



# DAILY GEOLOGICAL REPORT

DATE: 18 Dec 2009  
REPORT NO.: 15  
( associated DDR # 15 )

## WELL: CBM93-004

RIG	Wallis Rig D 39	RIG TYPE	Land
COMPLETION TYPE	Single Gas Producer	TARGET	Test gas potential of Puni Coal Measures
Depth at Midnight (MD)	621.0 m	SPUD DATE	04 Dec 2009
DAYS SINCE SPUD	14.39 ( Days on well: 17.00)	LAST CASING	4.500 in @ 501.0 m MD
PRESENT DEPTH MD	621.0 m	BACKGROUND GAS	Unit
24 Hr Progress (Geology)	13.0 m	MAX GAS	Unit
AVERAGE ROP	2.00 m/h	MUD WEIGHT	8.80 sg (WBM)
Operations Status @ 0600hrs	Conducting falloff test 613.5 - 621m	ECD	
PROGNOSSED TD	1,350.0m MD 1,350.0m TVD	ESTIMATED PORE PRESSURE	

### Well Details

Latitude:	24.00° 52.00" 10.92' South	UTM(N/S):	RT - MSL:	186.00 m DF MSL
Longitude:	135.00° 50.00" 59.64' East	UTM(E/W):	GL Elevation:	185.0 m

### Operations Summary and General Remarks

OPERATION SUMMARY:	<p>Cored Sandstone from 599m to 612.9m when significant coal intersected. Cored coal 612.9m to 621m. Decided to conduct falloff test. Packer set at 613.5m base, with one metre packer over the sand coal boundary. Sandstone directly overlying coal was quite clayey, abundant kaolin, but had rare open pore throats. Coal, dark grey to black, dull minor bright at base, some cleating, quite fractured.</p> <p>Gas reading though the coal 612.9m to 621m was only 1-2 units</p>
NEXT OPERATION:	Conducting falloff test of coal 613.5m to 621m, 7.5m of coal. Initial results suggest good permeability during the injection phase. Falloff stage should take 10 hours from about 10.00 hrs

### Casing Run

OD	LOT/FIT	Csg Shoe (MD/TVD)	Remarks
7"	sg / sg	245.51 m / 245.51 m	
4 1/2"	sg / sg	501.00 m / 501.00 m	4 1/2" 114mm 10.8ppf Range 1 Ozcom Vam

### Lithology Summary

Interval MDBRT (m) From To	Lithology	%	Description
599.00 - 621.00	Sandstone and Coal		<b>Sandstone and Coal</b> Sandstone 599 - 612.9m Coal 612.9 - 621m, Total 8.1m For more details see core descriptions IDS website

### Prognosis and Preliminary Correlation

Top	Actual Depth (186.00 m DF MSL)			Prognosis	H/L	Pick Criteria	Remarks
	MD	TVD	MDSS				
Namba Formation	1.00	1.00	-185.00		N/A		
Eyre Formation	28.00	28.00	-158.00		N/A		
Winton Formation	35.00	35.00	-151.00		N/A	Change to grey claystone	Top placed halfway through 10m sample interval
MackKunda Fm	95.00	95.00	-91.00		N/A	Presence of glauconite fragments in claystone	Top placed halfway through 10m sample interval
Oodnadatta Formation	276.00	276.00	90.00		N/A	First appearance of Inoceramus fragments	
Bulldog Shale	357.00	357.00	171.00		N/A	Non calcareous	
Cadna-owie Fm	406.00	406.00	220.00	435.00	29.0 H	Coarse loose sandstone	

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Top	Actual Depth (186.00 m DF MSL)			Prognosis	H/L	Pick Criteria	Remarks
	MD	TVD	MDSS	MD			
Algebuckina Sandstone	424.00	424.00	238.00		N/A	Coarse friable sandstone	
Purni Formation	498.00	498.00	312.00	550.00	52.0 H	Claystone below m-c sandstone	

**Core**

Core #:	27	Start Depth (MD):	599.8 m
Formation:	Purni Formation	End Depth (MD):	603.0 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	m
Sleeve Type:		Amount Recovered:	3.2 m
Encapsulation Type:			
Shipping:			
Comments:	24hr summary; Cored Sandstone from 599.8m to 612.9m when significant coal intersected. Cored coal 612.9m to 621m. Decided to conduct falloff test. Packer set at 613.5m base, with one metre packer over the sand coal boundary. Sandstone directly overlying coal was quite clayey, abundant kaolin, but had rare open pore throats. Coal, dark grey to black, dull minor bright at base, some cleating, quite fractured.		
Core Description:	Sandstone, medium grained, firm, very rare laminations		

**Core**

Core #:	28	Start Depth (MD):	603.0 m
Formation:	Purni Formation	End Depth (MD):	609.0 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			
Shipping:			
Comments:			
Core Description:	603 - 604.47m Sandstone, coarse very coarse, med grey, 1.5 cm coaly lamination, dispersed coal in sandstone at top. 604.47 - 604.7m Sandstone, coarse with thin coaly laminations 604.7 - 609m Sandstone, medium to coarse, coarse to granule at base		

**Core**

Core #:	29	Start Depth (MD):	609.0 m
Formation:	Purni Formation	End Depth (MD):	615.0 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			
Shipping:			
Comments:	Given minor open pore throats in sandstone Falloff test packer set across sanstone/coal boundary. Test conducted at depth 621m		
Core Description:	Sandstone, medium to coarse grained, firm, very rare laminations Sandstone directly above the coal: light to medium grey, firm, fine to coarse, predominantly coarse, poorly sorted, subangular to angular, grey clay matrix 2cm above coal, abundant kaolin matrix, poor porosity, but with rare pore throats, trace, coarse biotite mica and lithic grains  612.9 - 615m, Coal, black, brown black in part, dull, trace bright, fractured  Desorption samples 612.9- 613.9 #13, 613.9-614.9 #14		



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### Core

Core #:	30	Start Depth (MD):	615.0 m
Formation:	Purni Formation	End Depth (MD):	618.4 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	m
Sleeve Type:		Amount Recovered:	3.4 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: 615m - 618.4m, Coal, black, brown black in part, dull, trace bright, fractured

617.13- 618.13m desorption samples #16 & 17

### Core

Core #:	31	Start Depth (MD):	618.4 m
Formation:	Purni Formation	End Depth (MD):	621.0 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	m
Sleeve Type:		Amount Recovered:	2.4 m
Encapsulation Type:			

Shipping:

Comments: Falloff Test conducted at 621m.Packer set 612.5-613.5m.

Core Description: 618.4m - 621m, Coal, black, brown black in part, dull, trace bright, fractured

618.49 - 620.49m desorption samples #18 & 19

### Well Geologist

Michael Harrison