

ENSIGN

Directional

Well Name: Ritchey USX WW27-19D

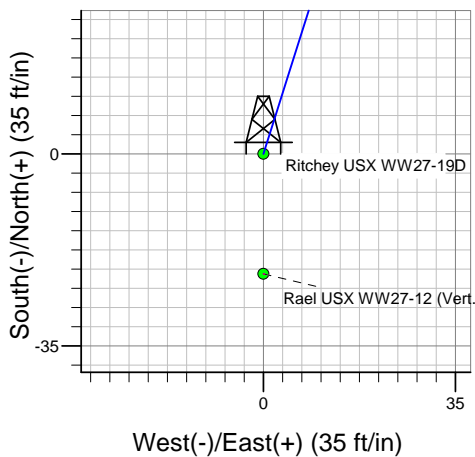
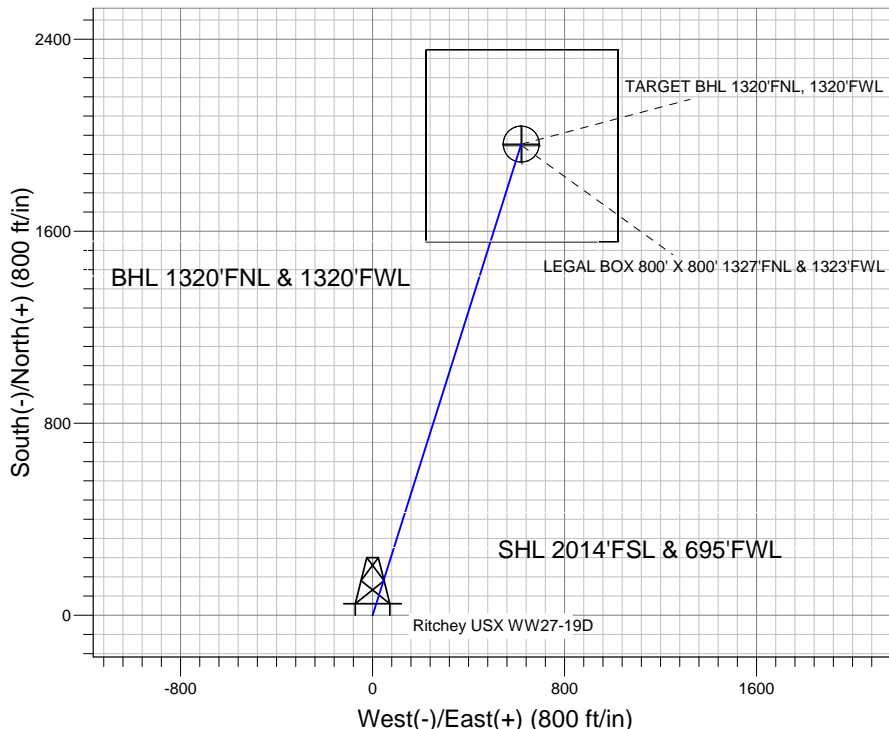
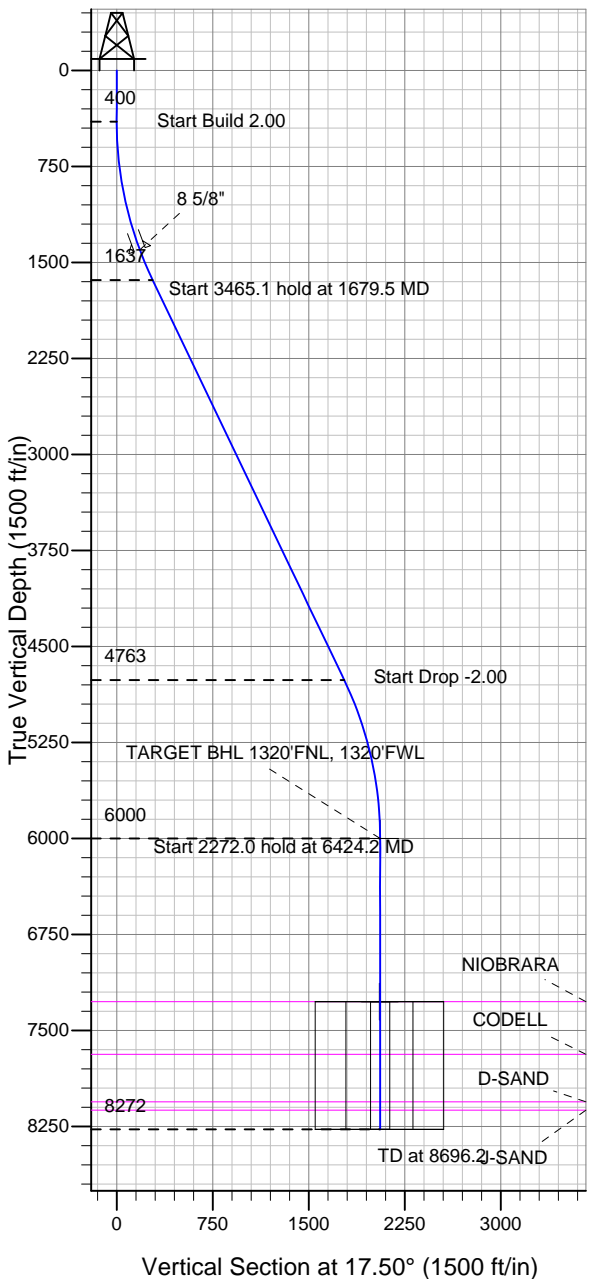
Surface Location: Ritchey USX WW27-19D Pad Sec.27-T1N-R66W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5114.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1251151.82	3204383.95	40.020490	-104.770230	

Original Well Elev WELL @ 5127.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Ritchey USX WW27-19D Pad Sec.27-T1N-R66W
Ritchey USX WW27-19D
Noble Ritchey USX WW27-19D Plan #1 (7-09-11)
12:48, July 11 2011



Azimuths to True North
Magnetic North: 8.82°

Magnetic Field
Strength: 52921.5nT
Dip Angle: 66.74°
Date: 7/9/2011
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1320'FNL, 1320'FWL	6000.0	1963.5	618.9	40.025880	-104.768020	Point
LEGAL BOX 800' X 800' 1327'FNL & 1323'FWL	7275.0	1956.5	621.9	40.025861	-104.768009	Rectangle (Sides: L800.0 W800.0)
TARGET CIRCLE 1320'FNL & 1320'FWL	7275.0	1963.5	618.9	40.025880	-104.768020	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1679.5	25.59	17.50	1637.4	268.0	84.5	2.00	17.50	281.0	
4	5144.6	25.59	17.50	4762.6	1695.5	534.4	0.00	0.00	1777.7	
5	6424.2	0.00	0.00	6000.0	1963.5	618.9	2.00	180.00	2058.8	TARGET BHL 1320'FNL, 1320'FWL
6	8696.2	0.00	0.00	8272.0	1963.5	618.9	0.00	0.00	2058.8	