

**DRILLING MORNING REPORT # 43**  
**Trefoil-2**

12 Nov 2009

 From: Bryan Houston / Paul Leathem  
 To: Paul Barrett

Well Data							
Country	Australia	MDBRT	2988.0m	Cur. Hole Size	8.500in	AFE Cost	US\$33,167,745
Field	Trefoil	TVDBRT	2988.0m	Last Casing OD	9.625in	AFE No.	Trefoil-2
Drill Co.	Maersk	Progress	5.0m	Shoe TVDBRT	2520.0m	Daily Cost	US\$545,281
Rig	Kan Tan IV	Days from spud	37.67	Shoe MDBRT	2520.0m	Cumul. Cost	US\$30,190,537
Wtr Dpth(MSL)	69.0m	Days on well	42.13	FIT/LOT:	11.00ppg /		
RT-ASL(MSL)	26.0m	Planned TD MD	3221.0m	Current Op @ 0600	Continued to POOH at controlled rate, 3min per stand.		
RT-ML	95.0m	Planned TD TVDRT	3221.0m	Planned Op	Continue to POOH. Lay out core #1. RIH with 8 1/2" drilling BHA.		

**Summary of Period 0000 to 2400 Hrs**

Continued to POOH on elevators to 2520m Hole in good condition. No tight spots observed. Performed flow check. Pumped slug and POOH. Removed sources and down loaded Halliburton tools. POOH and broke off 8-1/2" PDC bit and racked back stand. Bit dull grading =1-2-CT-S-X-I-WT-CP. Picked up outer core barrel and made up 8-1/2" core bit MCP 572. Picked up inner core barrels and spaced out inner barrel to core bit. Made up 6-3/4" BHA and RIH. Broke circulation and recorded parameters. Took SCR's. Continued to RIH at a controlled speed to 2983m. Picked up a DP single and 3m pup to space out for a continuous 30m core. Dropped the ball. Took SCR's. Began cutting core #1.

**HSE Summary**

Events	Num. Events	Days Since	Descr.	Remarks
Last BOP Test	05 Nov 2009			
Abandon Drill	0	5 Days	Held abandon drill	
Emergency Drill	0	8 Days	Full Emergency drill performed.	
Fire Drill	0	5 Days	Main deck - Fire in control room	
Permit To Work	9	0 Days	Permits administered	
Pre-tour Meeting	2	0 Days	Shift change meetings	
Safety Meeting	10	0 Days	Prejob safety meetings	
STOP Card	47	0 Days	Number of STOP Cards submitted	
Trip / Kick Drill	1	0 Days	Trip Drill 36sec	Held while POOH

**FORMATION**

Name	Top
Eastern View Coal Measures	2105.00m
Eocene Unconformity	2701.50m
2973 Seismic Marker	2858.80m
Base Low A1 Zone	2937.80m
TL40 Sand	2977.00m

**Operations For Period 0000 Hrs to 2400 Hrs on 12 Nov 2009**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G8	0000	0100	1.00	2983.0m	Continued to POOH on elevators monitoring well on trip tank from 2669m to 2520m (9 5/8" casing shoe). Hole in good condition. No Tight spots observed.
P17	P	G14	0100	0130	0.50	2983.0m	Perform 15 min flow check. Serviced top drive. Removed MWD and Geoservices geolograph lines.
P17	P	G8	0130	0530	4.00	2983.0m	Pumped slug and POOH in casing from 2520m to 380m.
P17	P	G8	0530	0800	2.50	2983.0m	Performed 15 min flow check and continued to POOH from 380m to 30m.
P17	P	G7	0800	0900	1.00	2983.0m	Removed sources and down loaded Halliburton tools.
P17	P	G6	0900	0930	0.50	2983.0m	POOH and broke off 8-1/2" PDC bit and racked back stand. Bit dull grading = 1-2-CT-S-X-I-WT-CP.
P17	P	G23	0930	1000	0.50	2983.0m	Held JSA with drill crews, crane operator and roustabouts. Discussed procedures on picking up outer core barrel.
P17	P	E7	1000	1130	1.50	2983.0m	Picked up 1st joint of outer core barrel and made up 8-1/2" core bit MCP 572. Continued to pick up outer barrels.
P17	P	E7	1130	1230	1.00	2983.0m	Picked up inner core barrels and spaced out inner barrel to core bit.

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G6	1230	1400	1.50	2983.0m	Made up 6-3/4" BHA and RIH to 288m.
P17	P	G8	1400	1830	4.50	2983.0m	Function tested diverter. Continued to RIH coring BHA on 5" DP to 9-5/8" Shoe at 2520m.
P17	P	G8	1830	1900	0.50	2983.0m	Broke circulation and recorded parameters - hook Load, drag up and down, 280gpm and torque. Took SCR's.
P17	P	G8	1900	2100	2.00	2983.0m	Continued to RIH at a controlled speed from 2520m to 2946m.
P17	P	F1	2130	2200	0.50	2983.0m	Washed and reamed from 2946m to 2983m. Picked up a DP single and 3m pup to space out for a continuous 30m core.
P17	P	E7	2130	2200	0.50	2983.0m	Dropped the ball. Pressure increased from 540 to 730psi. Took SCR's. Set coring parameters: 210gpm/555psi/70rpm/5-7 torque.
P17	P	E7	2200	2400	2.00	2988.0m	Began coring run #1: 210gpm/560psi/70rpm/10klbs WOB/Torq 5-7. Cut core from 2983m to 2988m.

**Operations For Period 0000 Hrs to 0600 Hrs on 13 Nov 2009**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	E7	0000	0230	2.50	3013.0m	Continued to cut core #1 from 2988m to 3013m : 210gpm/560psi/70rpm/10klbs WOB/Torq 5-7.
P17	P	E7	0230	0300	0.50	3013.0m	Picked up off bottom. POOH 2 stands to 2850m. 20-30klbs overpull on 1st stand. Flow checked while laying down pup joint. Pumped 25bbl slug.
P17	P	G8	0300	0500	2.00	3013.0m	Continued to POOH at controlled rate at 3min per stand from 2850m - 2520m (shoe depth).
P17	P	G8	0500	0600	1.00	3013.0m	Flow checked at shoe. Continued to POOH at controlled rate at 3min per stand from 2520m to 2142m.

**Operations For Period Hrs to Hrs on**
**Phase Data to 2400hrs, 12 Nov 2009**

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)	53.5	04 Oct 2009	06 Oct 2009	123.00	5.125	155.0m
Conductor Casing(P3)	30	07 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)	359	22 Oct 2009	06 Nov 2009	854.00	35.583	2520.0m
Liner Hole (1)(P17)	157	06 Nov 2009	12 Nov 2009	1,011.00	42.125	2988.0m

**General Comments**

00:00 TO 24:00 Hrs ON 12 Nov 2009

**WBM Data**
**Cost Today US\$ 1823**

Mud Type:	KCl POLYMER	API FL:	5.0cc/30min	Cl:	40000mg/l	Solids(%vol):	3%	Viscosity	52sec/qt
Sample-From:	2	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	93%	PV	14cp
Time:	21:30 hrs	HTHP-FL:	10.5cc/30min	Hard/Ca:	350mg/l	Oil(%):		YP	30lb/100ft²
Weight:	9.45ppg	HTHP-cake:	1/32nd"	MBT:	12	Sand:	.3	Gels 10s	9
Temp:				PM:	0.3	pH:	9	Gels 10m	12
				PF:	0.25	PHPA:	2ppb	Fann 003	9
								Fann 006	11
								Fann 100	28
								Fann 200	37
								Fann 300	43
								Fann 600	57

Comment Note: Cost is in AUD

**Bit # 5 RR**

Wear	I	O1	D	L	B	G	O2	R
	1	2	CT	S	X	I	WT	CP

Bitwear Comments:

Size ("):	8.50in	IADC#	M223	Nozzles	Drilled over last 24 hrs	Calculated over Bit Run
-----------	--------	-------	------	---------	--------------------------	-------------------------

Mfr:	SMITH	WOB(avg)	12.30klb	No.	Size	Progress	0.0m	Cumul. Progress	490.0m
Type:	PDC	RPM(avg)	123	6	14/32nd"	On Bottom Hrs	0.0h	Cumul. On Btm Hrs	30.9h
Serial No.:	TX2104	F.Rate	714gpm			IADC Drill Hrs	0.0h	Cumul. IADC Drill Hrs	12.5h
Bit Model	MI616	SPP	2520psi			Total Revs		Cumul. Total Revs	0
Depth In	2633.0m	HSI				ROP(avg)	N/A	ROP(avg)	15.86 m/hr
Depth Out	2983.0m	TFA	0.902						

Bit Comment Re Run Bit # 5

<b>Bit # 6</b>	Wear	I	O1	D	L	B	G	O2	R
Bitwear Comments:									

Size ("):	8.50in	IADC#	M 233	<b>Nozzles</b>		<b>Drilled over last 24 hrs</b>		<b>Calculated over Bit Run</b>	
Mfr:	CORPRO	WOB(avg)	10.00klb	No.	Size	Progress	5.0m	Cumul. Progress	5.0m
Type:	ch	RPM(avg)	70			On Bottom Hrs	2.0h	Cumul. On Btm Hrs	2.0h
Serial No.:	083691	F.Rate	210gpm			IADC Drill Hrs		Cumul. IADC Drill Hrs	0.0h
Bit Model	MCP572	SPP	555psi			Total Revs		Cumul. Total Revs	0
Depth In	2983.0m	HSI				ROP(avg)	2.50 m/hr	ROP(avg)	2.50 m/hr
Depth Out		TFA	0.000						

Bit Comment Coring Run #1

<b>BHA # 26</b>									
Weight(Wet)	50000.00klb	Length	288.4m	Torque(max)	24ft-lbs	D.C. (1) Ann Velocity	656fpm		
Wt Below Jar(Wet)	25000.00klb	String	380.00klb	Torque(Off.Btm)	14ft-lbs	D.C. (2) Ann Velocity	0fpm		
		Pick-Up	395.00klb	Torque(On.Btm)	14ft-lbs	H.W.D.P. Ann Velocity	370fpm		
		Slack-Off	370.00klb			D.P. Ann Velocity	370fpm		

BHA Run Description 8 1/2 Drilling BHA

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.28m	8.50in	2.25in	TX2104	
NB Stab	1.50m	6.88in	3.25in	700172	
Gamma-Ray	7.07m	8.25in	3.00in	90222505	
DM sub	2.81m	6.63in	2.88in	1025744	
MWD	9.20m	8.25in	3.25in	922683	
Sonic 6	6.76m	7.38in	3.00in	922755-06	
Pulser	3.03m	6.81in	2.88in	302842	
MWD	1.81m	7.13in	1.88in	92223063B6	
8-1/2" String Stab	1.70m	8.38in	2.81in	700802	
6 3/4" DC	9.32m	6.75in	2.88in	1185	
6 3/4" DC	9.45m	6.75in	2.88in	1764	
6 3/4" DC	9.44m	6.75in	2.88in	1180	
6 3/4" DC	9.26m	6.75in	2.88in	1191	
6 3/4" DC	9.47m	6.75in	2.88in	1761	
6 3/4" DC	9.20m	6.75in	2.88in	1188	
6 3/4" DC	9.45m	6.75in	2.88in	1759	
6 3/4" DC	9.38m	6.75in	2.88in	1760	
Jar	9.91m	6.50in	2.88in	17602018	
6 3/4" DC	9.47m	6.75in	2.88in	1190	
6 3/4" DC	9.29m	6.75in	2.88in	1766	
6 3/4" DC	9.45m	6.75in	2.88in	1183	
HWDP	141.13m	5.00in	3.00in		

<b>BHA # 27</b>									
Weight(Wet)	65.00klb	Length	286.4m	Torque(max)		D.C. (1) Ann Velocity	88fpm		

Wt Below Jar(Wet)	22.00klb	String	375.00klb	Torque(Off.Btm)	D.C. (2) Ann Velocity	0fpm
		Pick-Up	385.00klb	Torque(On.Btm)	H.W.D.P. Ann Velocity	109fpm
		Slack-Off	360.00klb		D.P. Ann Velocity	109fpm

BHA Run Description	Coring BHA Run #1
---------------------	-------------------

BHA Run Comment
-----------------

Equipment	Length	OD	ID	Serial #	Comment
Core Bit	0.37m	8.50in	4.00in	83691	
stabilizer	0.76m	8.44in	5.63in	W0137319	
Core Barrel	5.33m	7.13in	5.63in	W0135110	
stabilizer	0.76m	8.44in	5.63in	W0137237	
Core Barrel	5.33m	7.13in	5.63in	W0135194	
stabilizer	0.76m	8.44in	5.63in	W0137312	
Core Barrel	5.33m	7.13in	5.63in	S8413	
stabilizer	0.76m	8.44in	5.63in	W0137258	
Core Barrel	5.33m	7.13in	5.63in	723189	
Stabiliser	0.76m	8.44in	5.63in	W0137219	
Core Barrel	5.33m	7.13in	5.63in	SBO6	
stabilizer	0.76m	8.44in	5.63in	W0137014	
Top Head	0.61m	7.13in	5.63in	W1856027	
6 3/4" DC	75.42m	6.75in	2.88in	MAERSK	
Jars	9.91m	6.50in	2.75in	17602018	
6 3/4" DC	28.21m	6.75in	2.88in	MAERSK	
HWDP	141.13m	5.00in	3.00in	MAERSK	

### Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Rig Fuel	m3	0	6	0	481.0
Drill Water	m3	20	0	0	754.0
Pot Water	m3	34	15	0	264.0
Brine	m3	0	0	19	180.0
Barite	MT	0	1.5	0	98.5
Baradefoam-W300	can	0	0	0	9.0
Barolift	boxes	0	0	0	17.0
Bentonite	MT	0	0	0	33.0
Caustic Soda	pail	0	0	0	0.0
Lime	sx	0	0	0	0.0
Soda Ash	sx	0	0	0	33.0
Sodium Bicarbonate	25kg sx	0	0	0	38.0
Shaker Screen 50	Screens	0	0	0	8.0
Citric Acid	Sacks	0	0	0	80.0

### Pumps

Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (sg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (gpm)	Depth (m)	SPM1 (SPM)	SPP1Flow1 (gpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (gpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (gpm)	
1	Continental Emsco	6.50	1.12	97	71	2700	703	2520.0	30	400	252	40	500	336	50	650	420
2	Continental Emsco	6.50	1.12	97	73	2700	703	2520.0	30	340	252	40	440	336	50	560	420
3	Continental Emsco	6.50	1.12	97	85	2700	729	2850.0	30	400	252	40	500	336	50	600	420

### 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

Casing			
OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
9.63	/ 11.00ppg	2520.00m / 2520.00m	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. No Cmt

Personnel On Board	
Company	Pax
ADA	4
Maersk	46
GRN	1
OMS	16
Reach	1
Geoservices	6
Halliburton Cementers	2
Halliburton (Baroid)	2
Fugro ROV	3
Swaco	1
Sperry Sun	3
CORPRO	2
Other Contractor	1
Origin Energy	2
<b>Total</b>	<b>90</b>

Mud Volumes, Mud Losses and Shale Shaker Data				Engineer : Mike Lawrance / Fergus Spencer			
Available	1957.0bbl	Losses	0.0bbl	Equipment	Description	Mesh Size	Comments
Active	666.0bbl	Downhole		Shaker 1	Brandt VSM 300	20 top/50 bottom	
Mixing	0.0bbl	Surf+ Equip	0.0bbl	Shaker 1	Brandt VSM 300	20 top/50 bottom	
Hole	642.0bbl	Dumped		Shaker 2	Brandt VSM 300	20 top/50 bottom	
Slug		De-Gasser		Shaker 2	Brandt VSM 300	20 top/50 bottom	
Reserve	649.0bbl	De-Sander		Shaker 3	Brandt VSM 300	20 top/50 bottom	
Kill		De-Silter		Shaker 3	Brandt VSM 300	20 top/50 bottom	
		Centrifuge		Shaker 4	Brandt VSM 300	20 top/50 bottom	
				Shaker 4	Brandt VSM 300	20 top/50 bottom	

Marine									
Weather on 12 Nov 2009							Rig Support		
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.0nm	17kn	48.0deg	1019.0mbar	13C°	3.0m	48.0deg	3s	1	192.0
Heave	Pitch	Roll	Rig Dir.	Ris. Tension	VDL	Weather Comments			
1.0m	0.2deg	1.2deg	317.0deg	240000.00klb	116684.00klb				
Swell Height	Swell Dir.	Swell Period	Comments						
4.0m	48.0deg	5s							
								2	191.0
								3	149.0
								4	196.0
								5	211.0
								6	206.0
								7	194.0
								8	201.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks			
Item	Unit	Used	Quantity				
Far Scimitar	1920 hrs 7/10/09		Rig standby				
Rig Fuel	M3		591				
Potable Water	M3		125				
Drill Water	M3		817				
	t		0				
Barite	t		0				
Bentonite	t		0				
Brine	M3		165				

#1 Main engine out of service due to fly wheel problem.

Far Fosna		1135hrs 7 Nov 09	En route to KT4	Item	Unit	Used	Quantity
				Rig Fuel	M3		723
				Pot Water	M3		476
				Drill Water	M3		600
				Bentonite	t		42
				Barite	t		0
					t		130
Brine	M3		0				

Departed Melbourne for KT4 @ 1530hrs 12/11/09

Helicopter Movement				
Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	Bristow Helicopters	09:02 / 09:15	9 / 12	Crew Change