

ENSIGN

Directional

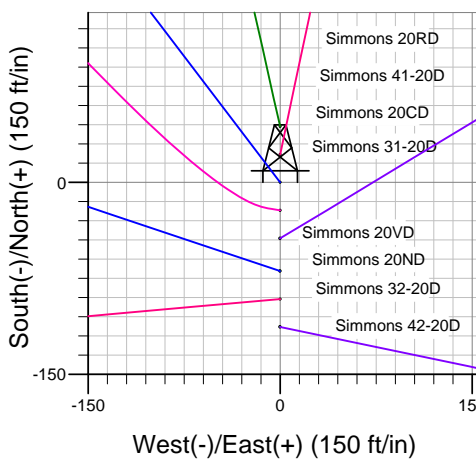
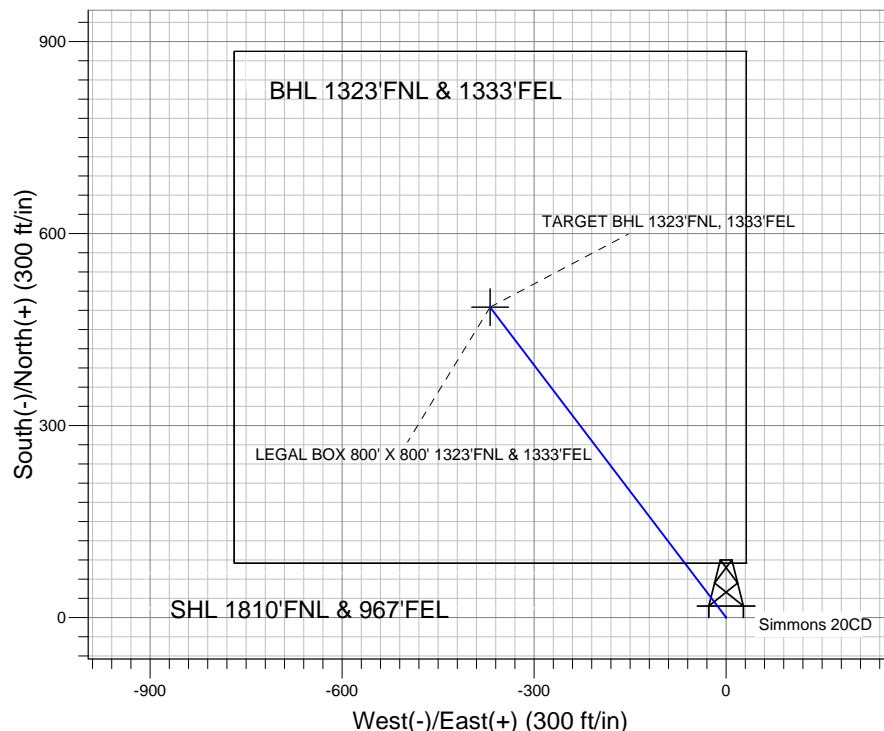
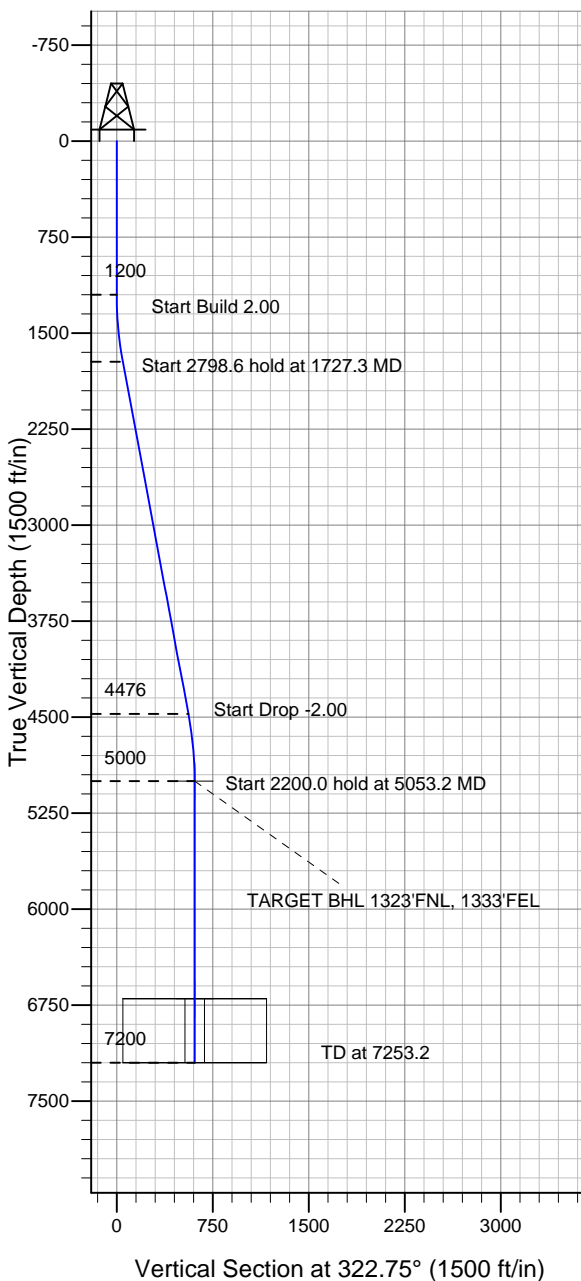
Well Name: Simmons 20CD

Surface Location: Simmons 42-20D Pad Sec.20-T6N-R64W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4760.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1416800.84 3259267.69 40° 28' 25.608 N 104° 34' 5.016 W
 Original Well Elev WELL @ 4773.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Simmons 42-20D Pad Sec.20-T6N-R64W
 Simmons 20CD
 Plan #1 (1-06-11)
 9:21, January 18 2011



Azimuths to True North
 Magnetic North: 8.82°

Magnetic Field
 Strength: 53234.7snT
 Dip Angle: 67.16°
 Date: 1/18/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1323'FNL, 1333'FEL	5000.0	484.8	-368.6	40° 28' 30.398 N	104° 34' 9.786 W	Point
LEGAL BOX 800' X 800' 1323'FNL & 1333'FEL	6700.0	484.8	-368.6	40° 28' 30.398 N	104° 34' 9.786 W	Rectangle (Sides: L800.0 W800.0)

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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1727.3	10.55	322.75	1724.3	38.5	-29.3	2.00	322.75	48.4	
4	4525.9	10.55	322.75	4475.7	446.2	-339.3	0.00	0.00	560.6	
5	5053.2	0.00	0.00	5000.0	484.8	-368.6	2.00	180.00	609.0	TARGET BHL 1323'FNL, 1333'FEL
6	7253.2	0.00	0.00	7200.0	484.8	-368.6	0.00	0.00	609.0	