



Project: Weld County, CO  
Site: Sec 7-T10N-R57W  
Well: Horsetail #07E-1801A  
Wellbore: Hz  
Design: Plan #1

PROJECT DETAILS: Weld County, CO  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level



Azimuths to True North  
Magnetic North: 7.88°  
Magnetic Field  
Strength: 53087.1snT  
Dip Angle: 67.44°  
Date: 1/5/2015  
Model: IGRF2010

WELL DETAILS: Horsetail #07E-1801A

+N/-S	+E/-W	Northing	Ground Level:	4925.70	Latitude	Longitude	Slot
0.00	0.00	1558448.65	Easting	3469890.11	40° 51' 14.270 N	103° 48' 4.920 W	

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	900.00	12.00	290.00	895.62	21.41	-58.83	2.00	290.00	-17.92	
4	2965.00	12.00	290.00	2915.50	168.25	-462.27	0.00	0.00	-140.84	
5	3565.00	0.00	0.00	3511.12	189.66	-521.10	2.00	180.00	-158.76	
6	5282.80	0.00	0.00	5228.92	189.66	-521.10	0.00	0.00	-158.76	
7	6100.98	90.00	179.67	5749.79	-331.20	-518.06	11.00	179.67	361.02	PBHL 1801A
8	6127.96	90.00	179.67	5749.79	-358.18	-517.90	0.00	0.00	387.95	
9	13816.82	90.00	179.67	5750.00	-8046.91	-473.00	0.00	0.00	8060.80	PBHL 1801A

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1550.00	1569.00	Upper Pierre
3500.00	3553.88	Hygiene
3650.00	3703.88	Lower Pierre
5515.00	5585.66	P200 Marker
5530.00	5603.82	P300 Marker
5550.00	5628.76	P350 Marker
5702.00	5876.11	Sharon Springs
5707.00	5888.38	Niobrara
5727.00	5946.33	Top A Chalk

#### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
300.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	Build 2°/100'
895.62	900.00	12.00	290.00	21.41	-58.83	-17.92	62.60	Hold 12° Inc, 290° Azm
2915.50	2965.00	12.00	290.00	168.25	-462.27	-140.84	491.94	Drop 2°/100'
3511.12	3565.00	0.00	0.00	189.66	-521.10	-158.76	554.54	Hold Vertical
5228.92	5282.80	0.00	0.00	189.66	-521.10	-158.76	554.54	KOP, Build 11°/100'
5749.79	6100.98	90.00	179.67	-331.20	-518.06	361.02	1075.41	LP @ 90° Inc, Hold
5749.79	13816.82	90.00	179.67	-8046.91	-473.00	8060.80	8791.25	TD at 13816.85' MD

#### DESIGN TARGET DETAILS

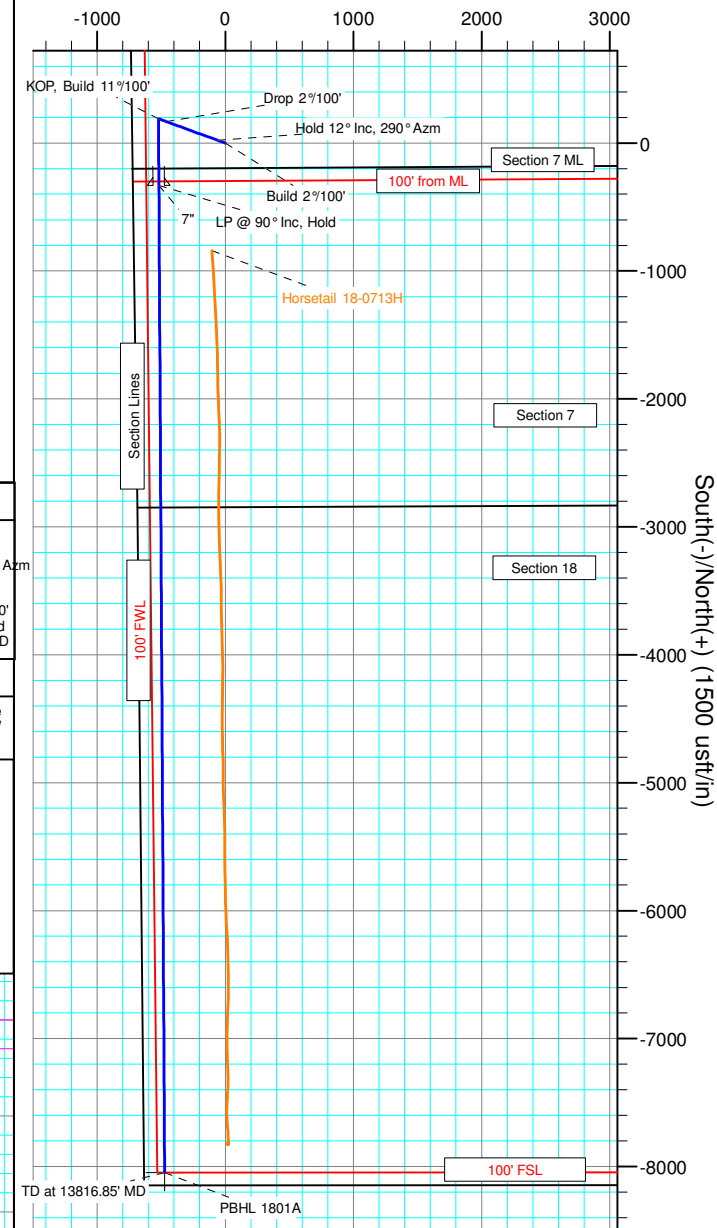
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1801A	5750.00	-8046.91	-473.00	1550394.16	3469571.33	40° 49' 54.760 N	03° 48' 11.073 W

SHL:  
2454' FNL, 740' FWL  
Sec7-T10N-R57W

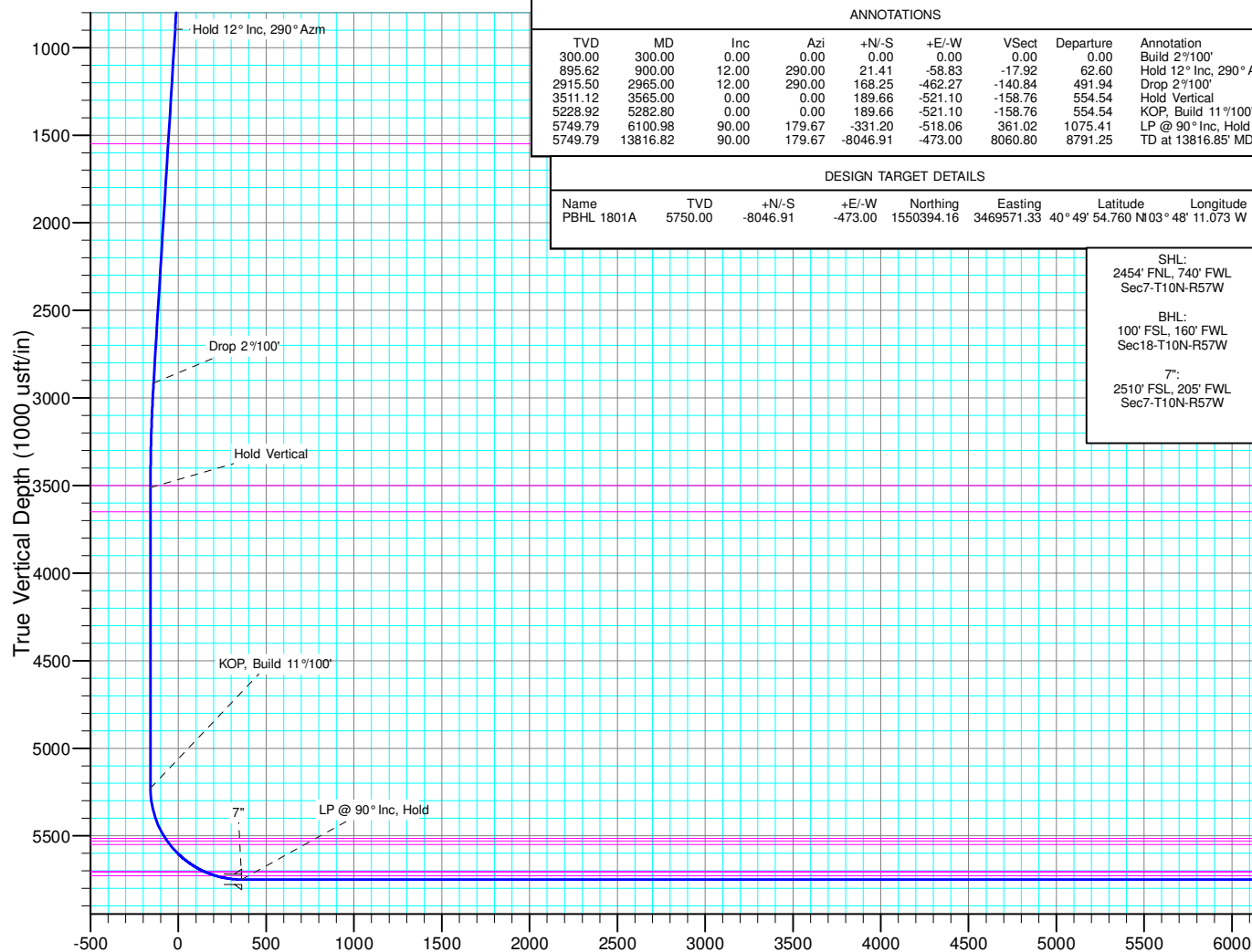
BHL:  
100' FSL, 160' FWL  
Sec18-T10N-R57W

7":  
2510' FSL, 205' FWL  
Sec7-T10N-R57W

West(-)/East(+) (1500 usft/in)



South(-)/North(+) (1500 usft/in)



Vertical Section at 183.36° (1000 usft/in)