



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145145

5":100' - TVD

6/4/2014 10:19:05 AM

CATHEDRAL

Oper. Company: Encana Oil & Gas (USA) Inc.

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 05/21/2014 08:00 AM

API/UWI: 05-123-3766700

Field: Wattenberg (Niobrara)

Well: Frederiksen 1B-28H-H368

Rig: Ensign Drilling 135

Ended: 06/01/2014 03:00 AM

Gamma Ray
Section Plane: 270.00
Magnetic North: 8.71
Gamma Attenuation Factor: 2.91
Gamma Averaging: 7%

Personnel

Day Hand: J. Corby

Night Hand: J. Smith

Comp. Emp:

Maximum Temperature: 203 °f

Location

Latitude: 40.197920

Longitude: -104.999290

Elev. GL: 4975

Elev. DF:

Elev. KB: 4988

Log and Survey Depths Relative to Kelly Bushing (KB) Depth

Hole Data

Size	From	To
12.25	90	868
8.75	868	7500
6.125	7500	11509

Casing Data

Size	From	To
9-5/8	0	863
7	0	7474
4-1/2	0	11509

Bit Sizes

Size	From	To
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Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
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Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1122	40.4	0	5/20/2014 3:00:21 AM	868	5/22/2014 4:00:21 AM	6311
1645	40	0	5/22/2014 8:00:14 AM	6311	5/24/2014 12:30:14 AM	7500
1645	37.96	0	5/29/2014 2:00:54 AM	7500	6/1/2014 3:00:54 AM	11509

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, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 Gamma Ray (API) 150.00 TVD 0.00 ROP (FT/HR) 600.00
150.00 2 300.00 FT





















