

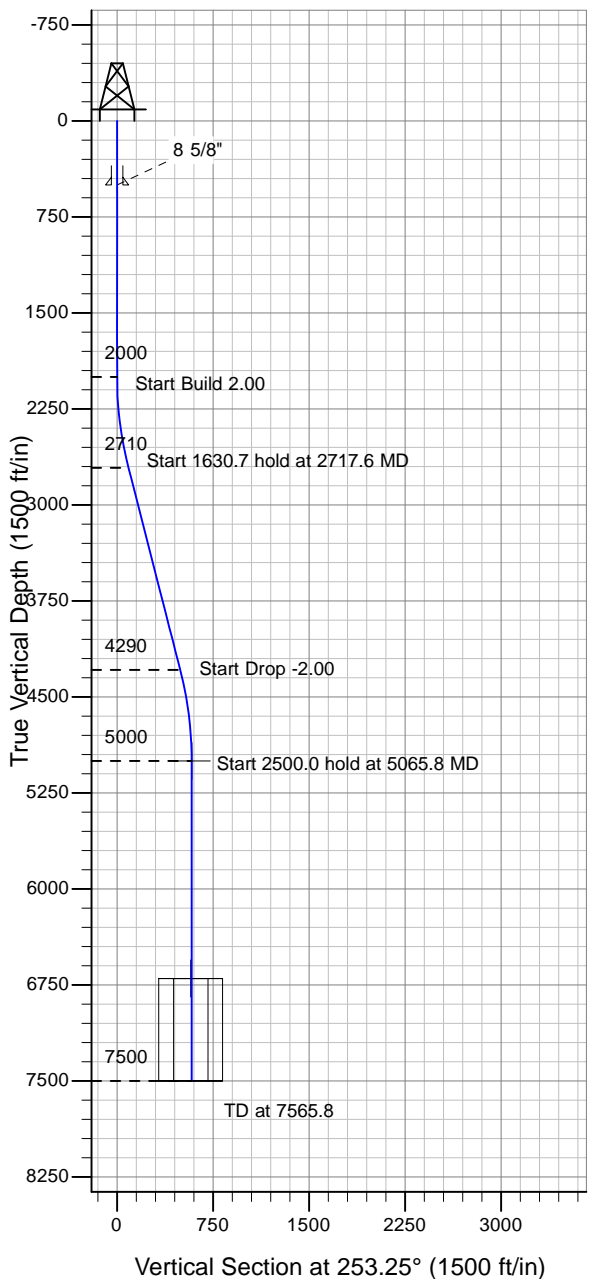
# ENSIGN

## Directional

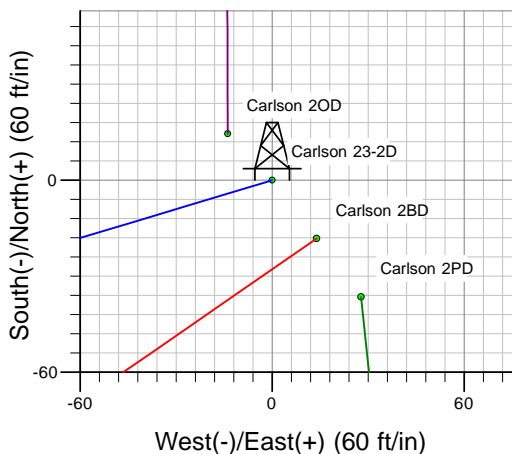
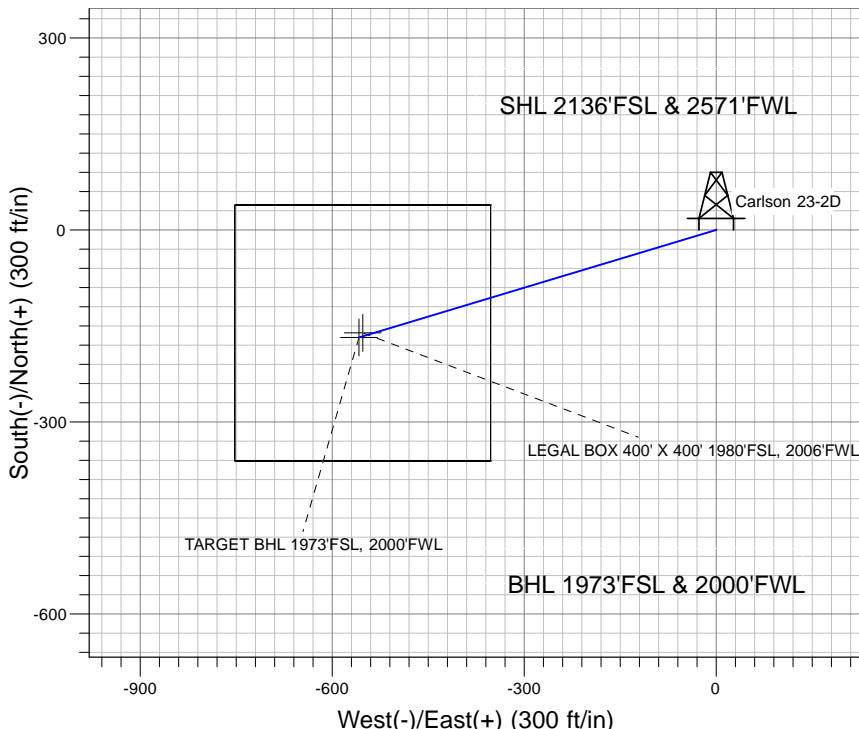
### Well Name: Carlson 23-2D

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 1431715.43 3209768.38 40° 30' 57.636 N 104° 44' 43.872 W  
 Original Well Elev WELL @ 4873.0ft (Original Well Elev)



### PETROLEUM DEVELOPMENT CORP Weld County CO



Carlson 2OD Pad Sec.2-T6N-R66W  
 Carlson 23-2D  
 Plan #2 (8-21-10)  
 19:43, 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
TARGET BHL 1973'FSL, 2000'FWL	5000.0	-168.0	-558.3	40° 30' 55.976 N	104° 44' 51.100 W	Point
LEGAL BOX 400' X 400' 1980'FSL, 2006'FWL	6700.0	-161.0	-552.3	40° 30' 56.045 N	104° 44' 51.023 W	Rectangle (Sides: L400.0 W400.0)

### 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	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2717.6	14.35	253.25	2710.1	-25.8	-85.6	2.00	253.25	89.4	
4	4348.3	14.35	253.25	4289.9	-142.3	-472.7	0.00	0.00	493.6	
5	5065.8	0.00	0.00	5000.0	-168.0	-558.3	2.00	180.00	583.0	TARGET BHL 1973'FSL, 2000'FWL
6	7565.8	0.00	0.00	7500.0	-168.0	-558.3	0.00	0.00	583.0	