

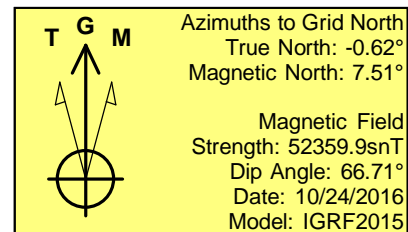
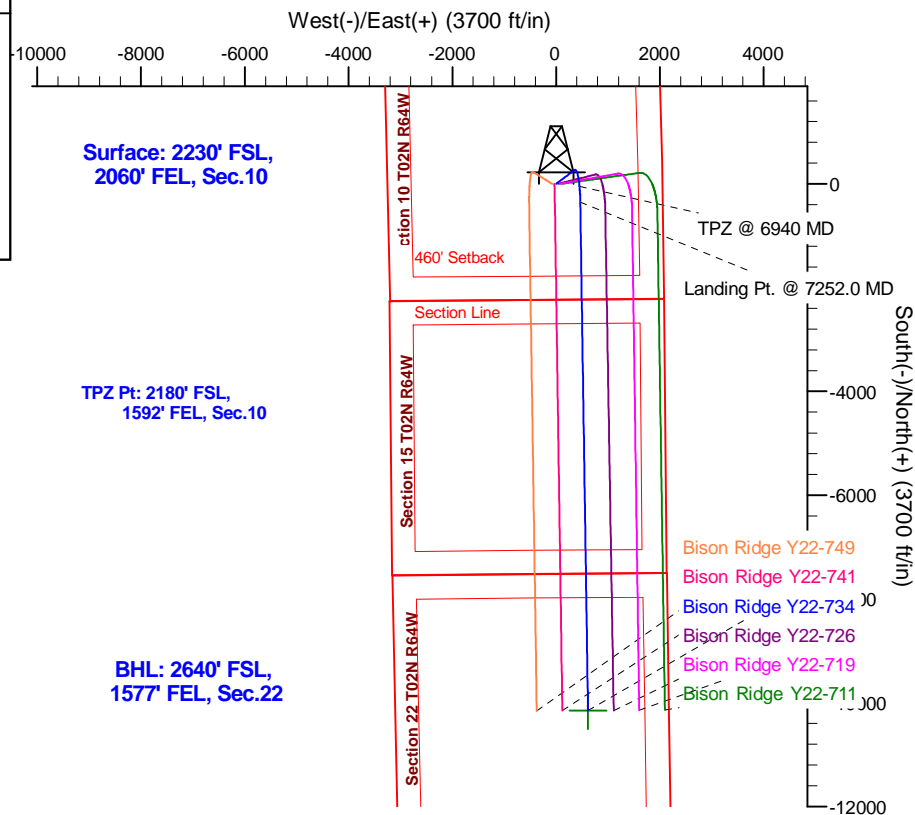
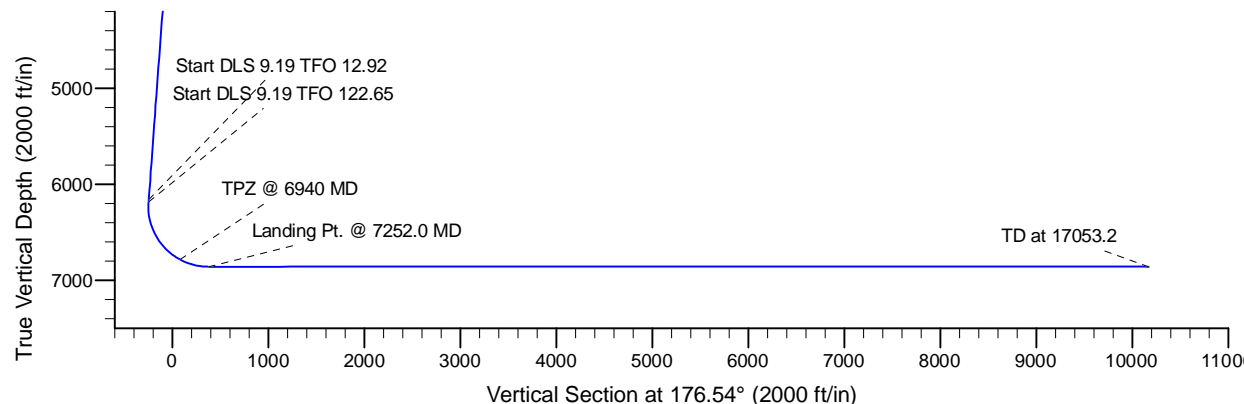
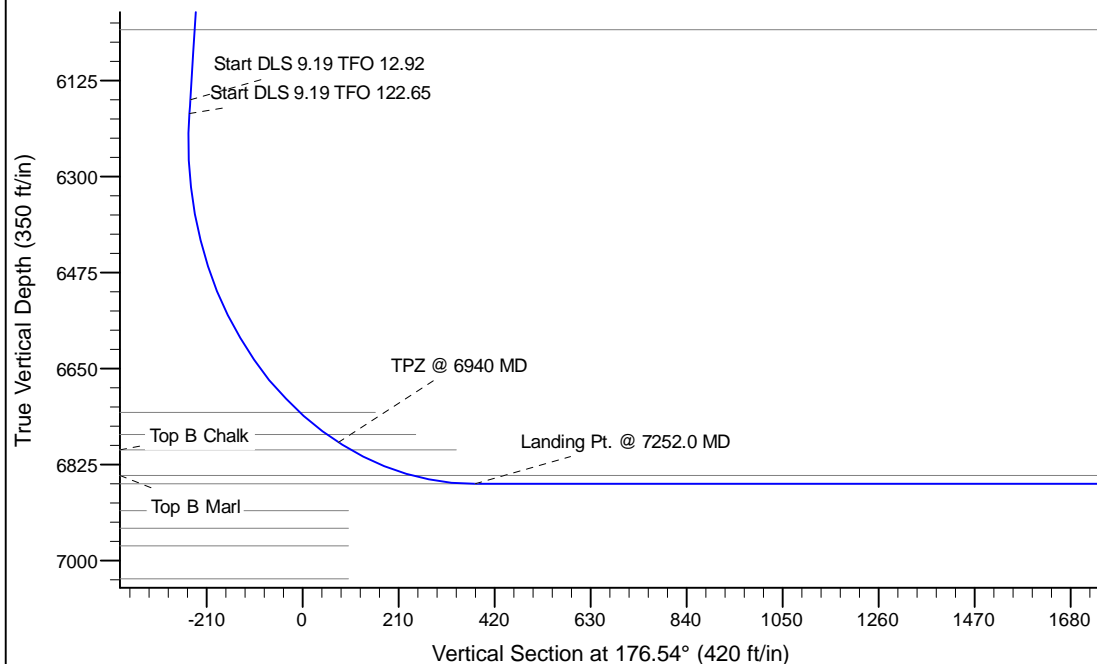
Project: Mustang  
 Site: Y Section 10-T2N-R64W Weld County, CO  
 Well: Bison Ridge Y22-734  
 Wellbore: Original Drilling  
 Design: APD - Rev 0

# 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	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2600.0	0.00	0.00	2600.0	0.0	0.0	0.00	0.00	0.0	
3	2975.0	7.50	53.00	2973.9	14.7	19.6	2.00	53.00	-13.5	
4	6188.6	7.50	53.00	6160.0	267.2	354.6	0.00	0.00	-245.3	
5	6214.3	9.82	56.10	6185.4	269.4	357.7	9.19	12.92	-247.3	
6	7252.0	90.00	179.13	6860.0	-350.0	465.0	9.19	122.65	377.4	
7	17053.2	90.00	179.13	6860.0	-10150.0	613.8	0.00	0.00	10168.6	Bison Ridge Y22-734 BHL 2640'FSL, 1577'FEL



WELL DETAILS: Bison Ridge Y22-734				
0.00.0	1299617.6839361	3269612.4661432	40.1518199	-104.5354600
Ground Elevation: 4924.0				
Plan: APD - Rev 0 (Bison Ridge Y22-734/Original Drilling)				
Created By: Shailey Jewell Date: 9:29, April 27 2017				
OK to submit with 2A as per Noble Drilling 4/27/2017 9:38				

# **Northern Region - DJ Basin**

**Mustang**

**Y Section 10**

**Bison Ridge Y22-734**

**Original Drilling**

**APD - Rev 0**

## **Anticollision Summary Report**

**27 April, 2017**

**Noble Energy, Inc.**  
Anticollision Summary Report

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Bison Ridge Y22-734
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Reference Site:</b>	Y Section 10	<b>MD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Bison Ridge Y22-734	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDMP
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	APD - Rev 0		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,933.6 ft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	4/27/2017		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	17,053.2	APD - Rev 0 (Original Drilling)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Y Section 10						
Bison Ridge State Y22-786 - Original Drilling - APD - Rev	2,000.0	2,006.0	1,263.5	1,249.6	90.935	CC, ES
Bison Ridge State Y22-786 - Original Drilling - APD - Rev	3,000.0	2,682.0	1,405.2	1,385.8	72.599	SF
Bison Ridge Y22-711 - Original Drilling - APD - Rev 0	2,000.0	1,999.0	111.8	104.9	16.119	CC, ES
Bison Ridge Y22-711 - Original Drilling - APD - Rev 0	2,200.0	2,191.3	118.4	110.8	15.498	SF
Bison Ridge Y22-719 - Original Drilling - Prelim - Rev 1	2,200.0	2,199.0	72.7	65.0	9.496	CC, ES
Bison Ridge Y22-719 - Original Drilling - Prelim - Rev 1	2,300.0	2,296.5	74.3	66.3	9.281	SF
Bison Ridge Y22-726 - Original Drilling - Prelim - Rev 1	2,400.0	2,400.0	36.3	28.0	4.341	CC, ES, SF
Bison Ridge Y22-741 - Original Drilling - APD - Rev 0	2,600.0	2,600.0	39.1	21.0	2.153	CC, ES
Bison Ridge Y22-741 - Original Drilling - APD - Rev 0	2,700.0	2,700.0	40.6	21.7	2.147	SF
Bison Ridge Y22-749 - Original Drilling - APD - Rev 0	2,000.0	2,001.0	75.5	61.6	5.439	CC, ES
Bison Ridge Y22-749 - Original Drilling - APD - Rev 0	2,100.0	2,098.8	76.9	62.4	5.279	SF
Bison Ridge Y22-756 - Original Drilling - APD - Rev 0	2,657.9	2,684.5	1,108.0	1,089.3	59.373	CC
Bison Ridge Y22-756 - Original Drilling - APD - Rev 0	2,700.0	2,726.3	1,108.2	1,089.3	58.457	ES
Bison Ridge Y22-756 - Original Drilling - APD - Rev 0	17,045.4	17,374.6	1,493.0	1,317.1	8.485	SF
Bison Ridge Y22-764 - Original Drilling - APD - Rev 0	2,600.0	2,607.0	1,151.7	1,133.5	63.280	CC, ES
Bison Ridge Y22-764 - Original Drilling - APD - Rev 0	6,600.0	6,413.5	1,917.5	1,871.9	41.999	SF
Bison Ridge Y22-771 - Original Drilling - APD - Rev 0	2,400.0	2,407.0	1,188.0	1,171.2	70.859	CC, ES
Bison Ridge Y22-771 - Original Drilling - APD - Rev 0	5,200.0	4,859.9	1,904.1	1,869.1	54.538	SF
Bison Ridge Y22-779 - Original Drilling - APD - Rev 0	2,200.0	2,206.0	1,227.1	1,211.8	80.058	CC, ES
Bison Ridge Y22-779 - Original Drilling - APD - Rev 0	4,600.0	4,111.7	1,917.2	1,887.5	64.577	SF
Oscar Y10-72-1HC - Original Drilling - APD - Rev 1	6,603.5	6,526.7	1,160.3	1,137.0	49.881	CC, ES
Oscar Y10-72-1HC - Original Drilling - APD - Rev 1	6,700.0	6,571.6	1,164.5	1,141.0	49.486	SF
Oscar Y10-72-1HC - Original Drilling - Original Drilling - A	6,553.2	6,530.6	1,168.0	1,125.7	27.604	CC, ES
Oscar Y10-72-1HC - Original Drilling - Original Drilling - A	6,700.0	6,615.1	1,177.6	1,134.6	27.349	SF
Oscar Y10-72-1HN - Original Drilling - APD - Rev 0	1,200.0	1,191.0	1,316.3	1,312.2	323.503	CC, ES
Oscar Y10-72-1HN - Original Drilling - APD - Rev 0	6,700.0	6,503.3	1,353.5	1,330.0	57.604	SF
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	795.8	794.9	1,314.3	1,309.4	270.729	CC
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	6,432.6	6,310.0	1,335.1	1,293.0	31.672	ES
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	6,500.0	6,341.4	1,336.5	1,294.0	31.485	SF
Oscar Y10-72HN - Original Drilling - APD - Rev 1	6,534.7	6,438.2	1,000.8	977.8	43.393	CC, ES
Oscar Y10-72HN - Original Drilling - APD - Rev 1	6,600.0	6,468.3	1,002.9	979.7	43.140	SF
Oscar Y10-72HN - Original Drilling - Original Drilling - As	6,527.9	6,458.6	970.7	928.4	22.965	CC, ES
Oscar Y10-72HN - Original Drilling - Original Drilling - As	6,600.0	6,490.7	973.5	930.9	22.858	SF
Oscar Y10-73-1HC - Original Drilling - APD - Rev 1	6,449.0	6,396.9	513.5	490.6	22.509	CC, ES
Oscar Y10-73-1HC - Original Drilling - APD - Rev 1	6,500.0	6,429.5	515.2	492.2	22.435	SF
Oscar Y10-73-1HC - Original Drilling - Original Drilling - A	6,393.4	6,344.2	506.7	465.0	12.166	CC
Oscar Y10-73-1HC - Original Drilling - Original Drilling - A	6,400.0	6,349.1	506.7	465.0	12.154	ES, SF

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Bison Ridge Y22-734
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Reference Site:</b>	Y Section 10	<b>MD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Bison Ridge Y22-734	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDMP
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Y Section 10						
Oscar Y10-73-1HN - Original Drilling - APD - Rev 1	6,455.1	6,396.2	692.4	669.5	30.316	CC, ES
Oscar Y10-73-1HN - Original Drilling - APD - Rev 1	6,500.0	6,425.3	693.4	670.4	30.170	SF
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	6,413.5	6,370.6	706.9	664.2	16.537	CC, ES
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	6,500.0	6,426.0	712.3	669.1	16.481	SF
Oscar Y10-73HN - Original Drilling - APD - Rev 0	6,436.3	6,424.6	346.0	323.2	15.190	CC, ES, SF
Oscar Y10-73HN - Original Drilling - Original Drilling - As	6,398.9	6,386.9	344.7	302.6	8.183	CC
Oscar Y10-73HN - Original Drilling - Original Drilling - As	6,400.0	6,387.7	344.7	302.6	8.181	ES, SF
Oscar Y10-74-1HC - Original Drilling - APD - Rev 1	5,391.9	5,371.5	129.4	110.3	6.784	CC
Oscar Y10-74-1HC - Original Drilling - APD - Rev 1	5,400.0	5,379.5	129.4	110.3	6.774	ES
Oscar Y10-74-1HC - Original Drilling - APD - Rev 1	5,600.0	5,577.8	132.2	112.4	6.678	SF
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	814.3	806.3	150.0	144.9	29.524	CC
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	1,500.0	1,491.5	152.5	143.4	16.782	ES
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	5,800.0	5,782.5	210.2	173.2	5.678	SF
Oscar Y10-74-1HC - Original Drilling - Target Change	814.3	806.3	150.0	144.9	29.524	CC
Oscar Y10-74-1HC - Original Drilling - Target Change	1,500.0	1,491.5	152.5	143.4	16.782	ES
Oscar Y10-74-1HC - Original Drilling - Target Change	5,800.0	5,782.5	210.2	173.2	5.678	SF
Oscar Y10-74-1HN - Original Drilling - APD - Rev 0	6,231.6	6,211.4	142.9	120.7	6.434	CC, ES, SF
Oscar Y10-74-1HN - Original Drilling - Baxter	1,112.5	1,104.5	181.7	177.9	48.373	CC
Oscar Y10-74-1HN - Original Drilling - Baxter	1,200.0	1,191.4	181.8	177.7	44.682	ES
Oscar Y10-74-1HN - Original Drilling - Baxter	6,236.8	6,218.9	202.0	179.8	9.090	SF
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	1,112.5	1,104.5	181.7	174.6	25.645	CC
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	6,236.9	6,218.9	202.1	161.5	4.981	ES, SF
Oscar Y10-74HN - Original Drilling - APD - Rev 1	1,800.0	1,785.0	153.1	146.8	24.610	CC, ES
Oscar Y10-74HN - Original Drilling - APD - Rev 1	5,200.0	5,177.7	218.6	200.3	11.921	SF
Oscar Y10-74HN - Original Drilling - Original Drilling - As	1,821.8	1,814.9	139.4	128.8	13.116	CC, ES
Oscar Y10-74HN - Original Drilling - Original Drilling - As	5,800.0	5,785.8	294.6	257.4	7.933	SF
Oscar Y10-75-1HC - Original Drilling - APD - Rev 1	1,200.0	1,194.0	155.1	151.0	38.121	CC, ES
Oscar Y10-75-1HC - Original Drilling - APD - Rev 1	1,700.0	1,673.7	182.9	177.0	31.371	SF
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	1,274.8	1,268.9	143.3	135.2	17.589	CC
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	1,600.0	1,593.1	143.5	133.9	15.000	ES
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	1,900.0	1,883.3	154.1	143.0	13.935	SF
Oscar Y10-75-1HN - Original Drilling - APD - Rev 1	1,500.0	1,485.0	149.4	144.2	29.036	CC, ES
Oscar Y10-75-1HN - Original Drilling - APD - Rev 1	1,900.0	1,868.9	168.3	161.8	25.689	SF
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	0.0	0.0	149.5			
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	100.0	92.4	149.5	149.3	541.593	ES
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	2,200.0	2,176.7	187.0	174.3	14.668	SF
Oscar Y10-75HN - Original Drilling - APD - Rev 0	1,000.0	995.0	168.6	165.3	50.301	CC, ES
Oscar Y10-75HN - Original Drilling - APD - Rev 0	1,500.0	1,471.8	197.9	192.8	38.689	SF
Oscar Y10-75HN - Original Drilling - Original Drilling - As	335.5	330.5	168.3	166.7	103.793	CC
Oscar Y10-75HN - Original Drilling - Original Drilling - As	1,200.0	1,194.1	171.5	163.9	22.416	ES
Oscar Y10-75HN - Original Drilling - Original Drilling - As	1,500.0	1,477.9	182.7	173.7	20.324	SF
Oscar Y10-76-1HC - Original Drilling - APD - Rev 0	2,847.6	2,906.2	1,013.9	1,004.0	101.923	CC, ES
Oscar Y10-76-1HC - Original Drilling - APD - Rev 0	6,500.0	6,462.7	1,353.5	1,330.6	59.092	SF
Oscar Y10-76-1HN - Original Drilling - APD - Rev 2	3,014.2	3,108.6	1,057.8	1,047.3	100.577	CC, ES
Oscar Y10-76-1HN - Original Drilling - APD - Rev 2	6,400.0	6,353.9	1,336.6	1,314.0	59.224	SF
Oscar Y10-76-1HN - Original Drilling - Original Drilling - A	2,916.5	2,990.0	1,075.6	1,057.7	60.007	CC, ES
Oscar Y10-76-1HN - Original Drilling - Original Drilling - A	6,400.0	6,403.9	1,322.1	1,280.1	31.517	SF
Oscar Y10-76HN - Original Drilling - APD - Rev 2	1,800.0	1,791.0	1,200.6	1,194.4	193.030	CC, ES
Oscar Y10-76HN - Original Drilling - APD - Rev 2	6,500.0	6,446.4	1,677.0	1,654.2	73.257	SF
Oscar Y10-76HN - Original Drilling - Original Drilling - As	100.0	90.9	1,200.6	1,200.3	4,260.212	CC
Oscar Y10-76HN - Original Drilling - Original Drilling - As	1,200.0	1,189.0	1,201.8	1,194.3	160.162	ES
Oscar Y10-76HN - Original Drilling - Original Drilling - As	6,600.0	6,498.6	1,696.4	1,654.4	40.425	SF
Oscar Y10-77-1HC - Original Drilling - APD - Rev 2	1,200.0	1,191.0	1,239.4	1,235.3	304.609	CC, ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

**Noble Energy, Inc.**  
Anticollision Summary Report

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Bison Ridge Y22-734
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Reference Site:</b>	Y Section 10	<b>MD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Bison Ridge Y22-734	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDMP
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Y Section 10						
Oscar Y10-77-1HC - Original Drilling - APD - Rev 2	5,800.0	5,809.0	1,924.8	1,904.3	94.054	SF
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	1,116.9	1,107.9	1,235.2	1,228.1	173.618	CC
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	1,300.0	1,286.1	1,235.5	1,227.3	151.155	ES
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	5,900.0	5,900.4	1,932.5	1,894.4	50.819	SF
Oscar Y10-77-1HN - Original Drilling - APD 0 Rev 0	1,500.0	1,488.0	1,200.6	1,195.4	233.383	CC, ES
Oscar Y10-77-1HN - Original Drilling - APD 0 Rev 0	5,800.0	5,815.3	1,925.2	1,904.7	94.074	SF
Oscar Y10-77HN - Original Drilling - APD - Rev 2	1,000.0	992.0	1,275.5	1,272.1	380.522	CC, ES
Oscar Y10-77HN - Original Drilling - APD - Rev 2	3,600.0	3,127.6	1,898.3	1,886.2	156.371	SF
Oscar Y10-77HN - Original Drilling - Original Drilling - As	795.0	787.0	1,271.6	1,266.9	274.638	CC
Oscar Y10-77HN - Original Drilling - Original Drilling - As	1,200.0	1,185.8	1,271.7	1,264.2	170.775	ES
Oscar Y10-77HN - Original Drilling - Original Drilling - As	4,600.0	4,301.6	1,933.4	1,905.4	69.119	SF
Oscar Y10-78-1HC - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-78-1HC - Original Drilling - Original Drilling - A						Out of range
Oscar Y10-78-1HN - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-78-1HN - Original Drilling - Original Drilling - As						Out of range
Oscar Y10-78HN - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-78HN - Original Drilling - Original Drilling - As						Out of range
Oscar Y10-79-1HC - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-79-1HC - Original Drilling - Original Drilling - A						Out of range
Oscar Y10-79-1HN - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-79-1HN - Original Drilling - Original Drilling - A						Out of range
Oscar Y10-79HN - Original Drilling - APD - Rev 2						Out of range
Oscar Y10-79HN - Original Drilling - Original Drilling - As						Out of range
Oscar Y10-79HN - Original Drilling - ST01 - ST01 - As Dr						Out of range
Oscar Y11-79HN - Original Drilling - APD - Rev 1	1,000.0	991.0	1,355.2	1,351.8	404.304	CC, ES
Oscar Y11-79HN - Original Drilling - APD - Rev 1	6,800.0	6,574.1	1,587.6	1,563.9	66.889	SF
Oscar Y11-79HN - Original Drilling - Original Drilling - As	0.0	0.0	1,355.2			
Oscar Y11-79HN - Original Drilling - Original Drilling - As	1,000.0	994.5	1,356.2	1,350.1	221.406	ES
Oscar Y11-79HN - Original Drilling - Original Drilling - As	6,700.0	6,481.9	1,573.0	1,529.6	36.196	SF
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	0.0	0.0	1,355.2			
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	1,000.0	994.5	1,356.2	1,350.1	221.406	ES
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	6,700.0	6,481.9	1,573.0	1,529.6	36.196	SF
Y Section 15						
Feather 31-15 - Original Drilling - Original Drilling - As Dr	9,514.7	6,879.6	250.4	193.8	4.424	CC, ES, SF
UPRR 62 Pan Am B1 - Original Drilling - Original Drilling	12,746.3	6,924.8	83.6	5.2	1.066	Level 2, CC, ES, SF
Y Section 22						
Acco-Terra-Bodeker 40 - Original Drilling - Original Drilling						Out of range
Goetz #1 (PA) - Original Drilling - Original Drilling - As Dr	15,409.4	6,926.0	565.7	352.6	2.655	CC, ES, SF
Goetz #2 (PA) - Original Drilling - Original Drilling - As Dr						Out of range
Goetz Y22-06 - Original Drilling - Original Drilling - As Dr						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

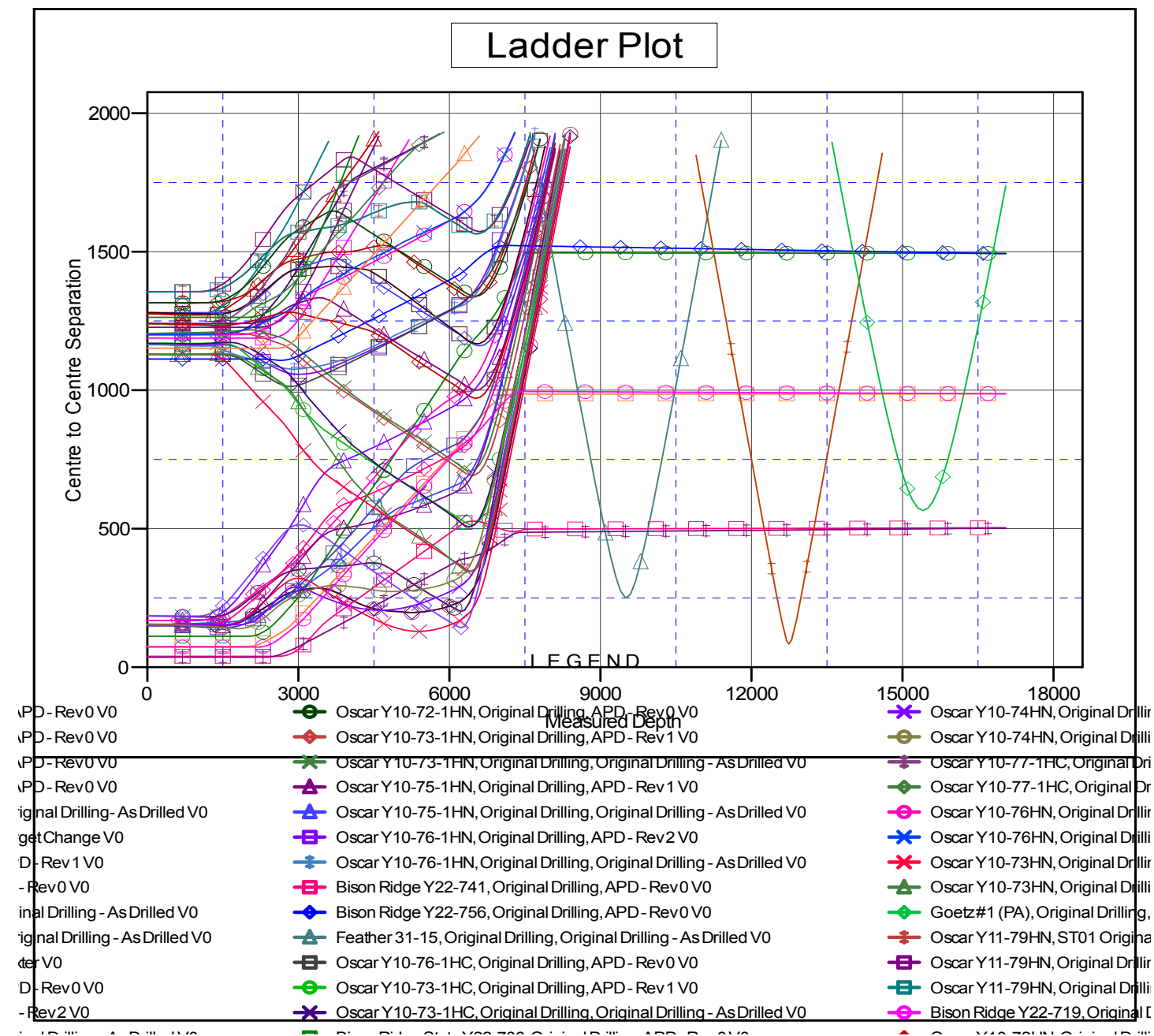
## Anticollision Summary Report

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Bison Ridge Y22-734
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Reference Site:</b>	Y Section 10	<b>MD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Bison Ridge Y22-734	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDMP
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Coordinates are relative to: Bison Ridge Y22-734

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is:  $0.62^\circ$



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

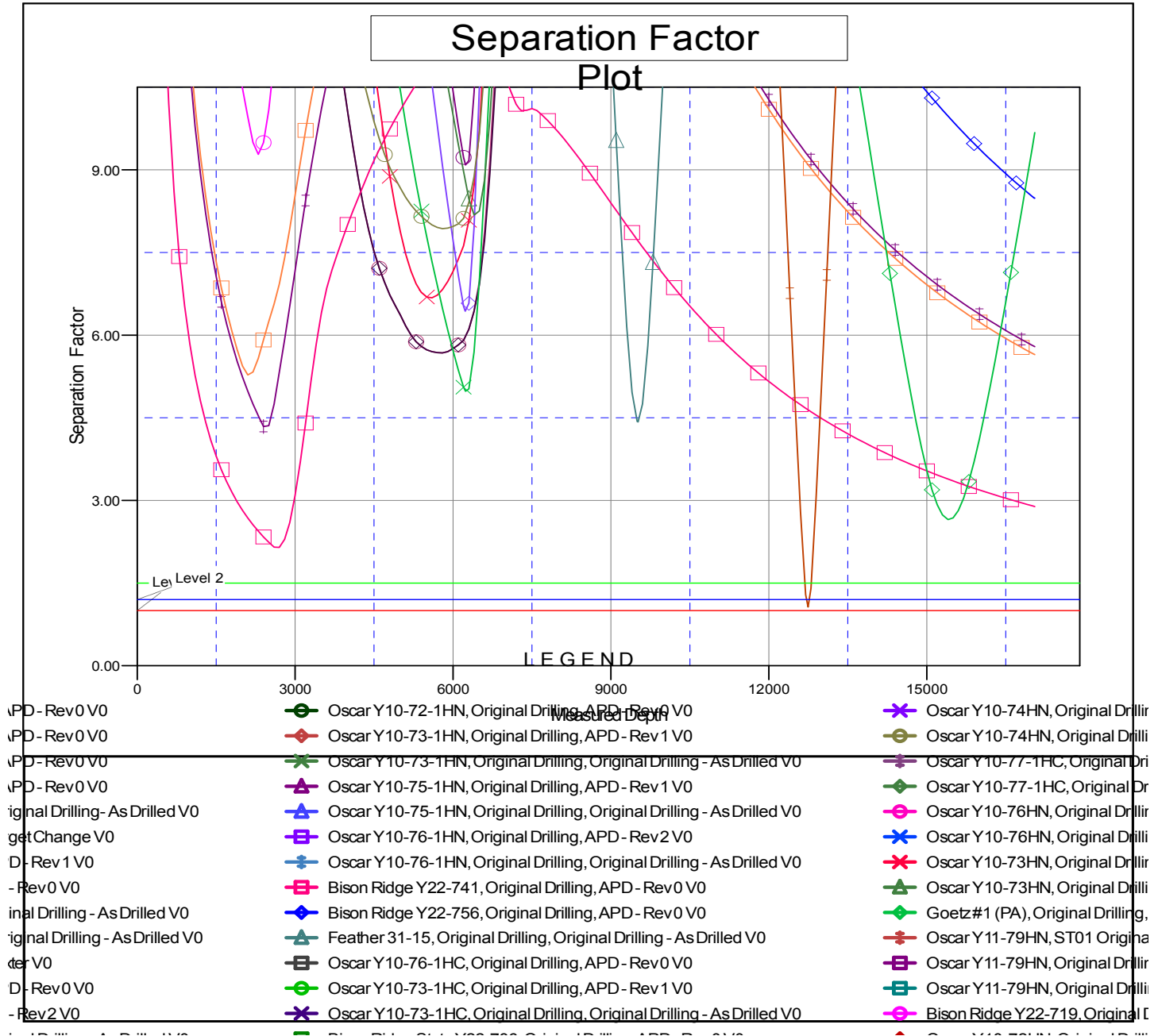


**Noble Energy, Inc.**  
**Anticollision Summary Report**

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Bison Ridge Y22-734
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Reference Site:</b>	Y Section 10	<b>MD Reference:</b>	WELL @ 4954.0ft (Original Well Elev.)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Bison Ridge Y22-734	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Original Drilling	<b>Database:</b>	EDMP
<b>Reference Design:</b>	APD - Rev 0	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4954.0ft (Original Well Elev.)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.5000000

Coordinates are relative to: Bison Ridge Y22-734  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.62°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation