



Project: Weld County, CO
Site: Sec 7-T10N-R57W
Well: Horsetail #07E-1836
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

WELL DETAILS: Horsetail #07E-1836

+N/-S	+E/-W	Northing	Ground Level:	4925.70	Latitude	Longitude	Slot
0.00	0.00	1558450.95	Easting	3470010.06	40° 51' 14.270 N	103° 48' 3.359 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	550.00	5.00	50.00	549.68	7.01	8.35	2.00	50.00	-6.78	
4	3850.00	5.00	50.00	3837.12	191.88	228.68	0.00	0.00	-185.59	
6	4100.00	0.00	0.00	4086.81	198.89	237.03	2.00	180.00	-192.37	
6	5541.10	0.00	0.00	5527.91	198.89	237.03	0.00	0.00	-192.37	
7	6359.28	90.00	180.13	6048.78	-321.98	235.89	11.00	180.13	328.28	PBHL 1836D
8	6387.88	90.00	180.13	6048.78	-350.58	235.83	0.01	-180.00	356.87	
9	14084.23	90.00	180.13	6049.00	-8046.91	219.00	0.00	0.00	8049.89	PBHL 1836D

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
1550.00	1554.14	Upper Pierre
3500.00	3511.59	Hygiene
3650.00	3662.16	Lower Pierre
5515.00	5528.19	P200 Marker
5530.00	5543.19	P300 Marker
5550.00	5563.20	P350 Marker
5702.00	5718.61	Sharon Springs
5707.00	5723.92	Niobrara
5727.00	5745.39	Top A Chalk
5764.00	5786.13	Top A Marl
5783.00	5807.68	A Marl
5792.00	5818.06	Top Upper B
5820.00	5851.19	Base Upper B
5837.00	5872.01	Top Lower B
5857.00	5897.32	Base Lower B
5864.00	5906.41	Top B Marl
5914.00	5975.99	Top C Chalk
5922.00	5988.06	Middle C Chalk
5936.00	6010.01	Middle C Marl
5955.00	6041.83	Lower C Chalk
5973.00	6074.79	Lower C Marl
6004.00	6141.72	Lower C Marker
6009.00	6154.40	Top Ft. Hays
6029.00	6215.28	Ft. Hays Marker

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'
549.68	550.00	5.00	50.00	7.01	8.35	-6.78	10.90	Hold 5° Inc, 50° Azm
3837.12	3850.00	5.00	50.00	191.88	228.68	-185.59	288.52	Drop 2°/100'
4086.81	4100.00	0.00	0.00	198.89	237.03	-192.37	309.42	Hold Vertical
5527.91	5541.10	0.00	0.00	198.89	237.03	-192.37	309.42	KOP, Build 11°/100'
6048.78	6359.28	90.00	180.13	-321.98	235.89	328.28	830.29	LP @ 90° Inc, Hold
6049.00	14084.21	90.00	180.13	-8046.89	219.00	8049.87	8555.22	TD at 14084.21' MD

DESIGN TARGET DETAILS

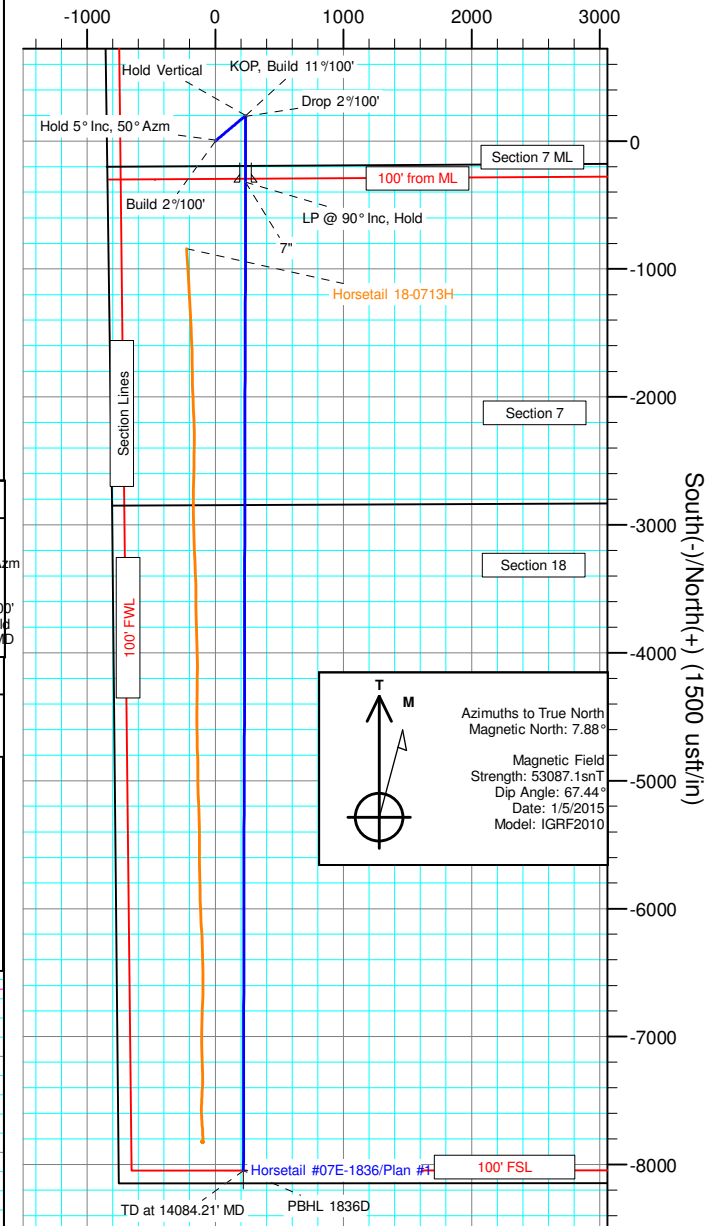
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1836D	6049.00	-8046.91	219.00	1550409.71	3470383.20	40° 49' 54.760 N	103° 48' 0.510 W

SHL:
2459' FNL, 860' FWL
Sec7-T10N-R57W

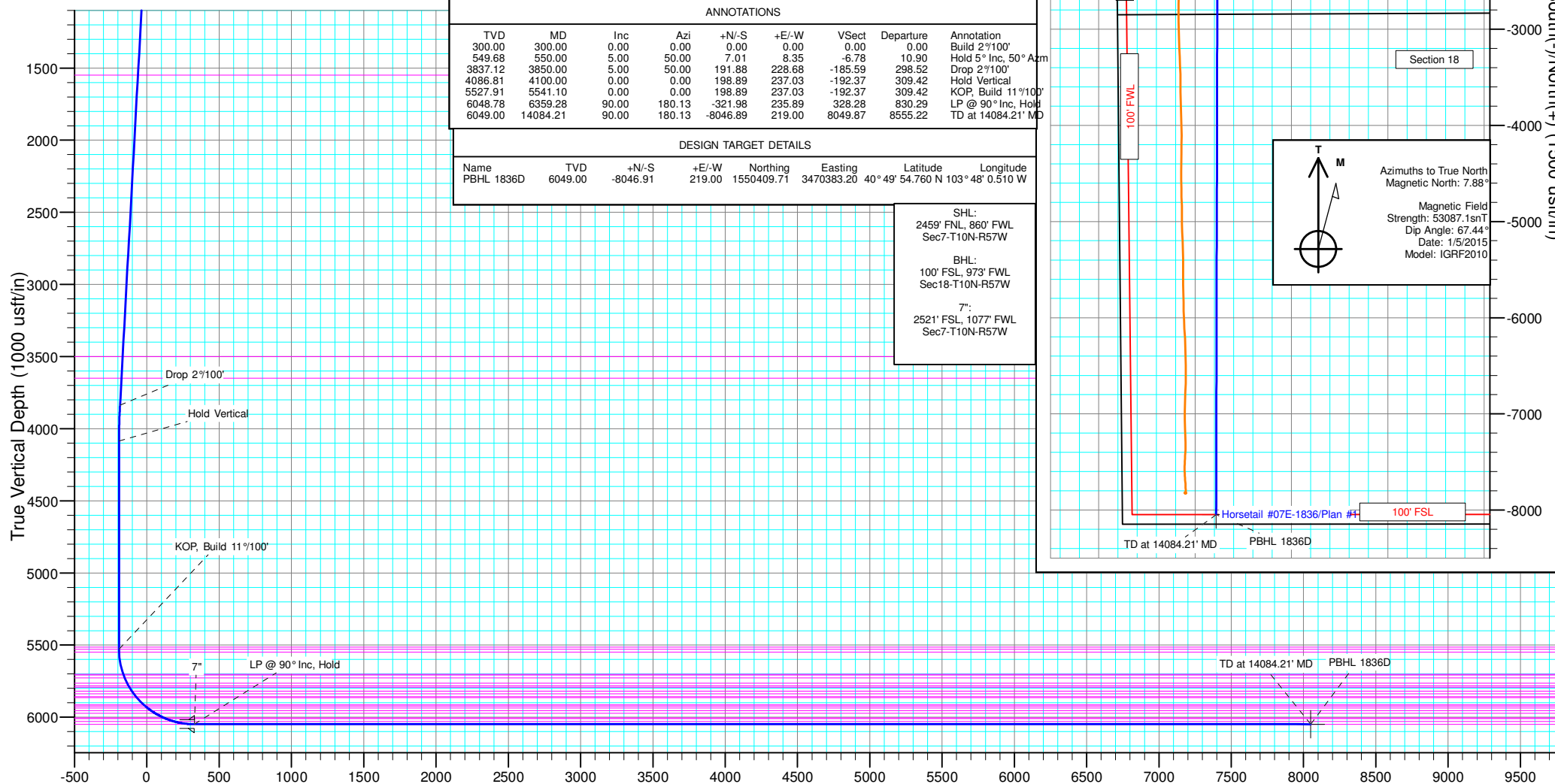
BHL:
100' FSL, 973' FWL
Sec18-T10N-R57W

7":
2521' FSL, 1077' FWL
Sec7-T10N-R57W

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



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



Vertical Section at 178.44° (1000 usft/in)