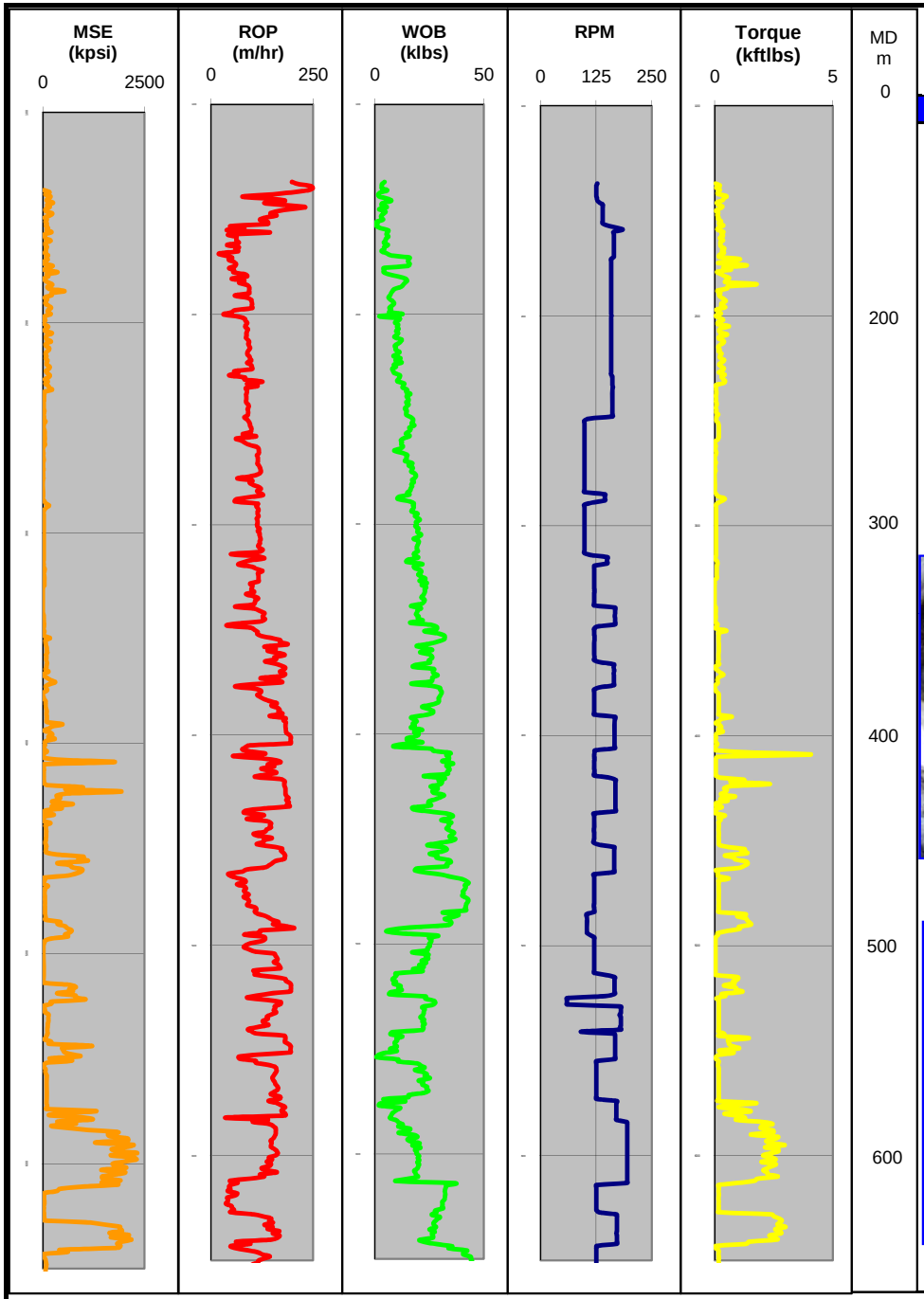
DFE above MSL : 38.0m | Lat : 38 Deg 12 Min 25.077 Sec | Spud Date : 10 May 2008 | Release Date : 25 May 2008

Water Depth : 39.5m | Long : 147 Deg 37 Min 9.810 Sec | Spud Time: 19.30 | Release Time: 22.30

Bit Record

Well: Wardie-1

Date In	Date Out	IADC	Bit#	Size (in)	Ser #	Mfr	Type	Jets	TFA	D.In (m)	D.Out (m)	Prog (m)	Hrs IADC	ROP (ft/hr)	SPP (psi)	Flow (gpm)	WOB (klb)	RPM	MW (sg)	I	O1	D	L	B	G	O2	R
10 May 2008	11 May 2008	1-1-1	1RR	26.00	34406	REED	Y11C	1 x 16 3 x 22	1.31	76.8	136.0	59.2	5	11.84	950	800	4.00	120	1.06	1	1	WT	A	NB	I	RR	TD
12 May 2008	13 May 2008	115	2	17.50	6065891	HUGHES	MXL-T1V	3 x 20	0.92	136.0	751.0	615	13	47.31	2575	1150	5000.00	60	1.06	1	1	NO	A	0	I	NO	TD
16 May 2008	19 May 2008	M422	3	12.25	218629	Reed Hycalog	RSX616MA16	3 x 15 3 x 16	1.107	751.0	1766.0	1015	35.5	28.59	2250	1100	20.00	160	1.08	3	3	WT	A	X	I	CT	TD



Bit Run Report

BAKER HUGHES Hughes Christensen

Photos

17 1/2" MXL-T1V

New Bit

Top View

Side View

Well Data

Well Name	WARDIE 1
Field	Gippsland Basin
Operator	3D OIL
Contractor	SeaDrill
Rig Name	WEST TRITON
DD Co.	Schlumberger
Date In	11-May-08
Date Out	17-May-08

Bit Data

Size / Run #	17.5"	Nozzles	3x20
Type	MXL-T1V	TFA (in^2)	0.921
Serial No.	6065891	Cutter size	-

Mud

Type	PHB	
M.W.	1.13	Sg
P.V.	5	cp
Y.P.	15	lb/100ft²

Hydraulics

SPP (psi)	3100
Flow (gpm)	1150
Bit Pressure	-
H.S.I	3.77

Bit Performance

In	Out	Mtr	Hours	ROP	WOB	RPM	V/D
136	751	615	13.9	44.2	25	148	D
IADC Hours			15	41.0	M/Hr IADC ROP		
TVD (In/Out)		136	707	Inc (In/Out)		0°	34.3
Vert. Sec				Azm (In/Out)			

Rig Dull Grading

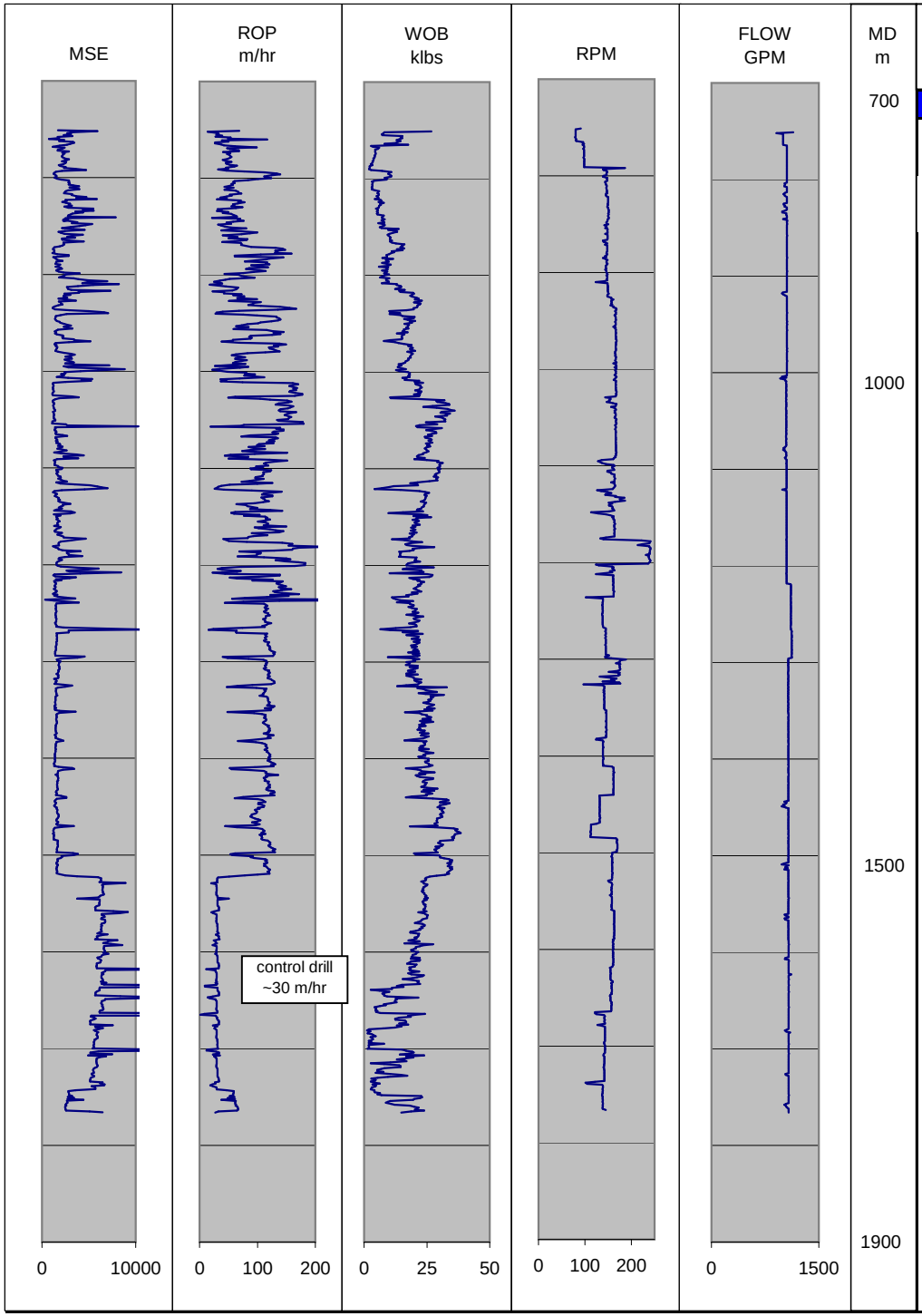
1	1	NO	A	E	I	NO	TD

Hughes Christensen Dull Grading

NOT GRADED

Comments

The 17.5" MXL-T1V is the new FASTMAX Rollercone product line, and was run on Mud Motor to drill the upper section through the Gippsland Limestone and kick off for directional into the Lakes Entrance Formation.Inclination build and hold to +/- 27º. The bit drilled this section in 1 run. MSE shows very efficient drilling to about 600mMD through the Gippsland Limestone. MSE increases in the transition into the Lakes Entrance formation with Torque increasing. The dull grading indicates that higher WOB may have improved performance through Lakes Entrance Formation.



Bit Run Report

REEDHycalog™
A Grant Prideco Company

Photos

12.25" RSX616M-A16

New Bit

Top View

Side View

Well Data

Well Name	Wardie 1
Field	West Sea Horse
Operator	ADA
Contractor	Seadrill
Rig Name	West Triton
DD Co.	Schlumberger
Date In	16-May-08
Date Out	18-May-08

Bit Data

Size / Run #	12.25"	Nozzles	3x15, 3x16
Type	RSX616M-A16	TFA (in^2)	1.107
Serial No.	218629	Cutter size	16mm

Mud		Hydraulics	
Type	WBM (KCL/Polymer)	SPP (psi)	2000
M.W.	9.6	Flow (gpm)	1100
P.V.	UNK	Bit Pressure	890
Y.P.	UNK	H.S.I	4.8

Bit Performance

In	Out	Mtr	Hours	ROP	WOB	RPM	V/D
751	1766	1015	19.3	52.59	20	150	D

IADC Hours		-	-	M/Hr IADC ROP	
TVD (In/Out)	-	-	Inc (In/Out)	34.4	7.4
Vert. Sec	-		Azm (In/Out)	240	234

Rig Dull Grading

3	3	WT	A	X	I	CT	TD

REEDHycalog Dull Grading

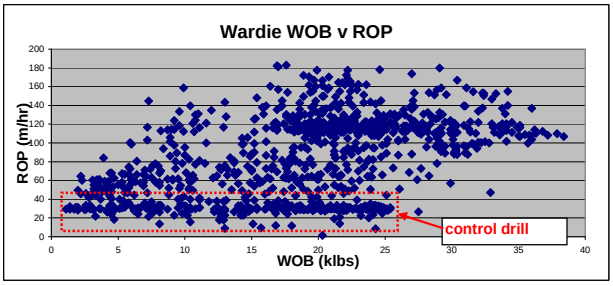
NOT GRADED

Comments

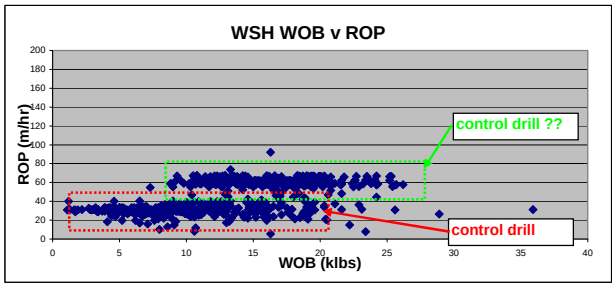
The RSX616M-A16 is a high Open Faced Volume bit designed for efficient cleaning and cuttings removal. Bit run on SLB's Power Drive tool with good directional control.

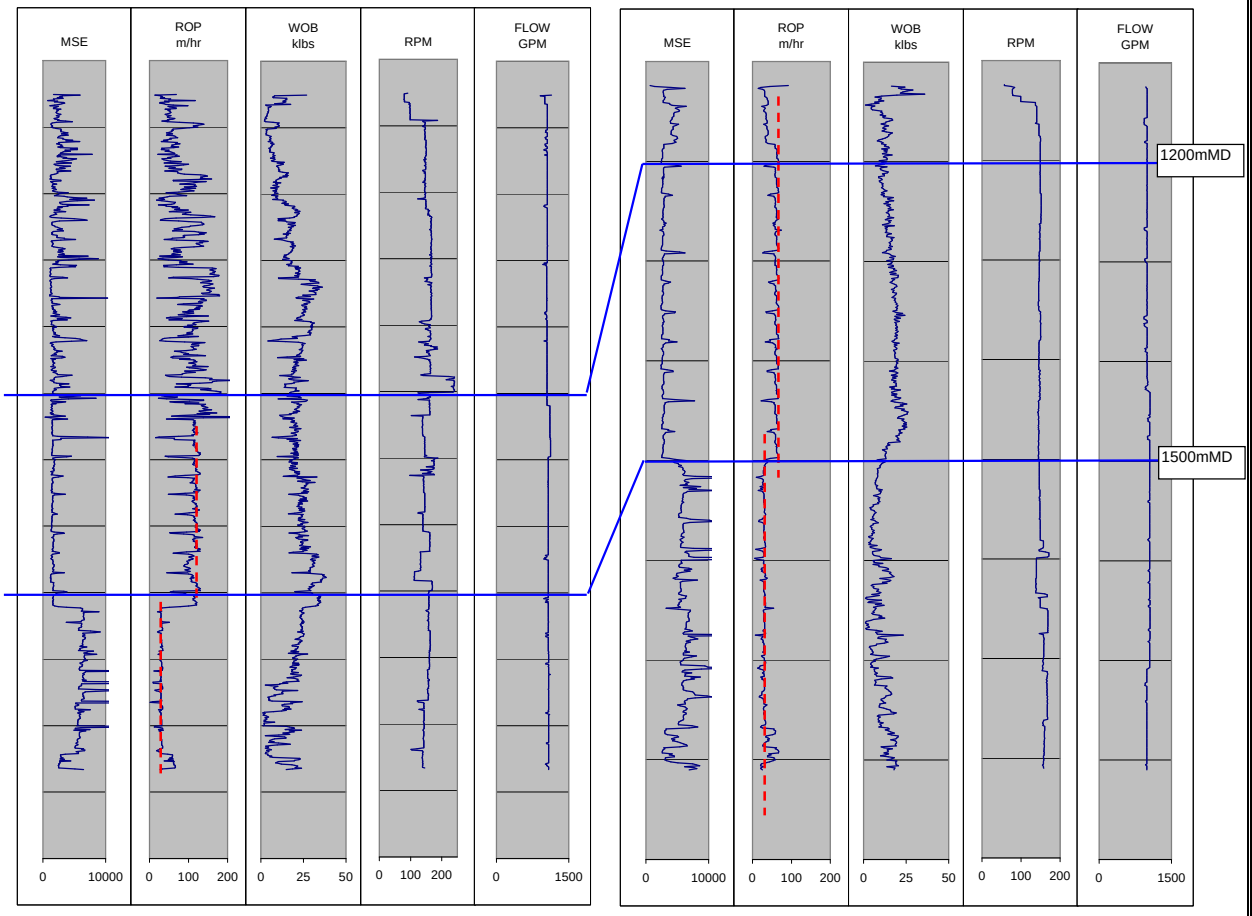
Excellent performance achieved by this bit. ROP >100 m/hr consistently throughout the run. Control drilling from ~1535m @ 30 m/hr for LWD logging was undertaken. Generally, WOB averaged around 20 klbs, and RPM ~150. Minor hard quartzitic sandstone stringers slowed ROP down to 2 m/hr in some parts. Good dull condition - even amounts of wear on inner and outer cutters, showing only minimal signs of mechanical damage. Bit built angle to ~35º and then dropped to almost vertical successfully. Consistent DLS of > 2.0º achieved in build and drop.

Wardie 1



WSH 3





Comments:

Both RSX616M-A16 bits used on West Seahorse 3, and Wardie 1 showed good performance throughout the completed interval. However the average performance on the Wardie 1 well was much better than the West Seahorse well.

Plotting the data for both wells shows some interesting commonalities. Both wells control drilled the Latrobe formation at 30 m/hr, from about 1500m on each well.

In the period between 1200m - 1500m, both wells exhibit very consistent ROP's. Wardie 1 drilled @ ~ 120m/hr for this interval, whilst West Seahorse only drilled at 60 m/hr for this interval. The consistency of the achieved ROP on each respective well seems to suggest that the section was control drilled. The information received from location, does not report that any special operations were undertaken through this interval.

As can be seen from the charts (top), the WOB on Wardie 1 was generally higher than the WOB run on West Seahorse 3, which can account for the increase in ROP achieved. It is suggested that a WOB of ~25+ klbs be run for best ROP performance.

High HSI 's on each run may have contributed to better performance, as the softer lithology of the Lakes Entrance formation responds well to hydraulic energy.

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