



# DRILLING MORNING REPORT # 27 Trefoil-2

27 Oct 2009 From: Bryan Houston / Peter Dane

To: Texas Richards

Well Data							
Country	Australia	MDBRT	2520.0m	Cur. Hole Size	12.250in	AFE Cost	US\$33,167,745
Field	Trefoil	TVDBRT	2520.0m	Last Casing OD	13.375in	AFE No.	Trefoil-2
Drill Co.	Maersk	Progress	0.0m	Shoe TVDBRT	930.0m	Daily Cost	US\$567,343
Rig	Kan Tan IV	Days from spud	21.67	Shoe MDBRT	930.0m	Cumul. Cost	US\$20,416,774
Wtr Dpth(MSL)	69.0m	Days on well	26.13	FIT/LOT:	/ 15.15ppg		
RT-ASL(MSL)	26.0m	Planned TD MD	3221.0m	Current Op @ 0600	Troublesh	oot TDS hydrauli	c system.
RT-ML	95.0m	Planned TD TVDRT	3221.0m	Planned Op		to troubleshoot T ting on fishing too	DS hydraulic system ols.

## Summary of Period 0000 to 2400 Hrs

Modified 8 3/8" lip guide. RIH with 8 3/8" overshot, engaged and retrieved fish at 52.3m. POOH to surface. Made up 11 1/4" overshot. Worked on TDS hydraulic system. RIH with 11 1/4" overshot, engaged fish and attempted to mechanically back off casing. No success. POOH to surface. RIH with reverse circulating junk basket. Washed top of fish. POOH to surface. Modified basket grapple. RIH with 11 1/4" overshot. Engaged fish with 20klbs to 25klbs overpull. Applied left hand torque, string jumped and overshot slipped free. Made several more attempts. No success. POOH to surface. Picked up 9 x 6.75" drill collars and racked in derrick.

HSE Summary						
Events	Num. Events	Days Since	Descr.	Remarks		
Abandon Drill	1	3 Days	Held abandon drill			
Fire Drill	1	3 Days	Main deck - Fire in rubbish container			
Permit To Work	12	0 Days	Permits administered			
Pre-tour Meeting	2	0 Days	Shift change meetings			
Safety Meeting	2	2 Days	Held 2 x General Safety Meeting			
STOP Card	29	0 Days	Number of STOP Cards submitted			
FORMATION						
Name			Тор			
Upper Angahook			1162.00m			
Angahook Volcanics Ed	quiv		1331.00m	1331.00m		
Lower Angahook			1569.00m	1569.00m		
Demons Bluff			1850.00m	1850.00m		

2105.00m

#### Operations For Period 0000 Hrs to 2400 Hrs on 27 Oct 2009

Phse	Cls (RC)	Ор	From	То	Hrs	Depth	Activity Description
P13	TP (WB)	G18	0000	0130	1.50	2520.0m	Modified 8 3/8" lip guide. Welder fabricated and welded 11 3/4" x 15" over size guide onto 8 3/8" lip guide.
P13	TP (WB)	G18	0130	0430	3.00	2520.0m	RIH with 8 3/8" overshot assembly, dressed with modified 11 3/4" x 15" lip guide to top of fish #2 at 52.3mRT. Successfully engaged fish. POOH to surface and released fish. Laid out 8 3/8" overshot assembly.
P13	TP (WB)	G18	0430	0600	1.50	2520.0m	POOH with the 11 1/4" overshot assembly. Laid down the Dril-Quip EDPHT. Serviced break and laid down 11 1/4" overshot assembly.
P13	TP (RE)	G11	0600	0830	2.50	2520.0m	Made up 11 1/4" overshot assembly dressed with 7 7/8" basket grapple. Cleaned all boxes and pins with diesel and made up each connection dry. Torqued each connection to 32,000 ft/lbs. RIH to above fish at 61m.
P13	TP (DH)	G18	0830	0930	1.00	2520.0m	Investigated and continued to trouble shoot problems with TDS hydraulic system. No success.
P13	TP (WB)	G18	0930	1230	3.00	2520.0m	RIH with 11 1/4" overshot assembly from 61m to above fish at 81.5m. Cleaned all boxes and pins with diesel and made up each connection dry. Torqued each connection to 32,000 ft/lbs. Engaged fish and attempted to mechanically back off casing with 50klbs overpull and 24,000 ft/lbs left hand torque. Bowen overshot prematurely released from fish. Made several attempts without success. POOH to inspect overshot and grapple. Checked basket grapple, slight wear 3 inches of wickers were worn flat.
P13	TP	G18	1230	1630	4.00	2520.0m	Made up reverse circulating junk basket assembly. RIH to top of fish at 81.5m. Closed

Eastern View Coal Measures





Phse	Cls (RC)	Ор	From	То	Hrs	Depth	Activity Description
	(WB)						lower annular 3 times, monitored flow meter, opened annular pumped 5 bbls hi-vis and circulated up riser and observed shakers. No excess cuttings observed. Performed injection test, pumped 3.2 bbls, 950 psi. Pressure dropped to 750 psi. Pumped 1.3 bbls at 950 psi. Bled off slowly to 900 psi. Pressure steady at 900 psi. Washed top of fish. Bleed of pressure and opened annular. POOH to surface.
P13	TP (WB)	G18	1630	1900	2.50	2520.0m	Modified basket grapple. Welded numerous beads on the outside of a new 7 7/8" basket grapple to reduce the size of the catch. Re-dressed 11 1/4" overshot assembly.
P13	TP (WB)	G18	1900	2100	2.00	2520.0m	RIH with 11 1/4" overshot assembly to above fish at 81.5m. Cleaned all boxes and pins with diesel and made up each connection dry. Torqued each connection to 32,000 ft/lbs. Engaged fish with 20k to 25k overpull. Applied left hand torque, string jumped and overshot slipped free. Made several more attempts, without success. POOH to surface. Checked basket grapple, the first 2 to 3 inches of wickers were worn flat.
P12	Р	G2	2100	2400	3.00	2520.0m	Held JSA. Picked up and racked back 9 x 6.75" drill collars in derrick.

## Operations For Period 0000 Hrs to 0600 Hrs on 28 Oct 2009

Phse	Cls (RC)	Ор	From	То	Hrs	Depth	Activity Description
P12	Р	G2	0000	0100	1.00	2520.0m	Laid down Halliburton SSR cement head.
P12	Р	G2	0100	0200	1.00	2520.0m	Picked up and made up 2 x $6.75$ " drill collars and 1 x $6.75$ " drilling jars and racked back in derrick.
P12	Р	G2	0200	0530	3.50	2520.0m	Installed diverter and wiper rubber. Picked up 9 x 5" HWDP and racked back same in derrick. Drifted all tubulars with 3" drift. Moved 2 x stands of 5" HWDP from port to starboard side of derrick.
P12	Р	G11	0530	0600	0.50	2520.0m	Serviced TDS.

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

Phase Data to 2400hrs, 27 Oct 200	)9					
Phase	Phase Hrs	Start On	Finish On	Cumul. Hrs	Cumul. Days	Max Depth
Mob/Demob(P1)	69.5	21 Sep 2009	04 Oct 2009	69.50	2.896	0.0m
Conductor Hole(P2)	46.5	04 Oct 2009	06 Oct 2009	116.00	4.833	155.0m
Conductor Casing(P3)	37	06 Oct 2009	08 Oct 2009	153.00	6.375	155.0m
Surface Hole(P4)	68	08 Oct 2009	11 Oct 2009	221.00	9.208	935.0m
Surface Casing(P5)	36	11 Oct 2009	12 Oct 2009	257.00	10.708	935.0m
BOPs/Risers(P6)	61.5	12 Oct 2009	15 Oct 2009	318.50	13.271	935.0m
Production Hole (1)(P11)	176.5	15 Oct 2009	22 Oct 2009	495.00	20.625	2520.0m
Production Casing(1)(P13)	129	22 Oct 2009	27 Oct 2009	624.00	26.000	2520.0m
Production Hole (2)(P12)	3	27 Oct 2009	27 Oct 2009	627.00	26.125	2520.0m

WBM Data				Cost Toda	y US\$ 396				
Mud Type:	KCI	API FL:	4.8cc/30min	CI:	42500mg/l	Solids(%vol):	3%	Viscosity	57sec/qt
	POLYMER	Filter-Cake:	1/32nd"	K+C*1000:	9%	H2O:	94%	PV YP	12cp 21lb/100ft²
Sample-From:	4	HTHP-FL:	12.5cc/30min	Hard/Ca:	400mg/l	Oil(%):		Gels 10s	11
Time:	11:00 hrs	HTHP-cake:	2/32nd"	MBT:	10	Sand:	.3	Gels 10m	15
Weight:	9.44ppg	TITTII Cake.	2,02110					Fann 003	10
Temp:				PM:	0.4	pH:		Fann 006 Fann 100	11 23
				PF:	0.25	PHPA:	2ppb	Fann 200	30
Comment		Note: Cost is i	n AUD					Fann 300	33
								Fann 600	45

						Fann 600 45
BHA # 8						
Weight(Wet)	Length		93.4m	Torque(max	)	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	Below Jar(Wet) String		000.00klb	Torque(Off.E	3tm)	D.C. (2) Ann Velocity
	Pick-Up	1650	000.00klb	Torque(On.E	3tm)	H.W.D.P. Ann Velocity
	Slack-Off	1700	000.00klb			D.P. Ann Velocity
BHA Run Description	11 1/4" Oversl	not assembly	, dressed	with a 7 7/8"	spiral grapple.	
BHA Run Comment						
Equipmen	t	Length	OD	ID	Serial #	Comment
Overshot		2.06m	11.25in	7.88in	62580G	
X/Over		1.09m	8.38in	3.00in	1792	
Bumper sub		1.89m	6.50in	2.25in	GK0267	



Equipment		Length	OD	ID	Serial #	Comment
Pup Joint		1.56m	5.00in	3.00in		
HWDP		9.45m	5.00in	3.00in	986	
HWDP		9.47m	5.00in	3.00in	977	
HWDP		9.46m	5.00in	3.00in	968	
HWDP		9.43m	5.00in	3.00in	972	
HWDP					975	
HWDP		9.44m 9.47m	5.00in	3.00in	973	
			5.00in	3.00in		
HWDP		9.47m	5.00in	3.00in	989	
HWDP		9.43m	5.00in	3.00in	980	
HWDP		9.46m	5.00in	3.00in	966	
BHA # 9	1		ľ			
Weight(Wet)	Length		89.7m	Torque(max)	)	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	Below Jar(Wet) String		000.00klb	Torque(Off.E	stm)	D.C. (2) Ann Velocity
	Pick-Up	1650	000.00klb	Torque(On.B	stm)	H.W.D.P. Ann Velocity
	Slack-Off	1700	000.00klb			D.P. Ann Velocity
BHA Run Description	Reverse circula			nbly		,
BHA Run Comment		<u> </u>		<del>-</del>		
Equipment		Length	OD	ID	Serial #	Comment
Rev Circ Junk Basket		1.90m	15.00in	13.63in	GK0136	
X/Over		1.09m	8.38in	3.00in	1792	
Drill Pipe		9.65m	5.00in	4.28in	1732	
•	9.66m	5.00in	4.28in			
-	rill Pipe					
Drill Pipe		9.62m	5.00in	4.28in		
Drill Pipe		9.64m	5.00in	4.28in		
Drill Pipe		9.66m	5.00in	4.28in		
Drill Pipe		9.65m	5.00in	4.28in		
Drill Pipe		9.63m	5.00in	4.28in		
Drill Pipe		9.65m	5.00in	4.28in		
Drillpipe		9.64m	5.00in	4.28in		
BHA # 10						
Weight(Wet)	Length		93.4m	Torque(max)	1	D.C. (1) Ann Velocity
Wt Below Jar(Wet)	String	1650	000.00klb	Torque(Off.B	stm)	D.C. (2) Ann Velocity
	Pick-Up	1650	000.00klb	Torque(On.B	stm)	H.W.D.P. Ann Velocity
	Slack-Off		000.00klb			D.P. Ann Velocity
BHA Run Description				arous haads	on the outside of a r	new 7 7/8" basket grapple to reduce the
BITA Ruit Bescription	size of the cato		relaca man	icious beaus	on the outside of a r	lew / //o basket grappie to reduce the
BHA Run Comment						
Equipment		Length	OD	ID	Serial #	Comment
Overshot		2.06m	11.25in	7.88in	62580G	
X/Over		1.09m	8.38in	3.00in	1792	
Bumper sub		1.89m	6.50in	2.25in	GK0267	
Pup Joint	1.56m	5.00in	3.00in			
HWDP	9.45m	5.00in	3.00in	986		
HWDP	9.47m	5.00in	3.00in	977		
HWDP	9.46m	5.00in	3.00in	968		
HWDP	9.43m	5.00in	3.00in	972		
HWDP	9.44m	5.00in	3.00in	975		
HWDP		9.47m	5.00in	3.00in	973	
HWDP	9.47m	5.00in	3.00in	989		
HWDP		9.43m	5.00in	3.00in	980	
HWDP		9.46m	5.00in	3.00in	966	
114401		J. <del>4</del> 0111	3.0011	3.0011	550	





Bulk Stocks					
Name	Unit	In	Used	Adjust	Balance
Rig Fuel	m3	0	10	0	366.0
Drill Water	m3	0	8	0	572.0
Pot Water	m3	26	28	0	179.0
Brine	m3	0	0	0	71.0
Barite	MT	0	0	0	149.7
Baradefoam-W300	can	0	0	0	9.0
Barolift	boxes	0	0	0	18.0
Bentonite	MT	0	0	0	81.2
Caustic Soda	pail	0	0	0	32.0
Lime	sx	0	0	0	4.0
Soda Ash	sx	0	0	0	15.0
Sodium Bicarbonate	25kg sx	0	0	0	38.0
Rig Fuel	m3	0	0	0	561.0
Drill Water	m3	0	0	0	266.0
Potable Water	m3	0	0	0	208.0
Shaker Screen 50	Screens	0	0	0	8.0

Ρι	ımps																
Pu	mp Data - Last 2	Slow Pump Data															
No.	Туре	Liner (in)	MW (sg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (gpm)	Depth (m)	SPM1 (SPM)	SPP1Fl (psi)	low1(gpr	n)SPM2 (SPM)			SPM3 (SPM)		Flow3 (gpm)
1	Continental Emsco	6.50	1.09	97	60	3000	300	2515.0	30	220	150	40	270	200	50	350	250
2	Continental Emsco	6.50	1.09	97	60	3000	300	2515.0	30	240	190	40	290	260	50	350	250
3	Continental Emsco	6.50	1.09	97	60	3000	300	2515.0	30	200	150	40	270	200	50	350	260

Casing			
OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	/	153.00m / 153.00m	30" Cement Job: Pumped 50 bbls spacer ahead. Mixed 260 bbls of 15.8ppg (53 MT) class G cement with 155 bbls of seawater. Displaced with 72.4 bbls of seawater.
13.38	15.15ppg /	930.00m / 930.00m	13 3/8" Cement Job: Pumped 50 bbls of spacer ahead. Mixed 436 bbls (35 MT) of 11.5 ppg lead cement with 368 bbls of mix water. Mixed 67 bbls (14 MT) of 15.8 ppg tail cement with 40 bbls of mix water. Displaced with 412 bbls of seawater.

Personnel On Board							
Company	Pax						
ADA	4						
Maersk	47						
GRN	3						
OMS	12						
Nopsa	2						
Geoservices	4						
Halliburton Cementers	2						
Halliburton	3						
Halliburton (Baroid)	2						
Dril-Quip	1						
Fugro ROV	3						
Swaco	1						
PCS	3						
Smith Services	1						
Others	2						
Total	90						





Mud Volun Shaker Da		osses and S	hale	Engineer : I	Mike Lawrance /	James Mun	ford				
Available	2829.6bbl	Losses	45.1bbl	Equipm	ent Des	cription	Mesh Size	e C	comments		
Active	619.0bbl	Downhole		Shaker 1	Brandt	VSM 300	20 top/100bottom				
Mixing	0.0bbl	Surf+ Equip	4.0bbl	Shaker 1	Brandt	Brandt VSM 300 20 top/10		ottom	itom		
-			4.0001	Shaker 2 Brandt		VSM 300	'SM 300 20 top/100bottom				
Hole	1150.6bbl	Dumped				VSM 300					
Slug	25.0bbl	De-Gasser		Shaker 3		VSM 300 20 top/100botto					
Reserve	975.0bbl	De-Sander		Shaker 4 Brandt \		VSM 300 20 top/100bottom VSM 300 20 top/100bottom VSM 300 20 top/100bottom					
Kill	60.0bbl	De-Silter Centrifuge	41.1bbl								
Marine				1							
Weather on 27	7 Oct 2009							R	ig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave D	ir. Wave Pe	eriod	Anchors	Tension (klb)	
10.0nm	3kn	175.0deg	1024.0mbar	15C°	0.3m	175.0de	175.0deg 3s		1	206.0	
Heave	Pitch	Roll	Rig Dir.	Ris. Tension	n VDL	Weather Comments			2	218.0	
0.6m	0.7deg	1.4deg	317.0deg	240000.00k	lb 172728.00kl	b			3	210.0	
Swell Height	Swell Dir.	Swell Period	51110a0g			_			4 5	207.0 222.0	
				Comments			_		6	211.0	
0.9m	175.0deg	5s							7	202.0	
									8	226.0	
Vessel Name Arrived (Date/Time) Departe (Date/Time)					Bulk	S					
Far Scimitar				On location KT4		Item		Unit	Used	Quantity	
						Rig Fuel Potable Water			M3 M3	381 495	
						Drill Water			M3	196	
						Barite		t t		(	
						Bentonite			t	(	
						Brine			M3	165	
Far Fosna				Melbourne			Item		Used	Quantity	
						Rig Fuel Pot Water			M3 M3	32 <sup>4</sup>	
						Drill Water			M3	362	
						Bentonite			t	42	
						Barite			t	20 130	
Have not receive	ed a vessel dailv	report for several	days.			Brine			M3	65	
	Movement	•	<b>y</b> -								
Flight #				ep. Time Pax In/Out					Comment		
4	Bristow Helicopters 13:05 hrs / 13:15 hrs 2 / 4 Crew c								Crew change		