

Project: Mustang  
 Site: H Section 26  
 Well: Hurley H35-774  
 Wellbore: Wellbore #1  
 Design: Plan #2

# Northern Region - DJ Basin

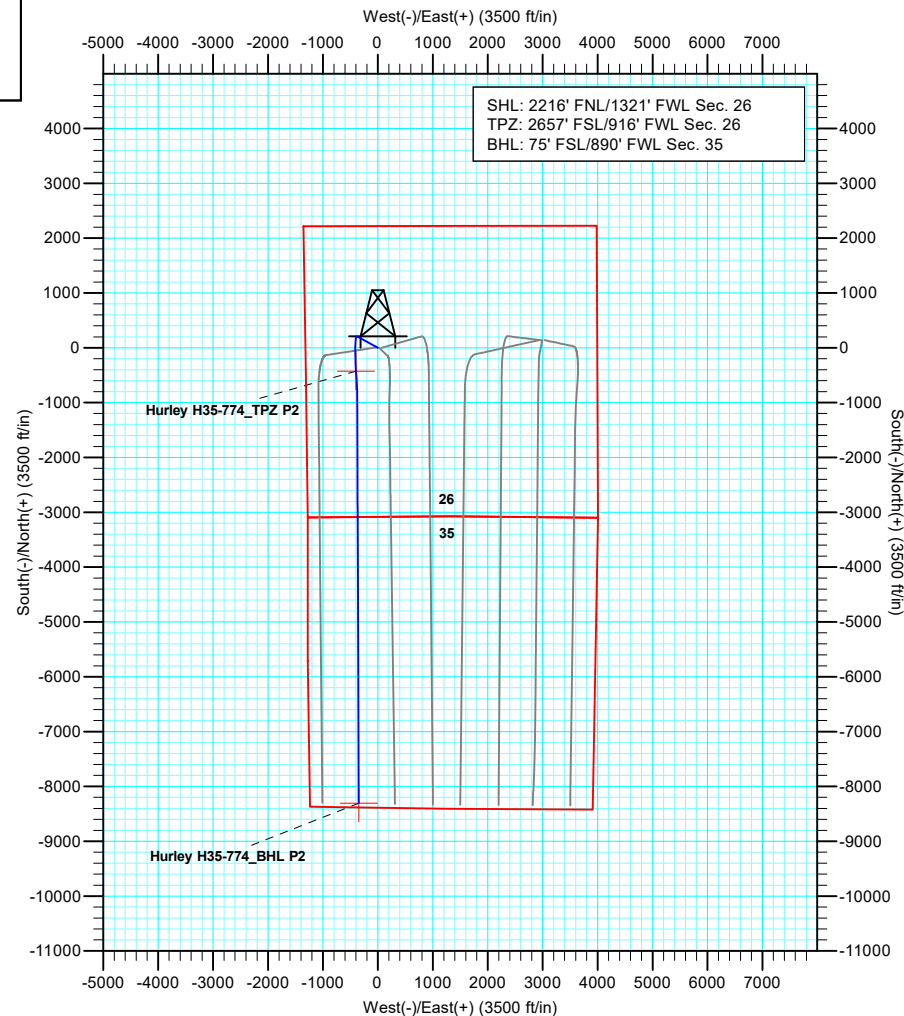
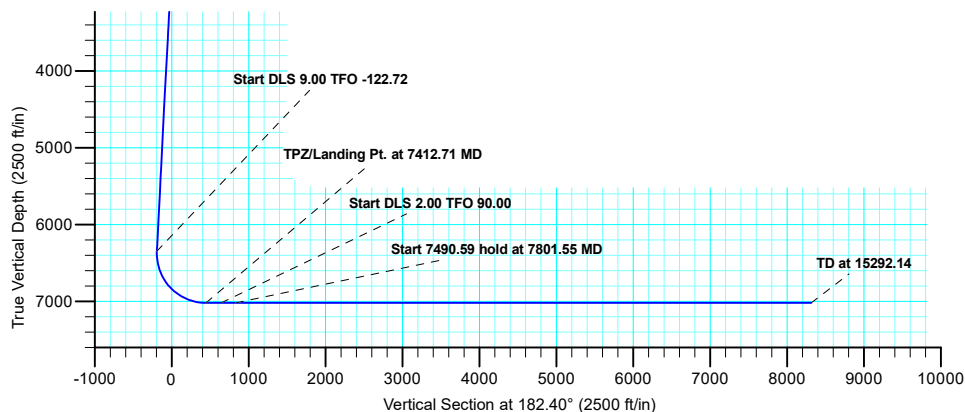
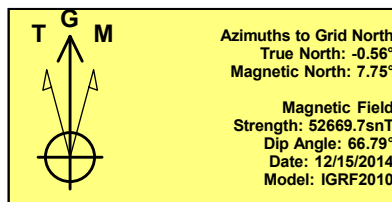
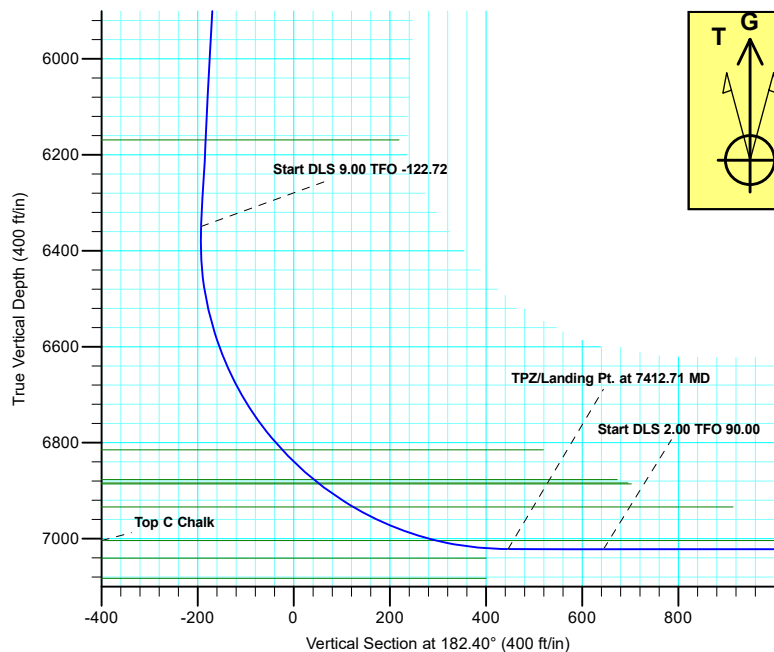
Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: Colorado Northern Zone  
 System Datum: Mean Sea Level

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00
3	2725.51	6.51	298.89	2724.81	8.92	-16.17	2.00	298.89	-8.24
4	6373.49	6.51	298.89	6349.27	208.72	-378.33	0.00	0.00	-192.70
5	7412.71	90.00	176.00	7022.00	-429.64	-398.31	9.00	-122.72	445.94
6	7612.71	90.00	176.00	7022.00	-629.15	-384.36	0.00	0.00	644.70
7	7801.55	90.00	179.78	7022.00	-817.83	-377.40	2.00	90.00	832.92
8	15292.14	90.00	179.78	7022.00	-8308.36	-348.22	0.00	0.00	8315.65

## WELL DETAILS: Hurley H35-774

+N/-S	+E/-W	Ground Level: Northing	Ground Level: Easting	Ground Level: 4822.00	Latitude	Longitude	Slot
0.00	0.00	1315972.58	3241493.11	40.1975099	-104.6354800		



Plan: Plan #2 (Hurley H35-774/Wellbore #1)

Created By: Shelly C. Peterkin Date: 15:04, May 28 2019

# **Northern Region - DJ Basin**

**Mustang**

**H Section 26**

**Hurley H35-774**

**Wellbore #1**

**Plan: Plan #2**

## **Standard Planning Report**

**28 May, 2019**

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site:</b>	H Section 26	<b>North Reference:</b>	Grid
<b>Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

<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		

Site		H Section 26			
Site Position:		Northing:	1,313,365.35 usft	Latitude:	40.1903751
From:	Map	Easting:	3,240,670.89 usft	Longitude:	-104.6385139
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.56 °

Well	Hurley H35-774					
Well Position	+N/-S	2,607.23 ft	Northing:	1,315,972.58 usft	Latitude:	40.1975100
	+E/-W	822.22 ft	Easting:	3,241,493.11 usft	Longitude:	-104.6354800
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,822.00 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/15/2014	8.31	66.79	52,669.65977268

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	182.40

<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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,725.51	6.51	298.89	2,724.81	8.92	-16.17	2.00	2.00	0.00	298.89	
6,373.49	6.51	298.89	6,349.27	208.72	-378.33	0.00	0.00	0.00	0.00	
7,412.71	90.00	176.00	7,022.00	-429.64	-398.31	9.00	8.03	-11.82	-122.72	Hurley H35-774_TPZ
7,612.71	90.00	176.00	7,022.00	-629.15	-384.36	0.00	0.00	0.00	0.00	
7,801.55	90.00	179.78	7,022.00	-817.83	-377.40	2.00	0.00	2.00	90.00	
15,292.14	90.00	179.78	7,022.00	-8,308.36	-348.22	0.00	0.00	0.00	0.00	Hurley H35-774_BHL

# Noble Energy, Inc.

## Planning Report

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<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site:</b>	H Section 26	<b>North Reference:</b>	Grid
<b>Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
618.00	0.00	0.00	618.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Pierre</b>									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
770.00	0.00	0.00	770.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Upper Pierre Aquifer Top</b>									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,658.00	0.00	0.00	1,658.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Upper Pierre Aquifer Base</b>									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
2,500.00	2.00	298.89	2,499.98	0.84	-1.53	-0.78	2.00	2.00	0.00
2,600.00	4.00	298.89	2,599.84	3.37	-6.11	-3.11	2.00	2.00	0.00
2,700.00	6.00	298.89	2,699.45	7.58	-13.74	-7.00	2.00	2.00	0.00
2,725.51	6.51	298.89	2,724.81	8.92	-16.17	-8.24	2.00	2.00	0.00
<b>Start 3647.98 hold at 2725.51 MD</b>									
2,800.00	6.51	298.89	2,798.82	13.00	-23.57	-12.00	0.00	0.00	0.00
2,900.00	6.51	298.89	2,898.17	18.48	-33.50	-17.06	0.00	0.00	0.00
3,000.00	6.51	298.89	2,997.53	23.96	-43.42	-22.12	0.00	0.00	0.00
3,100.00	6.51	298.89	3,096.89	29.43	-53.35	-27.17	0.00	0.00	0.00
3,200.00	6.51	298.89	3,196.24	34.91	-63.28	-32.23	0.00	0.00	0.00
3,300.00	6.51	298.89	3,295.60	40.39	-73.21	-37.29	0.00	0.00	0.00
3,400.00	6.51	298.89	3,394.95	45.86	-83.13	-42.34	0.00	0.00	0.00
3,500.00	6.51	298.89	3,494.31	51.34	-93.06	-47.40	0.00	0.00	0.00
3,600.00	6.51	298.89	3,593.66	56.82	-102.99	-52.46	0.00	0.00	0.00
3,700.00	6.51	298.89	3,693.02	62.30	-112.92	-57.51	0.00	0.00	0.00
3,800.00	6.51	298.89	3,792.37	67.77	-122.84	-62.57	0.00	0.00	0.00
3,900.00	6.51	298.89	3,891.73	73.25	-132.77	-67.63	0.00	0.00	0.00
3,933.49	6.51	298.89	3,925.00	75.08	-136.10	-69.32	0.00	0.00	0.00
<b>Parkman</b>									
4,000.00	6.51	298.89	3,991.08	78.73	-142.70	-72.68	0.00	0.00	0.00
4,100.00	6.51	298.89	4,090.44	84.20	-152.63	-77.74	0.00	0.00	0.00

# Noble Energy, Inc.

## Planning Report

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<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site:</b>	H Section 26	<b>North Reference:</b>	Grid
<b>Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

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)
4,200.00	6.51	298.89	4,189.79	89.68	-162.55	-82.79	0.00	0.00	0.00
4,300.00	6.51	298.89	4,289.15	95.16	-172.48	-87.85	0.00	0.00	0.00
4,400.00	6.51	298.89	4,388.50	100.63	-182.41	-92.91	0.00	0.00	0.00
4,500.00	6.51	298.89	4,487.86	106.11	-192.34	-97.96	0.00	0.00	0.00
4,528.33	6.51	298.89	4,516.00	107.66	-195.15	-99.40	0.00	0.00	0.00
<b>Sussex</b>									
4,600.00	6.51	298.89	4,587.21	111.59	-202.26	-103.02	0.00	0.00	0.00
4,700.00	6.51	298.89	4,686.57	117.06	-212.19	-108.08	0.00	0.00	0.00
4,800.00	6.51	298.89	4,785.92	122.54	-222.12	-113.13	0.00	0.00	0.00
4,900.00	6.51	298.89	4,885.28	128.02	-232.05	-118.19	0.00	0.00	0.00
5,000.00	6.51	298.89	4,984.63	133.50	-241.97	-123.25	0.00	0.00	0.00
5,100.00	6.51	298.89	5,083.99	138.97	-251.90	-128.30	0.00	0.00	0.00
5,200.00	6.51	298.89	5,183.34	144.45	-261.83	-133.36	0.00	0.00	0.00
5,214.75	6.51	298.89	5,198.00	145.26	-263.29	-134.10	0.00	0.00	0.00
<b>Shannon</b>									
5,300.00	6.51	298.89	5,282.70	149.93	-271.76	-138.42	0.00	0.00	0.00
5,400.00	6.51	298.89	5,382.05	155.40	-281.68	-143.47	0.00	0.00	0.00
5,500.00	6.51	298.89	5,481.41	160.88	-291.61	-148.53	0.00	0.00	0.00
5,600.00	6.51	298.89	5,580.76	166.36	-301.54	-153.58	0.00	0.00	0.00
5,700.00	6.51	298.89	5,680.12	171.83	-311.47	-158.64	0.00	0.00	0.00
5,800.00	6.51	298.89	5,779.47	177.31	-321.39	-163.70	0.00	0.00	0.00
5,900.00	6.51	298.89	5,878.83	182.79	-331.32	-168.75	0.00	0.00	0.00
6,000.00	6.51	298.89	5,978.19	188.26	-341.25	-173.81	0.00	0.00	0.00
6,100.00	6.51	298.89	6,077.54	193.74	-351.17	-178.87	0.00	0.00	0.00
6,192.05	6.51	298.89	6,169.00	198.78	-360.31	-183.52	0.00	0.00	0.00
<b>Teepee Buttes</b>									
6,200.00	6.51	298.89	6,176.90	199.22	-361.10	-183.92	0.00	0.00	0.00
6,300.00	6.51	298.89	6,276.25	204.70	-371.03	-188.98	0.00	0.00	0.00
6,373.49	6.51	298.89	6,349.27	208.72	-378.33	-192.70	0.00	0.00	0.00
<b>Start DLS 9.00 TFO -122.72</b>									
6,400.00	5.59	277.82	6,375.63	209.62	-380.92	-193.49	9.00	-3.46	-79.47
6,450.00	6.42	234.42	6,425.38	208.33	-385.61	-192.00	9.00	1.65	-86.81
6,500.00	9.57	210.66	6,474.90	203.13	-390.00	-186.62	9.00	6.29	-47.52
6,550.00	13.50	199.53	6,523.89	194.05	-394.07	-177.38	9.00	7.86	-22.25
6,600.00	17.70	193.48	6,572.04	181.15	-397.80	-164.33	9.00	8.40	-12.11
6,650.00	22.01	189.71	6,619.06	164.51	-401.15	-147.57	9.00	8.63	-7.53
6,700.00	26.39	187.14	6,664.65	144.24	-404.11	-127.19	9.00	8.75	-5.15
6,750.00	30.80	185.25	6,708.55	120.46	-406.67	-103.32	9.00	8.82	-3.77
6,800.00	35.23	183.80	6,750.46	93.31	-408.80	-76.11	9.00	8.86	-2.90
6,850.00	39.67	182.63	6,790.15	62.96	-410.49	-45.71	9.00	8.89	-2.33
6,883.01	42.61	181.98	6,815.00	41.26	-411.36	-24.00	9.00	8.90	-1.99
<b>Sharon Springs</b>									
6,900.00	44.13	181.67	6,827.35	29.60	-411.73	-12.33	9.00	8.91	-1.82
6,950.00	48.59	180.85	6,861.85	-6.57	-412.51	23.84	9.00	8.92	-1.64
6,973.39	50.68	180.50	6,877.00	-24.38	-412.72	41.65	9.00	8.93	-1.48
<b>Top A Chalk</b>									
6,984.55	51.67	180.34	6,884.00	-33.08	-412.79	50.34	9.00	8.93	-1.41
<b>Top A Marl</b>									
6,987.79	51.96	180.30	6,886.00	-35.63	-412.80	52.88	9.00	8.93	-1.39
<b>Top B Chalk</b>									
7,000.00	53.05	180.13	6,893.43	-45.31	-412.84	62.56	9.00	8.93	-1.36
7,050.00	57.52	179.50	6,921.90	-86.41	-412.70	103.61	9.00	8.94	-1.27
7,073.20	59.60	179.22	6,934.00	-106.20	-412.48	123.38	9.00	8.94	-1.18

# Noble Energy, Inc.

## Planning Report

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<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
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<b>Wellbore:</b>	Wellbore #1		
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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)
<b>Top B Marl</b>									
7,100.00	62.00	178.92	6,947.07	-129.59	-412.10	146.73	9.00	8.95	-1.13
7,150.00	66.47	178.39	6,968.80	-174.59	-411.04	191.65	9.00	8.95	-1.06
7,200.00	70.95	177.90	6,986.95	-221.14	-409.53	238.10	9.00	8.95	-0.99
7,250.00	75.42	177.43	7,001.41	-268.95	-407.57	285.78	9.00	8.96	-0.94
7,260.62	76.38	177.33	7,004.00	-279.24	-407.10	296.04	9.00	8.96	-0.91
<b>Top C Chalk</b>									
7,300.00	79.90	176.98	7,012.09	-317.73	-405.19	334.41	9.00	8.96	-0.90
7,350.00	84.38	176.54	7,018.93	-367.16	-402.39	383.69	9.00	8.96	-0.88
7,400.00	88.86	176.11	7,021.87	-416.96	-399.19	433.31	9.00	8.96	-0.86
7,412.71	90.00	176.00	7,022.00	-429.64	-398.31	445.94	9.00	8.96	-0.86
<b>TPZ/Landing Pt. at 7412.71 MD</b>									
7,500.00	90.00	176.00	7,022.00	-516.72	-392.22	532.69	0.00	0.00	0.00
7,600.00	90.00	176.00	7,022.00	-616.47	-385.25	632.07	0.00	0.00	0.00
7,612.71	90.00	176.00	7,022.00	-629.15	-384.36	644.70	0.00	0.00	0.00
<b>Start DLS 2.00 TFO 90.00</b>									
7,700.00	90.00	177.75	7,022.00	-716.31	-379.60	731.58	2.00	0.00	2.00
7,801.55	90.00	179.78	7,022.00	-817.83	-377.40	832.92	2.00	0.00	2.00
<b>Start 7490.59 hold at 7801.55 MD</b>									
7,900.00	90.00	179.78	7,022.00	-916.28	-377.02	931.26	0.00	0.00	0.00
8,000.00	90.00	179.78	7,022.00	-1,016.28	-376.63	1,031.16	0.00	0.00	0.00
8,100.00	90.00	179.78	7,022.00	-1,116.28	-376.24	1,131.05	0.00	0.00	0.00
8,200.00	90.00	179.78	7,022.00	-1,216.28	-375.85	1,230.95	0.00	0.00	0.00
8,300.00	90.00	179.78	7,022.00	-1,316.28	-375.46	1,330.85	0.00	0.00	0.00
8,400.00	90.00	179.78	7,022.00	-1,416.28	-375.07	1,430.74	0.00	0.00	0.00
8,500.00	90.00	179.78	7,022.00	-1,516.28	-374.68	1,530.64	0.00	0.00	0.00
8,600.00	90.00	179.78	7,022.00	-1,616.28	-374.29	1,630.53	0.00	0.00	0.00
8,700.00	90.00	179.78	7,022.00	-1,716.27	-373.90	1,730.43	0.00	0.00	0.00
8,800.00	90.00	179.78	7,022.00	-1,816.27	-373.51	1,830.32	0.00	0.00	0.00
8,900.00	90.00	179.78	7,022.00	-1,916.27	-373.12	1,930.22	0.00	0.00	0.00
9,000.00	90.00	179.78	7,022.00	-2,016.27	-372.73	2,030.11	0.00	0.00	0.00
9,100.00	90.00	179.78	7,022.00	-2,116.27	-372.34	2,130.01	0.00	0.00	0.00
9,200.00	90.00	179.78	7,022.00	-2,216.27	-371.95	2,229.90	0.00	0.00	0.00
9,300.00	90.00	179.78	7,022.00	-2,316.27	-371.57	2,329.80	0.00	0.00	0.00
9,400.00	90.00	179.78	7,022.00	-2,416.27	-371.18	2,429.69	0.00	0.00	0.00
9,500.00	90.00	179.78	7,022.00	-2,516.27	-370.79	2,529.59	0.00	0.00	0.00
9,600.00	90.00	179.78	7,022.00	-2,616.27	-370.40	2,629.48	0.00	0.00	0.00
9,700.00	90.00	179.78	7,022.00	-2,716.27	-370.01	2,729.38	0.00	0.00	0.00
9,800.00	90.00	179.78	7,022.00	-2,816.27	-369.62	2,829.27	0.00	0.00	0.00
9,900.00	90.00	179.78	7,022.00	-2,916.27	-369.23	2,929.17	0.00	0.00	0.00
10,000.00	90.00	179.78	7,022.00	-3,016.26	-368.84	3,029.06	0.00	0.00	0.00
10,100.00	90.00	179.78	7,022.00	-3,116.26	-368.45	3,128.96	0.00	0.00	0.00
10,200.00	90.00	179.78	7,022.00	-3,216.26	-368.06	3,228.85	0.00	0.00	0.00
10,300.00	90.00	179.78	7,022.00	-3,316.26	-367.67	3,328.75	0.00	0.00	0.00
10,400.00	90.00	179.78	7,022.00	-3,416.26	-367.28	3,428.64	0.00	0.00	0.00
10,500.00	90.00	179.78	7,022.00	-3,516.26	-366.89	3,528.54	0.00	0.00	0.00
10,600.00	90.00	179.78	7,022.00	-3,616.26	-366.50	3,628.44	0.00	0.00	0.00
10,700.00	90.00	179.78	7,022.00	-3,716.26	-366.11	3,728.33	0.00	0.00	0.00
10,800.00	90.00	179.78	7,022.00	-3,816.26	-365.72	3,828.23	0.00	0.00	0.00
10,900.00	90.00	179.78	7,022.00	-3,916.26	-365.33	3,928.12	0.00	0.00	0.00
11,000.00	90.00	179.78	7,022.00	-4,016.26	-364.94	4,028.02	0.00	0.00	0.00
11,100.00	90.00	179.78	7,022.00	-4,116.26	-364.55	4,127.91	0.00	0.00	0.00
11,200.00	90.00	179.78	7,022.00	-4,216.26	-364.16	4,227.81	0.00	0.00	0.00

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site:</b>	H Section 26	<b>North Reference:</b>	Grid
<b>Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

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)
11,300.00	90.00	179.78	7,022.00	-4,316.25	-363.77	4,327.70	0.00	0.00	0.00
11,400.00	90.00	179.78	7,022.00	-4,416.25	-363.38	4,427.60	0.00	0.00	0.00
11,500.00	90.00	179.78	7,022.00	-4,516.25	-362.99	4,527.49	0.00	0.00	0.00
11,600.00	90.00	179.78	7,022.00	-4,616.25	-362.60	4,627.39	0.00	0.00	0.00
11,700.00	90.00	179.78	7,022.00	-4,716.25	-362.21	4,727.28	0.00	0.00	0.00
11,800.00	90.00	179.78	7,022.00	-4,816.25	-361.82	4,827.18	0.00	0.00	0.00
11,900.00	90.00	179.78	7,022.00	-4,916.25	-361.43	4,927.07	0.00	0.00	0.00
12,000.00	90.00	179.78	7,022.00	-5,016.25	-361.04	5,026.97	0.00	0.00	0.00
12,100.00	90.00	179.78	7,022.00	-5,116.25	-360.65	5,126.86	0.00	0.00	0.00
12,200.00	90.00	179.78	7,022.00	-5,216.25	-360.27	5,226.76	0.00	0.00	0.00
12,300.00	90.00	179.78	7,022.00	-5,316.25	-359.88	5,326.65	0.00	0.00	0.00
12,400.00	90.00	179.78	7,022.00	-5,416.25	-359.49	5,426.55	0.00	0.00	0.00
12,500.00	90.00	179.78	7,022.00	-5,516.25	-359.10	5,526.44	0.00	0.00	0.00
12,600.00	90.00	179.78	7,022.00	-5,616.24	-358.71	5,626.34	0.00	0.00	0.00
12,700.00	90.00	179.78	7,022.00	-5,716.24	-358.32	5,726.23	0.00	0.00	0.00
12,800.00	90.00	179.78	7,022.00	-5,816.24	-357.93	5,826.13	0.00	0.00	0.00
12,900.00	90.00	179.78	7,022.00	-5,916.24	-357.54	5,926.03	0.00	0.00	0.00
13,000.00	90.00	179.78	7,022.00	-6,016.24	-357.15	6,025.92	0.00	0.00	0.00
13,100.00	90.00	179.78	7,022.00	-6,116.24	-356.76	6,125.82	0.00	0.00	0.00
13,200.00	90.00	179.78	7,022.00	-6,216.24	-356.37	6,225.71	0.00	0.00	0.00
13,300.00	90.00	179.78	7,022.00	-6,316.24	-355.98	6,325.61	0.00	0.00	0.00
13,400.00	90.00	179.78	7,022.00	-6,416.24	-355.59	6,425.50	0.00	0.00	0.00
13,500.00	90.00	179.78	7,022.00	-6,516.24	-355.20	6,525.40	0.00	0.00	0.00
13,600.00	90.00	179.78	7,022.00	-6,616.24	-354.81	6,625.29	0.00	0.00	0.00
13,700.00	90.00	179.78	7,022.00	-6,716.24	-354.42	6,725.19	0.00	0.00	0.00
13,800.00	90.00	179.78	7,022.00	-6,816.24	-354.03	6,825.08	0.00	0.00	0.00
13,900.00	90.00	179.78	7,022.00	-6,916.24	-353.64	6,924.98	0.00	0.00	0.00
14,000.00	90.00	179.78	7,022.00	-7,016.23	-353.25	7,024.87	0.00	0.00	0.00
14,100.00	90.00	179.78	7,022.00	-7,116.23	-352.86	7,124.77	0.00	0.00	0.00
14,200.00	90.00	179.78	7,022.00	-7,216.23	-352.47	7,224.66	0.00	0.00	0.00
14,300.00	90.00	179.78	7,022.00	-7,316.23	-352.08	7,324.56	0.00	0.00	0.00
14,400.00	90.00	179.78	7,022.00	-7,416.23	-351.69	7,424.45	0.00	0.00	0.00
14,500.00	90.00	179.78	7,022.00	-7,516.23	-351.30	7,524.35	0.00	0.00	0.00
14,600.00	90.00	179.78	7,022.00	-7,616.23	-350.91	7,624.24	0.00	0.00	0.00
14,700.00	90.00	179.78	7,022.00	-7,716.23	-350.52	7,724.14	0.00	0.00	0.00
14,800.00	90.00	179.78	7,022.00	-7,816.23	-350.13	7,824.03	0.00	0.00	0.00
14,900.00	90.00	179.78	7,022.00	-7,916.23	-349.74	7,923.93	0.00	0.00	0.00
15,000.00	90.00	179.78	7,022.00	-8,016.23	-349.36	8,023.82	0.00	0.00	0.00
15,100.00	90.00	179.78	7,022.00	-8,116.23	-348.97	8,123.72	0.00	0.00	0.00
15,200.00	90.00	179.78	7,022.00	-8,216.23	-348.58	8,223.62	0.00	0.00	0.00
15,292.14	90.00	179.78	7,022.00	-8,308.36	-348.22	8,315.65	0.00	0.00	0.00
TD at 15292.14									

# Noble Energy, Inc.

## Planning Report

<b>Database:</b>	EDMP	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Company:</b>	Northern Region - DJ Basin	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Project:</b>	Mustang	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site:</b>	H Section 26	<b>North Reference:</b>	Grid
<b>Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
Hurley H35-774_TPZ P2	0.00	0.00	7,022.00	-429.64	-398.31	1,315,542.94	3,241,094.80	40.1963413	-104.6369208
- plan hits target center									
- Point									
Hurley H35-774_BHL P2	0.00	0.00	7,022.00	-8,308.36	-348.22	1,307,664.24	3,241,144.89	40.1747129	-104.6370159
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
618.00	618.00	Pierre				
770.00	770.00	Upper Pierre Aquifer Top				
1,658.00	1,658.00	Upper Pierre Aquifer Base				
3,933.49	3,925.00	Parkman				
4,528.33	4,516.00	Sussex				
5,214.75	5,198.00	Shannon				
6,192.05	6,169.00	Teepee Buttes				
6,883.01	6,815.00	Sharon Springs				
6,973.39	6,877.00	Top A Chalk				
6,984.55	6,884.00	Top A Marl				
6,987.79	6,886.00	Top B Chalk				
7,073.20	6,934.00	Top B Marl				
7,260.62	7,004.00	Top C Chalk				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
2,400.00	2,400.00	0.00	0.00	Start Build 2.00
2,725.51	2,724.81	8.92	-16.17	Start 3647.98 hold at 2725.51 MD
6,373.49	6,349.27	208.72	-378.33	Start DLS 9.00 TFO -122.72
7,412.71	7,022.00	-429.64	-398.31	TPZ/Landing Pt. at 7412.71 MD
7,612.71	7,022.00	-629.15	-384.36	Start DLS 2.00 TFO 90.00
7,801.55	7,022.00	-817.83	-377.40	Start 7490.59 hold at 7801.55 MD
15,292.14	7,022.00	-8,308.36	-348.22	TD at 15292.14



# **Northern Region - DJ Basin**

**Mustang**

**H Section 26**

**Hurley H35-774**

**Wellbore #1**

**Plan #2**

## **Anticollision Summary Report**

**29 May, 2019**

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

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.00ft	<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 10,000.00 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>	5/29/2019		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	15,292.14	Plan #2 (Wellbore #1)	OWSG MWD+IFR1	OWSG MWD + IFR1

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						
H Section 23						
Eachus 32-23 - Original Drilling - Original Drilling - As Dri	2,104.66	2,086.78	5,786.98	5,772.55	401.040	CC
Eachus 32-23 - Original Drilling - Original Drilling - As Dri	2,200.00	2,150.39	5,787.22	5,772.23	385.986	ES
Eachus 32-23 - Original Drilling - Original Drilling - As Dri	6,850.00	6,806.01	5,981.85	5,934.00	125.036	SF
Eachus 41-23 (PA) - Original Drilling - Original Drilling - A	5,934.93	5,900.54	7,463.44	7,324.23	53.612	CC
Eachus 41-23 (PA) - Original Drilling - Original Drilling - A	6,400.00	6,362.63	7,464.09	7,313.92	49.705	ES
Eachus 41-23 (PA) - Original Drilling - Original Drilling - A	6,950.00	6,848.85	7,668.50	7,507.10	47.512	SF
Eachus UPRR 31-23 - Original Drilling - Original Drilling -	6,380.88	6,272.58	7,034.98	6,953.99	86.863	CC
Eachus UPRR 31-23 - Original Drilling - Original Drilling -	6,400.00	6,291.58	7,035.25	6,953.53	86.094	ES
Eachus UPRR 31-23 - Original Drilling - Original Drilling -	7,200.00	6,901.32	7,455.30	7,350.72	71.287	SF
Eachus UPRR 42-23 (PA) - Original Drilling - Original Dril	2,400.00	2,397.00	6,334.06	6,277.75	112.485	CC
Eachus UPRR 42-23 (PA) - Original Drilling - Original Dril	6,373.49	6,346.27	6,368.34	6,218.62	42.534	ES
Eachus UPRR 42-23 (PA) - Original Drilling - Original Dril	6,950.00	6,858.85	6,564.38	6,402.78	40.621	SF
HSR Alberstein 16-23 - Original Drilling - Original Drilling	1,133.36	1,136.52	4,387.30	4,379.66	573.832	CC
HSR Alberstein 16-23 - Original Drilling - Original Drilling	2,500.00	2,511.25	4,391.78	4,374.45	253.362	ES
HSR Alberstein 16-23 - Original Drilling - Original Drilling	6,900.00	6,939.85	4,727.60	4,679.20	97.685	SF
HSR Ashley 15-23A - Original Drilling - Original Drilling - A	0.00	0.00	3,543.42			
HSR Ashley 15-23A - Original Drilling - Original Drilling - A	2,725.51	2,703.13	3,554.66	3,535.87	189.176	ES
HSR Ashley 15-23A - Original Drilling - Original Drilling - A	6,750.00	6,695.18	3,786.91	3,739.69	80.185	SF
HSR Benirschke 10-23 - Original Drilling - Original Drilling	3,703.67	3,693.86	4,597.20	4,571.39	178.120	CC
HSR Benirschke 10-23 - Original Drilling - Original Drilling	4,100.00	4,062.86	4,597.70	4,569.16	161.145	ES
HSR Benirschke 10-23 - Original Drilling - Original Drilling	6,700.00	6,450.98	4,739.62	4,693.46	102.685	SF
HSR Eachus 03-23 - Original Drilling - Original Drilling - A	788.93	752.00	6,097.26	6,092.21	1,206.487	CC
HSR Eachus 03-23 - Original Drilling - Original Drilling - A	2,200.00	2,115.37	6,099.44	6,084.57	410.140	ES
HSR Eachus 03-23 - Original Drilling - Original Drilling - A	6,800.00	6,901.07	6,833.65	6,781.01	129.827	SF
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	100.00	55.54	6,069.82	6,069.59	10,000.000	CC
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	1,000.00	936.56	6,072.26	6,065.79	938.519	ES
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	6,550.00	6,867.31	6,652.42	6,532.76	55.590	SF
HSR Eachus 05-23 - Original Drilling - Original Drilling - A	6,399.05	6,709.26	5,303.62	5,167.63	39.001	CC
HSR Eachus 05-23 - Original Drilling - Original Drilling - A	6,400.00	6,710.20	5,303.62	5,167.62	38.997	ES
HSR Eachus 05-23 - Original Drilling - Original Drilling - A	6,700.00	6,998.51	5,373.46	5,233.54	38.402	SF
HSR Fruman 06-23 - Original Drilling - Original Drilling - A	6,408.55	6,500.01	5,730.46	5,677.54	108.279	CC, ES
HSR Fruman 06-23 - Original Drilling - Original Drilling - A	6,750.00	6,724.76	5,821.07	5,766.50	106.679	SF
HSR Grasshopper 09-23 - Original Drilling - Original Drilli	0.00	0.00	4,861.74			
HSR Grasshopper 09-23 - Original Drilling - Original Drilli	1,800.00	1,774.02	4,869.04	4,856.79	397.490	ES
HSR Grasshopper 09-23 - Original Drilling - Original Drilli	6,800.00	6,812.14	5,163.44	5,115.69	108.130	SF
Ritchey 06-23 - Original Drilling - Original Drilling - As Dri	6,392.56	6,355.46	5,295.40	5,250.29	117.369	CC
Ritchey 06-23 - Original Drilling - Original Drilling - As Dri	6,400.00	6,362.20	5,295.44	5,250.28	117.240	ES

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 23						
Ritchey 06-23 - Original Drilling - Original Drilling - As Dri	6,850.00	7,001.75	5,437.57	5,388.89	111.697	SF
Ritchey 21-23 - Original Drilling - Original Drilling - As Dri	4,446.80	4,228.33	6,302.68	6,272.32	207.621	CC
Ritchey 21-23 - Original Drilling - Original Drilling - As Dri	6,390.07	6,343.03	6,304.14	6,259.21	140.334	ES
Ritchey 21-23 - Original Drilling - Original Drilling - As Dri	6,850.00	6,781.96	6,452.10	6,404.32	135.040	SF
Ritchey 24-23 - Original Drilling - Original Drilling - As Dri	1,041.25	1,027.26	4,653.64	4,646.72	672.493	CC
Ritchey 24-23 - Original Drilling - Original Drilling - As Dri	1,600.00	1,556.09	4,656.41	4,645.65	432.521	ES
Ritchey 24-23 - Original Drilling - Original Drilling - As Dri	6,900.00	6,849.75	5,599.82	5,551.49	115.859	SF
Ritchey 31-24 - Original Drilling - Original Drilling - As Dri	1,402.98	1,400.00	6,552.78	6,543.27	689.030	CC
Ritchey 31-24 - Original Drilling - Original Drilling - As Dri	1,500.00	1,448.15	6,553.06	6,543.03	653.585	ES
Ritchey 31-24 - Original Drilling - Original Drilling - As Dri	6,900.00	6,912.77	7,494.00	7,437.86	133.499	SF
UPRC 23-11J - Original Drilling - Original Drilling - As Dri	4,216.34	4,000.01	4,014.96	3,986.26	139.923	CC
UPRC 23-11J - Original Drilling - Original Drilling - As Dri	6,400.00	6,332.45	4,015.66	3,970.76	89.422	ES
UPRC 23-11J - Original Drilling - Original Drilling - As Dri	6,750.00	6,711.81	4,106.38	4,059.10	86.854	SF
UPRC 23-12J - Original Drilling - Original Drilling - As Dri	6,419.00	6,370.59	3,949.07	3,903.98	87.591	CC, ES
UPRC 23-12J - Original Drilling - Original Drilling - As Dri	6,700.00	6,654.10	4,009.28	3,962.35	85.425	SF
UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,407.75	6,300.06	2,792.60	2,747.71	62.214	CC, ES
UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,650.00	6,518.01	2,838.50	2,792.07	61.139	SF
UPRC H23-14J - Original Drilling - Original Drilling - As D	1,807.62	1,763.71	2,781.43	2,769.19	227.246	CC
UPRC H23-14J - Original Drilling - Original Drilling - As D	1,900.00	1,835.79	2,781.85	2,769.03	216.958	ES
UPRC H23-14J - Original Drilling - Original Drilling - As D	6,650.00	6,490.54	2,941.94	2,895.68	63.600	SF
UPRC H23-24 - Original Drilling - Original Drilling - As Dr	1,578.40	1,540.44	3,766.93	3,756.29	354.160	CC
UPRC H23-24 - Original Drilling - Original Drilling - As Dr	4,700.00	4,571.48	3,778.52	3,746.03	116.317	ES
UPRC H23-24 - Original Drilling - Original Drilling - As Dr	6,750.00	6,558.64	3,925.93	3,879.16	83.942	SF
UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D	6,406.81	6,336.41	2,985.96	2,836.27	19.948	CC, ES
UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D	6,700.00	6,618.65	3,052.05	2,895.81	19.534	SF
UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dri	6,391.21	6,521.39	6,536.47	6,491.00	143.758	CC, ES
UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dri	6,900.00	6,832.01	6,704.29	6,656.28	139.639	SF

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

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 25						
Dechant 21-25 - Original Drilling - Original Drilling - As Dr	575.98	553.99	5,811.31	5,807.71	1,617.028	CC
Dechant 21-25 - Original Drilling - Original Drilling - As Dr	1,400.00	1,357.99	5,812.20	5,802.85	621.434	ES
Dechant 21-25 - Original Drilling - Original Drilling - As Dr	11,900.00	7,239.45	9,062.62	8,987.04	119.916	SF
Dechant D30-33D - Original Drilling - Original Drilling - As	100.00	33.48	8,397.68	8,397.50	10,000.000	CC, ES
Dechant D30-33D - Original Drilling - Original Drilling - As	12,100.00	6,808.38	9,994.24	9,910.37	119.173	SF
Dechant D31-30D - Original Drilling - Original Drilling - As	100.00	36.84	8,401.16	8,400.98	10,000.000	CC
Dechant D31-30D - Original Drilling - Original Drilling - As	200.00	106.60	8,401.65	8,400.95	10,000.000	ES
Dechant D31-30D - Original Drilling - Original Drilling - As	13,400.00	7,071.78	9,994.23	9,892.32	98.067	SF
Dechant H25-64-1HN - Original Drilling - Original Drilling	2,687.63	3,167.69	4,348.60	4,328.19	213.080	CC
Dechant H25-64-1HN - Original Drilling - Original Drilling	2,700.00	3,177.96	4,348.63	4,328.12	212.024	ES
Dechant H25-64-1HN - Original Drilling - Original Drilling	10,500.00	6,423.00	4,874.38	4,811.05	76.966	SF
Dechant H25-65HN - Original Drilling - Original Drilling	3,956.93	4,471.05	4,220.19	4,191.70	148.138	CC
Dechant H25-65HN - Original Drilling - Original Drilling	4,000.00	4,494.49	4,220.29	4,191.55	146.849	ES
Dechant H25-65HN - Original Drilling - Original Drilling	9,900.00	6,417.00	5,025.05	4,965.25	84.039	SF
Emmy H25-711 - Emmy H25-711 OH - As-Drilled	812.72	795.72	7,962.19	7,956.93	1,513.257	CC
Emmy H25-711 - Emmy H25-711 OH - As-Drilled	2,044.40	2,014.13	7,963.15	7,949.43	580.207	ES
Emmy H25-711 - Emmy H25-711 OH - As-Drilled	12,300.00	12,300.00	9,207.77	9,105.62	90.142	SF
Emmy State H25-718 - Emmy State H25-718 OH - As-Dr	216.70	199.70	7,942.56	7,941.51	7,607.047	CC
Emmy State H25-718 - Emmy State H25-718 OH - As-Dr	2,400.00	2,355.00	7,942.70	7,927.57	524.827	ES
Emmy State H25-718 - Emmy State H25-718 OH - As-Dr	14,800.00	14,800.00	9,948.02	9,818.00	76.509	SF
Emmy State H25-724 - Emmy State H25-724 OH - As-Dr	2,375.63	2,362.35	7,906.99	7,891.88	523.251	CC
Emmy State H25-724 - Emmy State H25-724 OH - As-Dr	2,400.00	2,358.00	7,907.03	7,891.83	520.346	ES
Emmy State H25-724 - Emmy State H25-724 OH - As-Dr	12,500.00	12,500.00	8,689.80	8,586.50	84.122	SF
Emmy State H25-731 - Emmy State H25-731 OH - As-Dr	2,373.97	2,357.00	7,893.53	7,878.34	519.621	CC
Emmy State H25-731 - Emmy State H25-731 OH - As-Dr	2,400.00	2,357.00	7,893.57	7,878.29	516.455	ES
Emmy State H25-731 - Emmy State H25-731 OH - As-Dr	14,900.00	6,377.99	9,389.36	9,292.25	96.690	SF
Emmy State H25-738 - Emmy State H25-738 OH - As-Dr	7,962.47	8,885.00	7,635.57	7,582.48	143.804	CC
Emmy State H25-738 - Emmy State H25-738 OH - As-Dr	8,000.00	8,885.00	7,635.67	7,582.39	143.317	ES
Emmy State H25-738 - Emmy State H25-738 OH - As-Dr	14,500.00	6,427.00	8,896.97	8,803.49	95.178	SF
Emmy State H25-744 - Emmy State H25-744 OH - As-Dr	8,185.05	8,655.98	7,209.93	7,156.84	135.817	CC
Emmy State H25-744 - Emmy State H25-744 OH - As-Dr	8,200.00	8,652.66	7,209.94	7,156.79	135.650	ES
Emmy State H25-744 - Emmy State H25-744 OH - As-Dr	14,100.00	6,519.00	8,290.69	8,199.66	91.074	SF
Emmy State H25-751 - Emmy State H25-751 OH - As-Dr	1,913.62	1,907.70	5,973.96	5,963.32	561.676	CC, ES
Emmy State H25-751 - Emmy State H25-751 OH - As-Dr	11,300.00	11,300.00	6,635.25	6,544.73	73.308	SF
Emmy State H25-757 - Emmy State H25-757 OH - As-Dr	1,903.08	1,897.11	5,955.66	5,942.63	457.228	CC
Emmy State H25-757 - Emmy State H25-757 OH - As-Dr	2,400.00	2,357.00	5,956.22	5,941.03	392.309	ES
Emmy State H25-757 - Emmy State H25-757 OH - As-Dr	13,400.00	13,400.00	7,149.47	7,036.43	63.252	SF
Emmy State H25-764 - Emmy State H25-764 OH - As-Dr	1,934.93	1,929.00	5,929.35	5,916.08	447.094	CC
Emmy State H25-764 - Emmy State H25-764 OH - As-Dr	2,400.00	2,389.09	5,930.14	5,914.95	390.312	ES
Emmy State H25-764 - Emmy State H25-764 OH - As-Dr	13,200.00	6,422.00	6,786.68	6,701.86	80.017	SF
Emmy State H25-771 - Emmy State H25-771 OH - As-Dr	8,566.15	8,344.70	5,639.16	5,585.10	104.315	CC, ES
Emmy State H25-771 - Emmy State H25-771 OH - As-Dr	12,800.00	6,518.00	6,257.93	6,176.61	76.958	SF
Emmy State H25-777 - Emmy State H25-777 OH - As-Dr	9,985.01	7,043.81	5,195.84	5,134.28	84.396	CC
Emmy State H25-777 - Emmy State H25-777 OH - As-Dr	10,000.00	7,041.95	5,195.86	5,134.17	84.224	ES
Emmy State H25-777 - Emmy State H25-777 OH - As-Dr	12,400.00	6,800.00	5,688.05	5,608.76	71.738	SF
Emmy State H25-785 - Emmy State H25-785 OH - As-Dr	9,341.49	7,679.63	4,685.32	4,627.68	81.293	CC
Emmy State H25-785 - Emmy State H25-785 OH - As-Dr	9,400.00	7,650.00	4,685.53	4,627.50	80.736	ES
Emmy State H25-785 - Emmy State H25-785 OH - As-Dr	12,100.00	12,100.00	5,172.10	5,083.62	58.455	SF
Emmy State H36-753 - Wellbore #1 - Plan #2	2,200.00	2,194.00	5,909.16	5,896.73	475.065	CC, ES
Emmy State H36-753 - Wellbore #1 - Plan #2	15,292.14	11,885.88	6,711.25	6,562.48	45.112	SF
Emmy State H36-766 - Wellbore #1 - Plan #2	14,868.49	11,943.61	5,818.13	5,674.30	40.450	CC
Emmy State H36-766 - Wellbore #1 - Plan #2	14,900.00	11,943.61	5,818.22	5,674.05	40.356	ES
Emmy State H36-766 - Wellbore #1 - Plan #2	15,292.14	11,943.61	5,833.54	5,685.52	39.411	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 25						
Emmy State H36-773 - Wellbore #1 - Plan #2	14,875.26	11,925.00	5,180.75	5,037.16	36.082	CC
Emmy State H36-773 - Wellbore #1 - Plan #2	14,900.00	11,925.00	5,180.81	5,036.99	36.023	ES
Emmy State H36-773 - Wellbore #1 - Plan #2	15,292.14	11,925.00	5,197.49	5,050.31	35.313	SF
Emmy State H36-787 - Wellbore #1 - Plan #2	14,884.05	11,923.93	4,495.42	4,351.13	31.154	CC
Emmy State H36-787 - Wellbore #1 - Plan #2	14,900.00	11,923.93	4,495.45	4,351.02	31.126	ES
Emmy State H36-787 - Wellbore #1 - Plan #2	15,292.14	11,923.93	4,513.91	4,366.72	30.668	SF
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	2,431.44	2,453.60	5,941.26	5,924.37	351.723	CC, ES
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	10,100.00	6,870.66	7,679.58	7,618.33	125.364	SF
HSR Crowe 06-25 - Original Drilling - Original Drilling - As	2,307.52	2,285.56	5,806.57	5,790.72	366.414	CC
HSR Crowe 06-25 - Original Drilling - Original Drilling - As	2,400.00	2,360.58	5,806.72	5,790.28	353.199	ES
HSR Crowe 06-25 - Original Drilling - Original Drilling - As	11,000.00	7,110.96	7,469.74	7,400.20	107.415	SF
HSR Dechant 04-25 - Original Drilling - Original Drilling -	2,533.11	2,900.00	4,917.68	4,887.20	161.359	CC, ES
HSR Dechant 04-25 - Original Drilling - Original Drilling -	6,850.00	7,206.46	5,313.38	5,242.23	74.680	SF
HSR Dechant 05-25 - Original Drilling - Original Drilling -	1,999.88	1,989.92	4,793.92	4,780.21	349.593	CC
HSR Dechant 05-25 - Original Drilling - Original Drilling -	2,410.95	2,420.68	4,794.58	4,777.89	287.277	ES
HSR Dechant 05-25 - Original Drilling - Original Drilling -	9,900.00	7,072.07	5,982.83	5,920.39	95.819	SF
KY Blue D30-32 - Original Drilling - Original Drilling - As D	2,408.80	2,375.70	8,936.84	8,920.32	540.913	CC, ES
KY Blue D30-32 - Original Drilling - Original Drilling - As D	11,000.00	6,912.15	9,982.37	9,909.33	136.664	SF
KY Blue H25-04J - Original Drilling - Original Drilling - As	9,036.81	7,400.00	8,584.20	8,549.63	248.340	CC
KY Blue H25-04J - Original Drilling - Original Drilling - As	9,100.00	7,400.00	8,584.43	8,549.38	244.964	ES
KY Blue H25-04J - Original Drilling - Original Drilling - As	14,100.00	7,400.00	9,966.16	9,893.72	137.581	SF
KY Blue H25-09 - Original Drilling - Original Drilling - As D	2,191.37	2,136.40	8,538.29	8,523.38	572.790	CC
KY Blue H25-09 - Original Drilling - Original Drilling - As D	2,300.00	2,200.00	8,538.50	8,522.99	550.233	ES
KY Blue H25-09 - Original Drilling - Original Drilling - As D	12,700.00	6,918.26	9,991.40	9,905.85	116.786	SF
KY Blue H25-10 - Original Drilling - Original Drilling - As D	100.00	38.11	7,030.22	7,030.03	10,000.000	CC
KY Blue H25-10 - Original Drilling - Original Drilling - As D	2,400.00	2,329.95	7,040.89	7,024.53	430.584	ES
KY Blue H25-10 - Original Drilling - Original Drilling - As D	12,800.00	7,051.99	8,888.36	8,804.49	105.976	SF
KY Blue H25-11 - Original Drilling - Original Drilling - As D	292.19	257.20	5,988.65	5,987.11	3,887.785	CC
KY Blue H25-11 - Original Drilling - Original Drilling - As D	900.00	830.43	5,989.58	5,983.86	1,046.713	ES
KY Blue H25-11 - Original Drilling - Original Drilling - As D	10,900.00	7,032.17	6,845.98	6,743.60	66.869	SF
KY Blue H25-12 - Original Drilling - Original Drilling - As D	2,474.58	2,579.68	4,476.57	4,458.77	251.509	CC
KY Blue H25-12 - Original Drilling - Original Drilling - As D	2,500.00	2,601.17	4,476.69	4,458.73	249.238	ES
KY Blue H25-12 - Original Drilling - Original Drilling - As D	10,400.00	6,869.90	5,330.52	5,264.25	80.434	SF
KY Blue H25-14 - Original Drilling - Original Drilling - As D	9,540.50	6,887.78	6,302.77	6,240.44	101.115	CC
KY Blue H25-14 - Original Drilling - Original Drilling - As D	9,600.00	6,887.86	6,303.06	6,240.23	100.327	ES
KY Blue H25-14 - Original Drilling - Original Drilling - As D	13,500.00	13,500.00	7,443.11	7,330.02	65.819	SF
KY Blue H25-15 - Original Drilling - Original Drilling - As D	9,363.18	6,915.21	7,363.40	7,302.40	120.716	CC
KY Blue H25-15 - Original Drilling - Original Drilling - As D	9,400.00	6,915.08	7,363.49	7,302.20	120.137	ES
KY Blue H25-15 - Original Drilling - Original Drilling - As D	13,600.00	6,891.78	8,495.28	8,403.03	92.093	SF
KY H25-24 - Original Drilling - Original Drilling - As Drilled	179.20	134.09	6,814.88	6,814.17	9,680.910	CC
KY H25-24 - Original Drilling - Original Drilling - As Drilled	600.00	520.87	6,815.77	6,812.21	1,912.513	ES
KY H25-24 - Original Drilling - Original Drilling - As Drilled	12,900.00	7,090.57	8,119.74	8,032.11	92.656	SF
Moore UPRC H25-01 - Original Drilling - Original Drilling	2,413.66	2,376.67	8,704.76	8,688.19	525.323	CC, ES
Moore UPRC H25-01 - Original Drilling - Original Drilling	9,700.00	6,922.86	9,987.50	9,926.21	162.962	SF
Moore UPRC H25-02 - Original Drilling - Original Drilling	1,325.61	1,283.63	7,310.55	7,301.72	827.545	CC
Moore UPRC H25-02 - Original Drilling - Original Drilling	2,408.57	2,383.13	7,310.67	7,294.12	441.778	ES
Moore UPRC H25-02 - Original Drilling - Original Drilling	11,900.00	6,919.55	9,960.39	9,887.70	137.024	SF
Moser 25-32 - Original Drilling - Original Drilling - As Drille	2,455.80	2,529.83	6,890.95	6,873.72	400.017	CC
Moser 25-32 - Original Drilling - Original Drilling - As Drille	2,500.00	2,579.59	6,891.23	6,873.67	392.517	ES
Moser 25-32 - Original Drilling - Original Drilling - As Drille	12,300.00	7,059.84	9,082.05	9,003.79	116.049	SF
Moser 25-42 - Original Drilling - Original Drilling - As Drille	775.69	715.70	8,542.60	8,537.72	1,752.877	CC
Moser 25-42 - Original Drilling - Original Drilling - As Drille	2,400.00	2,287.16	8,546.78	8,530.59	528.087	ES
Moser 25-42 - Original Drilling - Original Drilling - As Drille	11,000.00	6,945.60	9,969.62	9,897.89	138.998	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 25						
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	2,455.20	2,529.52	5,564.22	5,547.00	323.099	CC
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	2,500.00	2,574.05	5,564.50	5,546.96	317.328	ES
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	10,300.00	6,700.00	7,198.35	7,135.83	115.152	SF
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dri	2,495.63	2,650.19	7,940.69	7,922.90	446.374	CC
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dri	2,500.00	2,656.25	7,940.69	7,922.86	445.460	ES
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dri	11,700.00	7,028.02	9,951.68	9,876.62	132.585	SF
Von Feldt 1-25B - Original Drilling - Original Drilling - As D	9,111.62	7,053.26	5,340.86	5,281.17	89.471	CC, ES
Von Feldt 1-25B - Original Drilling - Original Drilling - As D	11,700.00	7,145.83	5,934.30	5,855.47	75.274	SF



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

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

**Summary**

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
H Section 26						
Bullard 31-26 - Original Drilling - Original Drilling - As Dril	1,650.34	1,639.48	2,488.73	2,477.48	221.268	CC
Bullard 31-26 - Original Drilling - Original Drilling - As Dril	1,800.00	1,774.67	2,489.13	2,476.87	203.096	ES
Bullard 31-26 - Original Drilling - Original Drilling - As Dril	6,750.00	6,647.74	2,837.44	2,790.50	60.441	SF
Bullard 32-26 - Original Drilling - Original Drilling - As Dril	2,120.99	2,121.28	1,995.77	1,981.15	136.565	CC
Bullard 32-26 - Original Drilling - Original Drilling - As Dril	2,200.00	2,187.74	1,996.02	1,980.89	131.941	ES
Bullard 32-26 - Original Drilling - Original Drilling - As Dril	7,350.00	7,021.56	2,499.34	2,449.62	50.276	SF
Bullard 41-26 - Original Drilling - Original Drilling - As Dril	2,484.15	2,542.82	3,183.71	3,166.33	183.198	CC
Bullard 41-26 - Original Drilling - Original Drilling - As Dril	2,500.00	2,559.44	3,183.74	3,166.24	182.004	ES
Bullard 41-26 - Original Drilling - Original Drilling - As Dril	7,050.00	7,019.43	3,536.97	3,487.93	72.134	SF
Dechant H25-29D - Original Drilling - Original Drilling - As	112.10	131.32	3,773.39	3,772.92	7,935.617	CC
Dechant H25-29D - Original Drilling - Original Drilling - As	200.00	197.09	3,773.64	3,772.62	3,689.824	ES
Dechant H25-29D - Original Drilling - Original Drilling - As	9,700.00	9,700.00	7,653.86	7,574.22	96.105	SF
Dechant H25-33D - Original Drilling - Original Drilling - As	2,420.03	2,607.59	3,680.53	3,656.91	155.815	CC, ES
Dechant H25-33D - Original Drilling - Original Drilling - As	10,200.00	10,200.00	4,694.96	4,580.36	40.967	SF
Harsh H26-09D - Original Drilling - Original Drilling - As D	2,462.68	2,541.44	3,496.76	3,479.45	201.997	CC, ES
Harsh H26-09D - Original Drilling - Original Drilling - As D	9,500.00	7,037.63	4,083.59	4,022.64	66.996	SF
Harsh H26-10 - Original Drilling - Original Drilling - As Dri	2,209.93	2,215.01	2,327.83	2,312.57	152.579	CC
Harsh H26-10 - Original Drilling - Original Drilling - As Dri	2,300.00	2,293.91	2,328.04	2,312.19	146.840	ES
Harsh H26-10 - Original Drilling - Original Drilling - As Dri	8,500.00	7,032.14	2,590.17	2,535.47	47.348	SF
Harsh H26-15 - Original Drilling - Original Drilling - As Dri	9,297.92	6,981.75	2,443.58	2,382.91	40.277	CC
Harsh H26-15 - Original Drilling - Original Drilling - As Dri	9,300.00	6,981.77	2,443.58	2,382.90	40.266	ES
Harsh H26-15 - Original Drilling - Original Drilling - As Dri	9,900.00	6,988.07	2,516.65	2,451.78	38.790	SF
Harsh H26-16 - Original Drilling - Original Drilling - As Dri	9,373.82	6,989.81	3,506.67	3,445.33	57.160	CC
Harsh H26-16 - Original Drilling - Original Drilling - As Dri	9,400.00	6,990.12	3,506.77	3,445.21	56.968	ES
Harsh H26-16 - Original Drilling - Original Drilling - As Dri	10,500.00	7,003.70	3,683.05	3,613.54	52.985	SF
Harsh H26-23D - Original Drilling - Original Drilling - As D	1,055.95	1,074.00	2,347.34	2,341.28	387.498	CC
Harsh H26-23D - Original Drilling - Original Drilling - As D	1,100.00	1,108.49	2,347.43	2,341.09	370.791	ES
Harsh H26-23D - Original Drilling - Original Drilling - As D	9,700.00	7,127.44	3,294.70	3,227.78	49.234	SF
HSR Moser 04-26 - Original Drilling - Original Drilling - As	6,405.67	6,309.88	1,693.57	1,648.66	37.711	CC, ES
HSR Moser 04-26 - Original Drilling - Original Drilling - As	6,550.00	6,456.84	1,709.01	1,663.10	37.228	SF
HSR Moser 06-26 - Original Drilling - Original Drilling - As	1,787.93	1,769.99	826.56	814.37	67.779	CC
HSR Moser 06-26 - Original Drilling - Original Drilling - As	2,400.00	2,381.35	827.91	811.40	50.132	ES
HSR Moser 06-26 - Original Drilling - Original Drilling - As	7,000.00	6,877.75	1,336.76	1,288.44	27.666	SF
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	6,392.50	6,344.00	544.46	499.57	12.129	CC
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	6,400.00	6,351.81	544.50	499.55	12.115	ES
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	6,450.00	6,403.86	546.71	501.41	12.070	SF
HSR-Moser 03-26A - Original Drilling - Original Drilling - A	200.11	166.11	1,873.75	1,872.86	2,105.418	CC
HSR-Moser 03-26A - Original Drilling - Original Drilling - A	2,100.00	2,053.23	1,874.47	1,860.18	131.179	ES
HSR-Moser 03-26A - Original Drilling - Original Drilling - A	6,550.00	6,422.75	2,039.66	1,994.00	44.669	SF
Hurley H26-712 - Hurley H26-712 OH - As-Drilled	1,949.92	1,982.00	3,031.30	3,017.91	226.311	CC, ES
Hurley H26-712 - Hurley H26-712 OH - As-Drilled	9,700.00	6,424.00	4,717.27	4,662.09	85.479	SF
Hurley H26-717 - Hurley H26-717 OH - As-Drilled	1,947.91	1,980.00	3,006.82	2,993.43	224.530	CC
Hurley H26-717 - Hurley H26-717 OH - As-Drilled	2,000.00	2,009.48	3,007.01	2,993.42	221.400	ES
Hurley H26-717 - Hurley H26-717 OH - As-Drilled	8,900.00	8,900.00	4,237.24	4,180.58	74.782	SF
Hurley H26-724 - Hurley H26-724 OH - As-Drilled	2,020.80	2,053.85	2,989.93	2,976.14	216.822	CC
Hurley H26-724 - Hurley H26-724 OH - As-Drilled	2,200.00	2,210.38	2,990.33	2,975.83	206.148	ES
Hurley H26-724 - Hurley H26-724 OH - As-Drilled	8,600.00	6,846.76	3,632.17	3,582.85	73.638	SF
Hurley H26-730 - Hurley H26-730 OH - As-Drilled	3,676.44	4,016.30	2,948.67	2,925.91	129.586	CC
Hurley H26-730 - Hurley H26-730 OH - As-Drilled	3,700.00	4,028.60	2,948.71	2,925.84	128.891	ES
Hurley H26-730 - Hurley H26-730 OH - As-Drilled	7,801.55	6,896.00	3,095.67	3,050.57	68.645	SF
Hurley H26-736 - Hurley H26-736 OH - As-Drilled	6,873.58	7,463.00	2,717.48	2,672.80	60.819	CC, ES
Hurley H26-736 - Hurley H26-736 OH - As-Drilled	7,200.00	7,346.45	2,728.91	2,683.77	60.460	SF
Hurley H26-743 - Hurley H26-743 OH - As-Drilled	6,871.30	7,576.11	2,195.52	2,149.77	47.991	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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

**Summary**

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 26						
Hurley H26-743 - Hurley H26-743 OH - As-Drilled	6,950.00	7,533.79	2,196.26	2,150.48	47.971	SF
Hurley H26-750 - Hurley H26-750 OH - As-Drilled	2,368.36	2,368.67	155.38	140.33	10.325	CC
Hurley H26-750 - Hurley H26-750 OH - As-Drilled	2,400.00	2,399.19	155.47	140.29	10.237	ES
Hurley H26-750 - Hurley H26-750 OH - As-Drilled	2,500.00	2,495.11	158.48	142.86	10.146	SF
Hurley H26-756 - Hurley H26-756 OH - As-Drilled	580.33	580.33	154.10	150.42	41.932	CC
Hurley H26-756 - Hurley H26-756 OH - As-Drilled	2,401.78	2,401.87	156.42	141.25	10.308	ES
Hurley H26-756 - Hurley H26-756 OH - As-Drilled	2,600.00	2,597.68	161.82	145.76	10.074	SF
Hurley H26-762 - Hurley H26-762 OH - As-Drilled	2,403.49	2,402.61	147.49	132.30	9.710	CC, ES
Hurley H26-762 - Hurley H26-762 OH - As-Drilled	2,600.00	2,597.32	151.81	135.74	9.446	SF
Hurley H26-768 - Hurley H26-768 OH - As-Drilled	100.00	98.99	149.35	149.08	545.266	CC
Hurley H26-768 - Hurley H26-768 OH - As-Drilled	2,200.00	2,198.72	155.17	140.83	10.820	ES
Hurley H26-768 - Hurley H26-768 OH - As-Drilled	2,500.00	2,491.03	161.63	146.03	10.357	SF
Hurley H26-776 - Hurley H26-776 OH - As-Drilled	7,219.15	7,230.96	51.76	6.96	1.155	Level 2, CC, ES, SF
Hurley H26-783 - Hurley H26-783 OH - As-drilled	0.00	0.00	156.72			
Hurley H26-783 - Hurley H26-783 OH - As-drilled	2,000.00	1,998.76	162.34	148.74	11.943	ES
Hurley H26-783 - Hurley H26-783 OH - As-drilled	7,150.00	7,199.96	204.71	160.08	4.587	SF
Hurley H35-727 - Wellbore #1 - Plan #2	2,400.00	2,433.00	2,996.54	2,979.68	177.742	CC, ES
Hurley H35-727 - Wellbore #1 - Plan #2	15,292.14	15,001.32	3,165.66	2,996.79	18.747	SF
Hurley H35-733 - Wellbore #1 - Plan #2	15,292.14	15,375.15	2,545.17	2,375.90	15.036	CC, ES, SF
Hurley H35-746 - Wellbore #1 - Plan #2	15,292.14	15,192.06	1,846.48	1,677.40	10.921	CC, ES, SF
Hurley H35-755 - Wellbore #1 - Plan #2	2,200.00	2,200.00	67.04	51.74	4.380	CC, ES
Hurley H35-755 - Wellbore #1 - Plan #2	2,300.00	2,297.75	68.69	52.69	4.293	SF
Hurley H35-768 - Wellbore #1 - Plan #2	2,400.00	2,400.00	22.35	5.61	1.335	Level 3, CC, ES, SF
Hurley H35-787 - Wellbore #1 - Plan #2	2,200.00	2,199.00	44.84	29.54	2.930	CC, ES
Hurley H35-787 - Wellbore #1 - Plan #2	2,300.00	2,297.47	46.49	30.49	2.906	SF
Hurley State H35-713 - Wellbore #1 - Plan #2	2,400.00	2,432.00	3,041.21	3,024.35	180.430	CC, ES
Hurley State H35-713 - Wellbore #1 - Plan #2	15,292.14	15,174.64	3,850.42	3,681.59	22.806	SF
John 03-26 - Original Drilling - Original Drilling - As Drilled	2,632.47	2,600.63	1,603.57	1,585.46	88.526	CC
John 03-26 - Original Drilling - Original Drilling - As Drilled	3,000.00	2,960.58	1,604.89	1,584.22	77.650	ES
John 03-26 - Original Drilling - Original Drilling - As Drilled	6,550.00	6,483.76	1,766.54	1,720.72	38.553	SF
Lamp H25-31 - Original Drilling - Original Drilling - As Dril	487.72	494.72	3,911.92	3,908.85	1,273.686	CC
Lamp H25-31 - Original Drilling - Original Drilling - As Dril	2,500.00	2,559.70	3,914.82	3,897.33	223.774	ES
Lamp H25-31 - Original Drilling - Original Drilling - As Dril	7,400.00	7,127.85	4,438.31	4,388.11	88.415	SF
Lamp H26-01 - Original Drilling - Original Drilling - As Dril	2,603.19	2,824.38	3,903.75	3,883.91	196.738	CC, ES
Lamp H26-01 - Original Drilling - Original Drilling - As Dril	7,050.00	7,014.27	4,265.53	4,212.73	80.787	SF
Lamp H26-08 - Original Drilling - Original Drilling - As Dril	2,517.04	2,629.92	3,309.54	3,291.73	185.853	CC, ES
Lamp H26-08 - Original Drilling - Original Drilling - As Dril	7,800.00	6,913.93	3,935.88	3,885.25	77.747	SF
Lamp H26-22 - Original Drilling - Original Drilling - As Dril	4,760.32	5,190.71	3,005.95	2,963.46	70.737	CC
Lamp H26-22 - Original Drilling - Original Drilling - As Dril	4,800.00	5,219.61	3,006.02	2,963.24	70.257	ES
Lamp H26-22 - Original Drilling - Original Drilling - As Dril	7,700.00	7,191.32	3,043.44	2,987.24	54.150	SF
Moser 05-26 - Original Drilling - Original Drilling - As Drille	6,857.62	6,771.21	315.77	268.23	6.642	CC, ES, SF
Moser 41-27 - Original Drilling - Original Drilling - As Drille	936.97	908.58	822.68	816.55	134.112	CC, ES
Moser 41-27 - Original Drilling - Original Drilling - As Drille	6,600.00	6,651.42	1,205.54	1,158.13	25.427	SF
Moser H26-11 - Original Drilling - Original Drilling - As Dri	7,858.14	6,992.39	873.52	822.13	17.000	CC, ES
Moser H26-11 - Original Drilling - Original Drilling - As Dri	7,900.00	6,991.34	874.52	822.97	16.962	SF
Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled	8,081.30	6,997.70	267.02	214.52	5.086	CC, ES, SF
Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled	9,391.20	7,001.81	310.67	249.10	5.046	CC, ES
Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled	9,400.00	7,002.23	310.79	249.15	5.042	SF
Moser H26-14 - Original Drilling - Original Drilling - As Dr	9,586.55	7,066.12	1,222.03	1,158.57	19.259	CC
Moser H26-14 - Original Drilling - Original Drilling - As Dr	9,600.00	7,066.02	1,222.10	1,158.54	19.228	ES
Moser H26-14 - Original Drilling - Original Drilling - As Dr	9,700.00	7,065.21	1,227.28	1,163.02	19.099	SF
Moser H26-18D - Original Drilling - Original Drilling - As D	5,487.03	6,032.65	1,900.44	1,856.37	43.118	CC
Moser H26-18D - Original Drilling - Original Drilling - As D	5,500.00	6,040.91	1,900.46	1,856.33	43.065	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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 26						
Moser H26-18D - Original Drilling - Original Drilling - As D	6,800.00	7,186.69	2,005.48	1,953.94	38.909	SF
Moser H26-24 - Original Drilling - Original Drilling - As Dr	8,572.49	6,997.94	1,536.15	1,480.75	27.726	CC, ES
Moser H26-24 - Original Drilling - Original Drilling - As Dr	8,800.00	7,000.98	1,552.91	1,496.11	27.343	SF
Moser H26-25 - Original Drilling - Original Drilling - As Dr	8,776.40	7,002.35	735.86	679.03	12.949	CC, ES
Moser H26-25 - Original Drilling - Original Drilling - As Dr	8,800.00	7,002.27	736.23	679.26	12.922	SF
Moser H26-27D - Original Drilling - Original Drilling - As D	4,273.94	4,583.31	3,557.09	3,520.23	96.507	CC
Moser H26-27D - Original Drilling - Original Drilling - As D	4,400.00	4,671.66	3,557.81	3,519.97	94.030	ES
Moser H26-27D - Original Drilling - Original Drilling - As D	6,850.00	6,966.82	3,755.21	3,701.59	70.032	SF
Moser H26-28D - Original Drilling - Original Drilling - As D	5,846.24	6,459.01	2,651.95	2,580.87	37.308	CC
Moser H26-28D - Original Drilling - Original Drilling - As D	5,900.00	6,489.77	2,652.17	2,580.84	37.181	ES
Moser H26-28D - Original Drilling - Original Drilling - As D	6,500.00	7,058.86	2,675.68	2,601.25	35.948	SF
Moser H26-29D - Original Drilling - Original Drilling - As D	6,391.94	7,382.05	2,178.51	2,080.13	22.144	CC
Moser H26-29D - Original Drilling - Original Drilling - As D	6,400.00	7,388.66	2,178.56	2,080.12	22.129	ES
Moser H26-29D - Original Drilling - Original Drilling - As D	6,500.00	7,512.36	2,187.06	2,087.68	22.006	SF
Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin	9,070.63	7,002.00	88.28	-86.49	0.505	Level 1, CC, ES, SF

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

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

**Summary**

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 27						
HSR Moser 10-27 - Wellbore #1 - Wellbore #1 - As Drilled	8,105.70	7,036.15	2,866.93	2,814.19	54.360	CC, ES
HSR Moser 10-27 - Wellbore #1 - Wellbore #1 - As Drilled	9,000.00	7,010.65	3,003.11	2,945.24	51.888	SF
HSR Moser 1-27 - Original Drilling - Original Drilling - As	6,444.63	6,337.49	2,121.34	2,076.38	47.189	CC
HSR Moser 1-27 - Original Drilling - Original Drilling - As	6,450.00	6,342.28	2,121.36	2,076.37	47.152	ES
HSR Moser 1-27 - Original Drilling - Original Drilling - As	6,650.00	6,508.23	2,148.46	2,102.24	46.488	SF
HSR Moser 15-27 - Wellbore #1 - Wellbore #1 - As Drilled	9,421.44	6,948.42	3,118.70	3,057.07	50.602	CC, ES
HSR Moser 15-27 - Wellbore #1 - Wellbore #1 - As Drilled	10,400.00	6,971.53	3,268.49	3,199.54	47.398	SF
HSR Moser 16-27 - Original Drilling - Original Drilling - As	9,552.61	7,001.57	1,407.13	1,344.26	22.382	CC, ES
HSR Moser 16-27 - Original Drilling - Original Drilling - As	9,800.00	7,002.85	1,428.71	1,364.03	22.090	SF
HSR Thorson 09-27 - Wellbore #1 - Wellbore #1 - As Dril	8,448.00	6,968.26	1,942.59	1,888.04	35.615	CC, ES
HSR Thorson 09-27 - Wellbore #1 - Wellbore #1 - As Dril	8,800.00	6,970.78	1,974.22	1,917.47	34.788	SF
Moser 09-27X (PA) - Original Drilling - Original Drilling - A	8,138.28	7,011.22	1,455.83	1,400.46	26.292	CC, ES
Moser 09-27X (PA) - Original Drilling - Original Drilling - A	8,300.00	7,008.40	1,464.79	1,408.62	26.080	SF
Moser 23-27 - Wellbore #1 - Wellbore #1 - As Drilled	883.30	848.37	3,261.78	3,256.05	569.530	CC
Moser 23-27 - Wellbore #1 - Wellbore #1 - As Drilled	900.00	859.17	3,261.80	3,255.97	559.955	ES
Moser 23-27 - Wellbore #1 - Wellbore #1 - As Drilled	9,900.00	7,400.01	3,740.64	3,649.67	41.120	SF
Moser 24-27 - Original Drilling - Original Drilling - As Drille	850.86	818.86	2,044.21	2,038.70	371.580	CC
Moser 24-27 - Original Drilling - Original Drilling - As Drille	900.00	858.36	2,044.32	2,038.51	351.492	ES
Moser 24-27 - Original Drilling - Original Drilling - As Drille	7,400.00	7,040.40	2,166.51	2,114.39	41.566	SF
Moser 39-27 - Original Drilling - Original Drilling - As Drille	8,948.73	7,108.64	1,020.03	957.13	16.216	CC, ES
Moser 39-27 - Original Drilling - Original Drilling - As Drille	9,000.00	7,108.68	1,021.32	958.20	16.181	SF
Moser 7-27 - Wellbore #1 - Wellbore #1 - As Drilled	6,821.84	6,720.48	2,795.63	2,748.34	59.119	CC, ES
Moser 7-27 - Wellbore #1 - Wellbore #1 - As Drilled	7,250.00	6,937.27	2,838.53	2,789.38	57.744	SF
Moser Farms UPRR 31-27 #1 - Wellbore #1 - Wellbore #	6,490.38	6,344.37	3,275.18	3,230.21	72.832	CC
Moser Farms UPRR 31-27 #1 - Wellbore #1 - Wellbore #	6,500.00	6,352.62	3,275.21	3,230.18	72.733	ES
Moser Farms UPRR 31-27 #1 - Wellbore #1 - Wellbore #	6,900.00	6,650.22	3,344.20	3,296.98	70.820	SF
Moser Farms UPRR 42-27 #3 - Original Drilling - Original	6,860.29	6,748.12	1,431.54	1,384.08	30.160	CC, ES
Moser Farms UPRR 42-27 #3 - Original Drilling - Original	7,050.00	6,856.94	1,443.07	1,394.73	29.852	SF
Moser H22-711 - Original Drilling - Original Drilling - As D	6,419.69	6,348.00	2,123.84	2,079.78	48.213	CC, ES
Moser H22-711 - Original Drilling - Original Drilling - As D	6,600.00	6,443.00	2,150.82	2,105.86	47.841	SF
Moser H22-715 - Original Drilling - Original Drilling - As D	6,428.38	6,348.00	2,272.63	2,228.51	51.503	CC, ES
Moser H22-715 - Original Drilling - Original Drilling - As D	6,550.00	6,389.51	2,284.05	2,239.38	51.126	SF
Moser H22-725 - Original Drilling - Original Drilling - As D	100.00	83.79	2,651.90	2,651.63	9,759.333	CC
Moser H22-725 - Original Drilling - Original Drilling - As D	1,800.00	1,750.00	2,652.80	2,642.01	245.979	ES
Moser H22-725 - Original Drilling - Original Drilling - As D	6,600.00	6,443.00	2,713.37	2,668.64	60.656	SF
Moser H22-735 - Original Drilling - Original Drilling - As D	6,440.49	6,308.00	3,338.07	3,296.38	80.072	CC, ES
Moser H22-735 - Original Drilling - Original Drilling - As D	6,750.00	6,403.00	3,399.19	3,356.25	79.166	SF
Moser H22-745 - Original Drilling - Original Drilling - As D	2,058.44	2,050.00	3,747.13	3,733.44	273.620	CC, ES
Moser H22-745 - Original Drilling - Original Drilling - As D	6,750.00	6,347.07	3,917.39	3,879.55	103.522	SF
Moser H22-748 - Original Drilling - Original Drilling - As D	3,319.53	2,878.38	3,763.42	3,744.69	200.976	CC, ES
Moser H22-748 - Original Drilling - Original Drilling - As D	6,700.00	6,311.00	4,032.81	3,991.86	98.484	SF
Moser H22-750 - Original Drilling - Original Drilling - As D	6,489.49	6,452.62	4,156.30	4,119.49	112.912	CC, ES
Moser H22-750 - Original Drilling - Original Drilling - As D	6,800.00	6,565.64	4,204.97	4,167.10	111.018	SF
Moser H22-755 - Original Drilling - Original Drilling - As D	6,457.69	6,230.00	4,621.16	4,583.84	123.838	CC, ES
Moser H22-755 - Original Drilling - Original Drilling - As D	6,750.00	6,324.00	4,661.78	4,623.62	122.164	SF
Moser H22-765 - Original Drilling - Original Drilling - As D	6,509.65	6,456.00	5,077.87	5,035.43	119.641	CC, ES
Moser H22-765 - Original Drilling - Original Drilling - As D	6,900.00	6,551.00	5,144.30	5,100.65	117.859	SF
Moser H22-776 - Original Drilling - Original Drilling - As D	6,512.07	6,431.00	5,795.27	5,751.96	133.838	CC, ES
Moser H22-776 - Original Drilling - Original Drilling - As D	6,900.00	6,525.00	5,861.88	5,817.12	130.965	SF
Moser H34-717 - Original Drilling - Original Drilling - As D	7,147.14	8,717.27	1,229.14	1,173.79	22.208	CC
Moser H34-717 - Original Drilling - Original Drilling - As D	14,000.00	15,526.45	1,299.81	1,139.57	8.112	ES
Moser H34-717 - Original Drilling - Original Drilling - As D	14,900.00	16,342.00	1,319.16	1,143.61	7.514	SF
Moser H34-725 - Original Drilling - Original Drilling - As D	7,087.36	8,961.51	1,791.23	1,736.99	33.022	CC

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 27						
Moser H34-725 - Original Drilling - Original Drilling - As D	12,400.00	14,263.90	1,834.20	1,703.54	14.038	ES
Moser H34-725 - Original Drilling - Original Drilling - As D	14,900.00	16,701.00	1,895.54	1,720.25	10.814	SF
Moser H34-735 - Original Drilling - Original Drilling - As D	14,807.85	16,441.00	2,544.41	2,291.34	10.054	CC, ES
Moser H34-735 - Original Drilling - Original Drilling - As D	14,900.00	16,441.00	2,546.08	2,292.31	10.033	SF
Moser H34-748 - Original Drilling - Original Drilling - As D	7,047.09	8,762.85	3,317.82	3,254.84	52.677	CC
Moser H34-748 - Original Drilling - Original Drilling - As D	14,700.00	16,368.60	3,345.32	3,085.55	12.878	ES
Moser H34-748 - Original Drilling - Original Drilling - As D	15,100.00	16,561.00	3,365.23	3,098.40	12.612	SF
Moser H34-750 - Original Drilling - Original Drilling - As D	14,811.09	16,800.00	3,537.54	3,358.67	19.777	CC, ES
Moser H34-750 - Original Drilling - Original Drilling - As D	15,200.00	16,800.00	3,558.85	3,377.24	19.596	SF
Moser H34-757 - Original Drilling - Original Drilling - As D	14,809.57	16,873.00	3,983.97	3,806.28	22.421	CC, ES
Moser H34-757 - Original Drilling - Original Drilling - As D	15,292.14	16,873.00	4,013.09	3,831.69	22.123	SF
Moser H34-769 - Original Drilling - Original Drilling - As D	14,739.04	16,578.00	5,121.42	4,938.26	27.961	CC
Moser H34-769 - Original Drilling - Original Drilling - As D	14,900.00	16,650.00	5,123.10	4,937.71	27.635	ES
Moser H34-769 - Original Drilling - Original Drilling - As D	15,292.14	16,650.00	5,144.87	4,956.07	27.251	SF
Moser H34-778 - Original Drilling - Original Drilling -As Dr	13,906.77	15,792.00	5,392.19	5,225.03	32.256	CC
Moser H34-778 - Original Drilling - Original Drilling -As Dr	14,000.00	15,792.00	5,393.00	5,224.84	32.071	ES
Moser H34-778 - Original Drilling - Original Drilling -As Dr	15,292.14	16,453.00	5,471.36	5,285.69	29.468	SF
Moser H34-778 - Original Drilling - ST01 - Original Drilling	7,138.83	9,123.00	5,414.59	5,372.91	129.922	CC
Moser H34-778 - Original Drilling - ST01 - Original Drilling	14,600.00	16,418.47	5,423.10	5,257.91	32.829	ES
Moser H34-778 - Original Drilling - ST01 - Original Drilling	15,292.14	16,440.00	5,472.51	5,301.25	31.955	SF
Ritchey 1-27 1 - Wellbore #1 - Wellbore #1 - As Drilled	6,638.54	6,403.94	4,603.64	4,558.01	100.889	CC
Ritchey 1-27 1 - Wellbore #1 - Wellbore #1 - As Drilled	6,650.00	6,416.66	4,603.66	4,557.95	100.714	ES
Ritchey 1-27 1 - Wellbore #1 - Wellbore #1 - As Drilled	12,800.00	12,800.00	7,902.71	7,813.76	88.845	SF
Ritchey H27-04 - Wellbore #1 - Wellbore #1- As Drilled	6,546.86	6,347.47	6,034.04	5,988.85	133.531	CC
Ritchey H27-04 - Wellbore #1 - Wellbore #1- As Drilled	6,550.00	6,349.73	6,034.05	5,988.84	133.478	ES
Ritchey H27-04 - Wellbore #1 - Wellbore #1- As Drilled	9,600.00	6,793.83	7,306.32	7,247.79	124.830	SF
Ritchey H27-05 - Wellbore #1 - Wellbore #1- As Drilled	6,864.61	6,873.71	5,875.78	5,827.86	122.617	CC, ES
Ritchey H27-05 - Wellbore #1 - Wellbore #1- As Drilled	10,600.00	7,000.01	7,151.06	7,084.43	107.316	SF
Ritchey H27-11 - Wellbore #1 - Wellbore #1 - As Drilled	8,051.35	7,017.27	4,330.47	4,278.05	82.610	CC, ES
Ritchey H27-11 - Wellbore #1 - Wellbore #1 - As Drilled	10,100.00	6,990.73	4,790.55	4,725.44	73.583	SF
Ritchey H27-12 - Wellbore #1 - Wellbore #1- As Drilled	7,521.53	6,868.36	5,529.93	5,480.20	111.201	CC
Ritchey H27-12 - Wellbore #1 - Wellbore #1- As Drilled	7,900.00	6,869.45	5,530.17	5,478.93	107.946	ES
Ritchey H27-12 - Wellbore #1 - Wellbore #1- As Drilled	11,100.00	6,881.07	6,396.25	6,324.70	89.391	SF
Ritchey H27-14 - Wellbore #1 - Wellbore #1 - As Drilled	9,396.02	7,010.76	4,329.16	4,267.57	70.281	CC
Ritchey H27-14 - Wellbore #1 - Wellbore #1 - As Drilled	9,400.00	7,010.85	4,329.17	4,267.54	70.243	ES
Ritchey H27-14 - Wellbore #1 - Wellbore #1 - As Drilled	11,200.00	7,046.13	4,689.87	4,614.75	62.436	SF
Ritchey H27-20 - Wellbore #1 - Wellbore #1 - As Drilled	7,162.84	6,645.76	5,243.01	5,194.86	108.875	CC, ES
Ritchey H27-20 - Wellbore #1 - Wellbore #1 - As Drilled	10,500.00	6,650.76	6,096.74	6,030.53	92.087	SF
Ritchey H27-21 - Wellbore #1 - Wellbore #1 - As Drilled	7,219.02	6,988.36	3,666.67	3,617.35	74.345	CC, ES
Ritchey H27-21 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.00	6,976.12	3,969.27	3,913.10	70.671	SF
Ritchey H27-25 - Wellbore #1 - Wellbore #1 - As Drilled	8,833.50	7,024.07	5,013.34	4,956.01	87.449	CC
Ritchey H27-25 - Wellbore #1 - Wellbore #1 - As Drilled	8,900.00	7,021.94	5,013.78	4,955.97	86.737	ES
Ritchey H27-25 - Wellbore #1 - Wellbore #1 - As Drilled	11,300.00	7,055.17	5,586.67	5,511.67	74.493	SF
Ritchey H34-28 - Wellbore #1 - Wellbore #1 - As Drilled	10,071.70	6,714.56	3,908.18	3,841.64	58.737	CC
Ritchey H34-28 - Wellbore #1 - Wellbore #1 - As Drilled	10,100.00	6,714.69	3,908.28	3,841.49	58.514	ES
Ritchey H34-28 - Wellbore #1 - Wellbore #1 - As Drilled	11,400.00	6,721.49	4,127.74	4,050.81	53.657	SF
Ritchey H34-29 - Wellbore #1 - Wellbore #1 - As Drilled	9,766.29	7,063.37	5,012.33	4,947.36	77.143	CC
Ritchey H34-29 - Wellbore #1 - Wellbore #1 - As Drilled	9,800.00	7,061.54	5,012.45	4,947.18	76.805	ES
Ritchey H34-29 - Wellbore #1 - Wellbore #1 - As Drilled	11,900.00	6,941.40	5,446.36	5,365.29	67.181	SF
UPRR 53 Pan Am Unit "O" 1 - Original Drilling - Original D	6,626.50	6,571.17	2,241.14	2,194.98	48.552	CC, ES
UPRR 53 Pan Am Unit "O" 1 - Original Drilling - Original D	6,950.00	6,827.12	2,272.29	2,224.34	47.382	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 34						
Cannon H34-11 - Wellbore #1 - Wellbore #1 - As Drilled	13,432.07	6,837.23	4,339.16	4,239.31	43.454	CC
Cannon H34-11 - Wellbore #1 - Wellbore #1 - As Drilled	13,500.00	6,837.94	4,339.70	4,239.13	43.154	ES
Cannon H34-11 - Wellbore #1 - Wellbore #1 - As Drilled	14,500.00	6,847.88	4,468.63	4,359.72	41.032	SF
Cannon H34-12 - Wellbore #1 - Wellbore #1 - As Drilled	13,375.45	7,025.17	5,565.96	5,466.12	55.750	CC
Cannon H34-12 - Wellbore #1 - Wellbore #1 - As Drilled	13,400.00	7,025.16	5,566.01	5,465.92	55.608	ES
Cannon H34-12 - Wellbore #1 - Wellbore #1 - As Drilled	15,100.00	7,024.48	5,827.01	5,712.77	51.008	SF
Cannon H34-13 - Wellbore #1 - Wellbore #1 - As Drilled	14,656.12	6,880.57	5,479.60	5,366.92	48.630	CC
Cannon H34-13 - Wellbore #1 - Wellbore #1 - As Drilled	14,700.00	6,880.38	5,479.78	5,366.64	48.433	ES
Cannon H34-13 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,877.83	5,516.39	5,397.52	46.409	SF
Cannon H34-14 - Wellbore #1 - Wellbore #1 - As Drilled	14,723.90	7,100.01	4,308.11	4,193.99	37.749	CC
Cannon H34-14 - Wellbore #1 - Wellbore #1 - As Drilled	14,800.00	7,100.01	4,308.79	4,193.86	37.493	ES
Cannon H34-14 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,100.01	4,345.43	4,225.98	36.379	SF
Cannon H34-25 - Wellbore #1 - Wellbore #1 - As Drilled	13,975.17	7,016.18	4,926.67	4,820.61	46.454	CC
Cannon H34-25 - Wellbore #1 - Wellbore #1 - As Drilled	14,000.00	7,015.85	4,926.73	4,820.41	46.341	ES
Cannon H34-25 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,000.01	5,099.62	4,982.57	43.567	SF
Cannon Land 11-34 - Wellbore #1 - Wellbore #1 - As Drill	13,205.58	6,919.00	4,313.45	4,215.65	44.107	CC, ES
Cannon Land 11-34 - Wellbore #1 - Wellbore #1 - As Drill	14,300.00	6,930.74	4,450.11	4,343.09	41.582	SF
Cannon X 03-29 - Wellbore #1 - Wellbore #1 - As Drilled	15,221.38	7,060.84	4,872.89	4,753.71	40.888	CC
Cannon X 03-29 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,059.32	4,873.40	4,753.48	40.639	ES, SF
Cannon X 03-30D - Wellbore #1 - Wellbore #1 - As Drilled	15,253.78	7,261.93	6,099.03	5,975.62	49.421	CC
Cannon X 03-30D - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,261.65	6,099.15	5,975.29	49.241	ES, SF
Moser 34-06 - Original Drilling - Original Drilling - As Drille	11,717.87	7,010.00	4,602.50	4,519.50	55.450	CC
Moser 34-06 - Original Drilling - Original Drilling - As Drille	11,800.00	7,010.16	4,603.23	4,519.41	54.918	ES
Moser 34-06 - Original Drilling - Original Drilling - As Drille	13,200.00	7,012.49	4,835.26	4,740.12	50.825	SF
Moser H34-01 - Original Drilling - Original Drilling - As Dr	10,862.65	7,053.75	1,579.76	1,505.01	21.136	CC, ES
Moser H34-01 - Original Drilling - Original Drilling - As Dr	11,100.00	7,049.34	1,597.48	1,520.82	20.839	SF
Moser H34-02 - Wellbore #1 - Wellbore #1 - As Drilled	10,767.99	7,108.83	2,880.95	2,806.91	38.913	CC
Moser H34-02 - Wellbore #1 - Wellbore #1 - As Drilled	10,800.00	7,110.69	2,881.12	2,806.78	38.753	ES
Moser H34-02 - Wellbore #1 - Wellbore #1 - As Drilled	11,500.00	7,151.34	2,972.19	2,892.23	37.175	SF
Moser H34-04 - Wellbore #1 - Wellbore #1 - As Drilled	10,770.22	6,921.37	5,642.30	5,568.70	76.668	CC
Moser H34-04 - Wellbore #1 - Wellbore #1 - As Drilled	10,800.00	6,921.81	5,642.37	5,568.50	76.374	ES
Moser H34-04 - Wellbore #1 - Wellbore #1 - As Drilled	13,100.00	6,957.88	6,104.22	6,011.85	66.086	SF
Moser H34-06 - Wellbore #1 - Wellbore #1 - As Drilled	11,717.87	7,010.00	4,602.50	4,519.50	55.450	CC
Moser H34-06 - Wellbore #1 - Wellbore #1 - As Drilled	11,800.00	7,010.16	4,603.23	4,519.41	54.918	ES
Moser H34-06 - Wellbore #1 - Wellbore #1 - As Drilled	13,200.00	7,012.50	4,835.26	4,740.12	50.825	SF
Moser H34-08 - Original Drilling - Original Drilling - As Dr	11,721.56	7,020.55	1,961.78	1,878.74	23.623	CC, ES
Moser H34-08 - Original Drilling - Original Drilling - As Dr	12,000.00	7,019.76	1,981.45	1,896.04	23.200	SF
Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled	13,372.69	7,019.49	1,473.09	1,373.33	14.767	CC
Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled	13,400.00	7,019.56	1,473.34	1,373.30	14.728	ES
Moser H34-09 - Wellbore #1 - Wellbore #1 - As Drilled	13,500.00	7,019.81	1,478.58	1,377.70	14.656	SF
Moser H34-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,267.35	6,985.88	2,927.28	2,828.66	29.681	CC
Moser H34-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,300.00	6,986.00	2,927.47	2,828.50	29.580	ES
Moser H34-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,800.00	6,987.84	2,975.35	2,872.21	28.848	SF
Moser H34-15 - Wellbore #1 - Wellbore #1 - As Drilled	14,605.92	7,031.15	2,882.59	2,769.92	25.586	CC, ES
Moser H34-15 - Wellbore #1 - Wellbore #1 - As Drilled	15,100.00	7,036.89	2,924.62	2,807.84	25.045	SF
Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled	14,621.38	7,006.72	1,477.30	1,364.56	13.103	CC, ES
Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled	14,700.00	7,004.59	1,479.39	1,365.91	13.036	SF
Moser H34-18 - Wellbore #1 - Wellbore #1 - As Drilled	11,412.59	6,969.31	3,735.80	3,655.92	46.764	CC, ES
Moser H34-18 - Wellbore #1 - Wellbore #1 - As Drilled	12,500.00	6,970.75	3,890.85	3,802.16	43.870	SF
Moser H34-20 - Wellbore #1 - Wellbore #1 - As Drilled	12,587.60	7,024.41	4,928.25	4,836.47	53.694	CC
Moser H34-20 - Wellbore #1 - Wellbore #1 - As Drilled	12,600.00	7,023.95	4,928.27	4,836.36	53.621	ES
Moser H34-20 - Wellbore #1 - Wellbore #1 - As Drilled	14,100.00	6,991.00	5,155.02	5,050.78	49.453	SF
Moser H34-21 - Wellbore #1 - Wellbore #1 - As Drilled	12,476.86	6,978.08	3,790.44	3,699.95	41.885	CC

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 34						
Moser H34-21 - Wellbore #1 - Wellbore #1 - As Drilled	12,500.00	6,978.10	3,790.51	3,699.78	41.777	ES
Moser H34-21 - Wellbore #1 - Wellbore #1 - As Drilled	13,400.00	6,978.96	3,901.23	3,803.00	39.715	SF
Moser H34-22 - Wellbore #1 - Wellbore #1 - As Drilled	12,531.48	7,004.66	2,148.31	2,057.16	23.568	CC, ES
Moser H34-22 - Wellbore #1 - Wellbore #1 - As Drilled	12,900.00	7,003.54	2,179.69	2,085.53	23.148	SF
Moser H34-23 - Wellbore #1 - Wellbore #1 - As Drilled	13,975.26	7,027.43	2,236.09	2,130.05	21.088	CC
Moser H34-23 - Wellbore #1 - Wellbore #1 - As Drilled	14,000.00	7,027.91	2,236.22	2,129.93	21.038	ES
Moser H34-23 - Wellbore #1 - Wellbore #1 - As Drilled	14,300.00	7,033.71	2,259.54	2,150.79	20.777	SF
Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled	11,369.78	7,098.19	6,129.18	6,049.31	76.746	CC
Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled	11,400.00	7,099.15	6,129.25	6,049.09	76.460	ES
Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled	13,900.00	7,158.89	6,630.49	6,529.95	65.946	SF
Moser H35-32 - Wellbore #1 - Wellbore #1 - As Drilled	12,536.31	7,013.74	1,084.37	993.15	11.887	CC, ES
Moser H35-32 - Wellbore #1 - Wellbore #1 - As Drilled	12,600.00	7,014.00	1,086.24	994.43	11.831	SF
Moser H35-33 - Wellbore #1 - Wellbore #1 - As Drilled	14,030.84	7,031.59	1,005.45	898.87	9.434	CC, ES
Moser H35-33 - Wellbore #1 - Wellbore #1 - As Drilled	14,100.00	7,029.66	1,007.82	900.64	9.403	SF
Moser X 3-27 - Wellbore #1 - Wellbore #1 - As Drilled	15,220.30	6,893.42	2,272.86	2,154.19	19.152	CC, ES
Moser X 3-27 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,897.27	2,273.99	2,154.57	19.041	SF
Moser X 3-28 - Wellbore #1 - Wellbore #1 - As Drilled	15,222.31	6,940.10	3,521.52	3,402.62	29.619	CC
Moser X 3-28 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,944.74	3,522.21	3,402.56	29.439	ES, SF



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

<b>Company:</b>	Northern Region - DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 35						
Cannon Farms 01-35C - Original Drilling - Original Drilling	14,271.31	7,019.27	3,180.76	3,071.55	29.127	CC
Cannon Farms 01-35C - Original Drilling - Original Drilling	14,300.00	7,018.56	3,180.89	3,071.40	29.052	ES
Cannon Farms 01-35C - Original Drilling - Original Drilling	14,800.00	7,010.39	3,224.37	3,110.97	28.434	SF
Cannon H35-03D - Original Drilling - Original Drilling - As	13,763.65	7,066.08	751.92	647.83	7.224	CC, ES
Cannon H35-03D - Original Drilling - Original Drilling - As	13,800.00	7,064.82	752.80	648.46	7.215	SF
Cannon H35-09 - Original Drilling - Original Drilling - As D	13,340.04	7,053.01	3,557.45	3,452.44	33.879	CC
Cannon H35-09 - Original Drilling - Original Drilling - As D	13,400.00	7,051.72	3,557.95	3,452.38	33.701	ES
Cannon H35-09 - Original Drilling - Original Drilling - As D	14,000.00	7,038.82	3,618.12	3,507.93	32.835	SF
Cannon H35-10 - Original Drilling - Original Drilling - As D	13,453.68	7,020.48	2,317.14	2,216.57	23.038	CC, ES
Cannon H35-10 - Original Drilling - Original Drilling - As D	13,800.00	7,019.23	2,342.88	2,239.61	22.687	SF
Cannon H35-11 - Original Drilling - Original Drilling - As D	13,340.88	7,053.72	1,247.22	1,147.59	12.519	CC, ES
Cannon H35-11 - Original Drilling - Original Drilling - As D	13,400.00	7,054.47	1,248.62	1,148.49	12.470	SF
Cannon H35-12 - Original Drilling - Original Drilling - As D	13,447.42	7,009.08	217.26	116.77	2.162	CC, ES, SF
Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled	14,639.18	7,014.56	275.59	162.67	2.440	CC, ES, SF
Cannon H35-14 - Original Drilling - Original Drilling - As D	14,668.65	7,021.30	1,117.83	997.62	9.299	CC, ES
Cannon H35-14 - Original Drilling - Original Drilling - As D	14,700.00	7,021.10	1,118.27	997.79	9.282	SF
Cannon H35-15 (PA) - Original Drilling - Original Drilling -	14,701.35	7,014.00	2,334.29	2,104.74	10.169	CC, ES
Cannon H35-15 (PA) - Original Drilling - Original Drilling -	14,900.00	7,014.00	2,342.73	2,111.46	10.130	SF
Cannon H35-20 - Original Drilling - Original Drilling - As D	12,845.88	7,035.93	379.41	284.88	4.014	CC, ES, SF
Cannon H35-21 - Original Drilling - Original Drilling - As D	12,922.83	7,010.09	1,801.50	1,706.39	18.941	CC, ES
Cannon H35-21 - Original Drilling - Original Drilling - As D	13,100.00	7,011.37	1,810.19	1,713.64	18.748	SF
Cannon H35-22 - Original Drilling - Original Drilling - As D	12,838.36	6,853.31	2,729.44	2,635.75	29.132	CC, ES
Cannon H35-22 - Original Drilling - Original Drilling - As D	13,300.00	6,852.62	2,768.21	2,670.77	28.409	SF
Cannon H35-24 - Original Drilling - Original Drilling - As D	14,111.34	7,068.10	1,599.82	1,492.17	14.861	CC, ES
Cannon H35-24 - Original Drilling - Original Drilling - As D	14,300.00	7,069.52	1,610.90	1,501.90	14.778	SF
Cannon X02-27 - Original Drilling - Original Drilling - As D	15,183.57	7,005.56	2,756.61	2,638.01	23.244	CC
Cannon X02-27 - Original Drilling - Original Drilling - As D	15,200.00	7,005.60	2,756.66	2,637.89	23.211	ES
Cannon X02-27 - Original Drilling - Original Drilling - As D	15,292.14	7,005.77	2,758.74	2,639.10	23.058	SF
Cannon X02-28 - Original Drilling - Original Drilling - As D	14,955.49	7,048.03	1,571.53	1,455.12	13.500	CC, ES
Cannon X02-28 - Original Drilling - Original Drilling - As D	15,100.00	7,048.27	1,578.16	1,460.66	13.432	SF
Cannon X02-29 - Original Drilling - Original Drilling - As D	15,042.50	7,029.70	246.38	128.96	2.098	CC, ES, SF
Foster 18-35 - Original Drilling - Original Drilling - As Drill	11,181.87	7,014.32	249.06	171.20	3.199	CC, ES, SF
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	10,598.11	7,026.01	2,377.01	2,188.82	12.631	CC
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	10,600.00	7,026.01	2,377.01	2,188.80	12.630	ES
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	10,800.00	7,026.01	2,385.57	2,195.66	12.562	SF
Foster UPRR 32-35 - Original Drilling - Original Drilling - A	11,932.05	7,017.66	2,248.66	2,163.50	26.407	CC, ES
Foster UPRR 32-35 - Original Drilling - Original Drilling - A	12,300.00	7,019.07	2,278.56	2,190.54	25.886	SF
Foster UPRR 41-35 - Original Drilling - Original Drilling - A	10,815.65	7,006.29	3,705.43	3,621.61	44.211	CC, ES
Foster UPRR 41-35 - Original Drilling - Original Drilling - A	11,800.00	7,011.70	3,833.94	3,742.23	41.804	SF
Foster UPRR 42-35 #2 - Original Drilling - Original Drilling	11,905.95	6,857.74	3,659.95	3,575.75	43.468	CC, ES
Foster UPRR 42-35 #2 - Original Drilling - Original Drilling	12,800.00	6,870.04	3,767.54	3,676.13	41.215	SF
HSR Foster 03-35 - Original Drilling - Original Drilling - As	10,816.85	7,001.02	1,136.62	1,062.41	15.318	CC, ES
HSR Foster 03-35 - Original Drilling - Original Drilling - As	10,900.00	6,998.59	1,139.65	1,064.82	15.230	SF
HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille	10,517.91	6,961.70	537.84	466.45	7.534	CC, ES, SF
HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drille	12,109.68	6,989.21	325.21	238.29	3.741	CC, ES, SF
HSR Foster 06-35 - Original Drilling - Original Drilling - As	11,997.78	7,027.91	1,049.07	963.21	12.219	CC
HSR Foster 06-35 - Original Drilling - Original Drilling - As	12,000.00	7,027.93	1,049.07	963.19	12.216	ES
HSR Foster 06-35 - Original Drilling - Original Drilling - As	12,100.00	7,028.99	1,054.03	967.47	12.176	SF
UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri	11,402.81	7,027.80	3,151.14	3,071.16	39.401	CC, ES
UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri	12,100.00	7,025.44	3,227.34	3,141.85	37.747	SF
UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill	11,036.77	7,039.82	668.71	592.18	8.738	CC, ES
UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill	11,100.00	7,039.15	671.69	594.80	8.736	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 36						
Dechant 07-36 - Original Drilling - Original Drilling - As Dr	12,295.12	6,847.15	7,340.29	7,252.15	83.286	CC
Dechant 07-36 - Original Drilling - Original Drilling - As Dr	12,400.00	6,847.57	7,341.04	7,251.86	82.319	ES
Dechant 07-36 - Original Drilling - Original Drilling - As Dr	15,292.14	6,859.00	7,928.54	7,816.09	70.505	SF
Dechant 13N-1HZ - Production Hole - Production Hole - A	14,900.00	14,900.00	4,812.55	4,651.57	29.896	ES, SF
Dechant 13N-1HZ - Production Hole - Production Hole - A	15,292.14	6,971.94	4,779.24	4,660.52	40.257	CC
Dechant 13N-1HZ - Surface Hole - Surface Hole - As Dril	15,151.80	600.00	8,492.11	8,411.97	105.965	CC
Dechant 13N-1HZ - Surface Hole - Surface Hole - As Dril	15,200.00	600.00	8,492.25	8,411.67	105.392	ES
Dechant 13N-1HZ - Surface Hole - Surface Hole - As Dril	15,292.14	600.00	8,493.27	8,411.87	104.331	SF
Dechant 14C-1HZ - Production Hole - Production Hole - A	15,100.00	15,100.00	6,130.52	5,989.20	43.382	ES, SF
Dechant 14C-1HZ - Production Hole - Production Hole - A	15,292.14	6,911.00	6,126.63	6,009.35	52.241	CC
Dechant 14C-1HZ - Surface Hole - Surface Hole - As Dril	15,155.24	610.00	8,545.39	8,464.98	106.265	CC
Dechant 14C-1HZ - Surface Hole - Surface Hole - As Dril	15,200.00	610.00	8,545.51	8,464.69	105.732	ES
Dechant 14C-1HZ - Surface Hole - Surface Hole - As Dril	15,292.14	610.00	8,546.49	8,464.84	104.667	SF
Dechant 15-36 - Original Drilling - Original Drilling - As Dr	14,748.78	6,955.11	7,337.02	7,205.96	55.983	CC
Dechant 15-36 - Original Drilling - Original Drilling - As Dr	14,800.00	6,955.33	7,337.20	7,205.61	55.756	ES
Dechant 15-36 - Original Drilling - Original Drilling - As Dr	15,292.14	6,957.44	7,357.11	7,220.58	53.885	SF
Dechant 24-36 - Original Drilling - Original Drilling - As Dr	12,628.87	7,128.79	8,031.02	7,936.24	84.731	CC
Dechant 24-36 - Original Drilling - Original Drilling - As Dr	12,700.00	7,128.82	8,031.33	7,935.76	84.033	ES
Dechant 24-36 - Original Drilling - Original Drilling - As Dr	15,292.14	7,129.85	8,461.10	8,340.33	70.057	SF
Dechant 35N-E1HZ - Production Hole - Production Hole -	15,292.14	6,963.00	5,846.33	5,728.65	49.683	CC, ES, SF
Dechant 35N-E1HZ - Surface Hole - Surface Hole - As D	15,154.23	612.00	8,526.07	8,445.72	106.109	CC
Dechant 35N-E1HZ - Surface Hole - Surface Hole - As D	15,200.00	612.00	8,526.20	8,445.43	105.565	ES
Dechant 35N-E1HZ - Surface Hole - Surface Hole - As D	15,292.14	612.00	8,527.19	8,445.59	104.502	SF
Dechant 35N-W1HZ - Original Drilling - Original Drilling -	15,292.14	6,886.00	5,413.17	5,295.86	46.144	CC, ES, SF
Dechant 36N-W1HZ - Original Drilling - Original Drilling -	15,152.41	6,151.74	6,472.36	6,356.90	56.059	CC
Dechant 36N-W1HZ - Original Drilling - Original Drilling -	15,200.00	6,151.74	6,472.53	6,356.58	55.822	ES
Dechant 36N-W1HZ - Original Drilling - Original Drilling -	15,292.14	6,151.74	6,473.87	6,356.97	55.382	SF
Dechant 37N-E1HZ - Production Hole - Production Hole -	15,233.28	4,716.23	8,462.50	8,353.97	77.976	CC
Dechant 37N-E1HZ - Production Hole - Production Hole -	15,292.14	4,716.41	8,462.71	8,353.56	77.534	ES, SF
Dechant 37N-E1HZ - Surface Hole - Surface Hole - As D	15,122.99	648.00	9,439.89	9,356.75	113.542	CC
Dechant 37N-E1HZ - Surface Hole - Surface Hole - As D	15,200.00	648.00	9,440.21	9,356.35	112.571	ES
Dechant 37N-E1HZ - Surface Hole - Surface Hole - As D	15,292.14	648.00	9,441.41	9,356.69	111.448	SF
Dechant 37N-W1HZ - Production Hole - Production Hole	15,000.00	15,000.00	7,863.69	7,729.22	58.478	ES, SF
Dechant 37N-W1HZ - Production Hole - Production Hole	15,065.21	7,325.77	7,863.44	7,746.14	67.032	CC
Dechant 37N-W1HZ - Surface Hole - Surface Hole - As D	15,141.19	655.00	9,451.64	9,368.26	113.351	CC
Dechant 37N-W1HZ - Surface Hole - Surface Hole - As D	15,200.00	655.00	9,451.83	9,367.89	112.610	ES
Dechant 37N-W1HZ - Surface Hole - Surface Hole - As D	15,292.14	655.00	9,452.85	9,368.06	111.483	SF
Dechant State 15C-1HZ - Wellbore #1 - As Drilled	14,800.00	14,800.00	7,473.90	7,295.20	41.825	ES, SF
Dechant State 15C-1HZ - Wellbore #1 - As Drilled	15,059.95	11,611.66	7,471.53	7,321.52	49.808	CC
Dechant State 16C-1HZ - Original Drilling - Original Drillin	14,200.00	14,200.00	8,745.73	8,532.69	41.051	SF
Dechant State 16C-1HZ - Original Drilling - Original Drillin	15,292.14	12,687.79	8,677.73	8,478.46	43.547	CC, ES
Dechant State 36N-E1HZ - Wellbore #1 - Wellbore #1	12,726.92	9,161.00	7,123.23	7,019.57	68.715	CC
Dechant State 36N-E1HZ - Wellbore #1 - Wellbore #1	14,600.00	14,600.00	7,126.47	6,950.72	40.550	ES, SF
Dechant State 37N-E36HZ - Wellbore #1 - As Drilled	10,127.11	6,448.00	8,461.72	8,397.72	132.219	CC
Dechant State 37N-E36HZ - Wellbore #1 - As Drilled	14,200.00	14,200.00	8,467.69	8,301.14	50.843	ES, SF
Dechant State 37N-W36HZ - Wellbore #1 - As Drilled	679.33	660.34	7,656.75	7,652.54	1,816.430	CC
Dechant State 37N-W36HZ - Wellbore #1 - As Drilled	900.00	872.04	7,657.43	7,652.16	1,451.549	ES
Dechant State 37N-W36HZ - Wellbore #1 - As Drilled	14,600.00	14,600.00	7,937.07	7,761.42	45.188	SF
Dechant State 38N-1HZ - Wellbore #1 - As Drilled	10,772.55	7,295.00	9,179.80	9,107.30	126.628	CC
Dechant State 38N-1HZ - Wellbore #1 - As Drilled	15,200.00	15,200.00	9,209.81	9,020.43	48.633	ES, SF
Dechant State H36-11D - Original Drilling - Original Drillin	13,488.50	6,921.64	6,177.17	6,076.55	61.392	CC
Dechant State H36-11D - Original Drilling - Original Drillin	13,500.00	6,921.50	6,177.18	6,076.44	61.321	ES
Dechant State H36-11D - Original Drilling - Original Drillin	15,292.14	6,900.01	6,435.02	6,319.37	55.642	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
H Section 36						
Dechant State H36-18D - Dechant State H36-18D Gyros	100.00	60.61	6,559.82	6,559.58	10,000.000	CC
Dechant State H36-18D - Dechant State H36-18D Gyros	1,000.00	900.00	6,562.84	6,556.51	1,037.421	ES
Dechant State H36-18D - Dechant State H36-18D Gyros	13,700.00	13,700.00	7,099.70	6,968.85	54.258	SF
Dechant State H36-18D - Dechant State H36-18D OH - A	100.00	73.37	6,559.82	6,559.58	10,000.000	CC
Dechant State H36-18D - Dechant State H36-18D OH - A	1,000.00	913.00	6,562.84	6,556.52	1,037.421	ES
Dechant State H36-18D - Dechant State H36-18D OH - A	13,700.00	13,700.00	7,099.75	6,968.93	54.273	SF
Dechant State H36-19 - Original Drilling - Original Drilling	11,096.49	7,275.54	5,332.15	5,254.22	68.421	CC
Dechant State H36-19 - Original Drilling - Original Drilling	11,100.00	7,275.59	5,332.15	5,254.19	68.392	ES
Dechant State H36-19 - Original Drilling - Original Drilling	13,100.00	7,305.79	5,696.05	5,602.31	60.761	SF
Dechant State H36-20D - Dechant State H36-20D Gyros	12,883.11	7,400.00	5,537.89	5,437.93	55.399	CC
Dechant State H36-20D - Dechant State H36-20D Gyros	12,900.00	7,400.00	5,537.92	5,437.83	55.333	ES
Dechant State H36-20D - Dechant State H36-20D Gyros	14,400.00	7,400.00	5,741.88	5,632.75	52.616	SF
Dechant State H36-20D - Dechant State H36-20D OH - A	12,883.12	7,413.00	5,537.89	5,437.93	55.399	CC
Dechant State H36-20D - Dechant State H36-20D OH - A	12,900.00	7,413.00	5,537.92	5,437.84	55.333	ES
Dechant State H36-20D - Dechant State H36-20D OH - A	14,400.00	7,413.00	5,741.88	5,632.75	52.616	SF
Dechant State H36-21D - Dechant State H36-21D Gyros	12,861.26	7,048.31	6,756.49	6,655.86	67.147	CC
Dechant State H36-21D - Dechant State H36-21D Gyros	12,900.00	7,048.24	6,756.60	6,655.65	66.931	ES
Dechant State H36-21D - Dechant State H36-21D Gyros	15,100.00	7,043.23	7,117.73	7,001.99	61.496	SF
Dechant State H36-21D - Dechant State H36-21D OH - A	12,861.28	7,061.31	6,756.46	6,655.84	67.146	CC
Dechant State H36-21D - Dechant State H36-21D OH - A	12,900.00	7,061.24	6,756.57	6,655.62	66.931	ES
Dechant State H36-21D - Dechant State H36-21D OH - A	15,100.00	7,056.23	7,117.70	7,001.96	61.496	SF
Dechant State H36-24 - Original Drilling - Original Drilling	14,058.72	7,213.01	6,822.24	6,713.58	62.789	CC
Dechant State H36-24 - Original Drilling - Original Drilling	14,100.00	7,212.39	6,822.36	6,713.28	62.543	ES
Dechant State H36-24 - Original Drilling - Original Drilling	15,292.14	7,196.17	6,932.82	6,812.40	57.572	SF
Dechant State H36-31D - Dechant State H36-31D OH - A	11,455.53	7,101.67	4,333.64	4,252.86	53.646	CC
Dechant State H36-31D - Dechant State H36-31D OH - A	11,500.00	7,102.03	4,333.87	4,252.70	53.391	ES
Dechant State H36-31D - Dechant State H36-31D OH - A	12,800.00	7,112.22	4,537.39	4,446.53	49.935	SF
Dechant State H36-32D - Dechant State H36-32D Gyros	12,699.20	6,950.00	4,321.53	4,223.11	43.907	CC
Dechant State H36-32D - Dechant State H36-32D Gyros	12,700.00	6,950.00	4,321.53	4,223.10	43.903	ES
Dechant State H36-32D - Dechant State H36-32D Gyros	13,900.00	6,950.00	4,485.26	4,375.80	40.975	SF
Dechant State H36-32D - Dechant State H36-32D OH - A	12,701.29	7,083.88	4,318.87	4,220.18	43.764	CC, ES
Dechant State H36-32D - Dechant State H36-32D OH - A	13,900.00	7,098.50	4,482.09	4,372.40	40.861	SF
Dechant State H36-33 - Dechant State H36-33D Gyros -	13,916.35	7,425.19	4,362.90	4,256.03	40.825	CC
Dechant State H36-33 - Dechant State H36-33D Gyros -	14,000.00	7,425.58	4,363.70	4,255.82	40.449	ES
Dechant State H36-33 - Dechant State H36-33D Gyros -	15,292.14	7,431.25	4,574.67	4,450.78	36.923	SF
Dechant State H36-33 - Dechant State H36-33D OH - As	13,916.37	7,438.19	4,362.91	4,256.04	40.825	CC
Dechant State H36-33 - Dechant State H36-33D OH - As	14,000.00	7,438.58	4,363.71	4,255.83	40.449	ES
Dechant State H36-33 - Dechant State H36-33D OH - As	15,292.14	7,444.25	4,574.68	4,450.78	36.923	SF
HSR Dechant State 01-36 - Wellbore #1 - As Drilled	10,561.69	6,882.93	9,004.72	8,933.27	126.030	CC
HSR Dechant State 01-36 - Wellbore #1 - As Drilled	10,600.00	6,883.15	9,004.80	8,933.00	125.408	ES
HSR Dechant State 01-36 - Wellbore #1 - As Drilled	14,900.00	6,900.00	9,995.26	9,888.39	93.530	SF
HSR Dechant State 02-36 - Original Drilling - Original Dri	10,541.57	6,855.36	7,287.77	7,216.68	102.510	CC
HSR Dechant State 02-36 - Original Drilling - Original Dri	10,600.00	6,857.09	7,288.00	7,216.37	101.734	ES
HSR Dechant State 02-36 - Original Drilling - Original Dri	14,200.00	6,932.84	8,153.96	8,054.18	81.715	SF
HSR Dechant/State 07-36 (PA) - Original Drilling - Origina	11,733.14	6,979.00	7,878.46	7,680.03	39.704	CC
HSR Dechant/State 07-36 (PA) - Original Drilling - Origina	11,800.00	6,979.00	7,878.74	7,679.66	39.575	ES
HSR Dechant/State 07-36 (PA) - Original Drilling - Origina	14,000.00	6,979.00	8,198.10	7,979.63	37.525	SF
Spike State GWS H36-03 - Original Drilling - Original Dril	10,696.51	7,052.12	6,368.40	6,295.07	86.849	CC
Spike State GWS H36-03 - Original Drilling - Original Dril	10,800.00	7,057.12	6,369.24	6,294.93	85.715	ES
Spike State GWS H36-03 - Original Drilling - Original Dril	13,600.00	7,192.27	6,997.65	6,901.27	72.609	SF
Spike State GWS H36-04 - Original Drilling - Original Dril	10,535.37	7,089.98	4,865.58	4,784.58	60.063	CC
Spike State GWS H36-04 - Original Drilling - Original Dril	10,600.00	7,089.51	4,866.01	4,784.42	59.637	ES
Spike State GWS H36-04 - Original Drilling - Original Dril	12,200.00	7,077.89	5,142.45	5,048.45	54.708	SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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
<b>Offset Well - Wellbore - Design</b>						
H Section 36						
Spike State GWS H36-13 - Original Drilling - Original Dril	14,864.27	6,600.01	4,760.15	4,646.71	41.964	CC
Spike State GWS H36-13 - Original Drilling - Original Dril	14,900.00	6,600.01	4,760.28	4,646.48	41.830	ES
Spike State GWS H36-13 - Original Drilling - Original Dril	15,292.14	6,600.01	4,779.34	4,661.82	40.671	SF
Spike State GWS H36-14 - Original Drilling - Original Dril	13,700.00	13,700.00	6,539.70	6,414.07	52.058	SF
Spike State GWS H36-14 - Original Drilling - Original Dril	14,847.12	6,900.01	6,438.43	6,323.73	56.130	CC
Spike State GWS H36-14 - Original Drilling - Original Dril	14,900.00	6,900.01	6,438.65	6,323.40	55.866	ES
Spike State H36-05 - Original Drilling - Original Drilling - A	11,756.64	6,924.02	5,817.76	5,702.77	50.595	CC
Spike State H36-02J - Original Drilling - Original Drilling -	11,800.00	6,924.77	5,817.92	5,702.48	50.400	ES
Spike State H36-02J - Original Drilling - Original Drilling -	13,700.00	6,957.50	6,133.66	6,001.66	46.465	SF
Spike State H36-05 - Original Drilling - Original Drilling - A	11,936.76	7,170.42	4,808.33	4,722.54	56.048	CC
Spike State H36-05 - Original Drilling - Original Drilling - A	12,000.00	7,170.22	4,808.75	4,722.34	55.654	ES
Spike State H36-05 - Original Drilling - Original Drilling - A	13,500.00	7,165.53	5,056.06	4,957.95	51.535	SF
Spike State H36-11J - Original Drilling - Original Drilling -	14,094.15	6,957.75	5,588.65	5,481.63	52.219	CC
Spike State H36-11J - Original Drilling - Original Drilling -	14,200.00	6,955.70	5,589.66	5,481.57	51.713	ES
Spike State H36-11J - Original Drilling - Original Drilling -	15,292.14	6,933.47	5,715.57	5,598.20	48.695	SF
Spike State H36-12 - Original Drilling - Original Drilling - A	13,206.05	7,000.59	4,704.66	4,606.66	48.006	CC, ES
Spike State H36-12 - Original Drilling - Original Drilling - A	14,500.00	6,989.30	4,879.35	4,770.98	45.027	SF
X Section 01						
Dechant USX X1-6 - Wellbore #1 - As Drilled	15,292.14	6,755.01	6,228.30	6,112.45	53.764	CC, ES, SF
Dechant USX X1-7 - Wellbore #1 - As Drilled	15,292.14	6,825.21	7,460.25	7,345.30	64.903	CC, ES, SF
Dechant X01-02 - Wellbore #1 - As Drilled	15,292.14	7,155.97	7,453.40	7,333.36	62.089	CC, ES, SF
Dechant X01-03 - Wellbore #1 - Wellbore #1	15,292.14	6,821.48	6,306.69	6,188.27	53.260	CC, ES, SF
Dechant X01-04 - Wellbore #1 - As Drilled	15,292.14	7,019.32	4,975.33	4,856.15	41.744	CC, ES, SF
Dechant X01-06 - Wellbore #1 - As Drilled	15,292.14	6,981.27	6,813.86	6,698.52	59.078	CC, ES, SF
Dechant X12-01 - Wellbore #1 - As Drilled	15,292.14	6,682.42	5,143.65	5,031.60	45.903	CC, ES, SF
X Section 02						
Greenleaf 1C-2HZ - Original Hole - As-Drilled	15,292.14	12,178.00	3,846.87	3,668.98	21.625	CC, ES, SF
Greenleaf 1N-2HZ - Original Hole - As-Drilled	15,292.14	11,854.00	3,263.63	3,087.42	18.522	CC, ES, SF
Greenleaf 26N-2HZ - Original Hole - As-Drilled	15,292.14	11,967.00	4,084.89	3,907.20	22.990	CC, ES, SF
Greenleaf 27N-2HZ - Original Hole - As-Drilled	15,292.14	11,754.00	2,502.87	2,330.08	14.485	CC, ES, SF
Greenleaf 28C-2HZ - Original Hole - Original Hole	15,292.14	12,005.00	1,783.49	1,618.82	10.831	CC, ES, SF
Greenleaf 29C-2HZ - Original Hole - Original Hole	15,292.14	12,733.00	775.31	648.51	6.114	CC, ES, SF
Greenleaf 29N-2HZ - Original Hole - Original Hole	15,292.14	12,533.00	645.57	557.51	7.331	CC, ES, SF
Greenleaf 2N-2HZ - Original Hole - Original Hole	15,292.14	12,018.00	1,920.47	1,752.69	11.446	CC, ES, SF
Greenleaf 30N-2HZ - Original Hole - Original Hole	15,292.14	11,541.00	1,046.62	892.35	6.784	CC, ES, SF
Greenleaf 3N-2HZR - Original Hole - Original Hole	15,292.14	12,432.00	1,368.96	1,198.85	8.048	CC, ES, SF
Greenleaf 4N-2HZ - Original Hole - Original Hole	15,292.14	12,764.00	596.59	539.43	10.437	CC, ES, SF
Harkis 11-02 - Original Drilling - Original Drilling - As Drille	15,292.14	7,005.94	738.75	653.59	8.675	CC, ES, SF
Harkis 31-2 - Original Hole - As-Drilled	15,292.14	7,001.06	2,381.27	2,264.28	20.355	CC, ES, SF
Pioneer 1-2 - Original Hole - As-Drilled	15,292.14	7,308.73	3,761.65	3,604.62	23.955	CC, ES, SF
Pioneer 3-2 - Original Hole - Original Hole	15,292.14	7,295.90	1,202.37	1,063.00	8.627	CC, ES, SF
Pioneer 3-2 - Surface Gyros - Surface Gyros	15,292.14	7,278.90	1,202.34	1,060.00	8.447	CC, ES, SF

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 Hurley H35-774
<b>Project:</b>	Mustang	<b>TVD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Reference Site:</b>	H Section 26	<b>MD Reference:</b>	WELL @ 4852.00ft (Original Well Elev)
<b>Site Error:</b>	0.00 ft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Hurley H35-774	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMP
<b>Reference Design:</b>	Plan #2	<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						
X Section 03						
Brown 3-3A - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,103.36	4,017.34	3,898.13	33.700	CC, ES, SF
Cannon 1-3 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,983.25	1,494.21	1,380.61	13.153	CC, ES, SF
Cannon 13C-3HZ - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,853.00	5,478.94	5,361.75	46.754	CC, ES, SF
Cannon 13N-3HZ - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,947.00	5,703.31	5,585.85	48.555	CC, ES, SF
Cannon 14N-E3HZ - Wellbore #1 - Wellbore #1 - As Drille	15,292.14	6,184.96	4,371.83	4,256.35	37.860	CC, ES, SF
Cannon 14N-W3HZ - Wellbore #1 - Wellbore #1 - As Drill	15,292.14	6,664.00	5,034.03	4,918.24	43.474	CC, ES, SF
Cannon 15N-W3HZ - Wellbore #1 - Wellbore #1 - As Drill	15,292.14	7,206.28	2,691.02	2,574.05	23.005	CC, ES, SF
Cannon 16N-E3HZ - Wellbore #1 - Wellbore #1 - As Drille	15,292.14	6,799.75	1,648.98	1,534.84	14.447	CC, ES, SF
Cannon 26-3 - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	7,445.88	1,022.00	890.31	7.761	CC, ES, SF
Cannon 36N-E3HZ - Wellbore #1 - Wellbore #1 - As Drille	15,292.14	6,823.22	3,328.69	3,212.36	28.616	CC, ES, SF
Cannon 36N-W3HZX - Original Hole - Original Hole	15,292.14	6,296.00	3,873.49	3,758.60	33.716	CC, ES, SF
Cannon 36N-W3HZX - Sidetrack 01 - Sidetrack 01	15,292.14	6,296.00	3,873.49	3,758.60	33.716	CC, ES, SF
Cannon 37C-3HZ - Wellbore #1 - Wellbore #1 - As Drilled	15,292.14	6,891.80	1,261.98	1,147.20	10.994	CC, ES, SF
Cannon 37N-E3HZ - Wellbore #1 - Wellbore #1 - As Drille	15,292.14	6,754.00	1,984.98	1,868.56	17.050	CC, ES, SF