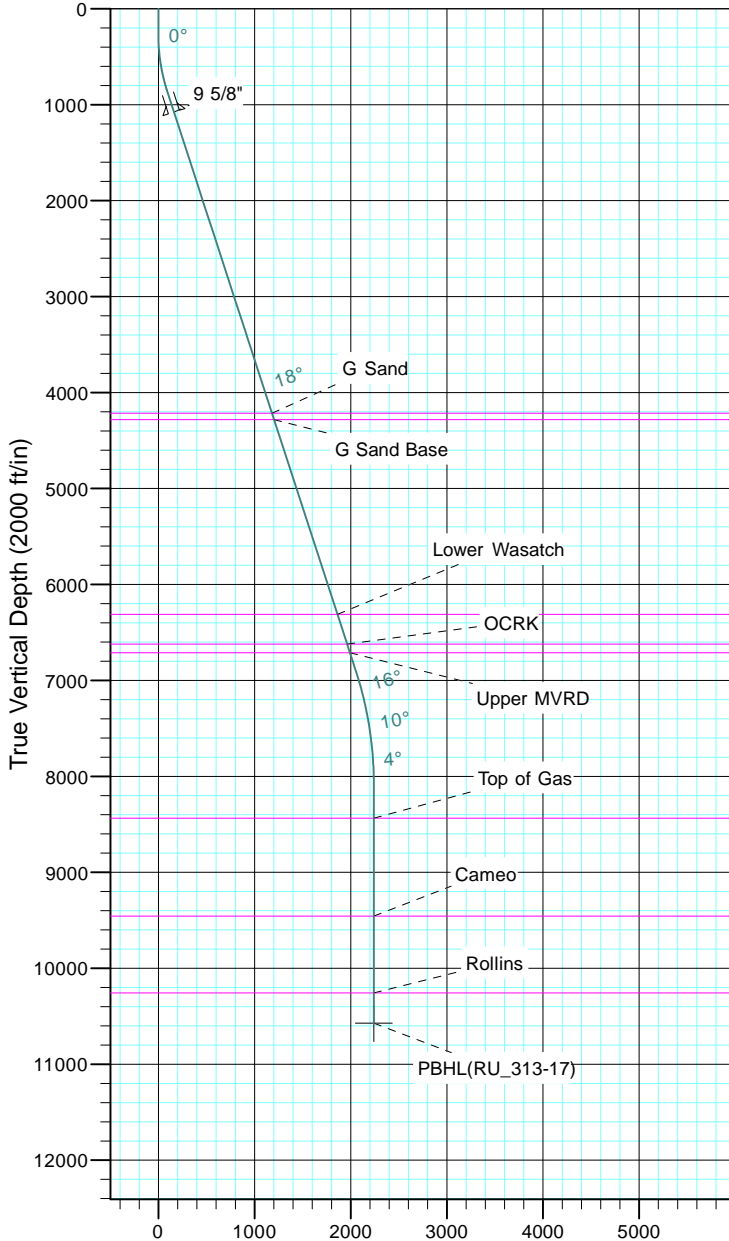


TEP Rocky Mountain LLC
Project: Garfield County, CO NAD83
Site: RU 23-17 Pad
Well: RU 313-17
Wellbore: OH
Design: Plan #1



Azimuths to True North
Magnetic North: 9.60°

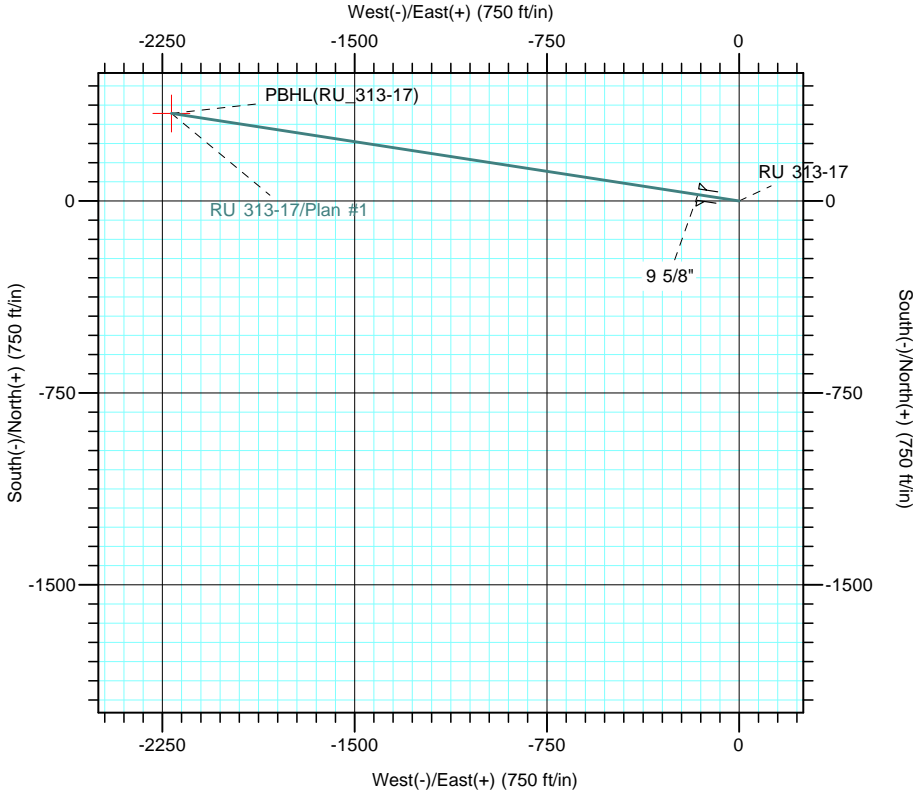
Magnetic Field
Strength: 51501.5nT
Dip Angle: 65.58°
Date: 7/5/2017
Model: IGRF2015



Vertical Section at 278.79° (2000 ft/in)

CASING DETAILS			
TVD	MD	Name	Size
1079.2	1100.0	9 5/8"	9.625

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4217.0	4399.2	G Sand
4282.0	4467.6	G Sand Base
6312.0	6602.0	Lower Wasatch
6622.0	6927.9	OCRK
6712.0	7022.6	Upper MVRD
8437.0	8776.9	Top of Gas
9457.0	9796.9	Cameo
10257.0	10596.9	Rollins



Name	TVD	+N/-S	DESIGN TARGET DETAILS			Easting	Latitude	Longitude
			+E/-W	Northing				
PBHL(RU_313-17)	10572.0	342.2	-2214.4	1595020.70		2349037.10	39° 26' 39.893 N	107° 48' 19.130 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	275.0	0.00	0.00	275.0	0.0	0.0	0.00	0.00	0.0	
3	874.9	18.00	278.79	865.0	14.3	-92.3	3.00	278.79	93.4	
4	7220.1	18.00	278.79	6899.9	313.7	-2029.7	0.00	0.00	2053.8	
5	8419.9	0.00	0.00	8080.0	342.2	-2214.4	1.50	180.00	2240.6	
6	10911.9	0.00	0.00	10572.0	342.2	-2214.4	0.00	0.00	2240.6	PBHL(RU_313-17)