

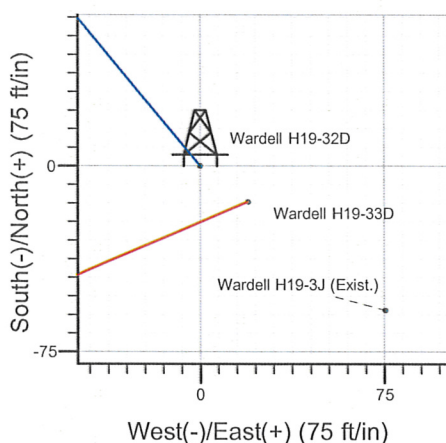
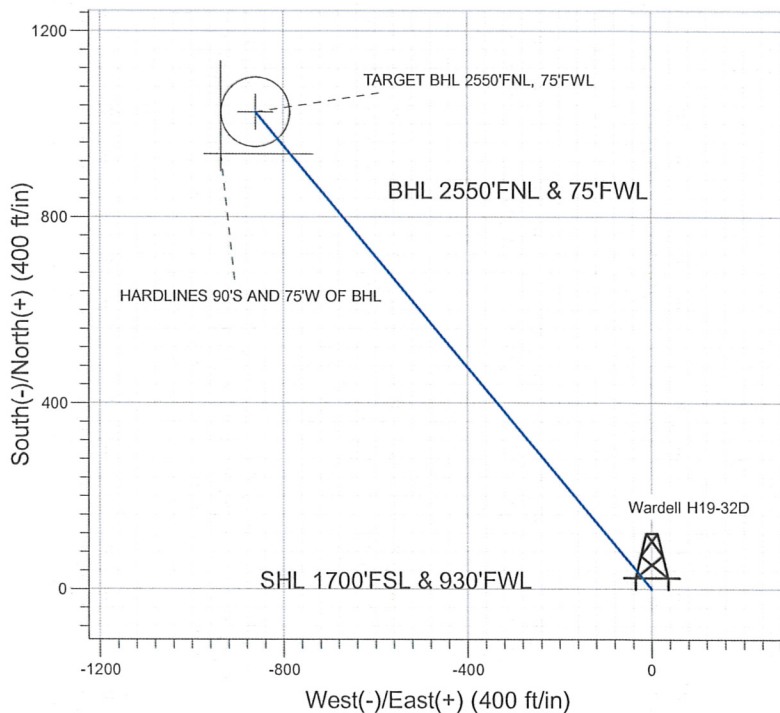
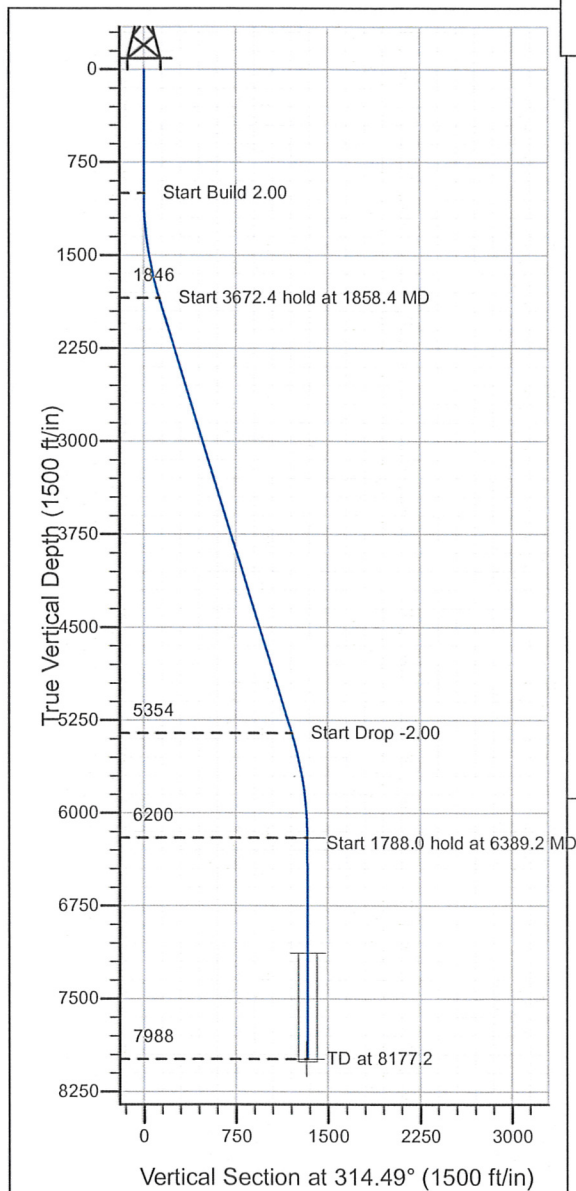
ENSIGN

Directional

Well Name: Wardell H19-32D

Surface Location: Wardell H19-32D Pad Sec.19-T3N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4990.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1319710.16 3219969.27 40° 12' 29.952 N 104° 42' 44.676 W
 Original Well Elev WELL @ 5003.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Wardell H19-32D Pad Sec.19-T3N-R65W
 Wardell H19-32D
 Noble Wardell H19-32D Plan #4 (03-25-10)
 15:03, March 25 2010



Azimuths to True North
 Magnetic North: 8.98°

Magnetic Field
 Strength: 53207.7snT
 Dip Angle: 66.96°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2550'FNL, 75'FWL	6200.0	1026.0	-860.9	40° 12' 40.090 N	104° 42' 55.773 W	Point
TARGET CIRCLE 2550'FNL, 75'FWL	7133.0	1026.0	-860.9	40° 12' 40.091 N	104° 42' 55.773 W	Circle (Radius: 75.0)
HARDLINES 90°S AND 75°W OF BHL	7988.0	936.0	-935.9	40° 12' 39.201 N	104° 42' 56.739 W	Polygon

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1858.4	17.17	320.00	1845.6	97.8	-82.1	2.00	320.00	127.1	
4	5530.8	17.17	320.00	5354.4	928.2	-778.9	0.00	0.00	1206.1	
5	6389.2	0.00	0.00	6200.0	1026.0	-860.9	2.00	180.00	1333.1	TARGET BHL 2550'FNL, 75'FWL
6	8177.2	0.00	0.00	7988.0	1026.0	-860.9	0.00	0.00	1333.1	