



Titan Directional Services, Inc.
20302 Park Row, Suite 1200
Katy, TX 77449

Bringelson 14-20-9-58

Scale 1"=100' - MD

3/10/2015 6:58 PM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: Bringelson 14-20-9-58

Field: Niobrara CONZ'83

Rig: Xtreme 19

Well ID: 05-123-39372

Job Number: TL15028

State: Colorado

County: Weld

Country: USA

Location: Grover

Start Date: 03/07/2015 06:00:00

End Date: 03/10/2015 19:00:00

Latitude: 40.738133333333

Longitude: -103.895580555556

Elev KB: 17

Elev DF: 4834

Elev GL: 4817

Operator 1: Paul Brown

Operator 2: Skylar Thompson

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	N/A	N/A	TG501	TG501	
Bit Size	12 1/4	8 3/4	8 3/4	6 1/8	
Cal Factor	0	0	4.2	2.2	
Survey Offset:	54.00	47.00	61.00	64.00	
Gamma Offset	0.00	0.00	49.00	49.00	
Resistivity Offset	0.00	0.00	0.00	0.00	
Start Depth	0.00	1457.00	5233.00	6132.00	
StartDate	3/3/2015	3/5/2015	3/7/2015	3/8/2015	
StartTime	23:15	20:00	01:30	21:00	
EndDepth	1457.00	5233.00	6132.00	10600.00	
EndDate	3/4/2015	3/7/2015	3/8/2015	3/10/2015	
EndTime	17:50	00:15	03:30	19:00	
Mud Type	WBM	WBM	WBM	WBM	
Temperature	71	127	138	138 -183	
Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1457.00	9 5/8	0.00	1435.00
8 3/4	1457.00	6132.00	7	0.00	6109.00
6 1/8	6132.00	10600.00	4	0.00	10600.00

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.











