

Company: Noble Energy Inc		Well Name: Castor LC35-62HN				
LWI or LSD:		Rig Id: Precision 828				
State: Colorado		County/Parish: Weld				
Country: USA		Survey Company: Ensign Directional				
Job number: 828-16		Company Man 1: Gary Stapleton				
Directional Driller 1: Tyler Batchelder		Directional Driller 2: Matt Mason				
MWD 1: Joel Alcala		MWD 2: Andrew Keenan				
Log measurements: KS						
Depth measured from: KS		Start: 563 ft 8/24/2013				
Maximum temperature:		End: 10206 ft 8/30/2013				
Casing	Depth	Size	Mud Type:			
Surface: 563	9.25		Density:			
Intermediate: 6376	7		Viscosity:			
			Rm:			
			Rmc:			
			Elevations			
			KB: 4852			
			GL: 4836			
			DF: 4852			
Run Size	Gamma	Offset	Start	Depth	Start	End
1	8.25	55.40	57.3	6386	8/24/2013	8/27/2013
2	6.25	53.86	6286	10206	8/28/2013	8/30/2013
3						
4						
5						
6						
7						
8						
9						
10						

Ensign Directional uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

Gamma		ROP		VS	
API		0		ft	
0.0	150.0	0.0	500.0	0.0	5000.0
TVD		500.0		1000.0	
ft					
6000.0	7200.0				
7200.0	14400.0				

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