

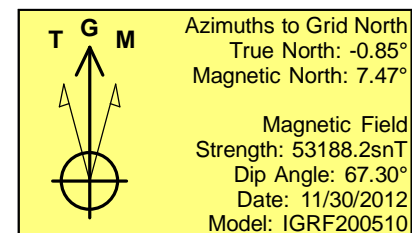
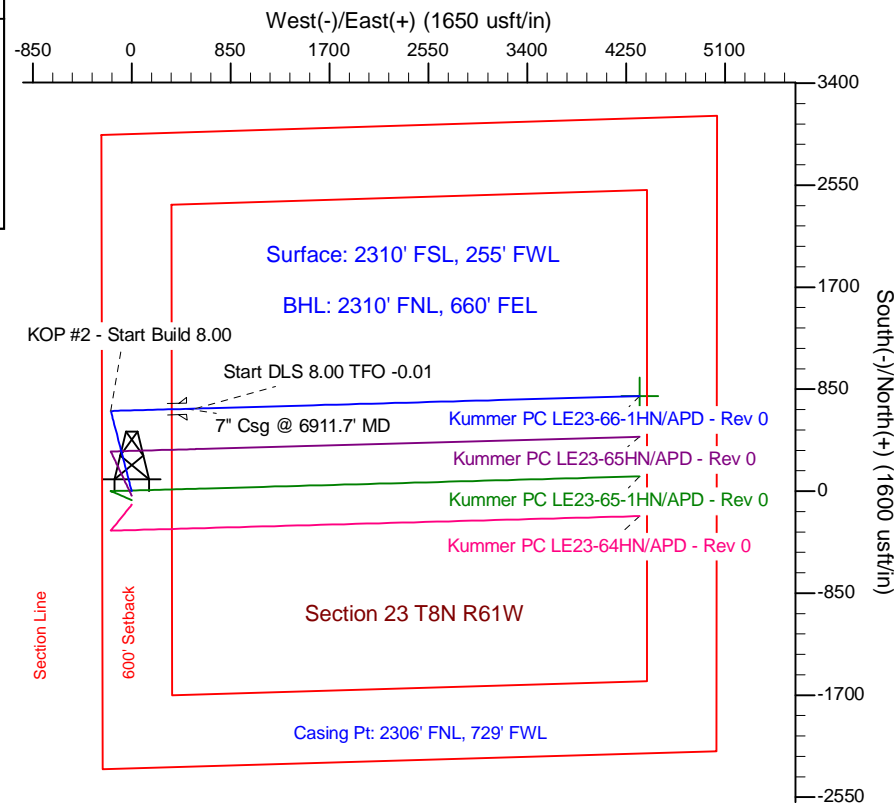
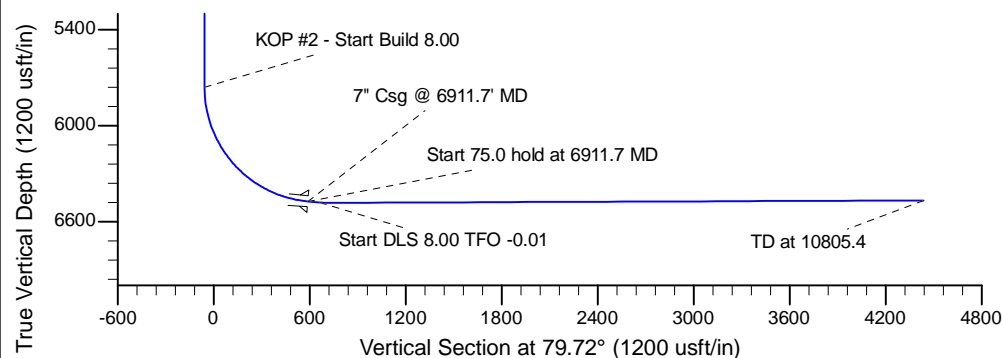
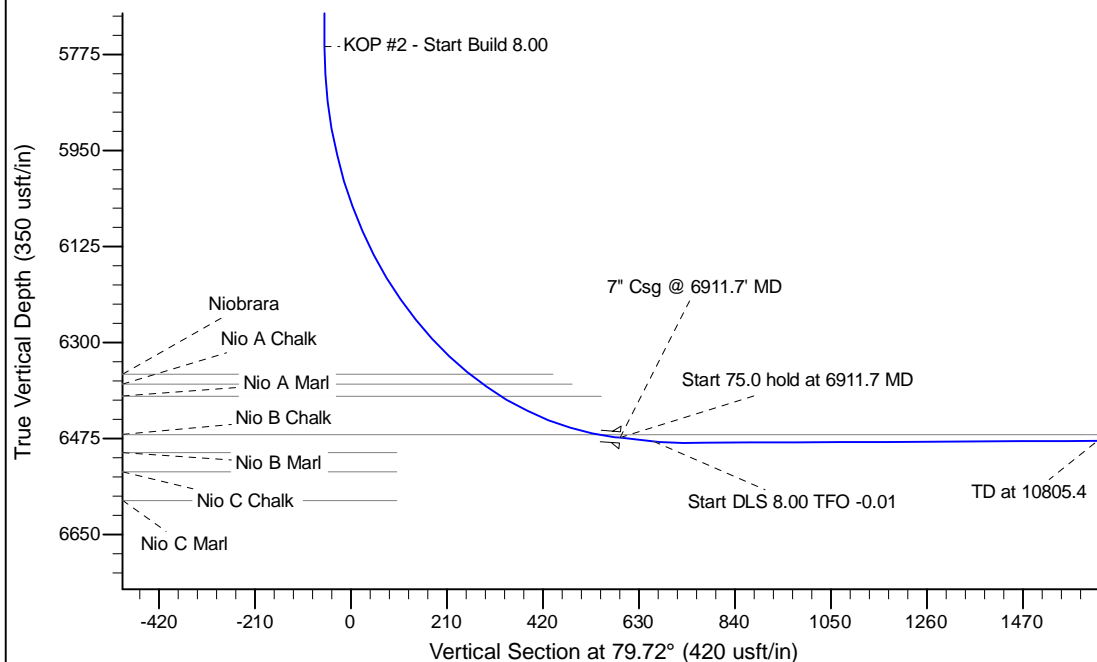
Project: Wattenberg Field
 Site: LE (Sec.23-T08N-R61W) Weld County, CO
 Well: Kummer PC LE23-66-1HN
 Wellbore: Original Drilling
 Design: APD - Rev 0

Northern Region Drilling

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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2140.0	16.00	344.92	2131.7	85.7	-23.1	2.50	344.92	-7.4	
4	4005.9	16.00	344.92	3925.3	582.3	-156.9	0.00	0.00	-50.5	
5	4645.8	0.00	0.00	4557.0	668.0	-180.0	2.50	180.00	-57.9	
6	5849.2	0.00	0.00	5760.4	668.0	-180.0	0.00	0.00	-57.9	
7	6911.7	85.00	88.44	6473.8	685.8	473.5	8.00	88.44	588.3	
8	6986.7	85.00	88.44	6480.4	687.8	548.2	0.00	0.00	662.2	
9	7052.0	90.23	88.44	6483.1	689.6	613.5	8.00	-0.01	726.7	
10	10805.4	90.23	88.44	6468.2	791.9	4365.4	0.00	0.00	4436.6	Kummer PC LE23-66-1HN BHL 2310'FNL, 660'FEL



WELL DETAILS: Kummer PC LE23-66-1HN			
Ground Level: 4982.0		Latitude 40.646450	
Northing 1481064.59	Easting 3365898.24	Longitude -104.181389	
Plan: APD - Rev 0 (Kummer PC LE23-66-1HN/Original Drilling)			
Created By: Carrie Willers		Date: 14:30, December 05 2012	
OK to submit with 2A as per Noble Drilling 12/5/12 3:12			