

ENSIGN

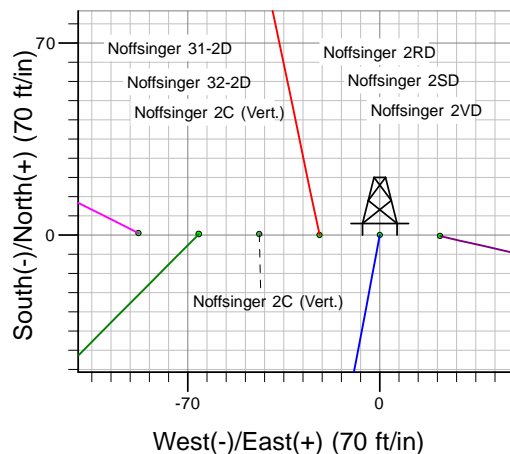
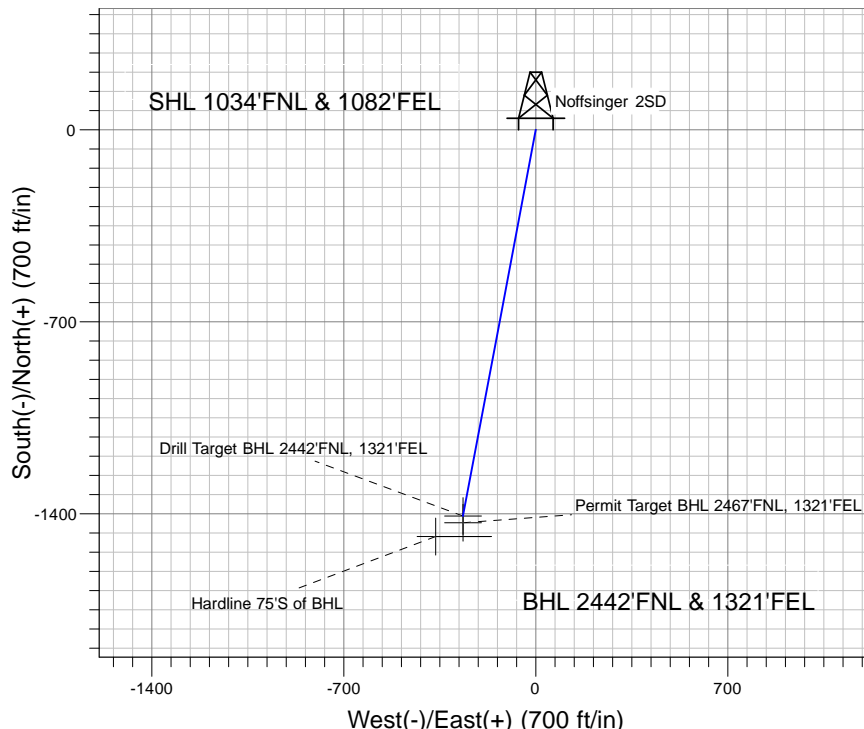
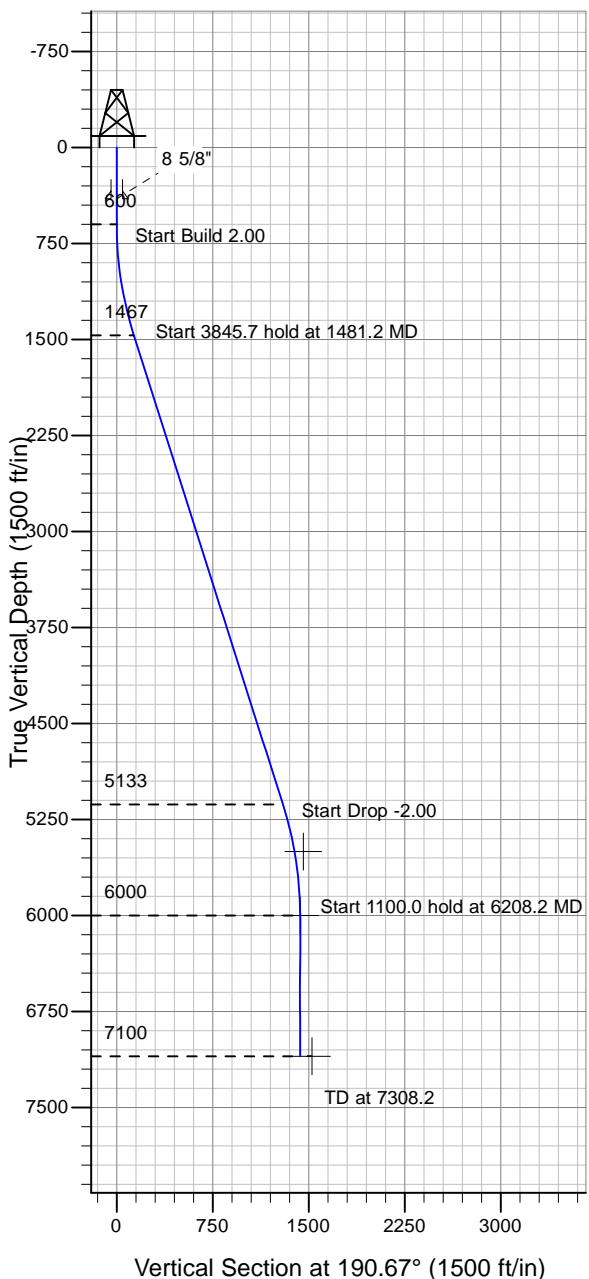
Directional

Well Name: Noffsinger 2SD

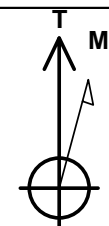
Surface Location: Noffsinger Pad Sec.2-T5N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4647.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1401529.49 3243666.14 40° 25' 56.276 N 104° 37' 28.841 W
 Original Well Elev WELL @ 4660.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Noffsinger Pad Sec.2-T5N-R65W
 Noffsinger 2SD
 Plan#1 (6-14-10)
 15:24, June 21 2010



Azimuths to True North
 Magnetic North: 8.92°

Magnetic Field
 Strength: 53268.9snT
 Dip Angle: 67.13°
 Date: 6/21/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Permit Target BHL 2467'FNL, 1321'FEL	5500.0	-1433.6	-265.3	40° 25' 42.110 N	104° 37' 32.272 W	Point
Drill Target BHL 2442'FNL, 1321'FEL	6000.0	-1408.6	-265.3	40° 25' 42.357 N	104° 37' 32.271 W	Point
Hardline 75'S of BHL	7100.0	-1483.6	-365.3	40° 25' 41.616 N	104° 37' 33.564 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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1481.2	17.62	190.67	1467.4	-132.2	-24.9	2.00	190.67	134.5	
4	5326.9	17.62	190.67	5132.6	-1276.4	-240.4	0.00	0.00	1298.9	
5	6208.2	0.00	0.00	6000.0	-1408.6	-265.3	2.00	180.00	1433.4	Drill Target BHL 2442'FNL, 1321'FEL
6	7308.2	0.00	0.00	7100.0	-1408.6	-265.3	0.00	0.00	1433.4	