

# PETROLEUM DEVELOPMENT CORP Weld County CO

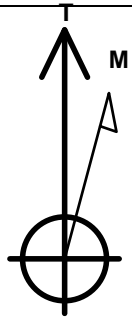
## Well Name: Magnuson 231-221

Surface Location: Magnuson Pad Sec.23-T7N-R66W  
North American Datum 1983 , US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 4899.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1445500.67	3207967.08	40.553890	-104.751580	
RKB Ensign 32 - 15'		WELL @ 4914.0ft (RKB Ensign 32 - 15')				

### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
HARDLINE BHL 460'FNL	1.0	4677.0	-746.1	1450171.06	3207181.56	40.566727	-104.754265	Polygon
HARDLINE SHL 460'FSL	1.0	280.0	-750.0	1445774.33	3207214.77	40.554658	-104.754279	Polygon
SECTION LINE 180' SOUTH OF SHL	1.0	-180.0	-750.0	1445314.36	3207218.65	40.553396	-104.754279	Polygon
SECTION LINE 200'W OF BHL	1.0	4677.0	-746.1	1450171.06	3207181.56	40.566727	-104.754265	Polygon
BHL 500'FNL & 200'FWL	7224.0	4637.0	-546.1	1450132.71	3207381.90	40.566618	-104.753546	Point



Azimuths to True North  
Magnetic North: 8.79°

Magnetic Field  
Strength: 53146.3nT  
Dip Angle: 67.16°  
Date: 1/31/2012  
Model: IGRF2010

### ANNOTATIONS

TVD	MD	Annotation
1000.0	1000.0	KOP #1
6499.8	6535.5	KOP #2
7263.7	7743.1	End of Build

Magnuson Pad Sec.23-T7N-R66W  
Magnuson 231-221  
Plan #1 (1-31-12)  
8:28, February 02 2012

