

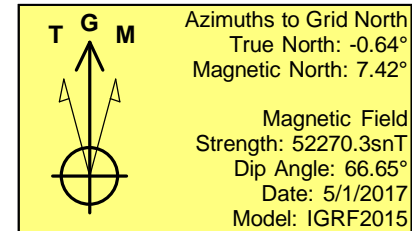
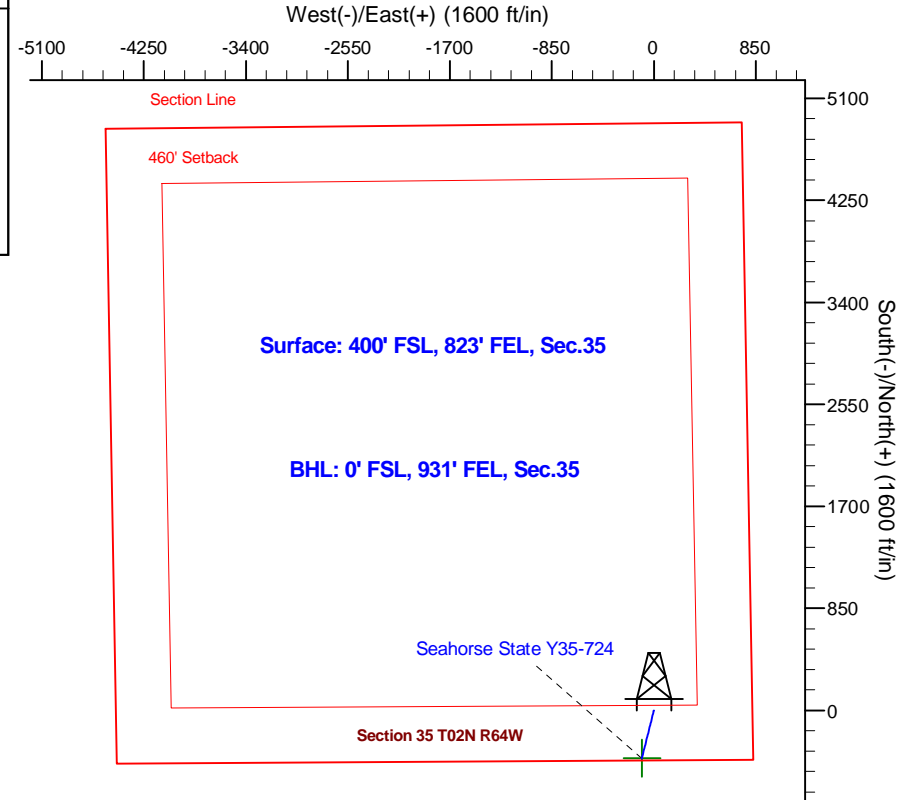
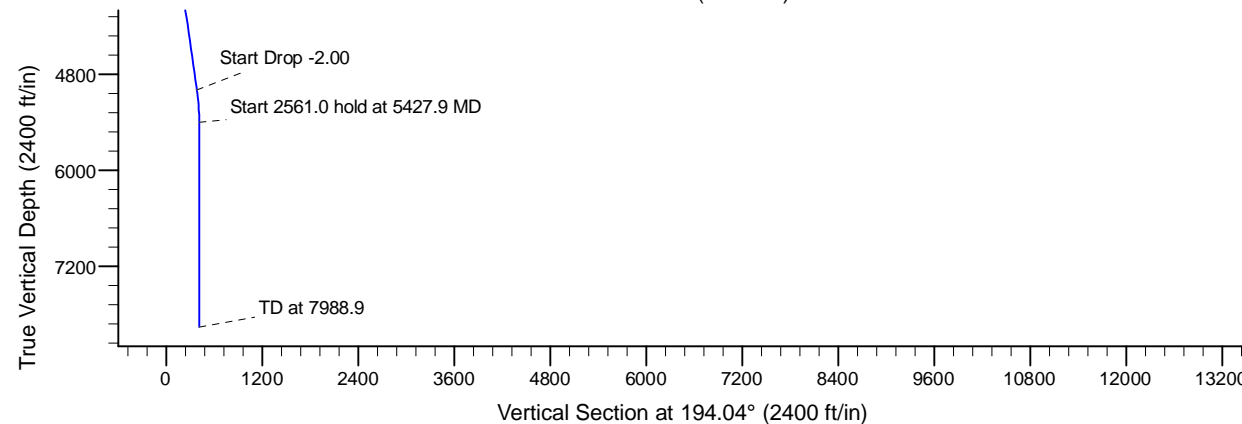
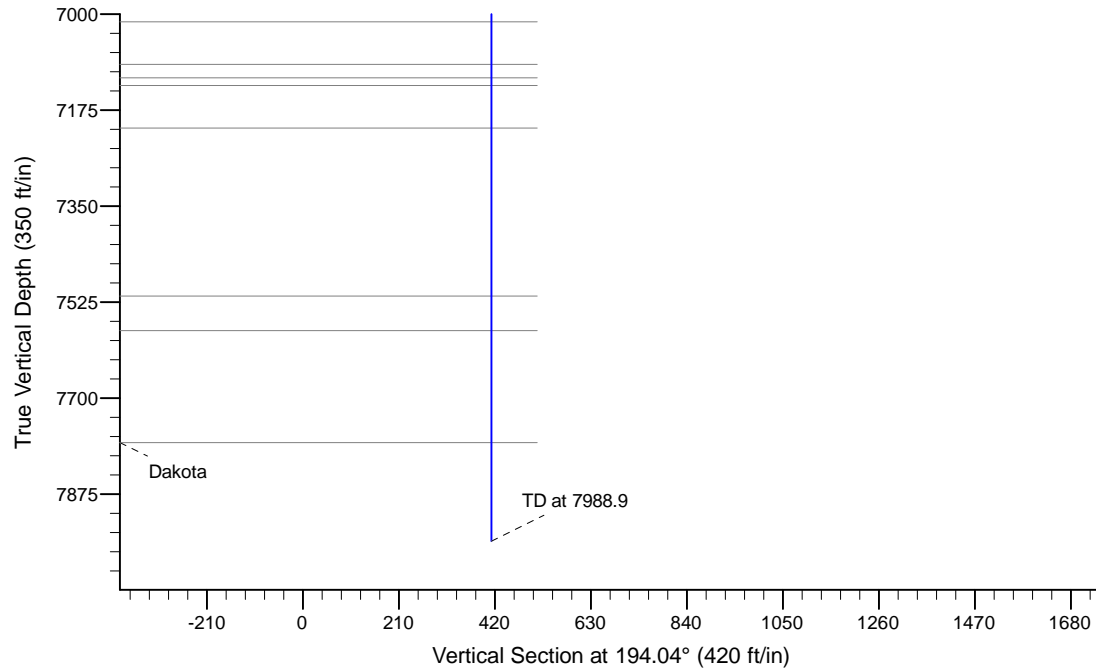
Project: Mustang  
Site: Y Section 35-T2N-R64W Weld County, CO  
Well: Seahorse State Y35-724  
Wellbore: Original Drilling - PH  
Design: Prelim PH - Rev 0

# 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	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2100.0	0.00	0.00	2100.0	0.0	0.0	0.00	0.00	0.0	
3	2505.4	8.11	194.04	2504.1	-27.8	-6.9	2.00	194.04	28.6	
4	5022.4	8.11	194.04	4995.9	-372.2	-93.1	0.00	0.00	383.7	
5	5427.9	0.00	0.00	5400.0	-400.0	-100.0	2.00	180.00	412.3	
6	7988.9	0.00	0.00	7961.0	-400.0	-100.0	0.00	0.00	412.3	Seahorse State Y35-724 PH BHL 0'FSL, 931'FEL



## WELL DETAILS: Seahorse State Y35-724

Ground Elevation: 4947.0	Latitude	Longitude
0.00.0	1276713.4451396	3276501.3983200
	40.0887400	-104.5117300

Plan: Prelim PH - Rev 0 (Seahorse State Y35-724/Original Drilling - PH)

Created By: Shailey Jewell Date: 14:02, May 17 2017

Checked: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

# **Northern Region - DJ Basin**

**Mustang**

**Y Section 35**

**Seahorse State Y35-724**

**Original Drilling - PH**

**Plan: Prelim PH - Rev 0**

## **Standard Planning Report**

**17 May, 2017**

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Seahorse State Y35-724
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Site:</b>	Y Section 35	<b>North Reference:</b>	Grid
<b>Well:</b>	Seahorse State Y35-724	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling - PH		
<b>Design:</b>	Prelim PH - Rev 0		

<b>Project</b>	Mustang, Weld County Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	Y Section 35			
<b>Site Position:</b>		<b>Northing:</b>	1,276,272.0729189 usft	<b>Latitude:</b> 40.0876640
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,272,033.8210454 usft	<b>Longitude:</b> -104.5277140
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.63 °

<b>Well</b>	Seahorse State Y35-724			
<b>Well Position</b>	<b>+N/-S</b>	441.4 ft	<b>Northing:</b>	1,276,713.4451396 usft
	<b>+E/-W</b>	4,467.6 ft	<b>Easting:</b>	3,276,501.3983200 usft
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,947.0 ft

<b>Wellbore</b>	Original Drilling - PH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	5/1/2017	8.06	66.65	52,270.25854212

<b>Design</b>	Prelim PH - Rev 0			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	194.04

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,505.4	8.11	194.04	2,504.1	-27.8	-6.9	2.00	2.00	0.00	194.04	
5,022.4	8.11	194.04	4,995.9	-372.2	-93.1	0.00	0.00	0.00	0.00	
5,427.9	0.00	0.00	5,400.0	-400.0	-100.0	2.00	-2.00	0.00	180.00	
7,988.9	0.00	0.00	7,961.0	-400.0	-100.0	0.00	0.00	0.00	0.00	

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Seahorse State Y35-724
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Site:</b>	Y Section 35	<b>North Reference:</b>	Grid
<b>Well:</b>	Seahorse State Y35-724	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling - PH		
<b>Design:</b>	Prelim PH - Rev 0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	2.00	194.04	2,200.0	-1.7	-0.4	1.7	2.00	2.00	0.00
2,300.0	4.00	194.04	2,299.8	-6.8	-1.7	7.0	2.00	2.00	0.00
2,400.0	6.00	194.04	2,399.5	-15.2	-3.8	15.7	2.00	2.00	0.00
2,500.0	8.00	194.04	2,498.7	-27.0	-6.8	27.9	2.00	2.00	0.00
2,505.4	8.11	194.04	2,504.1	-27.8	-6.9	28.6	2.00	2.00	0.00
2,600.0	8.11	194.04	2,597.7	-40.7	-10.2	42.0	0.00	0.00	0.00
2,700.0	8.11	194.04	2,696.7	-54.4	-13.6	56.1	0.00	0.00	0.00
2,800.0	8.11	194.04	2,795.7	-68.1	-17.0	70.2	0.00	0.00	0.00
2,900.0	8.11	194.04	2,894.7	-81.8	-20.4	84.3	0.00	0.00	0.00
3,000.0	8.11	194.04	2,993.7	-95.5	-23.9	98.4	0.00	0.00	0.00
3,100.0	8.11	194.04	3,092.7	-109.1	-27.3	112.5	0.00	0.00	0.00
3,200.0	8.11	194.04	3,191.7	-122.8	-30.7	126.6	0.00	0.00	0.00
3,300.0	8.11	194.04	3,290.7	-136.5	-34.1	140.7	0.00	0.00	0.00
3,400.0	8.11	194.04	3,389.7	-150.2	-37.5	154.8	0.00	0.00	0.00
3,500.0	8.11	194.04	3,488.7	-163.9	-41.0	168.9	0.00	0.00	0.00
3,600.0	8.11	194.04	3,587.7	-177.6	-44.4	183.0	0.00	0.00	0.00
3,700.0	8.11	194.04	3,686.7	-191.3	-47.8	197.1	0.00	0.00	0.00
3,800.0	8.11	194.04	3,785.7	-204.9	-51.2	211.2	0.00	0.00	0.00
3,900.0	8.11	194.04	3,884.7	-218.6	-54.7	225.3	0.00	0.00	0.00
4,000.0	8.11	194.04	3,983.7	-232.3	-58.1	239.5	0.00	0.00	0.00
4,100.0	8.11	194.04	4,082.7	-246.0	-61.5	253.6	0.00	0.00	0.00
4,200.0	8.11	194.04	4,181.7	-259.7	-64.9	267.7	0.00	0.00	0.00
4,300.0	8.11	194.04	4,280.7	-273.4	-68.3	281.8	0.00	0.00	0.00
4,400.0	8.11	194.04	4,379.7	-287.0	-71.8	295.9	0.00	0.00	0.00
4,500.0	8.11	194.04	4,478.7	-300.7	-75.2	310.0	0.00	0.00	0.00
4,600.0	8.11	194.04	4,577.7	-314.4	-78.6	324.1	0.00	0.00	0.00
4,700.0	8.11	194.04	4,676.7	-328.1	-82.0	338.2	0.00	0.00	0.00
4,800.0	8.11	194.04	4,775.7	-341.8	-85.4	352.3	0.00	0.00	0.00
4,900.0	8.11	194.04	4,874.7	-355.5	-88.9	366.4	0.00	0.00	0.00
5,000.0	8.11	194.04	4,973.7	-369.1	-92.3	380.5	0.00	0.00	0.00
5,022.4	8.11	194.04	4,995.9	-372.2	-93.1	383.7	0.00	0.00	0.00
5,100.0	6.56	194.04	5,072.8	-381.8	-95.5	393.6	2.00	-2.00	0.00

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Seahorse State Y35-724
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Site:</b>	Y Section 35	<b>North Reference:</b>	Grid
<b>Well:</b>	Seahorse State Y35-724	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling - PH		
<b>Design:</b>	Prelim PH - Rev 0		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.0	4.56	194.04	5,172.4	-391.2	-97.8	403.3	2.00	-2.00	0.00
5,300.0	2.56	194.04	5,272.2	-397.2	-99.3	409.5	2.00	-2.00	0.00
5,400.0	0.56	194.04	5,372.1	-399.9	-100.0	412.2	2.00	-2.00	0.00
5,427.9	0.00	0.00	5,400.0	-400.0	-100.0	412.3	2.00	-2.00	0.00
5,500.0	0.00	0.00	5,472.1	-400.0	-100.0	412.3	0.00	0.00	0.00
5,600.0	0.00	0.00	5,572.1	-400.0	-100.0	412.3	0.00	0.00	0.00
5,700.0	0.00	0.00	5,672.1	-400.0	-100.0	412.3	0.00	0.00	0.00
5,800.0	0.00	0.00	5,772.1	-400.0	-100.0	412.3	0.00	0.00	0.00
5,900.0	0.00	0.00	5,872.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,972.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,100.0	0.00	0.00	6,072.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,172.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,272.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,372.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,472.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,572.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,672.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,772.1	-400.0	-100.0	412.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,872.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,972.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,072.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,172.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,272.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,372.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,500.0	0.00	0.00	7,472.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,572.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,700.0	0.00	0.00	7,672.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,772.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,900.0	0.00	0.00	7,872.1	-400.0	-100.0	412.3	0.00	0.00	0.00
7,988.9	0.00	0.00	7,961.0	-400.0	-100.0	412.3	0.00	0.00	0.00

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Seahorse State Y35-724
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 5060.0ft (Original Well Elev)
<b>Site:</b>	Y Section 35	<b>North Reference:</b>	Grid
<b>Well:</b>	Seahorse State Y35-724	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Drilling - PH		
<b>Design:</b>	Prelim PH - Rev 0		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,008.0	1,008.0	Pierre		0.00		
1,157.0	1,157.0	Upper Pierre Aquifer Top		0.00		
1,949.0	1,949.0	Upper Pierre Aquifer Base		0.00		
4,003.3	3,987.0	Parkman		0.00		
4,340.7	4,321.0	Sussex		0.00		
5,131.3	5,104.0	Shannon		0.00		
6,139.9	6,112.0	Teepee Buttes		0.00		
6,802.9	6,775.0	Sharon Springs		0.00		
6,822.9	6,795.0	Top A Chalk		0.00		
6,822.9	6,795.0	Top A Marl		0.00		
6,890.9	6,863.0	Top B Chalk		0.00		
6,930.9	6,903.0	Top B Marl		0.00		
6,987.9	6,960.0	Top C Chalk		0.00		
7,017.9	6,990.0	Top C Marl		0.00		
7,041.9	7,014.0	Top D Chalk		0.00		
7,119.9	7,092.0	Top Ft. Hayes		0.00		
7,143.9	7,116.0	Codell		0.00		
7,157.9	7,130.0	Carlile		0.00		
7,235.9	7,208.0	Greenhorn A Res Mkr		0.00		
7,541.9	7,514.0	D Sand		0.00		
7,604.9	7,577.0	J Sand		0.00		
7,808.9	7,781.0	Dakota		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,100.0	2,100.0	0.0	0.0	KOP - Start Build 2.00	
5,022.4	4,995.9	-27.8	-6.9	Start Drop -2.00	
5,427.9	5,400.0	-372.2	-93.1	Start 2561.0 hold at 5427.9 MD	
7,988.9	7,961.0	-400.0	-100.0	TD at 7988.9	