



Precision Directional Services, Inc.

DL1747

5":100' - TVD

6/11/2013 1:37:46 PM

Oper. Company: Carrizo Oil & Gas, Inc.

Country: USA

State / Province: Colorado

County / Parish: Weld

Started: 06/05/2013 12:00 PM

API/UWI: 15-123-36338-00

Field: Niobrara CONZ'83

Well: Pergamos 1-4-34-7-60

Rig: Xtreme 19

Ended: 06/11/2013 12:00 PM

Personnel

Day Hand: Mark Thompson

Night Hand: Eli Bartz

Comp. Emp: Gabe Vela

Location

Latitude: 40 35'49.943N

Longitude: 104 05'34.990W

Elev. GL: 4910

Elev. DF: 4927

Elev. KB: 17

Hole Data

Size	From	To
12 1/4	0	1424
8 3/4	1424	6385
6 1/8	6385	10820

Casing Data

Size	From	To
9 5/8	0	1411
7	1411	6365
4 1/2	6365	10820

Bit Sizes

Size	From	To
12 1/4	0	1424
8 3/4	1424	6385
6 1/8	6385	0

Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
WBM	8.4	8.4	40-44	N/A	N/A	N/A	0	1424
WBM	8.4-9.0	8.4-9.0	30-40	N/A	N/A	N/A	1424	5672
WBM	9.0-9.5	9.0-9.5	28-30	N/A	N/A	N/A	5672	6385
WBM	9.6	9.6	28	N/A	N/A	N/A	6385	10820

Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
G2034	41	0	6/5/2013 7:30:00 AM	5672	6/6/2013 10:00:00 AM	6385
G2034	42	0	6/7/2013 12:10:55 PM	6385	6/11/2013 12:10:55 PM	10820

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.









