



Project: Weld County, CO
Site: Sec 8-T10N-R57W
Well: Horsetail #08B-1711
Wellbore: Hz
Design: APD

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: 7.85°
Magnetic Field
Strength: 53076.7nT
Dip Angle: 67.44°
Date: 3/2/2015
Model: IGRF2010

WELL DETAILS: Horsetail #08B-1711

+N/-S	+E/-W	Northing	Ground Level: Easting	4890.00 Latitude	Longitude	Slot
0.00	0.00	1560719.00	3477638.01	40° 51' 35.220 N	103° 46' 23.540 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	500.00	4.00	59.00	499.84	3.59	5.98	2.00	59.00	-3.44	
4	4600.00	4.00	59.00	4589.85	150.90	251.13	0.00	0.00	-144.49	
5	4800.00	0.00	0.00	4789.69	154.49	257.11	2.00	180.00	-147.93	
6	5210.44	0.00	0.00	5200.13	154.49	257.11	0.00	0.00	-147.93	
7	6028.62	90.00	180.00	5721.00	-366.38	257.10	11.00	180.00	372.77	PBHL 1711
8	15802.11	90.00	180.00	5721.00	-10139.87	256.75	0.00	0.00	10143.12	PBHL 1711

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1525.00	1527.67	Upper Pierre
3565.00	3572.65	Hygiene
3665.00	3672.89	Lower Pierre
5604.00	5672.62	P200 Marker
5619.00	5697.09	P300 Marker
5639.00	5732.38	P350 Marker
5654.00	5761.52	Sharon Springs
5666.00	5787.10	Niobrara
5681.00	5823.17	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'
499.84	500.00	4.00	59.00	3.59	5.98	-3.44	6.98	Hold 4° Inc
4589.85	4600.00	4.00	59.00	150.90	251.13	-144.49	292.98	Drop 2°/100'
4789.69	4800.00	0.00	0.00	154.49	257.11	-147.93	299.96	Hold Vertical
5200.13	5210.44	0.00	0.00	154.49	257.11	-147.93	299.96	KOP, Build 11°/100'
5721.00	6028.62	90.00	180.00	-366.38	257.10	372.77	820.83	LP @ 90° Inc, Hold
5721.00	15802.11	90.00	180.00	-10139.87	256.75	10143.12	10594.32	TD at 15802.11' MD

DESIGN TARGET DETAILS

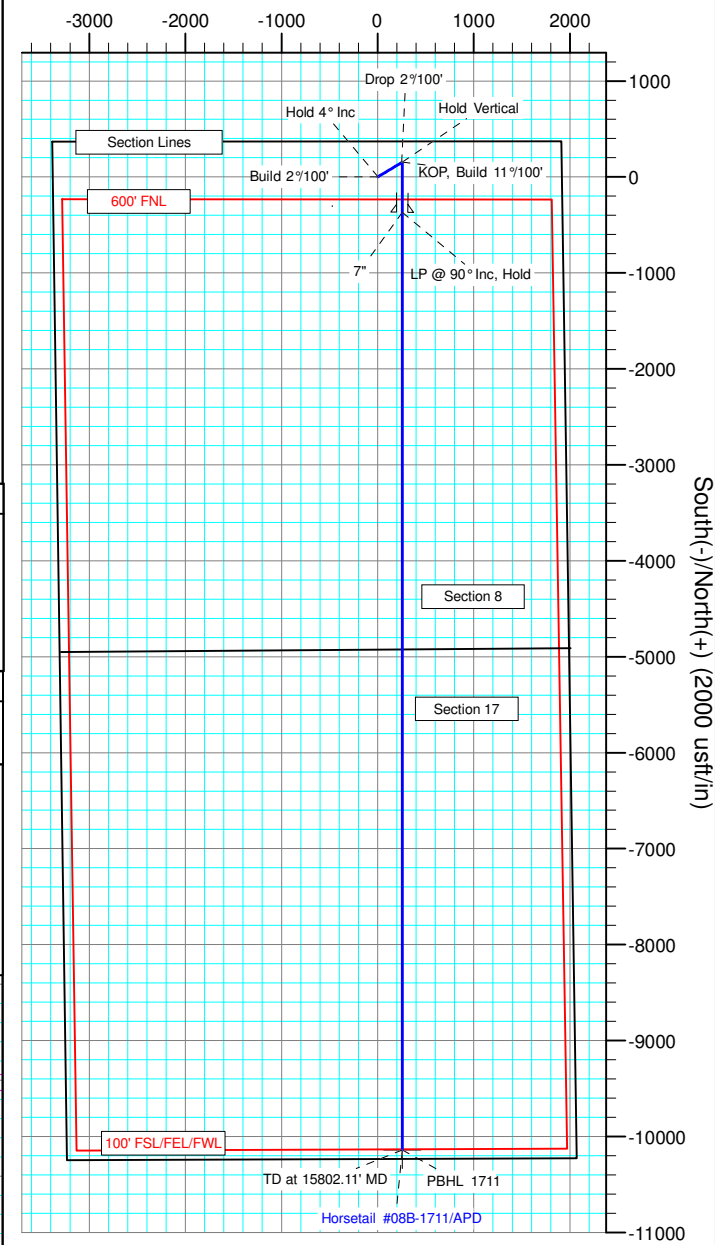
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1711	5721.00	-10139.87	256.75	1550586.05	3478092.16	40° 49' 55.030 N	103° 46' 20.200 W

SHL:
380' FNL, 1920' FEL
Sec8-T10N-R57W

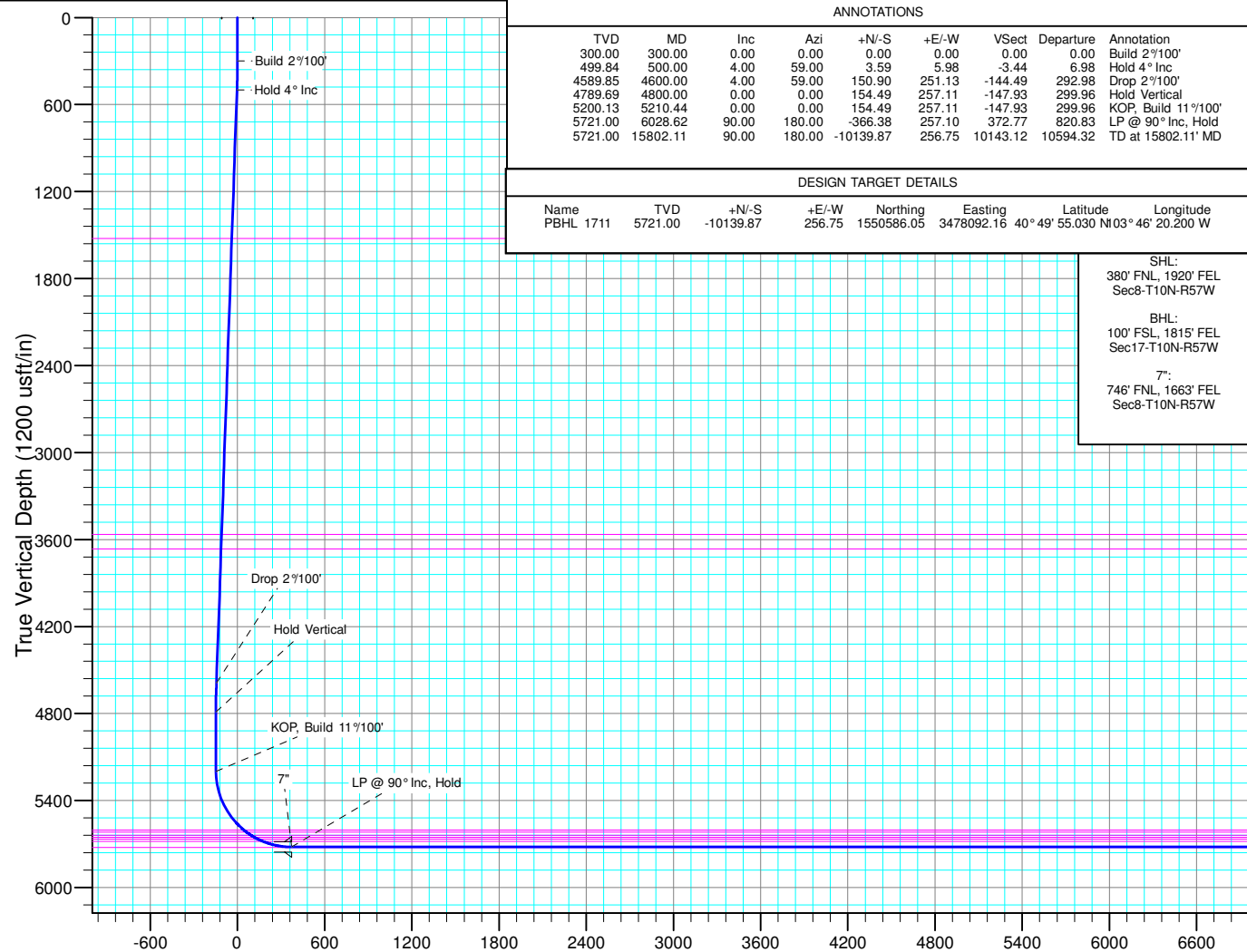
BHL:
100' FSL, 1815' FEL
Sec17-T10N-R57W

7":
746' FNL, 1663' FEL
Sec8-T10N-R57W

West(-)/East(+) (2000 usft/in)



South(-)/North(+) (2000 usft/in)



Vertical Section at 178.55° (1200 usft/in)