

ENSIGN

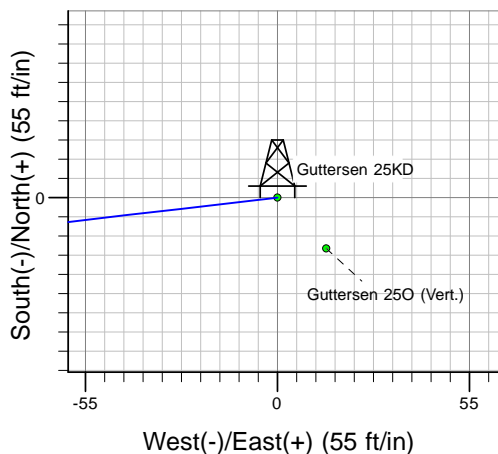
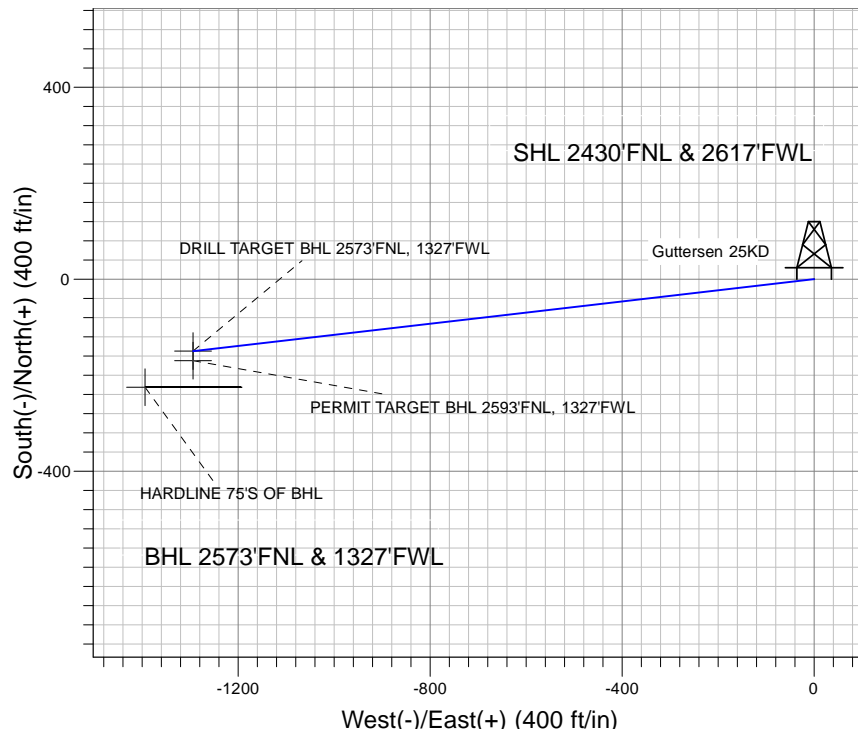
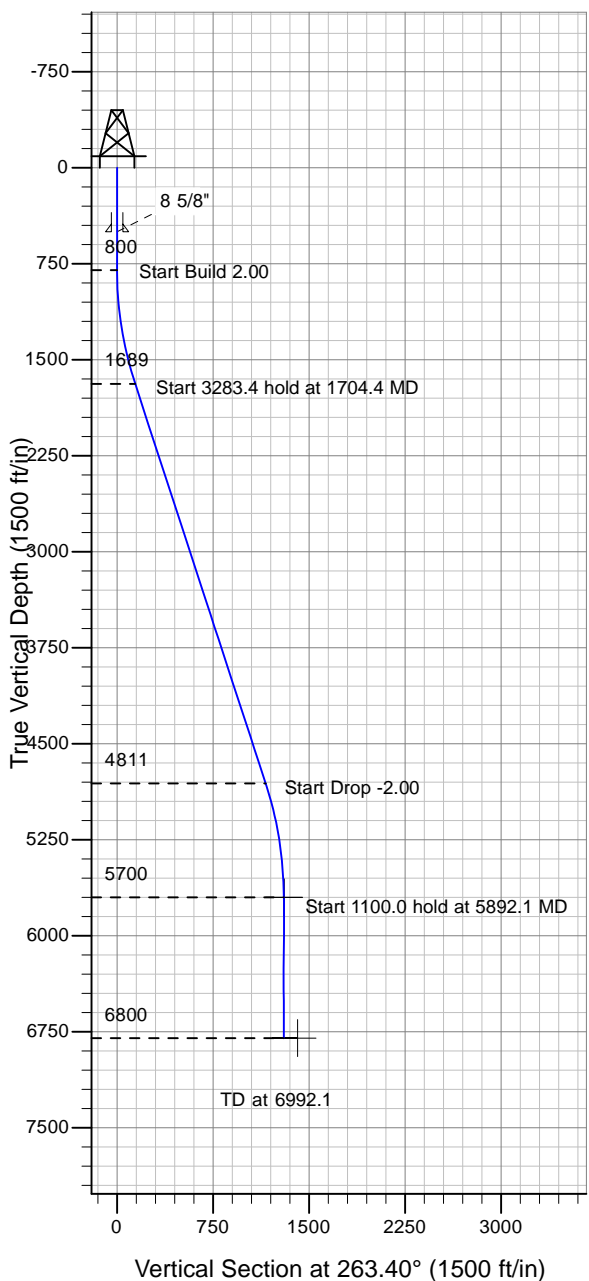
Directional

Well Name: Guttersen 25KD

Surface Location: Guttersen 25KD Sec.25-T3N-R64W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4785.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1316174.36 3279391.59 40° 11' 49.092 N 104° 29' 59.316 W
 Original Well Elev WELL @ 4798.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Guttersen 25KD Sec.25-T3N-R64W
 Guttersen 25KD
 Plan #1 (4-30-10)
 9:36, May 04 2010



Azimuths to True North
 Magnetic North: 8.85°

Magnetic Field
 Strength: 53172.7nT
 Dip Angle: 66.97°
 Date: 4/30/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DRILL TARGET BHL 2573'FNL, 1327'FWL	5700.0	-149.7	-1293.9	40° 11' 47.612 N	104° 30' 15.990 W	Point
PERMIT TARGET BHL 2593'FNL, 1327'FWL	5700.0	-169.7	-1293.9	40° 11' 47.415 N	104° 30' 15.990 W	Point
HARDLINE 75'S OF BHL	6800.0	-224.7	-1393.9	40° 11' 46.871 N	104° 30' 17.279 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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1704.4	18.09	263.40	1689.4	-16.3	-140.6	2.00	263.40	141.6	
4	4987.8	18.09	263.40	4810.6	-133.4	-1153.3	0.00	0.00	1161.0	
5	5892.1	0.00	0.00	5700.0	-149.7	-1293.9	2.00	180.00	1302.5	DRILL TARGET BHL 2573'FNL, 1327'FWL
6	6992.1	0.00	0.00	6800.0	-149.7	-1293.9	0.00	0.00	1302.5	