

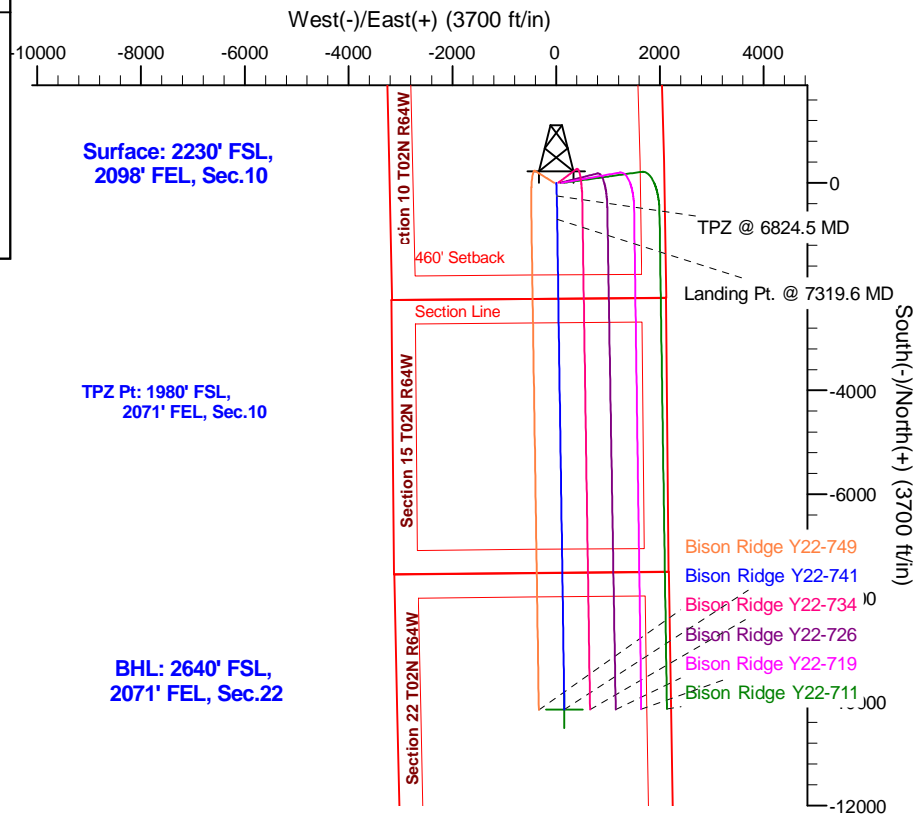
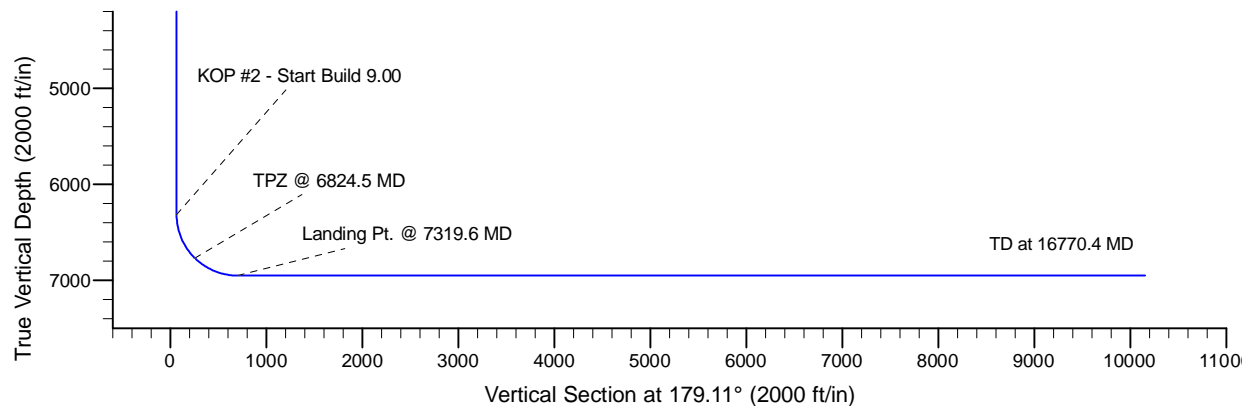
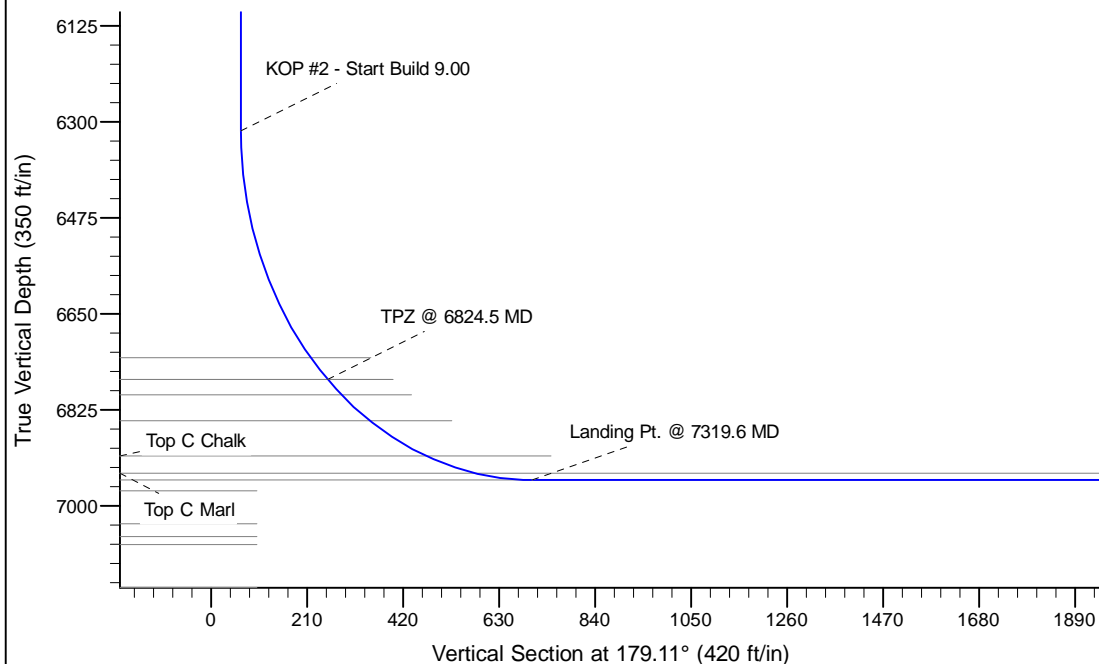
Project: Mustang
 Site: Y Section 10-T2N-R64W Weld County, CO
 Well: Bison Ridge Y22-741
 Wellbore: Original Drilling
 Design: APD - Rev 0

Northern Region - DJ Basin

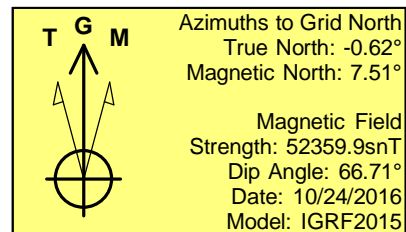
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2800.0	0.00	0.00	2800.0	0.0	0.0	0.00	0.00	0.0	
3	3175.2	7.50	171.25	3174.1	-24.2	3.7	2.00	171.25	24.3	
4	3303.0	7.50	171.25	3300.9	-40.8	6.3	0.00	0.00	40.8	
5	3678.2	0.00	0.00	3675.0	-65.0	10.0	2.00	180.00	65.1	
6	6319.6	0.00	0.00	6316.4	-65.0	10.0	0.00	0.00	65.1	
7	7319.6	90.00	179.16	6953.0	-701.6	19.3	9.00	179.16	701.8	
8	16770.4	90.00	179.16	6953.0	-10151.4	157.9	0.00	0.00	10152.6	Bison Ridge Y22-741 BHL 2640'FSL, 2071'FEL



BHL: 2640' FSL,
2071' FEL, Sec.22



WELL DETAILS: Bison Ridge Y22-741

Ground Elevation: 4924.0
 Northing Easting Latitude Longitude
 0.00.0 1299617.2583023 3269573.3342701 40.1518199 -104.5356000

Plan: APD - Rev 0 (Bison Ridge Y22-741/Original Drilling)

Created By: Shailey Jewell Date: 9:14, April 27 2017

OK to submit with 2A as per Noble Drilling
 4/27/2017 9:21

Northern Region - DJ Basin

Mustang

Y Section 10

Bison Ridge Y22-741

Original Drilling

APD - Rev 0

Anticollision Summary Report

27 April, 2017

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Bison Ridge Y22-741
Project:	Mustang	TVD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Reference Site:	Y Section 10	MD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Bison Ridge Y22-741	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	4/27/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	16,770.3	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	1,224.3	1,210.5	88.118	CC, ES
Bison Ridge State Y22-786 - Original Drilling - APD - Rev	4,600.0	3,986.4	1,907.5	1,878.7	66.347	SF
Bison Ridge Y22-711 - Original Drilling - APD - Rev 0	2,000.0	1,999.0	150.9	144.0	21.761	CC, ES
Bison Ridge Y22-711 - Original Drilling - APD - Rev 0	2,200.0	2,188.8	157.5	149.8	20.608	SF
Bison Ridge Y22-719 - Original Drilling - Prelim - Rev 1	2,200.0	2,199.0	111.8	104.2	14.609	CC, ES
Bison Ridge Y22-719 - Original Drilling - Prelim - Rev 1	2,300.0	2,295.3	113.4	105.4	14.164	SF
Bison Ridge Y22-726 - Original Drilling - Prelim - Rev 1	2,400.0	2,400.0	75.5	67.1	9.017	CC, ES
Bison Ridge Y22-726 - Original Drilling - Prelim - Rev 1	2,500.0	2,497.5	77.1	68.4	8.840	SF
Bison Ridge Y22-734 - Original Drilling - Prelim - Rev 1	2,600.0	2,600.0	39.1	30.0	4.306	CC, ES
Bison Ridge Y22-734 - Original Drilling - Prelim - Rev 1	2,700.0	2,698.9	40.5	31.1	4.293	SF
Bison Ridge Y22-749 - Original Drilling - APD - Rev 0	2,000.0	2,001.0	36.3	22.5	2.619	CC, ES
Bison Ridge Y22-749 - Original Drilling - APD - Rev 0	2,100.0	2,099.9	37.8	23.3	2.595	SF
Bison Ridge Y22-756 - Original Drilling - APD - Rev 0	16,766.6	17,371.2	990.4	815.9	5.678	CC, ES, SF
Bison Ridge Y22-764 - Original Drilling - APD - Rev 0	2,600.0	2,607.0	1,112.5	1,094.3	61.130	CC, ES
Bison Ridge Y22-764 - Original Drilling - APD - Rev 0	16,770.4	17,043.2	1,479.5	1,305.9	8.522	SF
Bison Ridge Y22-771 - Original Drilling - APD - Rev 0	2,400.0	2,407.0	1,148.9	1,132.1	68.525	CC, ES
Bison Ridge Y22-771 - Original Drilling - APD - Rev 0	6,600.0	6,270.4	1,929.7	1,884.7	42.910	SF
Bison Ridge Y22-779 - Original Drilling - APD - Rev 0	2,200.0	2,206.0	1,188.0	1,172.7	77.505	CC, ES
Bison Ridge Y22-779 - Original Drilling - APD - Rev 0	5,300.0	4,847.2	1,911.4	1,876.5	54.725	SF
Oscar Y10-72-1HC - Original Drilling - APD - Rev 1	1,500.0	1,490.0	1,319.1	1,313.9	256.415	CC, ES
Oscar Y10-72-1HC - Original Drilling - APD - Rev 1	6,600.0	6,496.1	1,667.0	1,644.0	72.478	SF
Oscar Y10-72-1HC - Original Drilling - Original Drilling - A	1,410.1	1,407.0	1,313.0	1,304.4	153.890	CC, ES
Oscar Y10-72-1HC - Original Drilling - Original Drilling - A	6,600.0	6,567.5	1,691.5	1,649.2	39.915	SF
Oscar Y10-72-1HN - Original Drilling - APD - Rev 0	1,200.0	1,191.0	1,355.2	1,351.1	333.064	CC, ES
Oscar Y10-72-1HN - Original Drilling - APD - Rev 0	6,600.0	6,418.8	1,853.0	1,830.1	80.871	SF
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	796.0	795.0	1,353.2	1,348.3	278.691	CC
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	1,000.0	991.0	1,353.8	1,347.7	219.255	ES
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	6,400.0	6,310.0	1,819.7	1,778.1	43.723	SF
Oscar Y10-72HN - Original Drilling - APD - Rev 1	2,000.0	1,990.0	1,280.2	1,273.2	184.553	CC, ES
Oscar Y10-72HN - Original Drilling - APD - Rev 1	6,500.0	6,359.4	1,492.2	1,469.5	65.903	SF
Oscar Y10-72HN - Original Drilling - Original Drilling - As	1,471.1	1,469.1	1,271.3	1,262.5	144.249	CC
Oscar Y10-72HN - Original Drilling - Original Drilling - As	1,500.0	1,492.6	1,271.4	1,262.4	142.246	ES
Oscar Y10-72HN - Original Drilling - Original Drilling - As	6,500.0	6,400.5	1,472.5	1,430.9	35.418	SF
Oscar Y10-73-1HC - Original Drilling - APD - Rev 1	3,505.3	3,534.1	996.7	984.5	82.221	CC
Oscar Y10-73-1HC - Original Drilling - APD - Rev 1	6,108.9	6,123.3	997.3	975.9	46.624	ES
Oscar Y10-73-1HC - Original Drilling - APD - Rev 1	6,400.0	6,318.3	1,011.7	989.4	45.316	SF
Oscar Y10-73-1HC - Original Drilling - Original Drilling - A	6,212.6	6,237.0	1,005.0	964.4	24.758	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

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Bison Ridge Y22-741
Project:	Mustang	TVD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Reference Site:	Y Section 10	MD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Bison Ridge Y22-741	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	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 Y10-73-1HC - Original Drilling - Original Drilling - A	6,400.0	6,329.0	1,017.0	975.6	24.545	SF
Oscar Y10-73-1HN - Original Drilling - APD - Rev 1	3,235.0	3,277.3	1,186.0	1,174.8	105.659	CC
Oscar Y10-73-1HN - Original Drilling - APD - Rev 1	6,200.0	6,213.0	1,188.2	1,166.5	54.714	ES
Oscar Y10-73-1HN - Original Drilling - APD - Rev 1	6,400.0	6,340.5	1,195.6	1,173.2	53.428	SF
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	4,203.2	4,226.9	1,200.4	1,172.8	43.576	CC
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	4,500.0	4,515.7	1,201.8	1,172.3	40.614	ES
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	6,400.0	6,332.0	1,223.0	1,180.7	28.962	SF
Oscar Y10-73HN - Original Drilling - APD - Rev 0	3,603.8	3,651.0	846.7	834.2	67.981	CC
Oscar Y10-73HN - Original Drilling - APD - Rev 0	6,200.0	6,240.0	846.8	825.1	38.990	ES
Oscar Y10-73HN - Original Drilling - APD - Rev 0	6,400.0	6,372.2	856.4	834.1	38.315	SF
Oscar Y10-73HN - Original Drilling - Original Drilling - As	6,211.7	6,248.3	857.1	816.1	20.890	CC, ES
Oscar Y10-73HN - Original Drilling - Original Drilling - As	6,400.0	6,373.6	865.7	823.7	20.610	SF
Oscar Y10-74-1HC - Original Drilling - APD - Rev 1	1,500.0	1,484.0	166.1	160.9	32.285	CC, ES
Oscar Y10-74-1HC - Original Drilling - APD - Rev 1	6,400.0	6,380.5	440.1	417.7	19.645	SF
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	861.0	853.0	162.2	156.8	29.978	CC
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	1,500.0	1,491.5	163.7	154.6	18.011	ES
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	6,400.0	6,377.0	451.0	410.0	11.003	SF
Oscar Y10-74-1HC - Original Drilling - Target Change	861.0	853.0	162.2	156.8	29.978	CC
Oscar Y10-74-1HC - Original Drilling - Target Change	1,500.0	1,491.5	163.7	154.6	18.011	ES
Oscar Y10-74-1HC - Original Drilling - Target Change	6,400.0	6,399.5	450.5	409.4	10.962	SF
Oscar Y10-74-1HN - Original Drilling - APD - Rev 0	1,000.0	981.0	210.4	207.0	62.759	CC, ES
Oscar Y10-74-1HN - Original Drilling - APD - Rev 0	6,300.0	6,250.0	639.8	617.9	29.119	SF
Oscar Y10-74-1HN - Original Drilling - Baxter	1,108.1	1,100.1	207.1	203.3	55.377	CC
Oscar Y10-74-1HN - Original Drilling - Baxter	1,200.0	1,191.2	207.3	203.2	50.936	ES
Oscar Y10-74-1HN - Original Drilling - Baxter	6,300.0	6,259.3	676.6	654.6	30.751	SF
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	1,108.1	1,100.1	207.1	200.1	29.333	CC
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	1,200.0	1,191.2	207.3	199.8	27.404	ES
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	6,300.0	6,259.3	676.7	636.2	16.708	SF
Oscar Y10-74HN - Original Drilling - APD - Rev 1	1,800.0	1,785.0	166.1	159.9	26.704	CC, ES
Oscar Y10-74HN - Original Drilling - APD - Rev 1	6,300.0	6,268.6	389.8	367.8	17.693	SF
Oscar Y10-74HN - Original Drilling - Original Drilling - As	1,802.3	1,795.4	153.6	143.0	14.596	CC, ES
Oscar Y10-74HN - Original Drilling - Original Drilling - As	6,200.0	6,172.3	446.6	407.0	11.272	SF
Oscar Y10-75-1HC - Original Drilling - APD - Rev 1	1,200.0	1,194.0	149.4	145.3	36.708	CC, ES
Oscar Y10-75-1HC - Original Drilling - APD - Rev 1	6,200.0	6,200.8	550.3	528.6	25.375	SF
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	1,274.5	1,268.5	139.4	131.3	17.111	CC
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	1,600.0	1,593.0	139.7	130.1	14.597	ES
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	2,000.0	1,982.3	155.4	143.8	13.396	SF
Oscar Y10-75-1HN - Original Drilling - APD - Rev 1	1,500.0	1,485.0	153.7	148.6	29.878	CC, ES
Oscar Y10-75-1HN - Original Drilling - APD - Rev 1	6,200.0	6,195.0	534.7	513.0	24.644	SF
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	0.0	0.0	153.9			
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	100.0	92.4	153.9	153.6	557.302	ES
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	2,400.0	2,378.4	204.0	189.9	14.556	SF
Oscar Y10-75HN - Original Drilling - APD - Rev 0	1,000.0	995.0	154.4	151.0	46.058	CC, ES
Oscar Y10-75HN - Original Drilling - APD - Rev 0	6,300.0	6,331.1	677.1	655.0	30.698	SF
Oscar Y10-75HN - Original Drilling - Original Drilling - As	300.0	295.3	154.1	152.8	116.363	CC
Oscar Y10-75HN - Original Drilling - Original Drilling - As	1,300.0	1,293.9	158.0	149.8	19.286	ES
Oscar Y10-75HN - Original Drilling - Original Drilling - As	6,400.0	6,357.1	754.6	713.0	18.144	SF
Oscar Y10-76-1HC - Original Drilling - APD - Rev 0	2,986.6	3,021.8	967.5	957.0	92.855	CC
Oscar Y10-76-1HC - Original Drilling - APD - Rev 0	3,000.0	3,033.2	967.5	957.0	92.471	ES
Oscar Y10-76-1HC - Original Drilling - APD - Rev 0	6,500.0	6,458.3	1,005.7	983.0	44.283	SF
Oscar Y10-76-1HN - Original Drilling - APD - Rev 2	3,109.9	3,182.1	1,007.0	996.2	93.172	CC, ES
Oscar Y10-76-1HN - Original Drilling - APD - Rev 2	6,400.0	6,321.7	1,033.8	1,011.5	46.315	SF
Oscar Y10-76-1HN - Original Drilling - Original Drilling - A	6,168.6	6,175.1	1,022.2	982.0	25.476	CC

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Bison Ridge Y22-741
Project:	Mustang	TVD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Reference Site:	Y Section 10	MD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Bison Ridge Y22-741	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	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 Y10-76-1HN - Original Drilling - Original Drilling - A	6,200.0	6,203.1	1,022.2	981.9	25.345	ES
Oscar Y10-76-1HN - Original Drilling - Original Drilling - A	6,400.0	6,347.9	1,029.5	988.0	24.823	SF
Oscar Y10-76HN - Original Drilling - APD - Rev 2	1,800.0	1,791.0	1,161.8	1,155.6	186.791	CC, ES
Oscar Y10-76HN - Original Drilling - APD - Rev 2	6,500.0	6,409.1	1,315.6	1,293.0	58.010	SF
Oscar Y10-76HN - Original Drilling - Original Drilling - As	100.0	90.9	1,161.8	1,161.5	4,122.664	CC
Oscar Y10-76HN - Original Drilling - Original Drilling - As	1,200.0	1,189.0	1,163.0	1,155.5	154.986	ES
Oscar Y10-76HN - Original Drilling - Original Drilling - As	6,500.0	6,396.2	1,319.1	1,278.0	32.079	SF
Oscar Y10-77-1HC - Original Drilling - APD - Rev 2	1,200.0	1,191.0	1,200.6	1,196.5	295.067	CC, ES
Oscar Y10-77-1HC - Original Drilling - APD - Rev 2	6,600.0	6,545.3	1,640.9	1,617.9	71.295	SF
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	1,119.5	1,110.6	1,196.4	1,189.2	167.727	CC
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	1,300.0	1,286.3	1,196.7	1,188.5	146.407	ES
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	6,600.0	6,506.0	1,630.9	1,588.6	38.582	SF
Oscar Y10-77-1HN - Original Drilling - APD 0 Rev 0	1,500.0	1,488.0	1,161.8	1,156.6	225.840	CC, ES
Oscar Y10-77-1HN - Original Drilling - APD 0 Rev 0	6,500.0	6,397.6	1,662.7	1,640.0	73.379	SF
Oscar Y10-77HN - Original Drilling - APD - Rev 2	1,000.0	992.0	1,236.6	1,233.3	368.934	CC, ES
Oscar Y10-77HN - Original Drilling - APD - Rev 2	4,000.0	3,605.6	1,917.9	1,904.4	142.110	SF
Oscar Y10-77HN - Original Drilling - Original Drilling - As	795.4	787.4	1,232.7	1,228.1	266.068	CC
Oscar Y10-77HN - Original Drilling - Original Drilling - As	1,200.0	1,185.9	1,232.8	1,225.4	165.555	ES
Oscar Y10-77HN - Original Drilling - Original Drilling - As	5,800.0	5,621.8	1,929.3	1,892.2	52.048	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	1,394.1	1,390.8	415.913	CC, ES
Oscar Y11-79HN - Original Drilling - APD - Rev 1	3,600.0	3,151.4	1,917.4	1,905.3	158.671	SF
Oscar Y11-79HN - Original Drilling - Original Drilling - As	0.0	0.0	1,394.1			
Oscar Y11-79HN - Original Drilling - Original Drilling - As	1,000.0	994.4	1,395.1	1,389.0	227.764	ES
Oscar Y11-79HN - Original Drilling - Original Drilling - As	4,800.0	4,489.0	1,931.7	1,902.1	65.328	SF
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	0.0	0.0	1,394.1			
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	1,000.0	994.4	1,395.1	1,389.0	227.764	ES
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	4,800.0	4,489.0	1,931.7	1,902.1	65.328	SF
Y Section 15						
Feather 31-15 - Original Drilling - Original Drilling - As Dr	9,238.3	6,971.5	240.8	184.6	4.283	CC, ES, SF
UPRR 62 Pan Am B1 - Original Drilling - Original Drilling	12,469.0	7,016.4	409.4	331.7	5.268	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	15,131.9	7,019.0	1,059.8	845.9	4.953	CC, ES, SF
Goetz #2 (PA) - Original Drilling - Original Drilling - As Dr						Out of range
Goetz Y22-06 - Original Drilling - Original Drilling - As Dri	16,141.7	6,996.6	1,457.2	1,319.6	10.590	CC, ES
Goetz Y22-06 - Original Drilling - Original Drilling - As Dri	16,200.0	6,996.4	1,458.3	1,320.3	10.568	SF

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

Noble Energy, Inc.

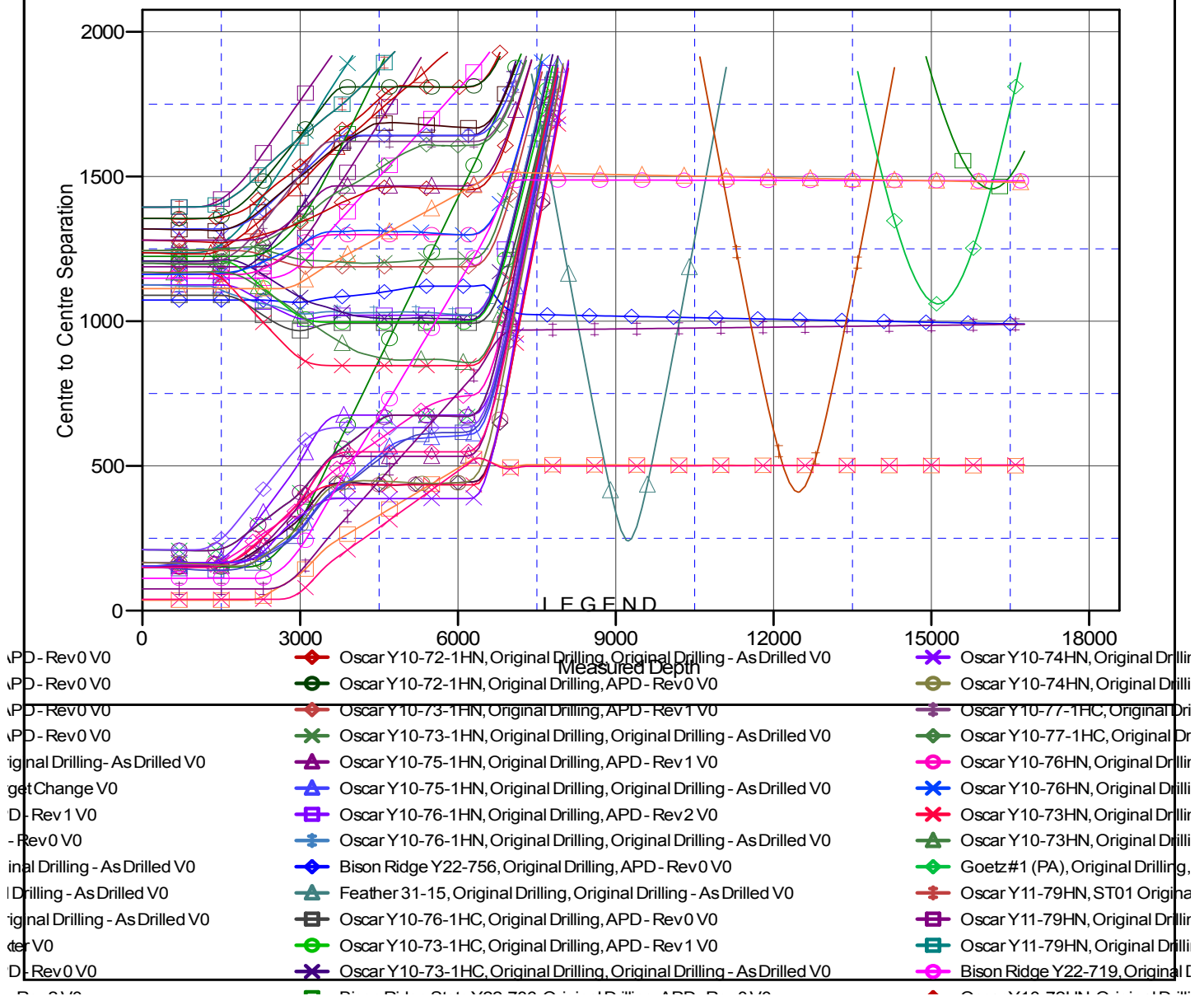
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Bison Ridge Y22-741
Project:	Mustang	TVD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Reference Site:	Y Section 10	MD Reference:	WELL @ 4954.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Bison Ridge Y22-741	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	APD - Rev 0	Offset TVD Reference:	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 Y22-741
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.62°

Ladder Plot



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

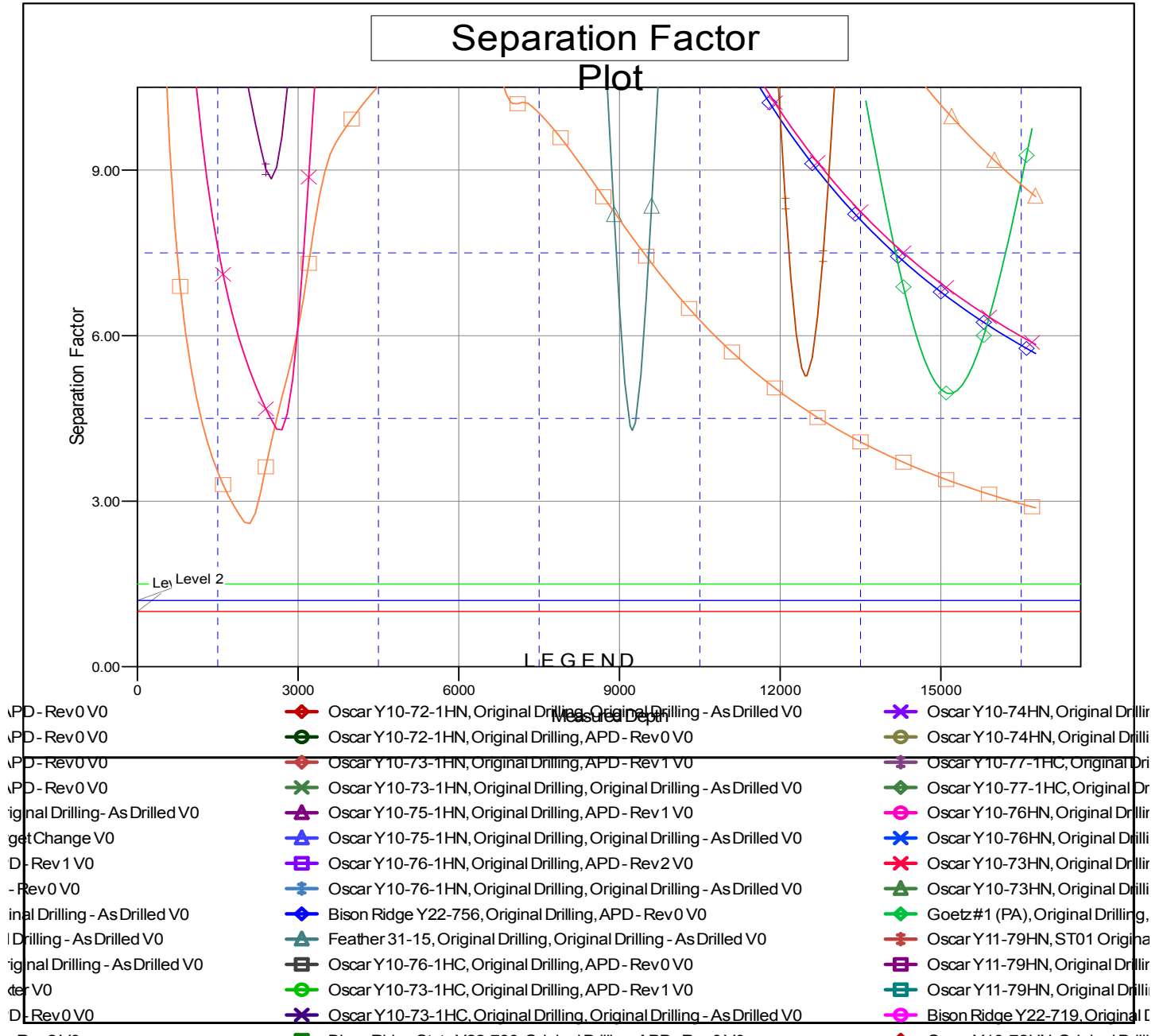
Noble Energy, Inc.

Anticollision Summary Report

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Well Error:	0.0 ft	Output errors are at	2.00 sigma
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Reference Design:	APD - Rev 0	Offset TVD Reference:	Offset Datum

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Coordinates are relative to: Bison Ridge Y22-741
 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