

**Cathedral Energy Services, LTD.**

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Jenna #1H**Scale 5":100' - MD****9/1/2017 4:18 AM****Oper. Company:** Special Energy Company**Well:** Jenna #1H**Field:** P-3**Rig:** Capstar 122**Well ID:** 30-025-43888**Job Number:** 178127

Notes:
Gamma Ray Log
Section Plan: 179.19°
Datum: HDGM
Magnetic North: 5.93°
Grid Convergence: -0.66°
Gamma Averaging: 7% Smoothing

State: NM**County:** Lea**Country:** United States of America**Location:** SEC 30-11S-38E**Start Date:** 08/24/2017 07:00:00**End Date:** 09/01/2017 04:00:00

HOBBS OCD
FEB 26 2018
RECEIVED

Latitude: 33.330313**Longitude:** -103.135291**Elev GL:** 3909**Elev DF:** 3920**Elev KB:** 3922**Notes:** Log & Survey Depths Relative to Kelly Bushing (KB) Depth**Operator 1:** Colby Baxter**Operator 2:** Ricky Boyanton**Notes:** Maximun Temperature: 130.0°F

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	326	281			
Bit Size	7.875	7.875			
Cal Factor	4.790	4.83			
Survey Offset	57.00	48.00			
Gamma Offset	45.43	35.66			
Resistivity Offset	0.00	0.00			
Start Depth	2340.00	6536.00			
StartDate	8/24/2017	8/29/2017			
StartTime	04:30	02:30			
EndDepth	6536.00	10030.00			
EndDate	8/29/2017	9/1/2017			
EndTime	00:30	23:59			
Mud Type	WBM	WBM			
Mud Weight	10 PPG	10 PPG			
Funnel Viscosity	28 Sec/QT	28 Sec/QT			
Plastic Viscosity	1 CP	2 CP			
Yield Point	3 LBS/100FT2	2 LBS/100FT2			
Gel Strength	5/4/3 LBS/100FT2	6/3/1 LBS/100FT2			
Solids Content	11.5% by VOL	12 % by VOL			
Sand Content	0.01% by VOL	0.01 % by VOL			
Mud Alkalinity	0.2 mL	0.2 mL			
Filtrate Alkalinity	0.05 mL	0.02 mL			
Chlorides	184,000 mg/L	186,000 mg/L			
Temperature	110°F	110°F			
Hole Data			Casing Data		
Size	From	To	Size	From	To
12.75	0.00	2340.00	9.625	0.00	2340.00
7.875	2340.00	10030.00	7.000	2340.00	10030.00

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.