

PHOENIX SURVEYS, INC.					
Company Noble Energy Inc.		Location BHL 19487 PML & 675 PML SW/NW BHL 13288 PML & 103 PML NW/NW Sec. 36, Twp. 5N, Rge. 65W		City/Signage Mordock	
Well Field County State/Prv		Well Field County State/Prv		Elevation 4702	
Core Number		Log Measured From KB		Log Measured From Date	
Depth Order Bottom Logged Interval Top Log Interval Casing Depth Casing Length Bit Size Type Fluid in Hole pH / Fluid Loss Source of Sample Run @ Mass Temp Run @ Mass Temp Run @ Mass Temp Run @ BH Time Spent Logging Time Logged on Bottom Maximum Recorded Temperature Minimum Recorded Temperature Location Recorded by Approved By		December 22, 2010		K.B. 4715 D.F. 4715 G.L. 4715	
		1			
		7465			
		7400			
		7400			
		Casing			
		614			
		7-7/8"			
		Chemical			
		8.0 / 7.8 L			
		Flowline			
		3.68 @ 72°F			
		3.68 @ 72°F			
		4.59 @ 72°F			
		Measure Calc			
		112.0 @ 15°F			
		2150			
		215 F			
		Brighton, CO			
		JRD/CNK			

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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 of our interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss or expenses incurred or sustained by anyone resulting from any interpretation made by one of our officers, agents or employees. These interpretations are subject to our general terms and conditions set out in our current Price Schedule.

Comments

Annular volume calculated for 4.5" casing
Ensign Drilling Rig 126
Thank you for using Phoenix Surveys!!
API #: 05-123-32549-00

No repeat due to hole conditions.

Database File:
44970_01

Database File: 11270.db
Dataset Pathname: final
Presentation Format: pdc1
Dataset Creation: Wed Dec 22 23:19:43 2010
Charted by: Denth in Feet scaled 1:240

2	Deep Resistivity (Ohm-m)	200	20
2	Medium Resistivity (Ohm-m)	200	20
2	Shallow Resistivity (Ohm-m)	200	20
2	Rt (Ohm-m)	200	

