



Precision Directional Services, Inc.

27610 Commerce Oaks Drive  
Oak Ridge North, TX 77385  
713-805-4436

**DL1687**

2"-100' - MD

5/30/2013 2:49:22 PM

**Oper. Company:** Carrizo Oil & Gas, Inc

**Country:** USA

**State / Province:** Colorado

**County / Parish:** Weld

**Started:** 05/24/2013 12:00 AM

**API/UWI:** 05-123-36068

**Field:** Niobrara CONZ'83

**Well:** Bringelson 2-20-11-9-58

**Rig:** Xtreme 19

**Ended:** 05/30/2013 02:30 PM

### Personnel

**Day Hand:** Paul Brown

**Night Hand:** Neil LaRubbio

**Comp. Emp:** Gabe Vela

### Location

**Latitude:** 40 44'25.450N

**Longitude:** 103 53'48.086W

**Elev. GL:** 4867'

**Elev. DF:** 4884'

**Elev. KB:** 17'

### Hole Data

Size	From	To
12 1/4	0	1432
8 3/4	1432	6118
6 1/8	6118	10290

### Casing Data

Size	From	To
9 5/8	0	1411
7	0	6098
4.5	6098	10290

### Bit Sizes

Size	From	To
12 1/4	0	1432
8 3/4	1432	6118
6 1/8	6118	10290

### Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
WBM	8.4	8.4	28	N/A	N/A	N/A	0	1432
WBM	8.4	8.4	28-30	N/A	N/A	N/A	1432	3500
WBM	9.0-9.6	9.0-9.6	30-40	N/A	N/A	N/A	3500	6118
WBM	9.5-9.6	9.5-9.6	40-41	N/A	N/A	N/A	6118	10290

### Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
G2034	52	0	5/24/2013 6:30:03 AM	5216	5/24/2013 9:30:03 PM	5555
G2034	52	0	5/24/2013 9:30:09 PM	5555	5/25/2013 8:40:09 AM	6118
G2034	52	0	5/26/2013 1:30:57 PM	6118	5/28/2013 10:56:57 AM	10290

*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.*























