

Noble Energy Inc.- Weld County, CO (Grid North)

Well Name: **Heartland State H01-74-1HN**

Surface Location: Heartland State G36-75-1HN Pad Sec.25-T4N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

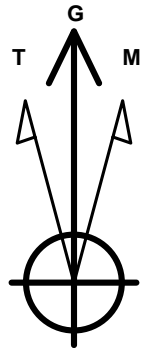
Ground Elevation: 4834.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1344913.85	3249673.92	40.276730	-104.605150	

Precision 829 - RKB 16' WELL @ 4850.0ft (Precision 829 - RKB 16')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Heartland State H01-74-1HN BHL 75'FSL & 1650'FEL	6937.9	-10751.9	-804.4	Circle (Radius: 35.0)
WP1	6996.0	-4080.6	-845.0	Point



Azimuths to Grid North
True North: -0.58°
Magnetic North: 7.76°

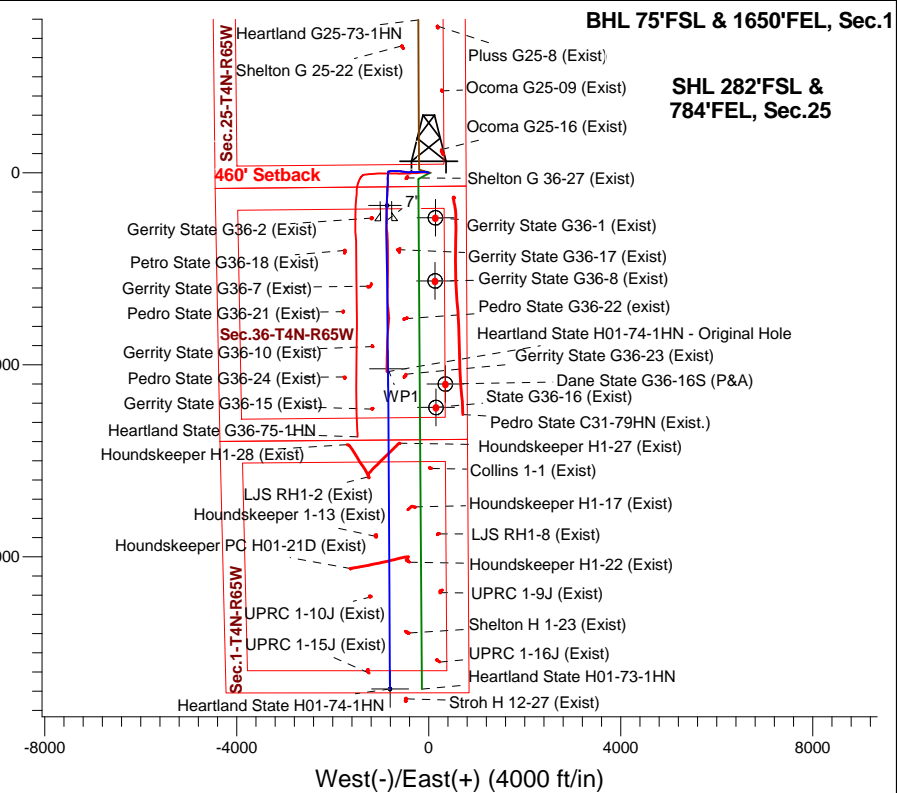
Magnetic Field
Strength: 52750.2snT
Dip Angle: 66.87°
Date: 8/13/2014
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
6887.5	7158.0	Tie-On Pt. - End of Rathole
6887.5	7158.0	KOP - Start DLS 5.00 TFO 60.00
6897.8	7188.0	Start 155.4 hold at 7188.0 MD
6953.9	7354.2	Start DLS 5.00 TFO -12.83
6996.0	10850.1	Start DLS 2.00 TFO 90.16
6937.9	17521.8	TD at 17521.8

Heartland State G36-75-1HN Pad Sec.25-T4N-R65W
Heartland State H01-74-1HN
Sidetrack Plan D - Rev 0

South(-)/North(+) (4000 ft/in)



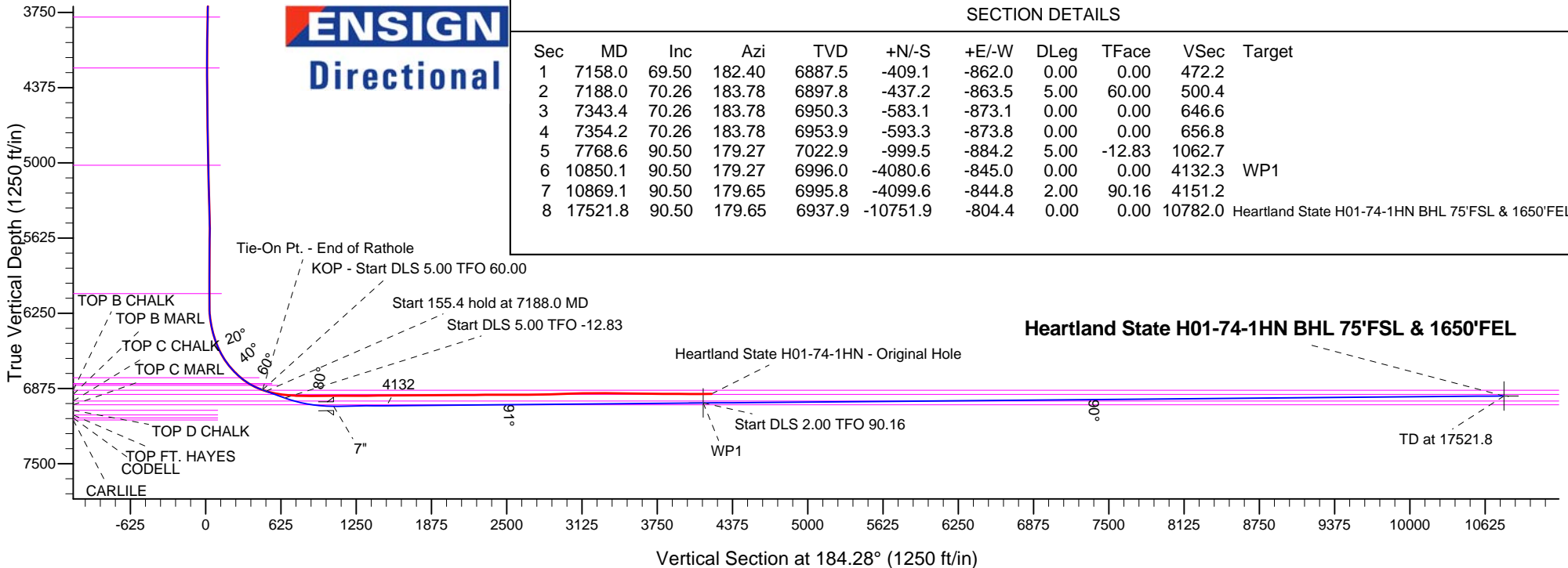
BHL 75'FSL & 1650'FEL, Sec.1

SHL 282'FSL & 784'FEL, Sec.25

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7158.0	69.50	182.40	6887.5	-409.1	-862.0	0.00	0.00	472.2	
2	7188.0	70.26	183.78	6897.8	-437.2	-863.5	5.00	60.00	500.4	
3	7343.4	70.26	183.78	6950.3	-583.1	-873.1	0.00	0.00	646.6	
4	7354.2	70.26	183.78	6953.9	-593.3	-873.8	0.00	0.00	656.8	
5	7768.6	90.50	179.27	7022.9	-999.5	-884.2	5.00	-12.83	1062.7	
6	10850.1	90.50	179.27	6996.0	-4080.6	-845.0	0.00	0.00	4132.3	WP1
7	10869.1	90.50	179.65	6995.8	-4099.6	-844.8	2.00	90.16	4151.2	
8	17521.8	90.50	179.65	6937.9	-10751.9	-804.4	0.00	0.00	10782.0	Heartland State H01-74-1HN BHL 75'FSL & 1650'FEL

Heartland State H01-74-1HN BHL 75'FSL & 1650'FEL



ENSIGN
Directional