



Project: Weld County, CO
Site: Sec 7-T10N-R57W
Well: Horsetail #07H-1845
Wellbore: Hz
Design: Design #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

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1550.00	1559.66	Upper Pierre
3500.00	3528.83	Hygiene
3650.00	3680.30	Lower Pierre
5515.00	5557.73	P200 Marker
5530.00	5572.95	P300 Marker
5550.00	5593.38	P350 Marker
5702.00	5757.88	Sharon Springs
5707.00	5763.73	Niobrara
5727.00	5787.56	Top A Chalk
5764.00	5833.75	Top A Marl
5783.00	5858.81	A Marl
5792.00	5871.06	Top Upper B
5820.00	5911.09	Base Upper B
5837.00	5937.12	Top Lower B
5857.00	5969.96	Base Lower B
5864.00	5982.15	Top B Marl
5914.00	6086.67	Top C Chalk
5922.00	6108.31	Middle C Chalk
5936.00	6153.60	Middle C Marl
5955.00	6294.71	Lower C Chalk

WELL DETAILS: Horsetail #07H-1845

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude	Slot
0.00	0.00	1558373.26	4908.90	3473653.88	40° 51' 12.810 N	103° 47' 15.970 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	700.00	8.00	307.00	698.70	16.78	-22.27	2.00	307.00	-15.34	
4	4790.00	8.00	307.00	4748.90	359.34	-476.86	0.00	0.00	-328.56	
5	5190.00	0.00	0.00	5147.60	376.12	-499.13	2.00	180.00	-343.90	
6	5476.53	0.00	0.00	5434.13	376.12	-499.13	0.00	0.00	-343.90	
7	6294.71	90.00	180.00	5955.00	-144.75	-499.11	11.00	180.00	175.93	PBHL 1845C
8	14047.08	90.00	180.00	5955.00	-7897.12	-498.89	0.00	0.00	7912.87	PBHL 1845C

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'
698.70	700.00	8.00	307.00	16.78	-22.27	-15.34	27.88	Hold 8° Inc
4748.90	4790.00	8.00	307.00	359.34	-476.86	-328.56	597.10	Drop 2°/100'
5147.60	5190.00	0.00	0.00	376.12	-499.13	-343.90	624.98	Hold Vertical
5434.13	5476.53	0.00	0.00	376.12	-499.13	-343.90	624.98	KOP, Build 11°/100'
5955.00	6294.71	90.00	180.00	-144.75	-499.11	175.93	1145.85	LP @ 90° Inc, Hold
5955.00	14047.08	90.00	180.00	-7897.12	-498.89	7912.87	8898.22	TD at 14047.08' MD

DESIGN TARGET DETAILS

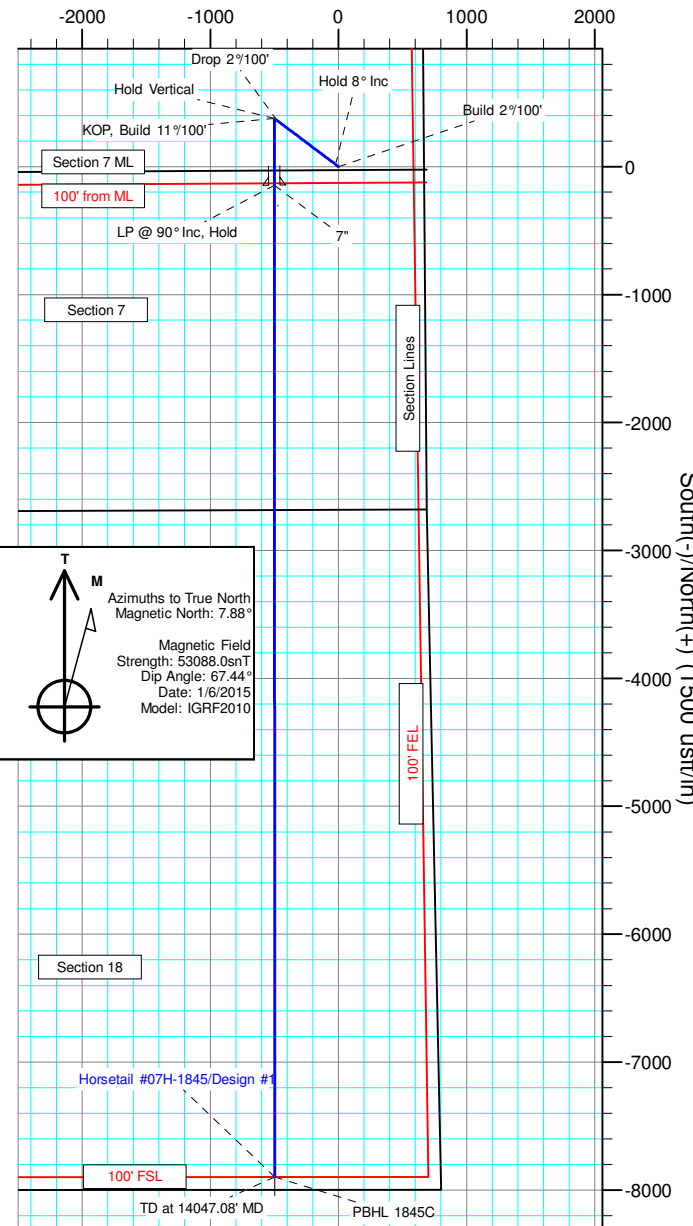
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 1845C	5955.00	-7897.12	-498.89	1550467.97	3473307.55	40° 49' 54.780 N	103° 47' 22.460 W

SHL:
2633' FNL, 688' FEL
Sec7-T10N-R57W

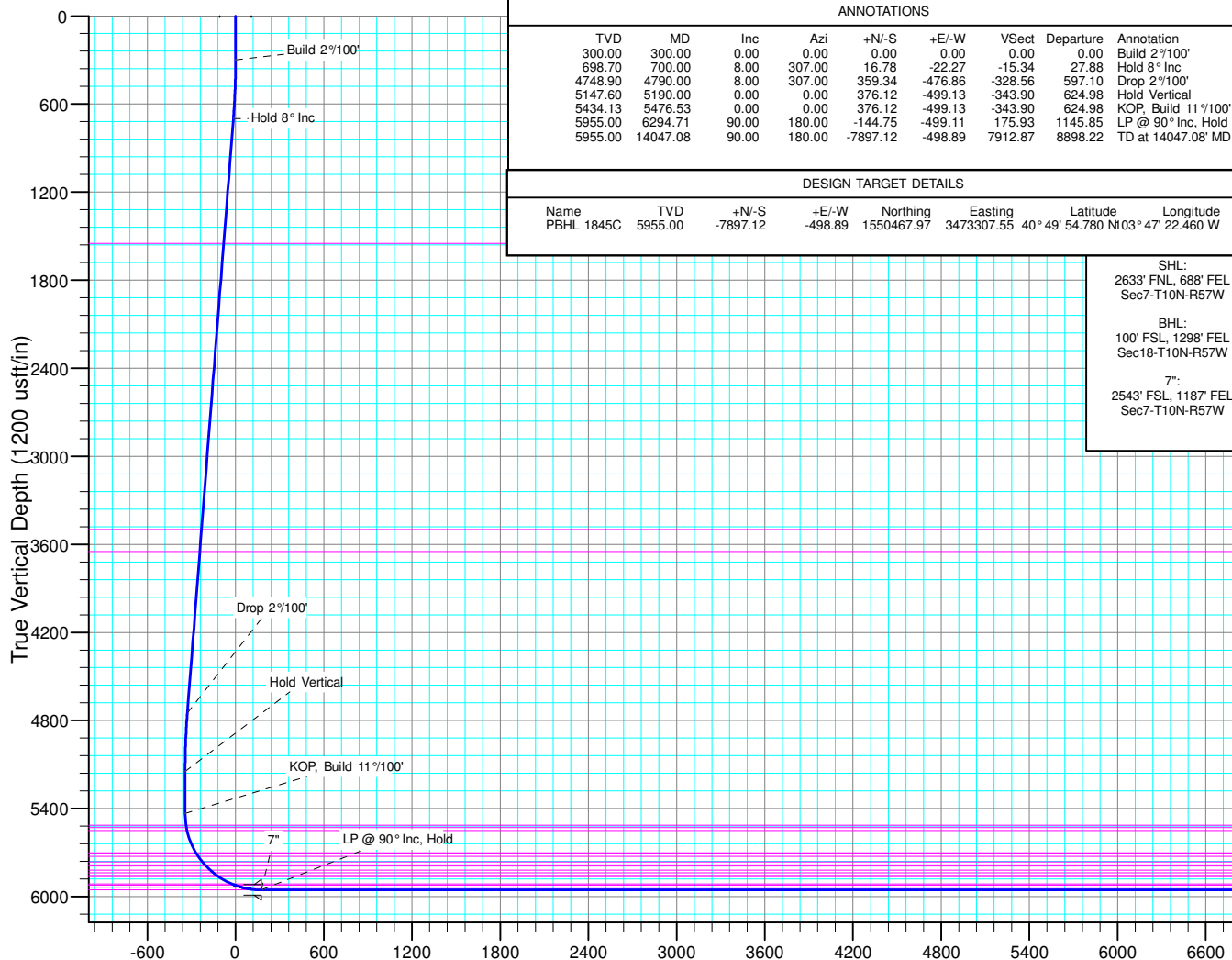
BHL:
100' FSL, 1298' FEL
Sec18-T10N-R57W

7":
2543' FSL, 1187' FEL
Sec7-T10N-R57W

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



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



Vertical Section at 183.61° (1200 usft/in)