

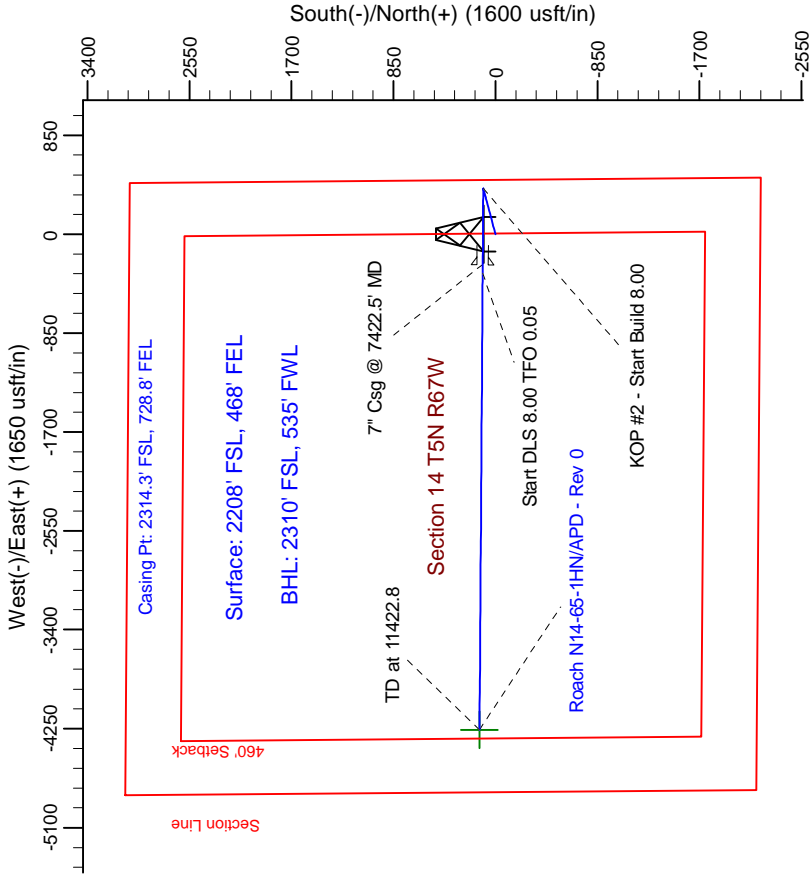
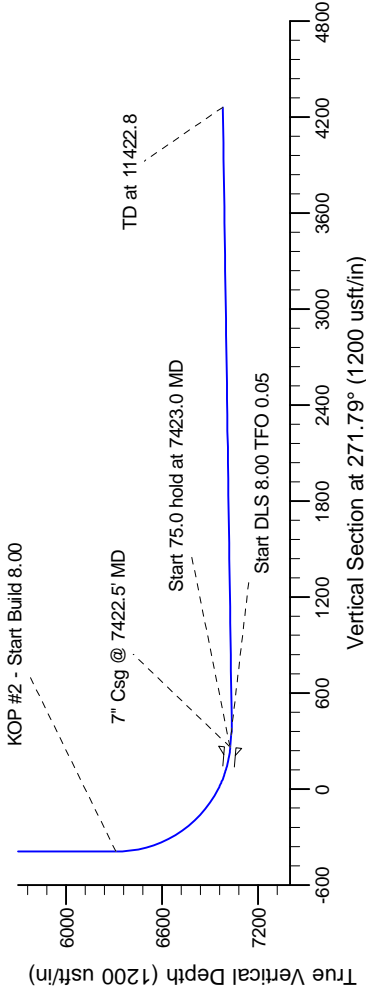
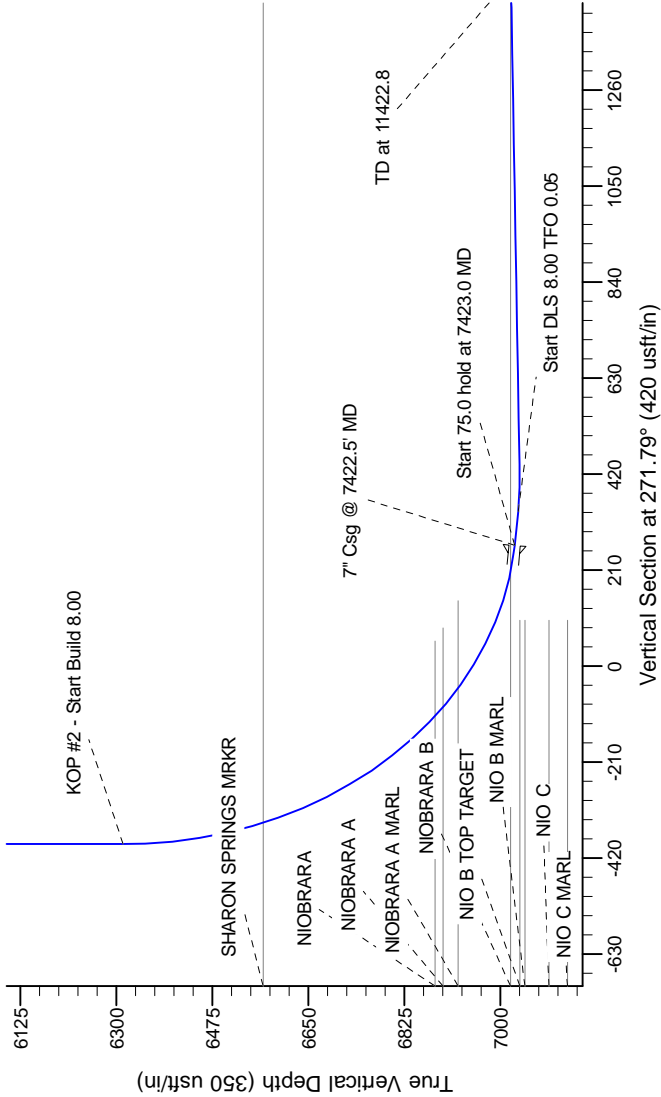
Northern Region Drilling

Project: Wattenberg Field
Site: N (Sec.14-105N-67W) Weld County, CO
Well: Roach N14-65-1HN
Wellbore: Original Drilling
Design: APD - Rev 0

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	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	2611.9	15.30	75.45	2604.6	20.4	78.6	2.50	75.45	-77.9	
4	3535.3	15.30	75.45	3495.4	81.6	314.4	0.00	0.00	-311.7	
5	4147.2	0.00	0.00	4100.0	102.0	393.0	2.50	180.00	-389.6	
6	6360.0	0.00	0.00	6312.8	102.0	393.0	0.00	0.00	-389.6	
7	7422.5	85.00	270.38	7026.3	106.3	-260.8	8.00	270.38	264.0	
8	7497.5	85.00	270.38	7032.8	106.8	-335.5	0.00	0.00	338.7	
9	7570.3	90.82	270.39	7035.5	107.3	-408.2	8.00	0.05	411.4	
10	11422.4	90.82	270.39	6980.0	133.2	-4259.8	0.00	0.00	4261.8	



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Azimuths to Grid North
True North: -0.42°
Magnetic North: 8.36°

Magnetic Field
Strength: 53072.9snT
Dip Angle: 67.02°
Date: 2/17/2012
Model: IGRF200510

WELL DETAILS: Roach N14-65-1HN		
North	Ground Level:	4934.0
1388591.96	Easting	Latitude
40.398280	40.398280	Longitude
		-104.852620

Plan: APD - Rev 0 (Roach N14-65-1HN/Original Drilling)	
Created By: Carrie Willers	Date: 10:51, February 17 2012

OK to submit with 2A as per Noble Drilling
2/21/2012 09:52