

Project: Wells Ranch
 Site: A Section 21
 Well: Harper A21-664
 Wellbore: Original Drilling
 Design: APD - Rev 1

Northern Region - DJ Basin

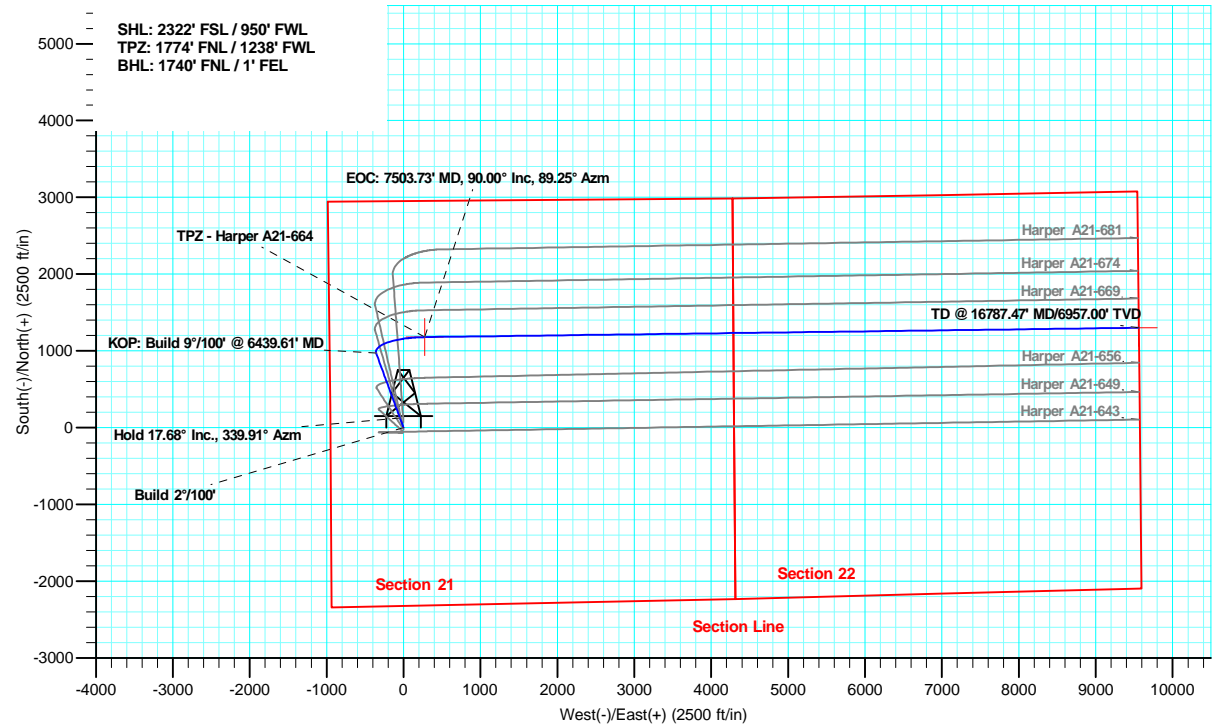
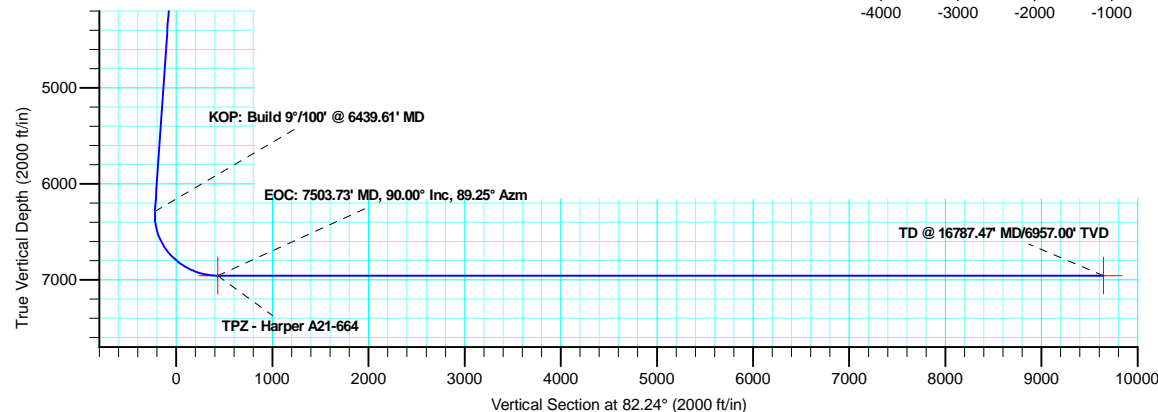
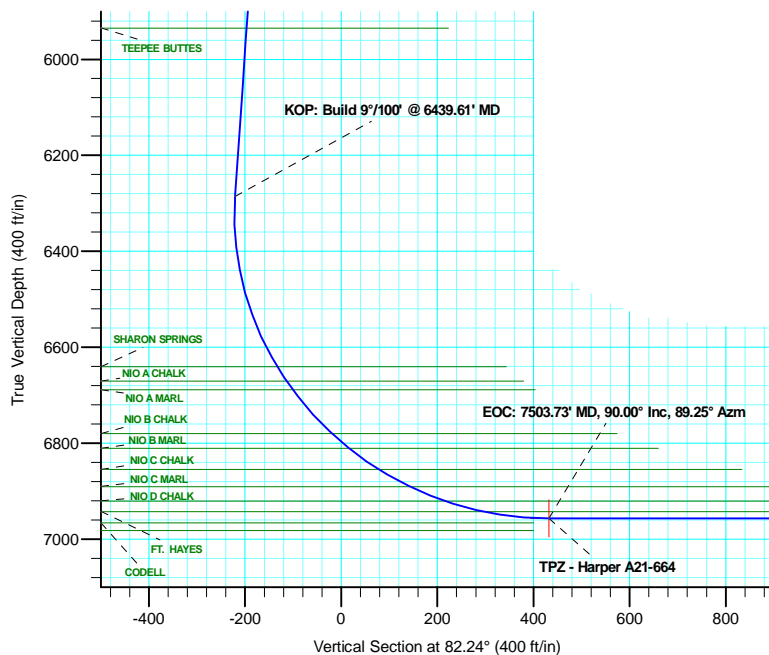
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 System Datum: Mean Sea Level

SECTION DETAILS

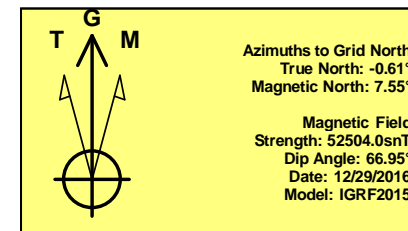
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	
3	3483.97	17.68	339.91	3470.01	127.07	-46.47	2.00	339.91	-28.90	
4	6439.61	17.68	339.91	6286.06	970.08	-354.74	0.00	0.00	-220.59	
5	7503.73	90.00	89.25	6957.00	1180.16	275.95	9.00	108.49	432.69	TPZ - Harper A21-664
6	16787.47	90.00	89.25	6957.00	1301.85	9558.89	0.00	0.00	9647.14	BHL - Harper A21-664

WELL DETAILS: Harper A21-664

+N/-S	+E/-W	Northing	Ground Level: Easting	4742.00 Latitude	Longitude	Slot
0.00	0.00	1415673.51	3261196.55	40.4706298	-104.5611701	



OK to submit with 2A as per Noble Drilling 1/29/2018



Plan: APD - Rev 1 (Harper A21-664/Original Drilling)

Created By: Shelly C. Peterkin Date: 20:15, January 30 2018