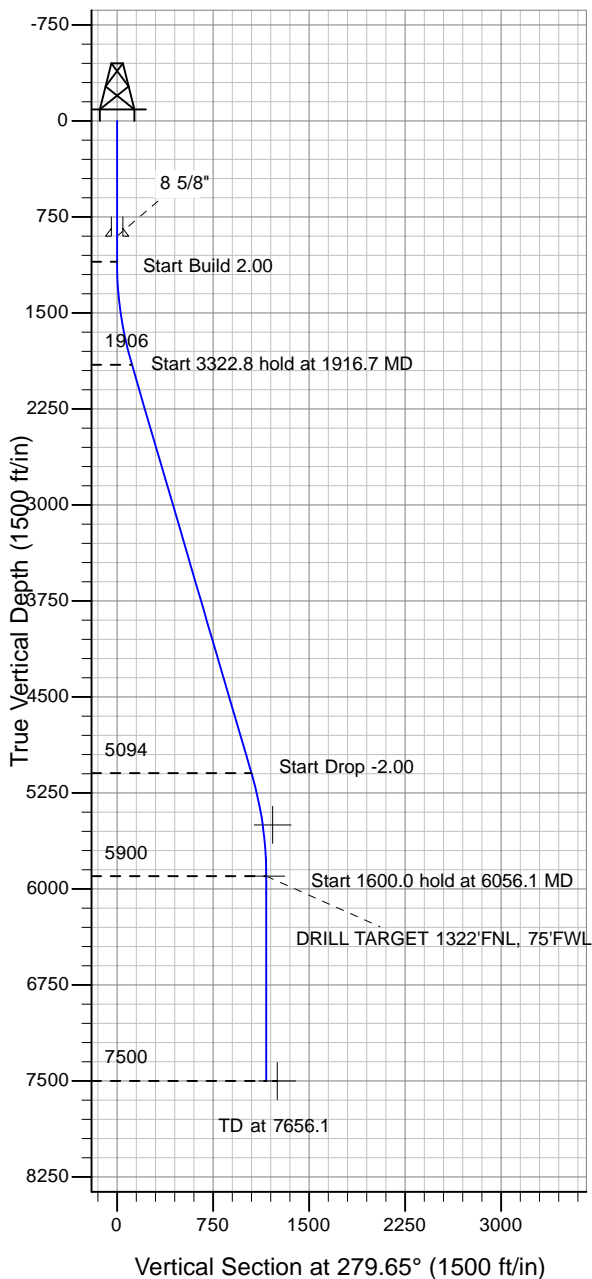


ENSIGN

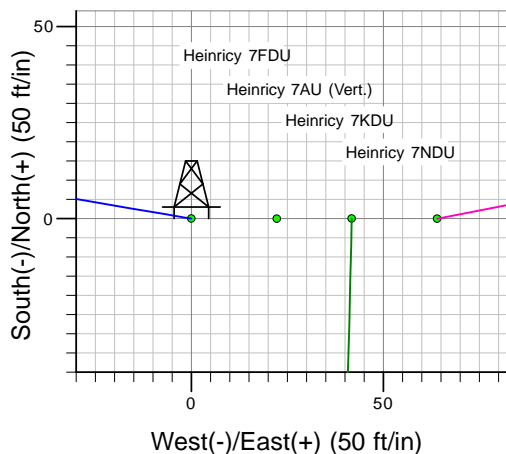
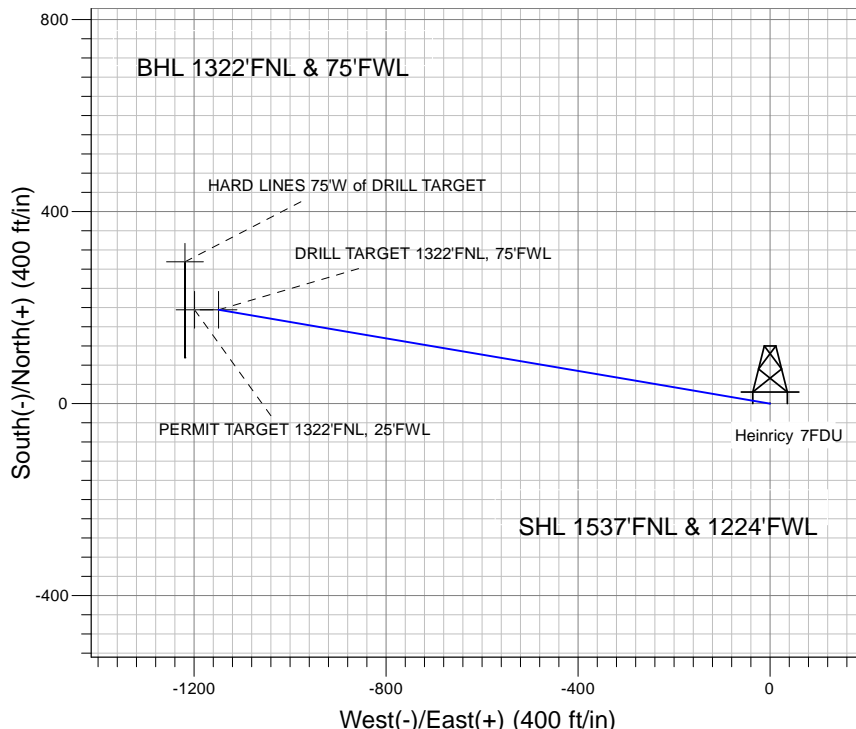
Directional

Well Name: Heinrich 7FDU

Surface Location: Heinrich Pad Sec.7-T5N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4980.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1395340.50 3155925.05 40° 25' 2.136 N 104° 56' 24.000 W
 Original Well Elev WELL @ 4993.0ft (Original Well Elev)



PETROLEUM DEVELOPMENT CORP Weld County CO



Heinrich Pad Sec.7-T5N-R67W
 Heinrich 7FDU
 Plan #1 (10-05-10)
 17:20, October 15 2010



Azimuths to True North
 Magnetic North: 9.05°

Magnetic Field
 Strength: 53190.3snT
 Dip Angle: 67.06°
 Date: 10/15/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PERMIT TARGET 1322'FNL, 25'FWL	5500.0	195.3	-1199.2	40° 25' 4.065 N	104° 56' 39.504 W	Point
DRILL TARGET 1322'FNL, 75'FWL	5900.0	195.3	-1149.2	40° 25' 4.065 N	104° 56' 38.858 W	Point
HARD LINES 75'W of DRILL TARGET	7500.0	295.3	-1219.2	40° 25' 5.054 N	104° 56' 39.763 W	Polygon

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	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1916.7	16.33	279.65	1905.6	19.4	-114.0	2.00	279.65	115.6	
4	5239.5	16.33	279.65	5094.4	175.9	-1035.2	0.00	0.00	1050.1	
5	6056.1	0.00	0.00	5900.0	195.3	-1149.2	2.00	180.00	1165.7	DRILL TARGET 1322'FNL, 75'FWL
6	7656.1	0.00	0.00	7500.0	195.3	-1149.2	0.00	0.00	1165.7	