

<div><div>JW</div><div>J-W WIRELINE COMPANY</div></div>		CEMENT BOND GAMMA RAY VDL COLLAR CORRELATION LOG	
CompanyBLACK RAVEN ENERGY INC		CompanyBLACK RAVEN ENERGY INC	
WellH J CLAR #B-2		WellH J CLAR #B-2	
FieldADENA		FieldADENA	
CountyMORGAN		CountyMORGAN	
StateCOLORADO		StateCOLORADO	
Location:API # : 05-087-05258-0000		Other Services	
SEC 13TWP 1N RGE 58W		PERF	
Permanent Datum		Elevation	
Log Measured From		K.B.	
Drilling Measured From		D.F.	
DateFEBRUARY 15, 2013		G.L.	
Run NumberONE			
Depth Driller5755			
Depth Logger320			
Bottom Logged Interval			
Top Log IntervalSURFACE			
Open Hole Size8.5/8			
Type FluidWATER			
Density / Viscosity---			
Max. Recorded Temp. NOT RECORDED			
Estimated Cement Top SURFACE			
Time Well Ready---			
Time Logger on Bottom---			
Equipment Number2400			
LocationSTERLING CO.			
Recorded ByPHIL LOPEZ			
Witnessed BySETH CHAPPELL			
Borehole Record		Tubing Record	
Run Number		Bit	
From		To	
Size		Weight	
From		To	
Casing Record		Size	
Surface String		Vdrift	
Prod. String		Top	
Production String		Bottom	
Liner		6.50	

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR CHOOSING J-W WIRELINE

LOG RAN TO VERIFY CEMENT SQUEEZE

LOG RAN UNDER 275 # PRESSURE

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	19.57		CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
			CENT-TEKCO (101)	2.73	2.75	10.00
TEMP	12.78					
WVFS1	11.49		275CTEKSECWTWSLCANS-275RIB 2 3/4" (R.I.B.) TOOL 3FT, 5FT and 8EA RIB SIGNALS 400 DEG "F" @20K PSI With Sliding Cans For Pressure Balance	1239.13	2.75	102.00
WVFS2	11.49					
WVFS3	11.49					
WVFS4	11.49					
WVFS5	11.49					
WVFS6	11.49					
WVFS7	11.49					
WVFS8	11.49					
WVF3FT	10.74					
WVFCAL	10.74					
WVFSYNC	10.74					
WVF5FT	9.74					
WVFTEMP	6.41					
			CENT-TEKCO (101)	2.73	2.75	10.00
			GR-TEKCO (101sgr)	3.68	2.75	30.00
GR	1.06					
Dataset: h j clar #b-2.db; field/well/run1/pass9 Total Length: 20.22 ft Total Weight: 172.00 lb O.D.: 2.75 in						

