

**DAILY GEOLOGICAL REPORT**DATE: 05 Jun 2010  
REPORT NO.: 20  
( associated DDR # 20 )**WELL: CBM 93-002**

RIG	Wallis Rig D 39	RIG TYPE	Land
COMPLETION TYPE		TARGET	Test gas potential of Purni Formation
Depth at Midnight (MD)	958.2 m	SPUD DATE	22 May 2010
DAYS SINCE SPUD	14.67 ( Days on well: 19.67)	LAST CASING	4.500 in @ 523.5 m MD
PRESENT DEPTH MD	977.5 m	BACKGROUND GAS	17.00 Unit @ 944.0 m
24 Hr Progress	102.00 m	MAX GAS	78.00 Unit @ 941.5 m
AVERAGE ROP	42,479.97 m/h	ECD	
Operations Status @ 0600hrs	Coring ahead	ESTIMATED PORE PRESSURE	
PROGNOSSED TD	1,150.0m MD 1,150.0m TVD		

**Well Details**

Latitude:	25.00° 21.00" 16.10' South	UTM(N/S):	RT - MSL:	159.30 m RT MSL
Longitude:	135.00° 26.00" 5.30' East	UTM(E/W):	GL Elevation:	158.0 m

**Operations Summary and General Remarks**

OPERATION SUMMARY:	Cored from 856 to 958.10 in sandstones of the Purni Formation with occasional coals to 900.61m. Section below 900.61 lacks coals beyond 20cm in thickness but still contains occasional large coal fragments. Total coal cored now 96.5m, total for Purni 100m.
HYDROCARBON SHOWS:	Nil, but total gas and C1 increasing below 935m
NEXT OPERATION:	Core ahead to TD in top Crown Point

**Lithology Summary**

Interval MDBRT (m) From To		Lithology	%	Description
859.61 - 862.63		Interbedded Siltstone and Sandstone	100	<b>Interbedded Siltstone and Sandstone</b> 859.61 - 862.63m Mostly interbedded dark grey siltstone and light grey fine sandstone as above, grading up from underlying coal through dark brown carbonaceous claystone
862.63 - 863.30		Coal	100	<b>Coal</b> 862.63 - 863.3m Coal, mostly dull with a few bright zones
863.30 - 864.28		Sandstone	100	<b>Sandstone</b> 863.3 - 864.28m Sandstone, fine, laminated and thinly interbedded and laminated with minor dark grey siltstone. About 70% sandstone
864.28 - 865.51		Interbedded Coal and Siltstone	100	<b>Interbedded Coal and Siltstone</b> 864.28 - 865.51m Interbedded coal, carbonaceous claystone and dark grey siltstone, coal at base and top, sharp contact at base, gradational at top.
865.51 - 868.20		Siltstone	100	<b>Siltstone</b> 865.51 - 868.2m Siltstone, dark grey, with occasional thin bands and laminae of fine sandstone, plus rare thicker beds to 15cm.
868.20 - 871.22		Coal	100	<b>Coal</b> 868.2 - 871.22m Coal, dull, fissile, in part pyritic. Includes 50cm bed of dark grey siltstone grading to carbonaceous claystone above 870.1m.
871.22 - 876.55		Siltstone	100	<b>Siltstone</b> 871.22 - 876.55m Siltstone, mid - dk gy with rare irregular fine sandstone beds, lenticular in part. Becomes more silty upward.
876.55 - 878.81		Coal	100	<b>Coal</b> 876.55 - 878.81m Coal, mostly banded bright, grades to overlying unit
878.81 - 882.24		Interbedded Siltstone and Sandstone	100	<b>Interbedded Siltstone and Sandstone</b> 878.81 - 882.24m Interbedded siltstone and fine sandstone as above, sandstone about 30%, thin bedded and laminated, occasional coal streaks, becoming sandier towards top, more carbonaceous around 880m
882.24 - 885.56		Sandstone	100	<b>Sandstone</b>



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Interval MDBRT (m) From To		Lithology	%	Description
				882.24 - 885.56m Sandstone, coarse, quartzose, abundant white and cream clay matrix, becoming coarser upwards, common biotite. Uniform apart from a few carbonaceous laminae towards the top
885.56 - 886.53		Interbedded Siltstone & Sandstone	100	<b>Interbedded Siltstone &amp; Sandstone</b> 885.56 - 886.53m Interbedded siltstone and sandstone as above, about 50:50, coarsens up from two thin coal to carbonaceous claystone bands near base.
886.53 - 893.54		Sandstone	100	<b>Sandstone</b> 886.53 - 893.54m Sandstone as above, coarse to medium at base coarsening up very slightly to coarse. Possibly crossbedded.
893.54 - 898.05		Upward Fining Sandstone & Siltstone	100	<b>Upward Fining Sandstone &amp; Siltstone</b> 893.54 - 898.05m Upward fining sequence from light grey medium sandstone with common carbonaceous or claystone laminae through interbedded mic-dark grey siltstone and light grey medium to fine sandstone in bands and thin beds to two thin coals grading to carbonaceous claystone.
898.05 - 898.59		Siltstone	100	<b>Siltstone</b> 898.05 - 898.59m Siltstone, mid - dark grey, slightly carbonaceous in part
898.59 - 900.61		Coal	100	<b>Coal</b> 898.59 - 900.61m Coal, banded bright
900.61 - 902.99		Coal, Carbonaceous Claystone & Siltstone	100	<b>Coal, Carbonaceous Claystone &amp; Siltstone</b> 900.61 - 902.99m Mixture of coals grading to carbonaceous claystones at base & over 20cm above 906.8m, interbedded with siltstone and thin beds of medium sandstone. Overlying coals are part of this sequence.
902.99 - 912.83		Sandstone	100	<b>Sandstone</b> 902.99 - 912.83m Sandstone in upward fining sequence from coarse to coarse to medium at top. Occasional thin coal bands at base.
912.83 - 916.29		Siltstone	100	<b>Siltstone</b> 912.83 - 916.29m Siltstone, mid grey, slightly sandy in part, with poorly defined very fine sandstone bands and laminae
916.29 - 919.85		Sandstone	100	<b>Sandstone</b> 916.29 - 919.85m Sandstone, light to mid grey, coarse to medium, with common mid to dark grey siltstone bands and laminae, often irregular and wavy.
919.85 - 930.00		Sandstone	100	<b>Sandstone</b> 919.85 - 930.0m Sandstone, light grey, coarse to medium with occasional very coarse bands (eg at 926m) and rare laminated carbonaceous zones. Rare coal bands and stringers
930.00 - 934.00		Sandstone	100	<b>Sandstone</b> 930.0 - 934.0m Sandstone, coarse to medium as above but strongly fractured during coring at base and top.
934.00 - 940.55		Sandstone	100	<b>Sandstone</b> 934.0 - 940.55m Sandstone, coarse - medium as above, mostly uniform apart from vague cross lamination and abundant carbonaceous laminae around 935m and hard cemented bands to 0.7m at 934 and 937m
940.55 - 945.27		Sandstone	100	<b>Sandstone</b> 940.55 - 945.27m Sandstone, coarse to medium as below, 60%, interbedded and interlaminated with siltstone, dark grey, laminae sometimes discontinuous, and uniform sandstone bands to 0.4m. Scattered clasts of ripped up sediment.
945.27 - 951.39		Sandstone	100	<b>Sandstone</b> 945.27 - 951.39m Sandstone, as at 934.0m, fining up from very coarse to coarse to medium with occasional ripped up coal clasts
951.39 - 953.21		Siltstone	100	<b>Siltstone</b> 951.39 - 953.21m Siltstone grading to very fine sandstone, mid grey, with bands and laminae of light grey fine sandstone, a few coal clasts near base and a few

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Interval MDBRT (m) From To		Lithology	%	Description
				carbonaceous zones. Quite hard and bedding contacts diffuse.
953.21 - 956.85		Sandstone	100	<b>Sandstone</b> 953.21 - 956.85m Sandstone, very fine, grading to siltstone, occasionally uniform but usually interbedded with light grey fine sandstone as above.

**Gas Readings**

Depth (m)	Total Gas (ppm)	BGG (ppm)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	iC5 (ppm)	nC5 (ppm)
874.20 - 880.20	3,000.000	1,600.00	3 - 11	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	-

**Comment-** From coal. CO@232ppm, background

940.20 - 946.20	7,900.000	1,600.00	2 - 11	0 - 2	0 - 0	0 - 0	0 - 0	0 - 0	-
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**Comment-** Feom sandstones. CO2 211, background**Prognosis and Preliminary Correlation**

Top	Actual Depth (159.30 m RT MSL)			Prognosis	H/L	Pick Criteria	Remarks
	MD	TVD	TVDSS	MD			
Eyre Formation	4.00	4.00	-155.30	4.00	N/A		
Winton Formation	20.00	20.00	-139.30	60.00	40.0 H	Top grey claystones	Top may be unweathered Eyre Fmn
MacKunda Fm	198.00	198.00	38.70		N/A	First glauconitic sandstones, slightly calcareous	Top boundary clear, but could contain equivalents of Oodnadatta and Bulldog Formations
Cadna-owie Fm	291.00	291.00	131.70	484.00	193.0 H	Top first quartz sandstone	Very thin, indistinguishable from Algebuckina while drilling. Better defined on wireline logs
Algebuckina Sandstone	314.00	314.00	154.70	490.00	176.0 H	Second fast drilling break - no change in cuttings	May include Poolowanna Formation and/or other early Mesozoic units
Purni Formation	512.00	512.00	352.70	700.00	188.0 H	Reverse drilling break above 5.5m coal	

**Core**

Core #:	58	Start Depth (MD):	856.2 m
Formation:	Purni Formation	End Depth (MD):	862.2 m
Contractor:	Wallis Drilling	Core Diameter:	61 mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:	Others	Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

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Core #:	59	Start Depth (MD):	862.2 m
Formation:		End Depth (MD):	868.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	60	Start Depth (MD):	868.2 m
Formation:		End Depth (MD):	874.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	61	Start Depth (MD):	874.2 m
Formation:		End Depth (MD):	880.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	62	Start Depth (MD):	880.2 m
Formation:		End Depth (MD):	886.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	63	Start Depth (MD):	886.2 m
Formation:		End Depth (MD):	892.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

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Core #:	64	Start Depth (MD):	892.2 m
Formation:		End Depth (MD):	898.4 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	5.9 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	65	Start Depth (MD):	898.2 m
Formation:		End Depth (MD):	904.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.1 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	66	Start Depth (MD):	904.2 m
Formation:		End Depth (MD):	910.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	67	Start Depth (MD):	910.2 m
Formation:		End Depth (MD):	916.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	68	Start Depth (MD):	916.2 m
Formation:		End Depth (MD):	922.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

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Core #:	69	Start Depth (MD):	922.2 m
Formation:		End Depth (MD):	928.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	70	Start Depth (MD):	928.2 m
Formation:		End Depth (MD):	934.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	71	Start Depth (MD):	934.2 m
Formation:		End Depth (MD):	940.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	72	Start Depth (MD):	940.2 m
Formation:		End Depth (MD):	946.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section

**Core**

Core #:	73	Start Depth (MD):	946.2 m
Formation:		End Depth (MD):	852.2 m
Contractor:		Core Diameter:	mm
Equipment:		Barrel Length:	6.0 m
Sleeve Type:		Amount Recovered:	6.0 m
Encapsulation Type:			

Shipping:

Comments:

Core Description: See Lithology Section



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**Well Geologist**

Graham McClung