560.0m	Shallow pulse test MWD tools, pulled back and loaded radioactive source. Retested MWD tools with 2840 L/min (750gpm) and 6.2 MPa (900psi).
PH	P	WH	1430	1500	0.50	1560.0m	Continued RIH from 48m to 93 mRT. Tagged up, correlated this depth to the 508mm x 340mm (20" x 13.375") Casing X-Over. Set down 2.2 t (5klbs) weight and rotated 1/2 turn. Unable to pass XO.
PH	TP (CWR)	TI	1500	1600	1.00	1560.0m	Continued to make attempts at passing the Casing X-Over. Set down 4.4 t (10klbs) weight, pumped at 1900 L/min (500gpm) and 20-50 rpm. Closed the upper annular to assist in centralizing the drill pipe. Still unable to pass through.
PH	TP (CWR)	TI	1600	1730	1.50	1560.0m	Attempted to POH. Pulled 6m above the Casing XO (87m) and pulled tight. Pumped and rotated in an attempt to pull free. Pulled a maximum of 17.8 kdaNm (40klbs).
PH	TP (CWR)	TI	1730	2000	2.50	1560.0m	Discussed the situation with head office.
PH	TP (CWR)	TI	2000	2030	0.50	1560.0m	Measured both the top and bottom tight spots against the Index mark. Prepared a short active mud system (slug pit) adding EBL for lubricity. Cleaned the ditch magnets.
PH	TP (CWR)	TI	2030	2100	0.50	1560.0m	Reamed down through from 93 mRT for 30 minutes at 3785 L/min (1000gpm), 100rpm, WOB 2.2 - 4.4 t (5-15klbs). Checked index mark, 0.18m (7.0") made.
PH	TP (CWR)	TI	2100	2200	1.00	1560.0m	Picked up to check tight spot above, tools pulled free (no overpull). Continued POH.
PH	TP (CWR)	TI	2200	2200	0.00	1560.0m	Held JSA on the floor for radioactive source removal. Also discussed the forward plan.
PH	TP (CWR)	TI	2200	2230	0.50	1560.0m	Removed the radioactive source.
PH	TP (CWR)	TI	2230	2330	1.00	1560.0m	Racked back FEWD tools. Inspected and gauged all the stabilizers on POH. The bottom Exceed stabilizer shows wear on the bottom of two blades. Removed the PDC bit, noted damaged cutters on the gauge area of the bit and two of four backreaming cutters were damaged.
PH	TP	TI	2330	2400	0.50	1560.0m	Picked up a new 311mm (12-1/4") rock bit and made up to the Exceed tool.

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
	(CWR)						

**Operations For Period 0000 Hrs to 0600 Hrs on 10 Sep 2008**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
PH	TP (CWR)	TI	0000	0130	1.50	1560.0m	Continued making up the 311mm (12.25") rock bit and FEWD tools. Ran tools down to 80m.
PH	TP (CWR)	TI	0130	0200	0.50	1560.0m	Made up TDS, lowered assembly down and observed the bit tag and drop through the XT Bore protector. Continued down and observed the bit tag up at 93 mRT. Rotated the string 1/2 turn, unable to pass. Picked up 5m, rotated and pumped at 10rpm 1500 L/min (400gpm), lowered down past 93m. Observed both Exceed stabilizers tag and drop through. Picked back up and observed the upper stabilizer tag at 93mRT. Made two passing runs through the wellhead while pumping and rotating OK.
PH	TP (CWR)	TI	0200	0230	0.50	1560.0m	Lowered the bit down to 105m. Conducted shallow pulse test for FEWD tools. POH to surface.
PH	TP (CWR)	TI	0230	0300	0.50	1560.0m	Installed the radioactive source. Picked up the remaining BHA and RIH to 90m.
PH	P	HBHA	0300	0330	0.50	1560.0m	Made up TDS, rotated and pumped at 10rpm 1500 L/min (400gpm). Lowered the bit down until it tagged, worked the bit until it passed through. No tag observed with the stabilizers. Continued to RIH to 105m. Shallow pulse tested FEWD tools.
PH	P	HBHA	0330	0500	1.50	1560.0m	Continued to RIH BHA to 214m.
PH	P	TI	0500	0600	1.00	1560.0m	Continued to run 311mm (12.25") BHA on 127mm (5") drill pipe from 214m to 652m (casing shoe).

General Comments		
Comments	Rig Requirements	Lessons Learnt
The missing ROV has turned up on the beach near Warnabool. TMT will recover the ROV.		

WBM Data		Cost Today \$ 62000	
Mud Type: KCL/GLY	API FL: 4cm <sup>3</sup> /30m	KCl: 10%	Solids: 6.9
Sample-From: Flowline	Filter-Cake:	Hard/Ca: 520	H2O: 93%
Time: 22:30	HTHP-FL:	MBT: 6.2	Oil:
Weight: 1.22sg	HTHP-Cake: 0mm	PM: 0.2	Sand: 0.25
Temp:		PF: 0.05	pH: 8.5
			PHPA: 1ppb
			Viscosity: 0sec/L
			PV: 0.023Pa/s
			YP: 0.201MPa
			Gels 10s: 0.067
			Gels 10m: 0.129
			Fann 003: 11
			Fann 006: 13
			Fann 100: 40
			Fann 200: 55
			Fann 300: 65
			Fann 600: 88

Comment	Made up 620bbl 11.0ppg premix. Dumped 32bbl 12.2ppg slug mud. Mixed 70bbl 10.2ppg with 2% EBL as lubricant pill. Note - all KCL/Gly brine usage charged on this report.
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<b>Bit # 3</b>				Wear	I	O1	D	L	B	G	O2	R
					4	3	ER	G	E	4	CT	BHA
Size:	311mm	IADC#	117	<b>Nozzles</b>		<b>Drilled over last 24 hrs</b>			<b>Calculated over Bit Run</b>			
Mfr:	Hughes Christensen	WOB(avg)		No.	Size	Progress			Cum. Progress			672.0m
Type:	Rock	RPM(avg)		1	16/32nd"	On Bottom Hrs			Cum. On Btm Hrs			19.91h
Serial No.:	5127797	F.Rate		3	18/32nd"	IADC Drill Hrs			Cum IADC Drill Hrs			31.00h
Bit Model	MXL-1X	SPP				Total Revs			Cum Total Revs			239600
Depth In	657.0m	TFA	0.942			ROP(avg)			ROP(avg)			33.75 m/hr
Depth Out	1560.0m											

<b>Bit # 4</b>				Wear	I	O1	D	L	B	G	O2	R
					0	0	CT	G	X	I	NO	HP
Size:	311mm	IADC#	M222	<b>Nozzles</b>		<b>Drilled over last 24 hrs</b>			<b>Calculated over Bit Run</b>			
Mfr:	SMITH	WOB(avg)		No.	Size	Progress			Cum. Progress			0.0m
Type:	PDC	RPM(avg)		8	13/32nd"	On Bottom Hrs			Cum. On Btm Hrs			0.00h
Serial No.:	20577	F.Rate				IADC Drill Hrs			Cum IADC Drill Hrs			0.00h
Bit Model	MDi616 (LHBPX)	SPP				Total Revs			Cum Total Revs			0
Depth In	1560.0m	TFA	1.037			ROP(avg)			ROP(avg)			0.00 m/hr
Depth Out	1560.0m											

Bitwear Comment Unable to pass the 20"x13-3/8" XO at 93m. Chipped teeth due to the bit tagging up and down at the XO while attempting to pass. Finally pulled the bit free, POH from 93m.

<b>Bit # 5</b>				Wear	I	O1	D	L	B	G	O2	R
Size:	311mm	IADC#	117	<b>Nozzles</b>		<b>Drilled over last 24 hrs</b>			<b>Calculated over Bit Run</b>			
Mfr:	Hughes Christensen	WOB(avg)		No.	Size	Progress			Cum. Progress			0.0m
Type:	Rock	RPM(avg)		1	14/32nd"	On Bottom Hrs			Cum. On Btm Hrs			0.00h
Serial No.:	5146318	F.Rate		3	20/32nd"	IADC Drill Hrs			Cum IADC Drill Hrs			0.00h
Bit Model	MXL-1X	SPP				Total Revs			Cum Total Revs			0
Depth In	1560.0m	TFA	1.071			ROP(avg)			ROP(avg)			0.00 m/hr
Depth Out												

<b>BHA # 3</b>							
Weight(Wet)	38.10mt	Length	300.8m	Torque(max)	28560.0Nm	D.C. (1) Ann Velocity	0mpm
Wt Below Jar(Wet)	35.38mt	String	115.67mt	Torque(Off.Btm)	16320.0Nm	D.C. (2) Ann Velocity	0mpm
		Pick-Up	122.47mt	Torque(On.Btm)	8160.0Nm	H.W.D.P. Ann Velocity	0mpm
		Slack-Off	108.86mt			D.P. Ann Velocity	0mpm

BHA Run Description Directional / FEWD

BHA Run Comment Jar hours: 50.5

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.35m	311mm		5127797	
Powerdrive 900	8.65m	308mm	127mm	O31	Ported float installed. Xceed directional survey = 5.14m from the bit.
ARC-8	5.77m	231mm	76mm	1106	Resistivity & Gama = 11.1m from the bit.
In-Line Stabiliser	0.83m	308mm	111mm	ASQ8062	
Telescope HF	8.15m	213mm	76mm	E0005	Powerpulse directional survey = 19.21m from the bit.
In-Line Stabiliser	0.87m	308mm	111mm	242280730	
Sonic	7.20m	231mm	83mm	34888	Sonic = 28.92m
ADN	6.57m	226mm	213mm	VC73	Density = 35.09m. Neutron is 36.06m from the bit.
NMDC	8.55m	213mm	71mm	N688	
8.25in DC	84.37m	210mm	73mm		
X/O	1.09m	203mm	67mm	GUD123-1	
HWDP	121.38m	175mm	76mm		
6.375in Jars	9.73m	162mm	70mm	DAH01628	
HWDP	37.30m				

BHA # 4						
Weight(Wet)	Length	216.5m	Torque(max)	20400.0Nm	D.C. (1) Ann Velocity	0mpm
Wt Below Jar(Wet)	String	63.50mt	Torque(Off.Btm)	2720.0Nm	D.C. (2) Ann Velocity	0mpm
	Pick-Up	63.50mt	Torque(On.Btm)	0.0Nm	H.W.D.P. Ann Velocity	0mpm
	Slack-Off	63.50mt			D.P. Ann Velocity	0mpm

BHA Run Description: Directional / FEWD

BHA Run Comment: Jar hours: 50.5  
 The Exceed stabilizers showed wear marks above and below on two of the four blades due to reaming at the tight spot at 93m.

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.30m	311mm		20577	
Powerdrive 900	8.62m	308mm	127mm	16	Blank float installed. Xceed survey = 5.10m from the bit.
ARC-8	5.90m	231mm	76mm	1871	Resistivity & Gama = 11.36m from the bit.
In-Line Stabiliser	0.83m	291mm	111mm	ASQ8062	
Telescope HF	8.15m	213mm	76mm	E0005	Powerpulse survey = 19.25m from the bit.
In-Line Stabiliser	0.83m	308mm	111mm	ASQ8-61	
Sonic	7.21m	231mm	83mm	FE75	Sonic = 28.89m
ADN	6.57m	226mm	213mm	43150	Density = 35.06m. Neutron is 36.04m from the bit.
NMDC	8.55m	213mm	71mm	N688	
X/O	1.09m	203mm	67mm	GUD123-1	
HWDP	121.38m	175mm	76mm		
6.375in Jars	9.73m	162mm	70mm	DAH01628	
HWDP	37.30m				

### Bulk Stocks

Name	Unit	In	Used	Adjust	Balance	Comment
Barite	mT	0	24	-28	96.0	Adjusted bulk for missed value on 8th Sept.
Gel	mT	0	0	0	33.0	
Cement	mT	0	0	0	63.0	
Fuel	m3	0	16.2	0	351.8	
Potable Water	m3	35	32	0	342.0	
Drill Water	m3	0	84	0	583.0	

### Personnel On Board

Company	Comment	Pax
Santos		5
DOGC		52
ESS		8
BHI		6
Dowell		2
Rheochem		2
MI Swaco		1
TMT		6
Cameron		2
Schlumberger Drilling & Measurements	MWD / LWD	3
Santos	Geologist	2
Schlumberger Drilling & Measurements	Directional	3
Total		92

### Casing

OD	L.O.T. / F.I.T.	Casing Shoe (MD/TVD)	Cementing
762mm	/	131.70/131.70	Slurry: 30.8m³ (194bbl x 916sxs) of 1.9sg (15.8ppg) class G Lead: 41m³ (256bbl x 532sxs) of 1.5sg (12.5ppg) class G slurry. Tail: 17.8m³ (112bbl x 644sxs) 150m of 1.9sg (15.8ppg) class G slurry.
340mm	2.20 /	652.00/652.00	

HSE Summary				
Events	Num Events	Date of Last	Days Since	Remarks
Abandon Drill	1	31 Aug 2008	9 Days	Abandon drill completed after the simulated fire was under control. Completed full muster at the forward lifeboats at 10:48hrs.
Environmental Audit	1	03 Sep 2008	6 Days	Rig visit by DPI. Conducted an environmental audit on Santos operation.
Fire Drill	1	07 Sep 2008	2 Days	Simulated a fire in the subsea shop. Emergency alarm sounded at 10:28hrs, emergency under control at 10:39hrs. Full muster complete at 10:38hrs
First Aid	1	13 Aug 2008	27 Days	During the relocation of a container on the port pipe deck, IP located hand on corner of a container to assist another roustabout to steady for placement. IP looked at the base of the container when it swung and caught his hand between the container and wall resulting in a bruised hand.
JHA	36	09 Sep 2008	0 Days	Drill crew - 8 Deck Crew - 19 Welder - 3 Marine - 3 Mech - 5 Elect - 1
Lost Time Incident	1	30 May 2008	102 Days	Man had his left hand caught between an 8" drill collar and the casing tongs when he was trying to secure the tong. Preliminary checks on the rig deemed only stitches required and the hand was not broken. The person was medivac'd off the rig @ 23:00hrs. Man was released from Royal Hobart hospital with 12 stitches to the hand (no broken bones).
Medical Treatment Incident	1	13 Aug 2008	27 Days	During lifting operations of 3rd party tooling on the pipe deck, IP was assisting the dogman in attaching slings to the whip-line hook. During this process the hook swung and hit the IP in the side of the hardhat resulting in an injury to the IP's neck. The IP was immobilised as a precautionary measure, treated as per symptoms and in readiness for medivac to hospital for further assessment.
Pre-Tour Meeting	4	08 Sep 2008	1 Day	Discussed upcoming operations and associated hazards prior to each shift starting.
PTW Issued	12	09 Sep 2008	0 Days	7 x hot work permits 5 x cold work permits
Rig Inspection	1	30 Aug 2008	10 Days	Conducted 1 by Santos STOP audit. Welding Shop: Stopped welder from working and inspected his permit for validity, OK. We then inspected the workshop for any hazards, found a steel plate leaning against a fire extinguisher. Removed plate away, no other changes required.
Safety Audit	1	30 Jul 2008	41 Days	EHSMS audit conducted onboard.
Safety Meeting	3	07 Sep 2008	2 Days	Reviewed stop cards for the week and awarded Santos best stop card to Brendan Haywood. Discussed the fire drill in the subsea shop. Reviewed fire fighting equipment and where to find them on the rig.
Santos Induction	3	09 Sep 2008	0 Days	Conducted Santos induction to new personnel to site after DODI induction.
Stop Observations	75	09 Sep 2008	0 Days	44 - Safe 31- Corrective Actions
STOP Tour	0	09 Sep 2008	0 Days	Submitted Diamond supervisor audits.

Shakers, Volumes and Losses Data				Engineer : Paul Marshall / Fius Siregar			
Available	365.2m <sup>3</sup>	Losses	7.2m <sup>3</sup>	Equip.	Descr.	Mesh Size	Hours
Active	47.1m <sup>3</sup>	Downhole	2.1m <sup>3</sup>	Centrifuge 1	MI SW FVS 518		20
Mixing		Surf+ Equip	0.0m <sup>3</sup>	Centrifuge 1	MI SW FVS 518		0
Hole	130.8m <sup>3</sup>	Dumped	5.1m <sup>3</sup>	Centrifuge 2	MI SW FVS 518		8
Slug		De-Sander		Centrifuge 2	MI SW FVS 518		0
Reserve	112.7m <sup>3</sup>	De-Silter		Shaker 3	MI SW - BEM 650	10/20/200/200/200/200	22
Kill	0.0m <sup>3</sup>	Centrifuge		Shaker 3	MI SW - BEM 650	10/20/200/200/200/200	2
Brine	74.6m <sup>3</sup>			Shaker 4	MI SW - BEM 650	10/20/200/200/200/200	22
				Shaker 4	MI SW - BEM 650	10/20/200/200/200/200	2
				Shaker 5	MI SW - BEM 650	10/20/200/200/200/200	22
				Shaker 5	MI SW - BEM 650	10/20/200/200/200/200	2
				Shaker 6	MI SW - BEM 650	10/20/200/200/200/200	22
				Shaker 6	MI SW - BEM 650	10/20/200/200/200/200	2

Marine								Rig Support		
Weather check on 09 Sep 2008 at 24:00								Anchors	Chain out (m)	Tension (mt)
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	1	1353.0	120.20
18.5km	0km/h	0.0deg	1026.00bar	10.0C°	0.0m	0.0deg	4sec	2	1372.8	127.01
Roll	Pitch	Heave	Swell Height	Swell Dir.	Swell Period	Weather Comments				
0.3deg	0.3deg	1.00m	0.0m	0.0deg	13sec					
Rig Dir.	Ris. Tension	VDL	Comments							
217.0deg	122.47mt	988.38mt								
								3	1386.8	128.82
								4	1414.0	127.91
								5	1365.8	127.01
								6	1389.9	128.82
								7	1393.9	127.91
								8	1389.9	128.82

Boats	Arrived (date/time)	Departed (date/time)	Status	Bulks		
Far Grip		17:50 hrs 9/09/08	Transit to Portland for a 08:00hr Pilot booking.	<b>Item</b>	<b>Unit</b>	<b>Quantity</b>
				Fuel	m3	511
				Potable Water	m3	380
				Drill Water	m3	340
				Gel	mt	59
				Cement	mt	45.5
				Barite	mt	84
				KCl Brine	m3	9
				NaCl Brine	m3	0
				Mud	m3	117
Nor Captain	15:47hrs 9/09/08		On location Ocean Patriot	<b>Item</b>	<b>Unit</b>	<b>Quantity</b>
				Fuel	m3	467
				Potable Water	m3	290
				Drill Water	m3	456
				Gel	mt	0
				Cement	mt	0
				Barite	mt	82
				KCl Brine	m3	0
				NaCl Brine	m3	0
				Mud	m3	12

Helicopter Movement				
Flight #	Time	Destination	Comment	Pax
GYJ	14:40	Ocean Patriot		7
GYJ	14:58	Essendon		12