

# ENSIGN

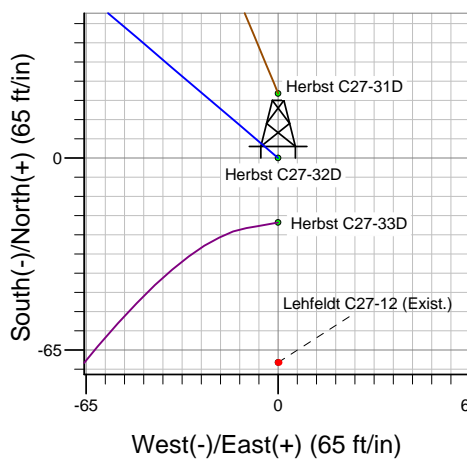
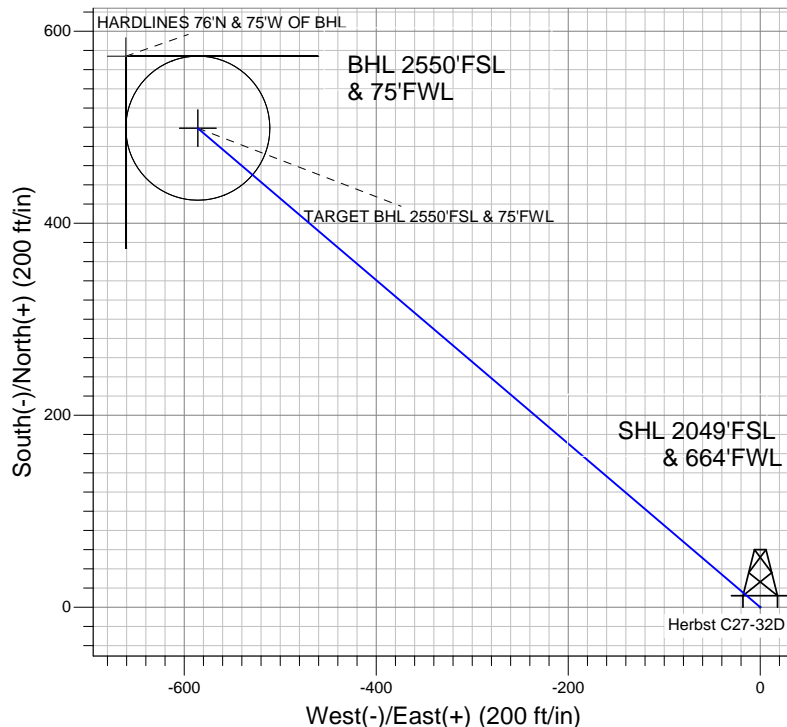
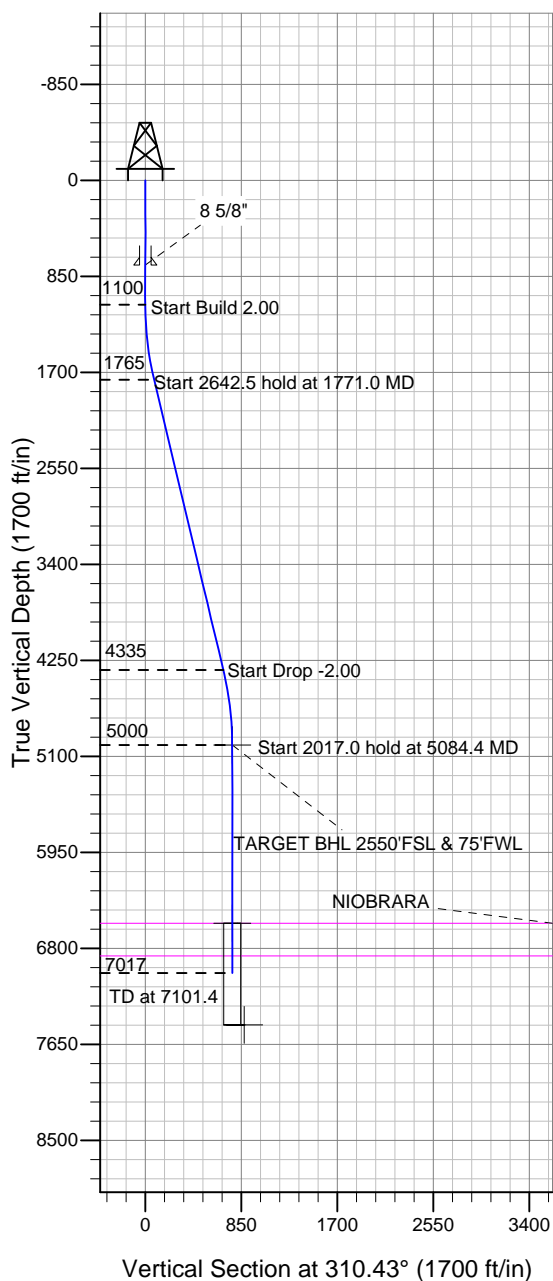
## Directional

### Well Name: Herbst C27-32D

Surface Location: Herbst C27-33D Pad Sec.27-T4N-R64W  
North American Datum 1983, US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4704.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1346953.02	3266686.90	40.281840	-104.544100	
		Original Well Elev	WELL @ 4717.0ft (Original Well Elev)			

## NOBLE ENERGY INC WELD COUNTY CO



Herbst C27-33D Pad Sec.27-T4N-R64W  
Herbst C27-32D  
Noble Herbst C27-32D Plan #3 (2-29-12)  
12:16, February 29 2012



Azimuths to True North  
Magnetic North: 8.64°  
Magnetic Field  
Strength: 53019.2snT  
Dip Angle: 66.97°  
Date: 2/29/2012  
Model: IGRF2010

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2550'FSL & 75'FWL	5000.0	499.1	-585.9	40.283210	-104.546200	Point
TARGET CIRCLE 2565'FSL & 75'FWL	6577.0	499.1	-585.9	40.283210	-104.546200	Circle (Radius: 75.0)
HARDLINES 76°N & 75°W OF BHL	7477.0	574.1	-660.9	40.283416	-104.546469	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	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1771.0	13.42	310.43	1764.8	50.7	-59.5	2.00	310.43	78.2	
4	4413.4	13.42	310.43	4335.2	448.4	-526.4	0.00	0.00	691.5	
5	5084.4	0.00	0.00	5000.0	499.1	-585.9	2.00	180.00	769.7	TARGET BHL 2550'FSL & 75'FWL
6	7017.4	0.00	0.00	7017.0	499.1	-585.9	0.00	0.00	769.7	