

Company: Noble Energy Inc  
 Well Name: Kummer PC LE23-65-1HN  
 UWI or LSD: 05-123-36885  
 Rig ID: Helmreich 273  
 State: Colorado  
 County/Parish: Weld  
 Country: USA  
 Survey Company: Ensign Directional  
 Job number: 2012/3-02  
 Directional Driller 1: Kody Wood  
 Directional Driller 2: Nate Bourghs  
 MWD 1: Joel Alcalá  
 MWD 2: Brett Blank

Log measurements: 750  
 Depth measured from: KB  
 Maximum temperature:  
 Start: 751 ft 4/6/2013  
 End: ft

Casing Depth Size  
 Surface: 751 9 9/8  
 Mud Type:  
 Density:  
 Viscosity:  
 Rm:  
 Rm1:  
 Rmc:  
 Elevations  
 KB: 5006  
 GI: 4982  
 DF: 5006

Run	Bit Size	Gamma	Survey	Start	End	Start	End
1	8 7/8	52.59	47.59	751	6880	4/6/2013	4/8/2013
2	8 7/8	52.59	47.59	6880		4/13/2013	
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.

