

Project: Weld County Colorado (NAD 83)

Site: Sec.23, T4N, R67W

Well: Ehrlich PC O23-69HN

Wellbore: Plan A - Rev 0 (PERMITTING PLAN ONLY)

Design: Plan A - Rev 0 Proposal

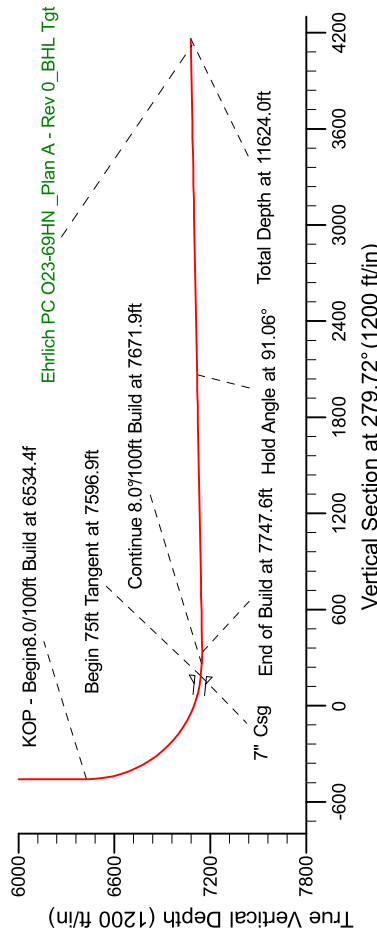
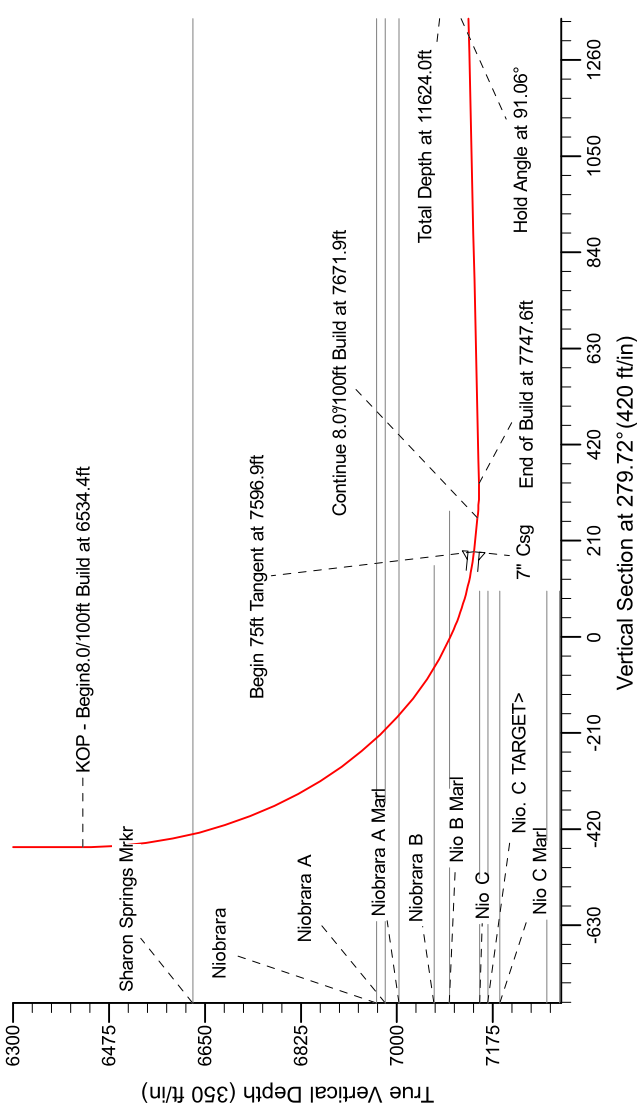
Noble Energy

HALLIBURTON

Sperry Drilling

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	2100.0	15.00	41.73	2093.1	58.3	52.0	2.50	41.73	-41.4	
4	4846.3	15.00	41.73	4745.9	588.7	525.0	0.00	0.00	-418.1	
5	5446.2	0.00	0.00	5339.0	647.0	577.0	2.50	180.00	-459.5	
6	6534.4	0.00	0.00	6427.2	647.0	577.0	0.00	0.00	-459.5	
7	7596.9	85.00	270.68	7140.6	654.8	-76.7	8.00	270.68	186.2	
8	7671.9	85.00	270.68	7147.2	655.6	-151.4	0.00	0.00	259.9	
9	7747.6	91.06	270.68	7149.8	656.5	-227.1	8.00	0.00	334.7	
10	11624.0	91.06	270.68	7078.0	702.6	-4102.5	0.00	31.53	4162.2	Ehrlich PC O23-69HN_Plan A - Rev 0_BHL Tgt



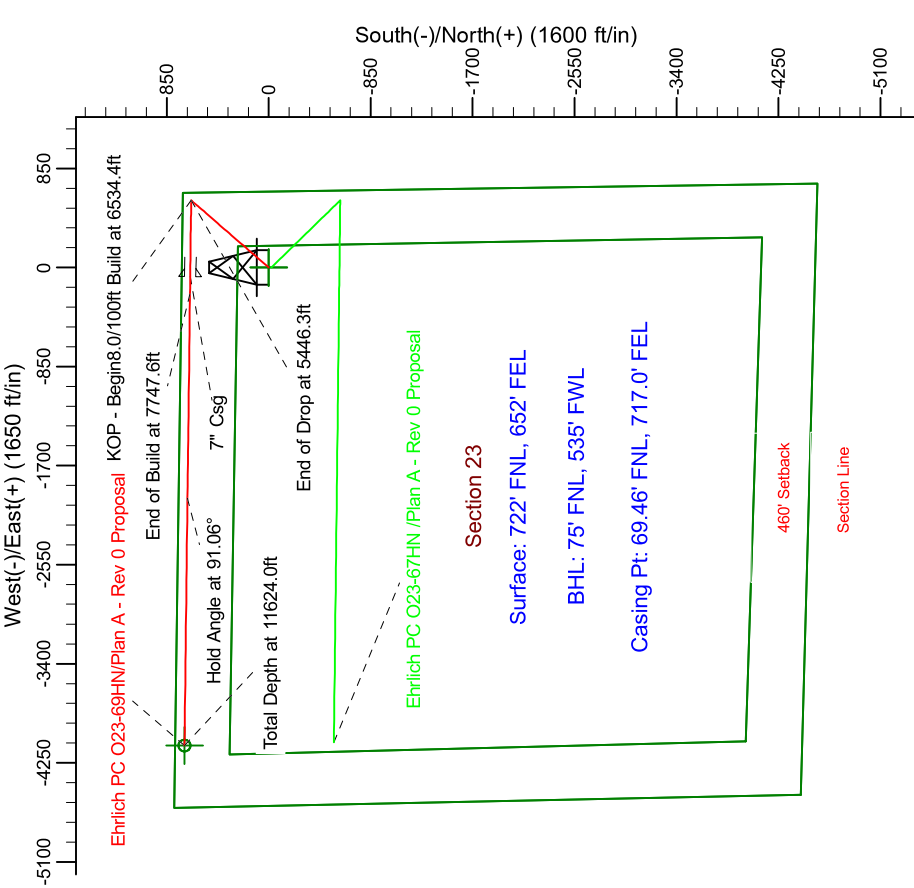
T

G

M

Magnetic Model: IGRF200510
Date: 7/28/2011
Inclination: 49.2°
Declination: -11.8°
Field Strength: 53081.4

Grid North is 0.42° East of True North (Grid Converge angle).
Magnetic North is 11.8° East of True North (Magnetic Declination).
To convert from True Direction to a Grid Direction, Subtract the Grid Converge angle.
To convert from True Direction to a Magnetic Direction, Subtract the Magnetic Declination.
To convert from Magnetic Direction to a Grid Direction, Add 11.8°.



WELL DETAILS: Ehrlich PC O23-69HN(NAD83 Geodetic System)			
Northing	Ground Level:	Easting	Longitude
412632.05	4834.0	969570.70	104° 51' 3.744 W
Latitude			
40° 18' 9.720 N			
Plan: Plan A - Rev 0 Proposal (Ehrlich PC O23-69HN/Plan A - Rev 0 (PERMITTING PLAN ONLY))			
Created By: Erasmo Mendoza		Date: 20:15, July 28 2011	