



WARD PETROLEUM

Well: Brighton Lakes #3031-1-05HN  
Site: Brighton Lakes  
Project: Adams County, Colorado  
Design: rev0

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	2293.89	17.82	260.93	2284.37	-14.44	-90.45	3.00	260.93	28.79	Begin 17.82° tangent section
4	7316.55	17.82	260.93	7066.14	-256.74	-1608.04	0.00	0.00	511.77	Begin 12°/100' build/turn
5	8044.30	90.00	179.69	7500.00	-734.44	-1743.23	12.00	-81.66	1004.98	LP Begin 90.00° lateral section
6	17693.73	90.00	179.69	7500.00	-10383.72	-1690.31	0.00	0.00	0520.40	PBHL/TD 17693.73 MD/7500.00 TVD

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level  
Depth Reference: RKB=5048.5+17 @ 5065.50usft

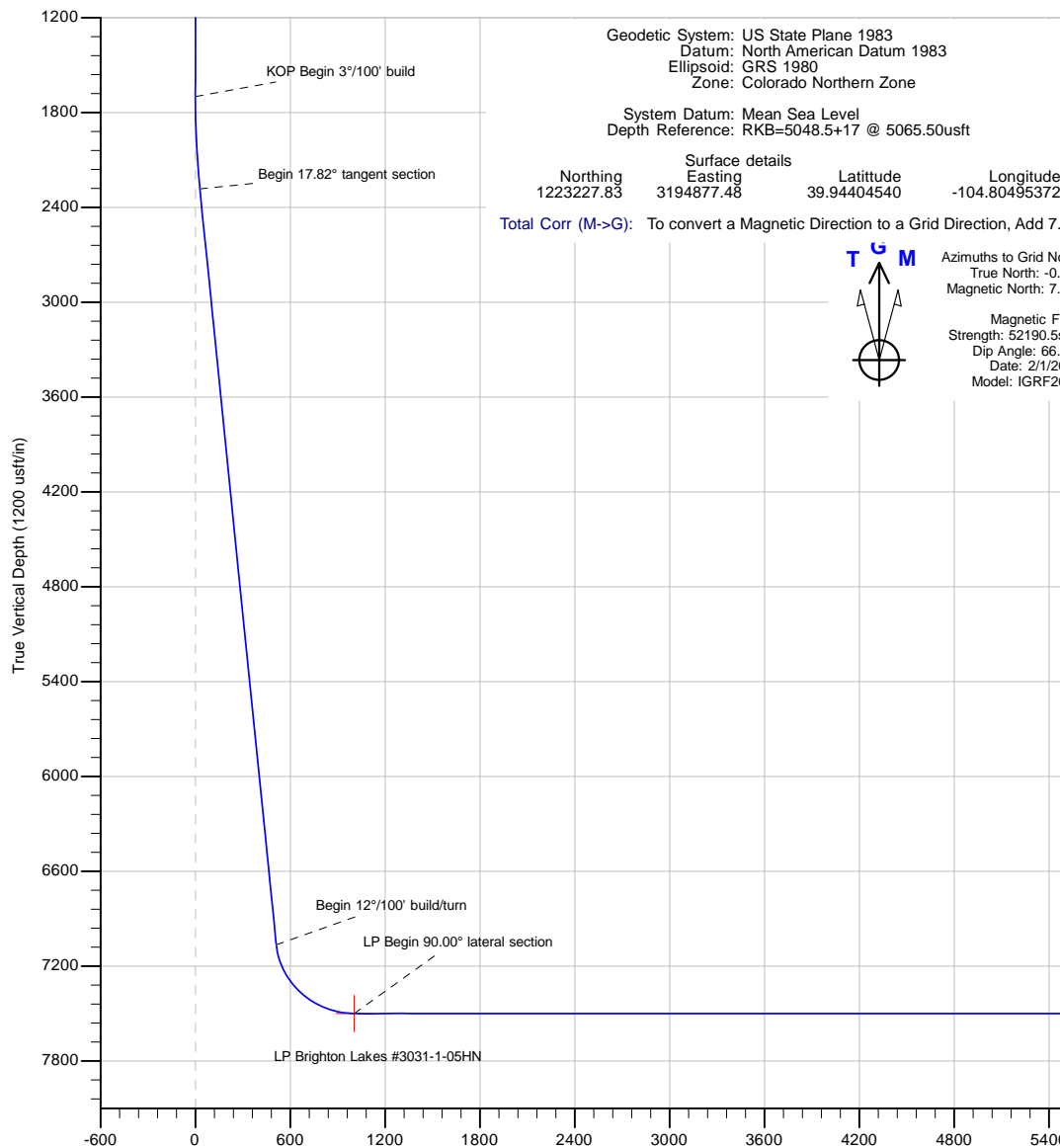
Surface details  
Northing 1223227.83 Easting 3194877.48 Latitude 39.94404540 Longitude -104.80495372

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 7.78°



Azimuths to Grid North  
True North: -0.45°  
Magnetic North: 7.78°

Magnetic Field  
Strength: 52190.5nT  
Dip Angle: 66.49°  
Date: 2/1/2017  
Model: IGRF2015



Vertical Section at 189.25° (1200 usft/in)

