

ENSIGN

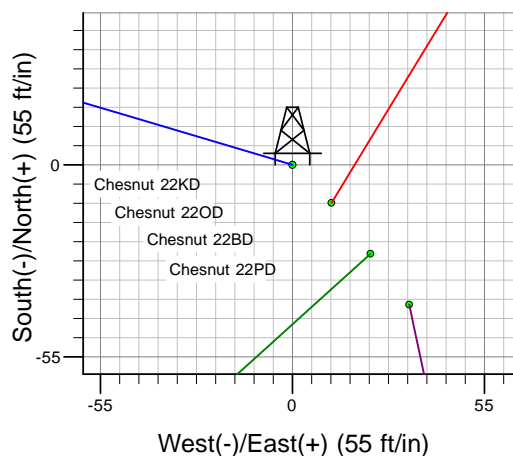
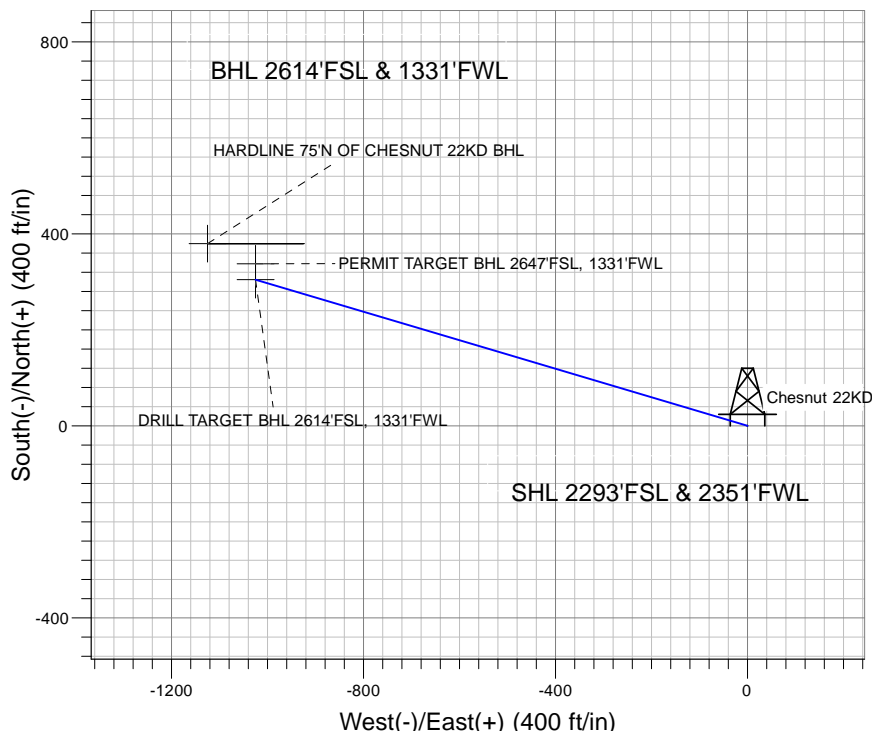
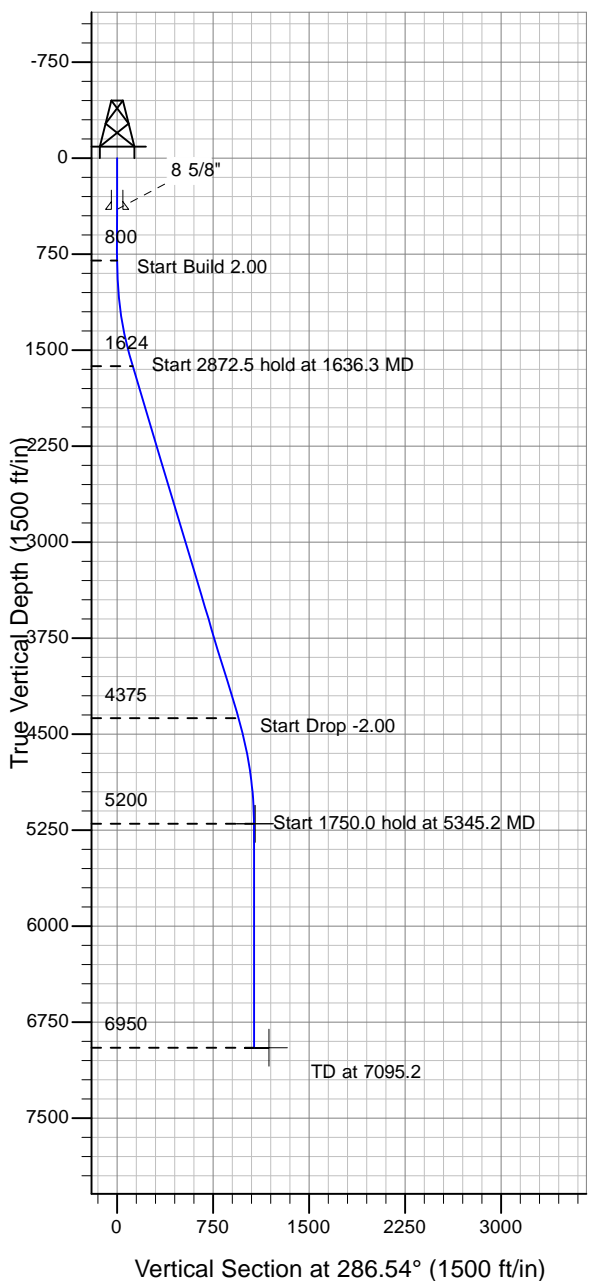
Directional

Well Name: Chesnut 22KD

Surface Location: Chesnut 22KD Pad Sec.22-T5N-R64W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4600.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1384126.66 3268289.24 40° 23' 1.788 N 104° 32' 12.876 W
 Original Well Elev WELL @ 4613.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Chesnut 22KD Pad Sec.22-T5N-R64W
 Chesnut 22KD
 Plan #1 (5-24-10)
 14:21, May 24 2010



Azimuths to True North
 Magnetic North: 8.88°

Magnetic Field
 Strength: 53261.5snT
 Dip Angle: 67.11°
 Date: 5/24/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DRILL TARGET BHL 2614'FSL, 1331'FWL	5200.0	304.4	-1024.9	40° 23' 4.796 N	104° 32' 26.120 W	Point
PERMIT TARGET BHL 2647'FSL, 1331'FWL	5200.0	337.4	-1024.9	40° 23' 5.121 N	104° 32' 26.120 W	Point
HARDLINE 75'N OF CHESNUT 22KD BHL	6950.0	379.4	-1124.9	40° 23' 5.537 N	104° 32' 27.412 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	1636.3	16.73	286.54	1624.5	34.5	-116.2	2.00	286.54	121.2	
4	4508.9	16.73	286.54	4375.5	269.9	-908.7	0.00	0.00	947.9	
5	5345.2	0.00	0.00	5200.0	304.4	-1024.9	2.00	180.00	1069.1	DRILL TARGET BHL 2614'FSL, 1331'FWL
6	7095.2	0.00	0.00	6950.0	304.4	-1024.9	0.00	0.00	1069.1	