

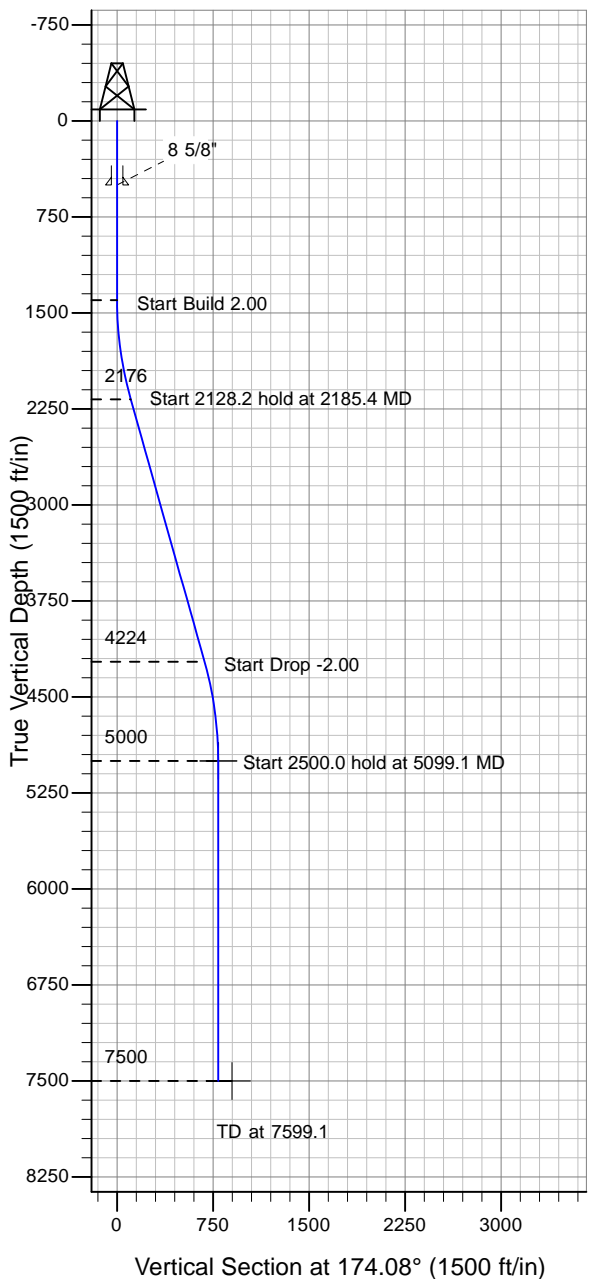
ENSIGN

Directional

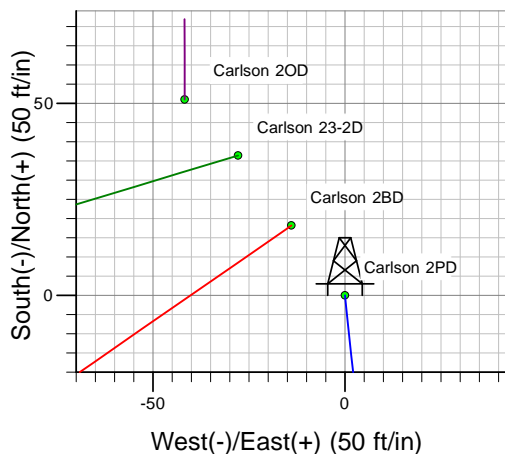
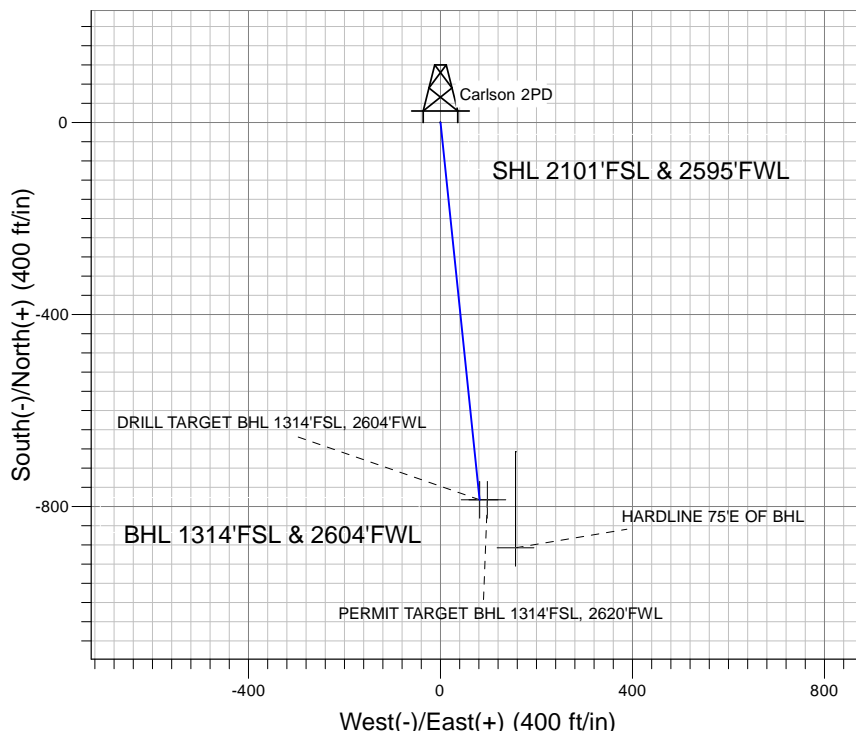
Well Name: Carlson 2PD

Surface Location: Carlson 2OD Pad Sec.2-T6N-R66W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4860.0

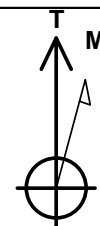
+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1431679.24 3209796.49 40° 30' 57.276 N 104° 44' 43.512 W
 Original Well Elev WELL @ 4873.0ft (Original Well Elev)



PETROLEUM DEVELOPMENT CORP Weld County CO



Carlson 2OD Pad Sec.2-T6N-R66W
 Carlson 2PD
 Plan #2 (8-21-10)
 19:58, August 21 2010



Azimuths to True North
 Magnetic North: 9.00°

Magnetic Field
 Strength: 53297.6snT
 Dip Angle: 67.18°
 Date: 6/22/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
DRILL TARGET BHL 1314'FSL, 2604'FWL	5000.0	-786.0	81.5	40° 30' 49.509 N	104° 44' 42.457 W	Point
PERMIT TARGET BHL 1314'FSL, 2620'FWL	5000.0	-786.0	97.5	40° 30' 49.509 N	104° 44' 42.250 W	Point
HARDLINE 75'E OF BHL	7500.0	-886.0	156.5	40° 30' 48.521 N	104° 44' 41.486 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	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	2185.4	15.71	174.08	2175.6	-106.4	11.0	2.00	174.08	107.0	
4	4313.6	15.71	174.08	4224.4	-679.6	70.5	0.00	0.00	683.2	
5	5099.1	0.00	0.00	5000.0	-786.0	81.5	2.00	180.00	790.2	DRILL TARGET BHL 1314'FSL, 2604'FWL
6	7599.1	0.00	0.00	7500.0	-786.0	81.5	0.00	0.00	790.2	