



Project: Weld County, CO
Site: Sec 8-T10N-R58W
Well: Razor #08E-1704
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: 7.92°
Magnetic Field
Strength: 53060.7snT
Dip Angle: 67.42°
Date: 3/4/2015
Model: IGRF2010

WELL DETAILS: Razor #08E-1704

+N/-S	+E/-W	Northing	Ground Level: 4962.00	Longitude	Slot
0.00	0.00	1557972.29	Easting 3443490.93	Latitude 40° 51' 14.420 N	103° 53' 48.510 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	612.50	6.25	82.00	611.88	2.37	16.86	2.00	82.00	-1.38	
4	4787.50	6.25	82.00	4782.07	65.63	466.96	0.00	0.00	-38.23	
5	5100.00	0.00	0.00	5073.95	68.00	483.82	2.00	180.00	-39.61	
6	5448.19	0.00	0.00	5422.14	68.00	483.82	0.00	0.00	-39.61	
7	6266.37	90.00	180.00	5943.00	-452.87	483.85	11.00	180.00	480.38	PBHL 08-1704

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1550.00	1556.23	Upper Pierre
3500.00	3517.89	Hygiene
3650.00	3668.78	Lower Pierre
5456.00	5482.08	P200 Marker
5477.00	5503.16	P300 Marker
5498.00	5524.32	P350 Marker
5505.00	5531.41	Sharon Springs
5790.00	5856.65	Niobrara
5817.00	5896.33	Top A Chalk (N100)
5850.00	5950.27	Top A Marl (N200)
5884.00	6016.04	A Marl (N250)
5898.00	6048.25	Top Upper B (N400)
5926.00	6132.91	Base Upper B (N430)
5943.00	6264.11	Top Lower B (N460)

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'
611.88	612.50	6.25	82.00	2.37	16.86	-1.38	17.03	Hold 6.25° Inc
4782.07	4787.50	6.25	82.00	65.63	466.96	-38.23	471.55	Drop 2°/100'
5073.95	5100.00	0.00	0.00	68.00	483.82	-39.61	488.57	Hold Vertical
5422.14	5448.19	0.00	0.00	68.00	483.82	-39.61	488.57	KOP, Build 11°/100'
5943.00	6266.37	90.00	180.00	-452.87	483.85	480.38	1009.44	LP @ 90° Inc, Hold
5943.00	14087.11	90.00	180.00	-8273.61	484.33	8287.78	8830.18	TD at 14087.11' MD

DESIGN TARGET DETAILS

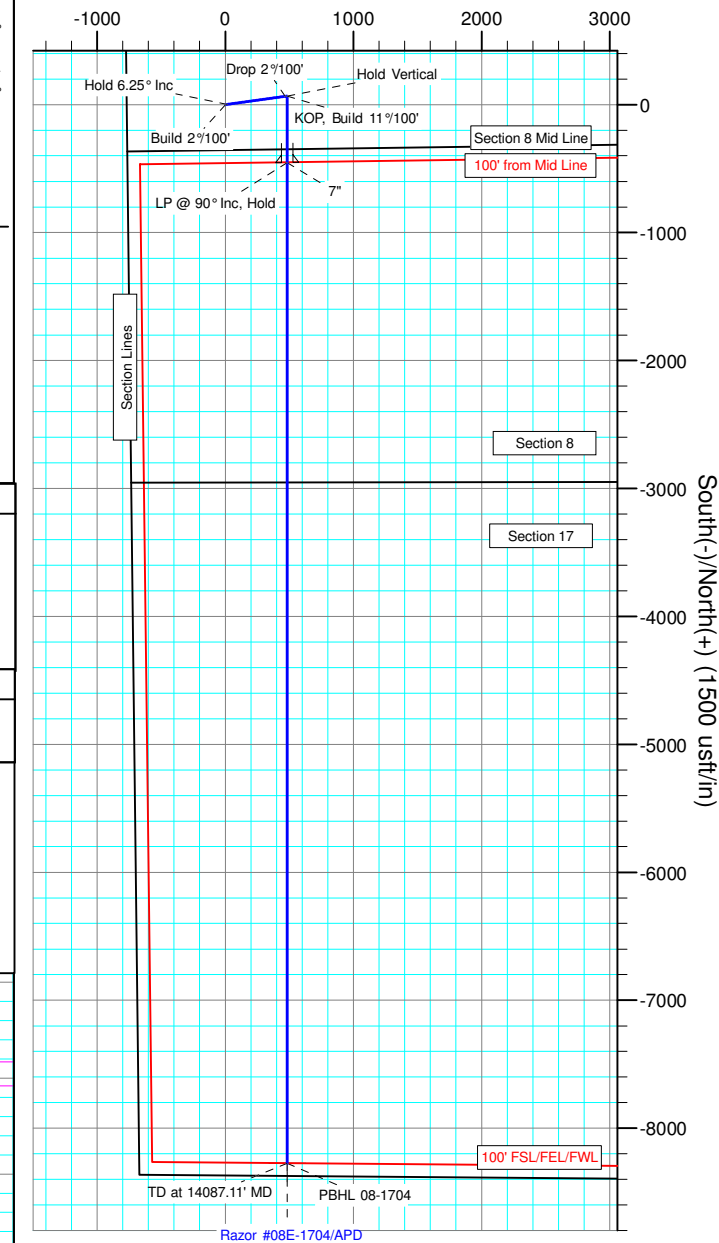
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL 08-1704	5943.00	-8273.61	484.33	1549708.79	3444124.76	40° 49' 52.670 N	103° 53' 42.210 W

SHL:
2242' FNL, 769' FWL
Sec8-T10N-R58W

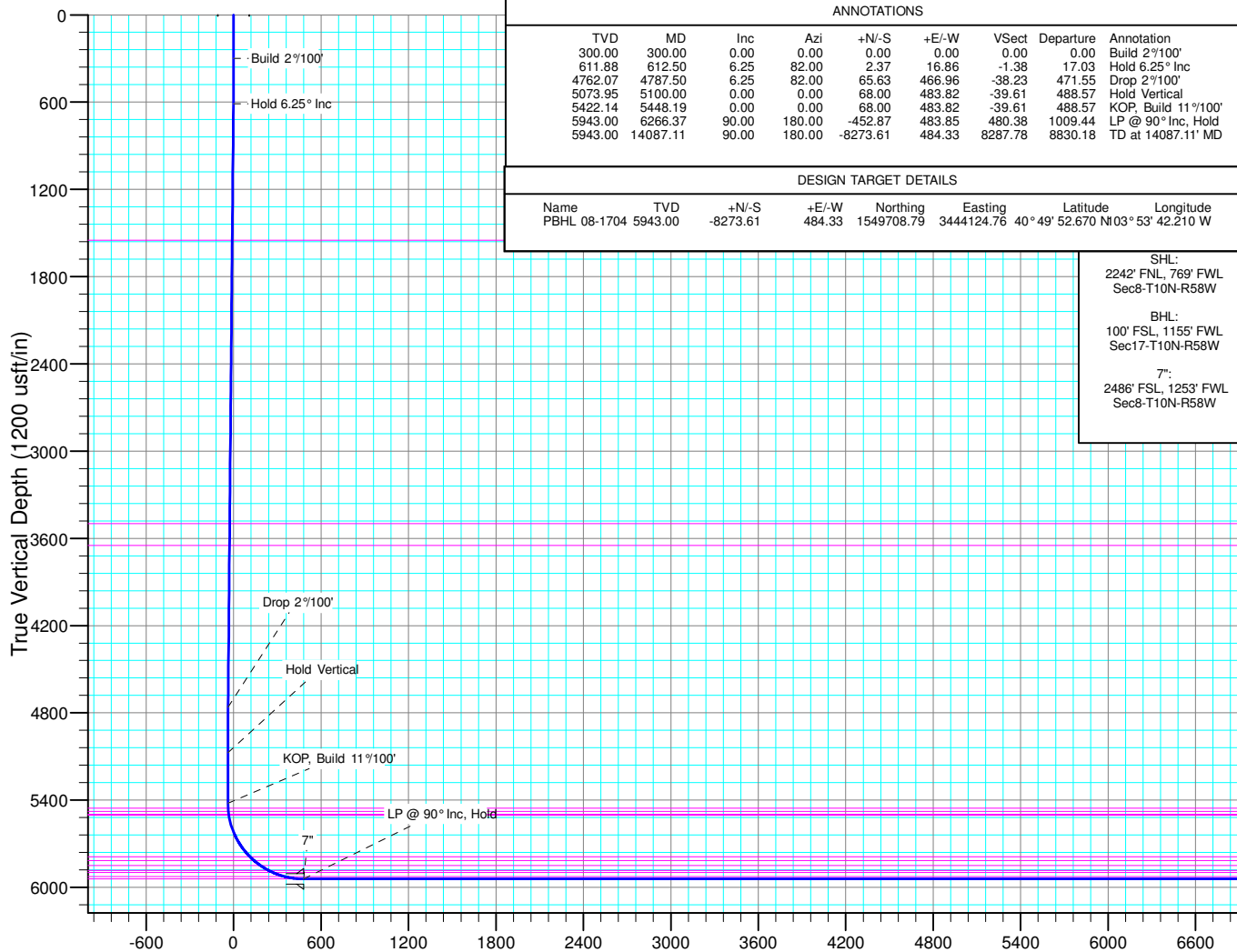
BHL:
100' FSL, 1155' FWL
Sec17-T10N-R58W

7":
2486' FSL, 1253' FWL
Sec8-T10N-R58W

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



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



Vertical Section at 176.65° (1200 usft/in)