



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145231

5":100' - TVD

8/11/2014 2:19:37 PM

CATHEDRAL

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

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 04/01/2014 09:30 AM

API/UWI: 05-123-38348-00

Field: Wattenberg (Niobrara)

Well: Edith Ann-Duckworth 4C-21H-O268

Rig: Patterson UTI Drilling 272

Ended: 07/29/2014 08:00 AM

Gamma Ray
Section Plane: 0.00
Magnetic North: 8.55
Gamma Attenuation Factor: 2.60
Gamma Averaging: 7%

Personnel

Day Hand: R. Moulton

Night Hand: A. Clark

Comp. Emp:

Maximum Temperature: 150°F

Location

Latitude: 40.117670

Longitude: -105.003630

Elev. GL: 4926

Elev. DF:

Elev. KB: 4954.5

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

Hole Data

Size	From	To
12-1/4	0	945
8-3/4	945	7876
6-1/8	7876	16767

Casing Data

Size	From	To
9-5/8	0	935
7	0	7814
4-1/2	0	16751

Bit Sizes

Size	From	To
12-1/4	0	945
8-3/4	945	7876
6-1/8	7876	16767

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
1519	36.17	0	4/2/2014 4:30:56 PM	945	4/4/2014 9:15:56 PM	7826
1555	39.85	0	7/21/2014 5:45:14 PM	7876	7/24/2014 7:00:14 PM	11325
1555	39.63	0	7/24/2014 8:00:42 AM	11325	7/28/2014 8:00:42 AM	16767

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























