

30 Dec 2008 From: Rocco Rossouw/ Peter Sheehan

To: Rob Oliver

### **DRILLING MORNING REPORT #21** Fermat-1

Well Data								
Country	Australia	MDBRT	2807.0m	Cur. Hole Size	12.250in	AFE Cost	AUD\$51,857,377	
Field	Otway	TVDBRT	2804.4m	Last Casing OD	13.375in	AFE No.	07/002	
Drill Co.	Seadrill	Progress	0.0m	Shoe TVDBRT	987.0m	Daily Cost	AUD\$820,517	
Rig	West Triton	Days from spud	17.00	Shoe MDBRT	987.0m	Cum Cost	AUD\$25,976,888	
Wtr Dpth (MSL)	39m	Days on well	21.00	FIT/LOT:	/ 1.80sg			
RT-MSL	38.00m	Planned TD MD	3640m	Current Op @ 0600			ng hanger running tool .	
RT-ML	77m	Planned TD TVDRT	3640m		All joints n	low welded in r	unning string.	
				Planned Op	Back out casing hanger running tool. RIH with mill and flush tool and mill and flush. Install seal assembly. Test BOP's. Pick up and RIH with 8 1/2" BHA.			

# Summary of Period 0000 to 2400 Hrs

RIH with 9 5/8" casing to shoe depth of 2800.27m. Cemented casing.

Unsuccesfully attempted to back out casing hanger running tool.

HSE Summary				
Events	Num. Events	Days Since	Descr.	Remarks
Abandon Drill	1	2 Days	Abandon rig drill.	All personnel mustered at life boats.
JSA	11	0 Days	JSA's conducted for the day.	
Pre-tour Meeting	4	2 Days	Safety Meeting.	Held Pretour and pre job safety meetings with crews.
PTW issued	4	0 Days	PTW issued for the day.	
Safety Meeting	2	3 Days	Weekly safety meeting.	
STOP Card	14	0 Days	Stop cards submitted for the day.	14 positive 10 negative

# Operations For Period 0000 Hrs to 2400 Hrs on 30 Dec 2008

Phse	Cls (RC)	Op	From	То	Hrs	Depth	Activity Description
P9	TP (WB)	G9	0000	0130	1.50	2807.0m	Continued to RIH with 9 5/8" casing from 2743m to 2774m. At 2774m taking weight, 30k down. Commenced circulating at 120 GPM to fill string and establish circulation. Established circulation with 120 GPM, SPP 700, hole then packed off. Trapped pressure 2000 psi. Worked string, established circulation with 120 to 400 GPM, hole intermittently packing off. Continued to work string and establish circulation. Worked string from 2764m to 2778m until returns stable. No mud lost to hole.
P9	Р	G9	0130	0430	3.00	2807.0m	Continued to RIH, picked up casing hanger and landing string. Continued to wash to bottom from 2778m to 2800m. Hole intermittently packing off below 2766m.
P9	Р	G1	0430	0500	0.50	2807.0m	Rig up Halliburton cement head and prepare for cementing
P9	Р	F3	0500	0630	1.50	2807.0m	Pressure tested surface lines to 1000 psi for 5min. Circulated bottoms up at 10 BPM, 900 psi.
P9	Р	F3	0630	0800	1.50	2807.0m	Mixed and pumped cement . Pumped spacer #1, 10 bbls drill water, tested lines to 4000 psi for 5min. Pumped 70 bbls drill water spacer, followed with spacer#2, 60 bbls tuned spacer E+ at 13 ppg. Slurry pumped 230 bbls class "G" cement 15.8 ppg.
P9	Р	F3	0800	0930	1.50	2807.0m	Displaced cement with rig pump. Theoretical displacment 663 bbls, total pumped 666 bbls. Did not bump plug.  Displacment rate 10 bbls/min. Final displacing pressure 980 psi.  Bled off pressure and checked shoe track valves integrity.
P9	Р	G1	0930	1000	0.50	2807.0m	Rigged down cement head and cement lines.
P9	TP (TP)	G12	1000	1200	2.00	2807.0m	Attempted to back out casing hanger running tool and retrieve.  Not successful. First joint of casing below rotary table backed out with 9000 ft/lb torque applied.  Retrieved backed out joint to surface, applied threadlock (bakerlock) to pin end and and made same back up into the casing running string.
P9	TP (TP)	G15	1200	1630	4.50	2807.0m	Waited for bakerlock to harden.
P9	TP (TP)	G12	1630	1700	0.50	2807.0m	Attemped to back out casing hanger running tool. Unsuccessful, same connection broke with 9000 ft/lb torque applied, first pup joint below rotary backed out, bakerlocked joint.
P9	TP	G12	1700	2000	3.00	2807.0m	Rigged down and pulled diverter and diverter overshot. JSA, toolbox meeting prior to

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Phse	Cls (RC)	Ор	From	То	Hrs	Depth	Activity Description				
	(TP)						commencing job.				
P9	TP (TP)	G12	2000	2230	2.50	2807.0m	Picked up 9 5/8" casing pup and made up into the landing string, chain tong tight. Welded straps to connections. JSA				
P9	TP (TP)	G13	2230	2400	1.50	2807.0m	Attempted to back out casing hanger running tool. Unsuccessful, straps broke with 13,000 ft/lb torque applied. Rewelded casing coupling direct to casing.				

### Operations For Period 0000 Hrs to 0600 Hrs on 31 Dec 2008

Phse	Cls (RC)	Op	From	То	Hrs	Depth	Activity Description
P9	TP (TP)	G12	0000	0030	0.50	2807.0m	Attempted to back out casing hanger running tool. First connection on top of running tool pup joint backed out.  Applied torque with weatherford casing tong, held torque in from 10,000 ft/lb and increased in 2,000 ft/lb graduations. At the same time 2 winches connected to casing that were working the casing in a circular motion trying to find a free point. Casing operator had multiple attempts at trying to "jolt" it to no avail. Final outcome was with two winches working the casing and torque held in the joint backed out with 25k ft/lb applied.
P9	TP (TP)	G13	0030	0200	1.50	2807.0m	Removed BOPs from wellhead and moved aside.
P9	TP (TP)	G12	0200	0300	1.00	2807.0m	Picked up and installed backed out landing string to landing string, tonged up and prepare for welding.
P9	TP (TP)	G12	0300	0400	1.00	2807.0m	Welded second connection of running string. Welded four straps running tool to pup joint.
P9	TP (TP)	G12	0400	0530	1.50	2807.0m	Applied torque with rig tong to back out casing hanger running tool. Applied 40,000 ft/lb held in and hammered casing joint with sledge hammers 0.5m above top of running tool. Broke welded straps, Baker-locked connection pup joint to running tool.
P9	TP (TP)	G12	0530	0600	0.50	2807.0m	Welded pup joint to casing hanger running tool.

#### **Operations For Period Hrs to Hrs on**

Phase Data to 2400hrs, 30 Dec 2008											
Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth					
Mob/Demob(P1)	78.5	10 Dec 2008	13 Dec 2008	78.50	3.271	0.0m					
Conductor Hole(P2)	28	13 Dec 2008	14 Dec 2008	106.50	4.438	119.0m					
Conductor Casing(P3)	26.5	14 Dec 2008	15 Dec 2008	133.00	5.542	119.0m					
Surface Hole(P4)	51	15 Dec 2008	17 Dec 2008	184.00	7.667	999.0m					
Surface Casing(P5)	20	17 Dec 2008	18 Dec 2008	204.00	8.500	999.0m					
BOPs/Risers(P6)	13	18 Dec 2008	19 Dec 2008	217.00	9.042	999.0m					
Intermediate Hole (1)(P7)	243	19 Dec 2008	29 Dec 2008	460.00	19.167	2807.0m					
Intermediate Casing (1)(P9)	44	29 Dec 2008	30 Dec 2008	504.00	21.000	2807.0m					

#### **General Comments**

00:00 TO 24:00 Hrs ON 30 Dec 2008

West Triton Rig Equipment Concerns

**Operational Comments** 

- Cyber chair pressure gauges for the standpipe & choke manifolds require calibration.
   Need new BOP test tool mandrel. Ordered on the 24/10/08.
   TDS IBOP is required to be opened before being able to operate rotating head and link tilt functions. Ongoing intermittent issue.

WBM Data				Cost Today					
Mud Type:	KCI / Polymer	API FL:	5.0cc/30min	CI:	46000mg/l	Solids(%vol):	6%	Viscosity	48sec/qt
Comple From:		Filter-Cake:	1/32nd"	K+C*1000:	7%	Low Crowity	2 70/ val	PV	15cp
Sample-From:	6	Filler-Cake.	1/32110	K+C 1000.	170	Low-Gravity Solids:	3.7%vol	YP	39lb/100ft <sup>2</sup>
Time:	09:30	HTHP-FL:	11.0cc/30min	Hard/Ca:	320mg/l	Solius.		Gels 10s	14
Maight	10.00000	HTHP-cake:	2/32nd"	MBT:	5	H2O:	90%	Gels 10m	25
Weight:	10.00ppg	птпр-саке.	2/32110	IVID I .	5	Oil(%):		Fann 003	14
Temp:	31C°			PM:	0.1	OII( 76).		Fann 006	16
				PF:	0.1	Sand:	.25	Fann 100	36
				FF.		pH:	8.5	Fann 200	46
						-		Fann 300	54
						PHPA:	2ppb	Fann 600	69
Comment		ı		I.		1			



Bulk Stocks					
Name	Unit	In	Used	Adjust	Balance
Drill Water	MT	0	92	0	245.0
Rig Fuel	m3	0	24	0	147.0
POTABLE WATER	MT	12	23	0	255.0
Cement class G	MT	0	42	0	89.0
BLENDED CEMENT	MT	0	0	0	0.0
Bentonite	MT	0	0	0	42.0
Barite	MT	0	8	0	70.0
Brine	m3	0	0	0	30.0
Helifuel	ltr	0	890	-25	4,490.0

Ρι	ımps																
Pump Data - Last 24 Hrs							Slow Pump Data										
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (gpm)	Depth (m)	SPM1 (SPM)	SPP1F (psi)	low1(gpr	n)SPM2 (SPM)			SPM3 (SPM)		Flow3 (gpm)
1	National / 14 P-220	6.50	82.62	97				2730.0	30	290	175	40	320	233	50	400	292
2	National / 14 P-220	6.50	81.78	97								40	240	240	50	320	320
3	National / 14 P-220	6.50	82.62	97				2730.0	30	280	175	40	320	233	50	400	292

Casing			
OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	/	151.00m / 151.00m	
13.38	15.00ppg /	987.00m / 987.00m	
9.63	/	2800.27m / 2797.72m	

Personnel On Board							
Company	Pax						
ADA	4						
Seadrill	11						
Catering	8						
Seadrill Services	32						
Tamboritha	2						
Halliburton	2						
Halliburton - Cementing	2						
Baker Hughes Inteq	6						
Beach Petroleum Ltd	2						
Schlumberger MWD/LWD	3						
Dril-Quip	2						
Weatherford	6						
Total	80						

Mud Volum Shaker Dat	•	sses and Sh	ale	Engineer :			
Available	2015.0bbl	Losses	470.0bbl	Equipment	Description	Mesh Size	Comments
Active	465.0bbl	Downhole	58.0bbl				
Mixing		Surf+ Equip	257.0bbl				
Hole	697.0bbl	Dumped					
Slug	24.0bbl	De-Gasser					
Reserve	829.0bbl	De-Sander					
Kill		De-Silter Centrifuge Behind casing	155.0bbl				

# Marine



Weather on	30 Dec 2008						
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period
1.0nm	26kn	250.0deg	1000.0mbar	14C°	0.5m	135.0deg	13s
Rig Dir.	Ris. Tension	VDL	Swell Height	Swell Dir.	Swell Period	Weather Comments	
128.5deg		3467.00klb	3.0m	190.0deg	13s	mainl	y fine
Comments							

Vessel N	ame Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks							
Pacific Battler	18.15 24/12/08		On location Fermat-1	Item	Unit	In	Used	Transfer to Rig	Adjust	Quantity	
				Rig Fuel	m3		11.49			402.6	
				Potable Water	m3		3			214	
				Drill Water	m3					52	
				Barite	Mt						
				CEMENT G	Mt						
				Bentonite	Mt					17	
				Brine	m3					C	
Pacific Valkyr	ie	09.15 28/12/08	Enroute to Location Fermat-1	Item	Unit	In	Used	Transfer to Rig	Adjust	Quantity	
				Rig Fuel	m3	163	1			422.5	
				Potable Water	Mt	76	3			399	
				Drill Water	m3	560				560	
				Barite	Mt	42				42	
				Bentonite	Mt						
				CEMENT G	Mt	65				65	
				Brine	m3	45.6				45.6	
Helicopte	r Movement										
Flight #	Company	Arr/Dep. Time	Pax	ax In/Out			Comment				
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	1004 / 1025	1004 / 1025		2/13			MS & Seadrill Crew Change			