

# PETROLEUM DEVELOPMENT CORP Weld County CO

## Well Name: Spaur 31W-214

Surface Location: Spaur NE-31 Pad Sec.31-T7N-R63W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

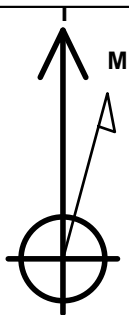
Ground Elevation: 4756.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1438991.98	3285950.84	40.533880	-104.471230	

Original Well Elev WELL @ 4771.0ft (Original Well Elev)

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARD LINES BHL 460'FWL	1.0	-971.6	-4487.6	Polygon
HARD LINES SHL 460' FEL	1.0	-800.0	-210.0	Polygon
SECTION HARDLINES 250'E OF SHL	1.0	-800.0	250.0	Polygon
BHL 1830'FNL, 500'FWL	6761.0	-571.6	-4447.6	Point



Azimuths to True North  
Magnetic North: 8.62°

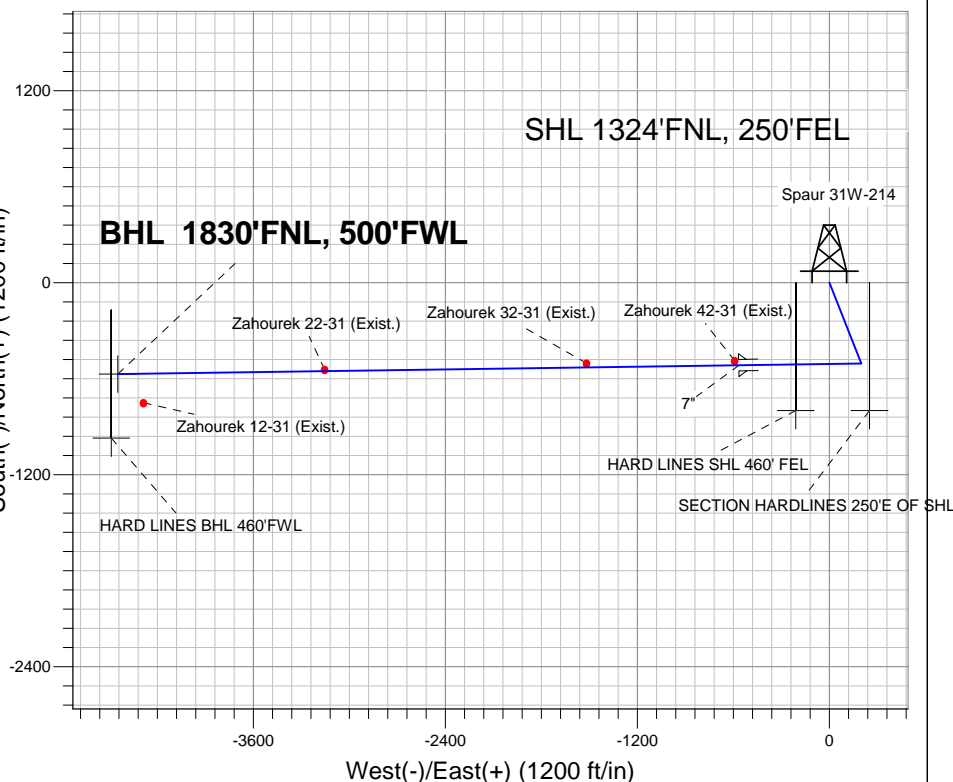
Magnetic Field  
Strength: 53154.6nT  
Dip Angle: 67.18°  
Date: 3/13/2012  
Model: IGRF2010

## ANNOTATIONS

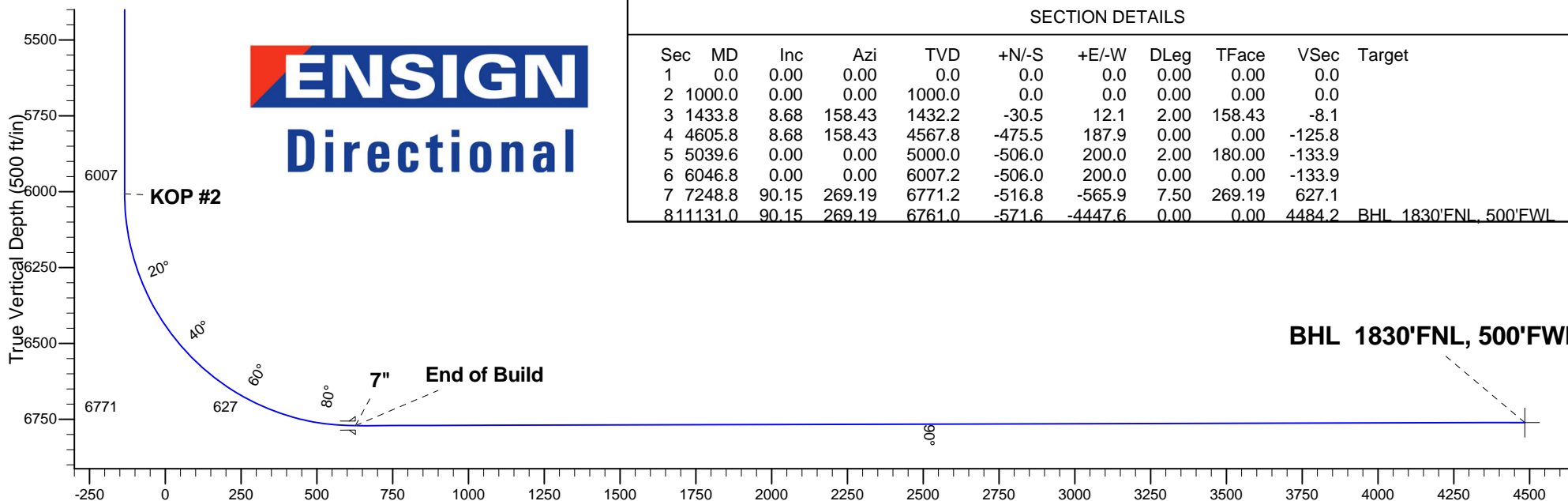
TVD	MD	Annotation
1000.0	1000.0	KOP #1
6007.2	6046.8	KOP #2
6771.2	7248.8	End of Build

Spaur NE-31 Pad Sec.31-T7N-R63W  
Spaur 31W-214  
Plan #2 (3-07-12)  
14:08, March 13 2012

South(-)/North(+) (1200 ft/in)



**ENSIGN**  
Directional



## 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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1433.8	8.68	158.43	1432.2	-30.5	12.1	2.00	158.43	-8.1	
4	4605.8	8.68	158.43	4567.8	-475.5	187.9	0.00	0.00	-125.8	
5	5039.6	0.00	0.00	5000.0	-506.0	200.0	2.00	180.00	-133.9	
6	6046.8	0.00	0.00	6007.2	-506.0	200.0	0.00	0.00	-133.9	
7	7248.8	90.15	269.19	6771.2	-516.8	-565.9	7.50	269.19	627.1	
8	11131.0	90.15	269.19	6761.0	-571.6	-4447.6	0.00	0.00	4484.2	BHL 1830'FNL, 500'FWL

Vertical Section at 262.68° (500 ft/in)