

Project: Mustang
 Site: H Section 02
 Well: Aristocrat H14-785
 Wellbore: Aristocrat H14-785
 Design: Plan #1

Northern Region - DJ Basin

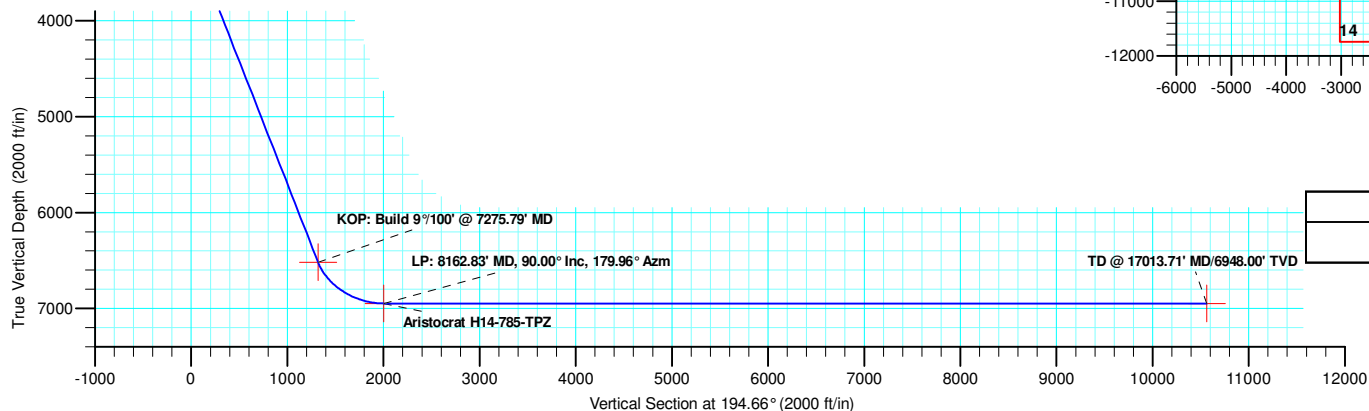
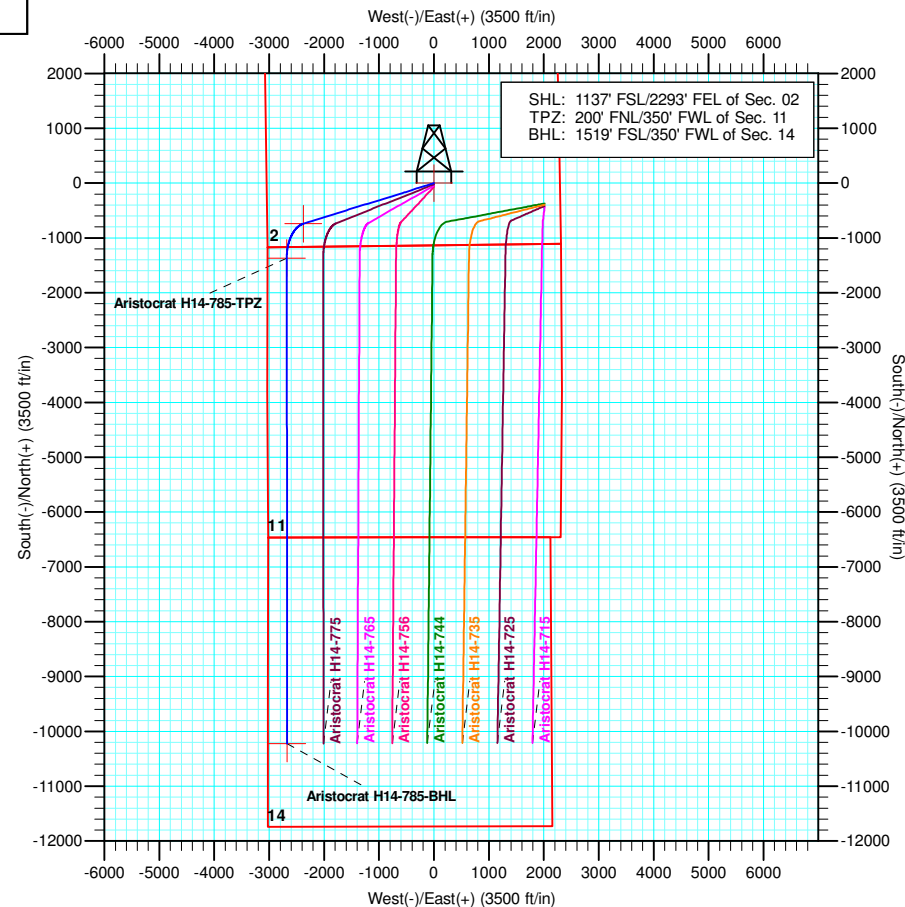
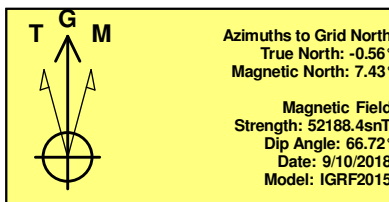
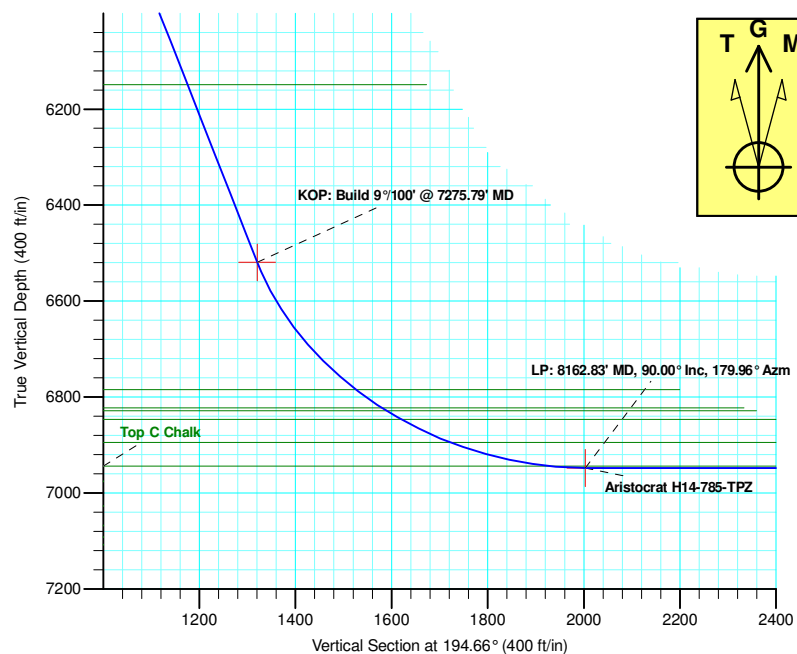
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
3	4021.63	36.43	252.67	3901.33	-166.81	-534.48	2.00	252.67	296.68	
4	7275.79	36.43	252.67	6519.49	-742.59	-2379.29	0.00	0.00	1320.68	
5	8162.83	90.00	179.96	6948.00	-1369.44	-2680.83	9.00	-75.94	2003.44	Aristocrat H14-785-TPZ
6	17013.71	90.00	179.96	6948.00	-10220.31	-2674.19	0.00	0.00	10564.38	Aristocrat H14-785-BHL

WELL DETAILS: Aristocrat H14-785

+N/-S	+E/-W	Northing	Ground Level: Easting	4780.00 Latitude	Longitude	Slot
0.00	0.00	1335198.22	3243140.96	40.2502396	-104.6289052	



Plan: Plan #1 (Aristocrat H14-785/Aristocrat H14-785)

Created By: Keith Noack Date: 11:59, October 01 2018

Northern Region - DJ Basin

Mustang

H Section 02

Aristocrat H14-785

Aristocrat H14-785

Plan: Plan #1

Standard Planning Report

01 October, 2018

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Aristocrat H14-785
Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

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

Site	H Section 02				
Site Position:		Northing:	1,335,153.47 usft	Latitude:	40.2501168
From:	Map	Easting:	3,243,140.81 usft	Longitude:	-104.6289073
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.56 °

Well	Aristocrat H14-785					
Well Position	+N/-S	44.75 ft	Northing:	1,335,198.22 usft	Latitude:	40.2502396
	+E/-W	0.16 ft	Easting:	3,243,140.96 usft	Longitude:	-104.6289051
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,780.00 ft

Wellbore	Aristocrat H14-785				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/10/2018	8.00	66.72	52,188.39809053

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	194.66

Plan Sections										
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	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,021.63	36.43	252.67	3,901.33	-166.81	-534.48	2.00	2.00	0.00	252.67	
7,275.80	36.43	252.67	6,519.49	-742.59	-2,379.29	0.00	0.00	0.00	0.00	
8,162.83	90.00	179.96	6,948.00	-1,369.44	-2,680.83	9.00	6.04	-8.20	-75.94	Aristocrat H14-785-
17,013.71	90.00	179.96	6,948.00	-10,220.31	-2,674.19	0.00	0.00	0.00	0.00	Aristocrat H14-785-

Noble Energy, Inc.

Planning Report

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Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

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
499.00	0.00	0.00	499.00	0.00	0.00	0.00	0.00	0.00	0.00
Pierre									
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
659.00	0.00	0.00	659.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Pierre Aquifer Top									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
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
1,573.00	0.00	0.00	1,573.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Pierre Aquifer Base									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Build: 2°/100'									
2,300.00	2.00	252.67	2,299.98	-0.52	-1.67	0.92	2.00	2.00	0.00
2,400.00	4.00	252.67	2,399.84	-2.08	-6.66	3.70	2.00	2.00	0.00
2,500.00	6.00	252.67	2,499.45	-4.68	-14.98	8.32	2.00	2.00	0.00
2,600.00	8.00	252.67	2,598.70	-8.31	-26.61	14.77	2.00	2.00	0.00
2,700.00	10.00	252.67	2,697.47	-12.97	-41.55	23.06	2.00	2.00	0.00
2,800.00	12.00	252.67	2,795.62	-18.65	-59.76	33.17	2.00	2.00	0.00
2,900.00	14.00	252.67	2,893.06	-25.35	-81.23	45.09	2.00	2.00	0.00
3,000.00	16.00	252.67	2,989.64	-33.06	-105.94	58.80	2.00	2.00	0.00
3,100.00	18.00	252.67	3,085.27	-41.77	-133.85	74.29	2.00	2.00	0.00
3,200.00	20.00	252.67	3,179.82	-51.47	-164.92	91.54	2.00	2.00	0.00
3,300.00	22.00	252.67	3,273.17	-62.15	-199.13	110.53	2.00	2.00	0.00
3,400.00	24.00	252.67	3,365.21	-73.79	-236.43	131.23	2.00	2.00	0.00
3,500.00	26.00	252.67	3,455.84	-86.38	-276.77	153.63	2.00	2.00	0.00
3,600.00	28.00	252.67	3,544.94	-99.91	-320.10	177.68	2.00	2.00	0.00
3,700.00	30.00	252.67	3,632.39	-114.35	-366.38	203.37	2.00	2.00	0.00
3,800.00	32.00	252.67	3,718.11	-129.69	-415.54	230.66	2.00	2.00	0.00
3,900.00	34.00	252.67	3,801.97	-145.92	-467.53	259.51	2.00	2.00	0.00
3,908.49	34.17	252.67	3,809.00	-147.34	-472.07	262.03	2.00	2.00	0.00
Parkman									
4,000.00	36.00	252.67	3,883.88	-163.01	-522.28	289.90	2.00	2.00	0.00
4,021.63	36.43	252.67	3,901.33	-166.81	-534.48	296.68	2.00	2.00	0.00
Hold: 36.43° Inc, 252.67° Azm									
4,100.00	36.43	252.67	3,964.38	-180.68	-578.91	321.34	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

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Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

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	36.43	252.67	4,044.84	-198.37	-635.60	352.80	0.00	0.00	0.00
4,300.00	36.43	252.67	4,125.30	-216.07	-692.29	384.27	0.00	0.00	0.00
4,400.00	36.43	252.67	4,205.75	-233.76	-748.98	415.74	0.00	0.00	0.00
4,413.98	36.43	252.67	4,217.00	-236.23	-756.91	420.14	0.00	0.00	0.00
Sussex									
4,500.00	36.43	252.67	4,286.21	-251.45	-805.67	447.21	0.00	0.00	0.00
4,600.00	36.43	252.67	4,366.66	-269.15	-862.36	478.67	0.00	0.00	0.00
4,700.00	36.43	252.67	4,447.12	-286.84	-919.05	510.14	0.00	0.00	0.00
4,800.00	36.43	252.67	4,527.57	-304.53	-975.74	541.61	0.00	0.00	0.00
4,900.00	36.43	252.67	4,608.03	-322.23	-1,032.43	573.08	0.00	0.00	0.00
5,000.00	36.43	252.67	4,688.48	-339.92	-1,089.13	604.54	0.00	0.00	0.00
5,100.00	36.43	252.67	4,768.94	-357.61	-1,145.82	636.01	0.00	0.00	0.00
5,200.00	36.43	252.67	4,849.40	-375.31	-1,202.51	667.48	0.00	0.00	0.00
5,300.00	36.43	252.67	4,929.85	-393.00	-1,259.20	698.95	0.00	0.00	0.00
5,308.89	36.43	252.67	4,937.00	-394.57	-1,264.23	701.74	0.00	0.00	0.00
Shannon									
5,400.00	36.43	252.67	5,010.31	-410.69	-1,315.89	730.41	0.00	0.00	0.00
5,500.00	36.43	252.67	5,090.76	-428.39	-1,372.58	761.88	0.00	0.00	0.00
5,600.00	36.43	252.67	5,171.22	-446.08	-1,429.27	793.35	0.00	0.00	0.00
5,700.00	36.43	252.67	5,251.67	-463.77	-1,485.96	824.82	0.00	0.00	0.00
5,800.00	36.43	252.67	5,332.13	-481.47	-1,542.65	856.28	0.00	0.00	0.00
5,900.00	36.43	252.67	5,412.58	-499.16	-1,599.34	887.75	0.00	0.00	0.00
6,000.00	36.43	252.67	5,493.04	-516.85	-1,656.03	919.22	0.00	0.00	0.00
6,100.00	36.43	252.67	5,573.50	-534.55	-1,712.72	950.69	0.00	0.00	0.00
6,200.00	36.43	252.67	5,653.95	-552.24	-1,769.41	982.15	0.00	0.00	0.00
6,300.00	36.43	252.67	5,734.41	-569.94	-1,826.11	1,013.62	0.00	0.00	0.00
6,400.00	36.43	252.67	5,814.86	-587.63	-1,882.80	1,045.09	0.00	0.00	0.00
6,500.00	36.43	252.67	5,895.32	-605.32	-1,939.49	1,076.56	0.00	0.00	0.00
6,600.00	36.43	252.67	5,975.77	-623.02	-1,996.18	1,108.02	0.00	0.00	0.00
6,700.00	36.43	252.67	6,056.23	-640.71	-2,052.87	1,139.49	0.00	0.00	0.00
6,800.00	36.43	252.67	6,136.68	-658.40	-2,109.56	1,170.96	0.00	0.00	0.00
6,815.31	36.43	252.67	6,149.00	-661.11	-2,118.24	1,175.77	0.00	0.00	0.00
Teepee Buttes									
6,900.00	36.43	252.67	6,217.14	-676.10	-2,166.25	1,202.43	0.00	0.00	0.00
7,000.00	36.43	252.67	6,297.60	-693.79	-2,222.94	1,233.89	0.00	0.00	0.00
7,100.00	36.43	252.67	6,378.05	-711.48	-2,279.63	1,265.36	0.00	0.00	0.00
7,200.00	36.43	252.67	6,458.51	-729.18	-2,336.32	1,296.83	0.00	0.00	0.00
7,275.80	36.43	252.67	6,519.49	-742.59	-2,379.29	1,320.68	0.00	0.00	0.00
KOP: Build 9°/100' @ 7275.79' MD									
7,300.00	37.01	249.16	6,538.89	-747.32	-2,392.96	1,328.72	9.00	2.40	-14.51
7,350.00	38.53	242.23	6,578.43	-759.94	-2,420.82	1,347.98	9.00	3.03	-13.85
7,400.00	40.42	235.81	6,617.04	-776.31	-2,448.02	1,370.70	9.00	3.78	-12.85
7,450.00	42.64	229.90	6,654.49	-796.34	-2,474.40	1,396.75	9.00	4.44	-11.81
7,500.00	45.14	224.50	6,690.53	-819.90	-2,499.78	1,425.97	9.00	5.00	-10.80
7,550.00	47.87	219.56	6,724.95	-846.84	-2,524.02	1,458.18	9.00	5.46	-9.87
7,600.00	50.79	215.05	6,757.54	-877.01	-2,546.97	1,493.17	9.00	5.85	-9.02
7,644.76	53.55	211.33	6,785.00	-906.60	-2,566.30	1,526.68	9.00	6.15	-8.32
Sharon Springs									
7,650.00	53.88	210.91	6,788.10	-910.21	-2,568.48	1,530.73	9.00	6.29	-7.98
7,700.00	57.09	207.09	6,816.43	-946.24	-2,588.42	1,570.64	9.00	6.43	-7.64
7,712.22	57.90	206.20	6,823.00	-955.45	-2,593.04	1,580.72	9.00	6.57	-7.29
Top A Chalk									
7,723.63	58.65	205.38	6,829.00	-964.19	-2,597.27	1,590.24	9.00	6.62	-7.17

Noble Energy, Inc.

Planning Report

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Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
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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)
Top A Marl									
7,750.00	60.42	203.54	6,842.37	-984.88	-2,606.68	1,612.64	9.00	6.69	-6.98
7,759.47	61.06	202.90	6,847.00	-992.47	-2,609.93	1,620.81	9.00	6.76	-6.81
Top B Chalk									
7,800.00	63.83	200.22	6,865.75	-1,025.89	-2,623.12	1,656.47	9.00	6.84	-6.60
7,850.00	67.31	197.09	6,886.43	-1,069.01	-2,637.66	1,701.87	9.00	6.97	-6.26
7,873.00	68.94	195.71	6,895.00	-1,089.48	-2,643.69	1,723.20	9.00	7.06	-6.02
Top B Marl									
7,900.00	70.85	194.12	6,904.28	-1,113.98	-2,650.21	1,748.56	9.00	7.11	-5.88
7,950.00	74.44	191.27	6,919.19	-1,160.53	-2,660.69	1,796.24	9.00	7.17	-5.69
8,000.00	78.07	188.52	6,931.08	-1,208.36	-2,669.02	1,844.63	9.00	7.25	-5.50
8,050.00	81.71	185.85	6,939.85	-1,257.19	-2,675.17	1,893.42	9.00	7.30	-5.35
8,083.81	84.19	184.07	6,944.00	-1,290.61	-2,678.07	1,926.48	9.00	7.33	-5.26
Top C Chalk									
8,100.00	85.38	183.22	6,945.47	-1,306.70	-2,679.10	1,942.31	9.00	7.34	-5.23
8,150.00	89.06	180.62	6,947.90	-1,356.60	-2,680.77	1,991.01	9.00	7.35	-5.20
8,162.83	90.00	179.96	6,948.00	-1,369.44	-2,680.83	2,003.44	9.00	7.36	-5.19
LP: 8162.83' MD, 90.00° Inc, 179.96° Azm									
8,200.00	90.00	179.96	6,948.00	-1,406.60	-2,680.81	2,039.39	0.00	0.00	0.00
8,300.00	90.00	179.96	6,948.00	-1,506.60	-2,680.73	2,136.12	0.00	0.00	0.00
8,400.00	90.00	179.96	6,948.00	-1,606.60	-2,680.66	2,232.84	0.00	0.00	0.00
8,500.00	90.00	179.96	6,948.00	-1,706.60	-2,680.58	2,329.57	0.00	0.00	0.00
8,600.00	90.00	179.96	6,948.00	-1,806.60	-2,680.51	2,426.29	0.00	0.00	0.00
8,700.00	90.00	179.96	6,948.00	-1,906.60	-2,680.43	2,523.01	0.00	0.00	0.00
8,800.00	90.00	179.96	6,948.00	-2,006.60	-2,680.36	2,619.74	0.00	0.00	0.00
8,900.00	90.00	179.96	6,948.00	-2,106.60	-2,680.28	2,716.46	0.00	0.00	0.00
9,000.00	90.00	179.96	6,948.00	-2,206.60	-2,680.21	2,813.19	0.00	0.00	0.00
9,100.00	90.00	179.96	6,948.00	-2,306.60	-2,680.13	2,909.91	0.00	0.00	0.00
9,200.00	90.00	179.96	6,948.00	-2,406.60	-2,680.06	3,006.63	0.00	0.00	0.00
9,300.00	90.00	179.96	6,948.00	-2,506.60	-2,679.98	3,103.36	0.00	0.00	0.00
9,400.00	90.00	179.96	6,948.00	-2,606.60	-2,679.91	3,200.08	0.00	0.00	0.00
9,500.00	90.00	179.96	6,948.00	-2,706.60	-2,679.83	3,296.81	0.00	0.00	0.00
9,600.00	90.00	179.96	6,948.00	-2,806.60	-2,679.76	3,393.53	0.00	0.00	0.00
9,700.00	90.00	179.96	6,948.00	-2,906.60	-2,679.68	3,490.25	0.00	0.00	0.00
9,800.00	90.00	179.96	6,948.00	-3,006.60	-2,679.61	3,586.98	0.00	0.00	0.00
9,900.00	90.00	179.96	6,948.00	-3,106.60	-2,679.53	3,683.70	0.00	0.00	0.00
10,000.00	90.00	179.96	6,948.00	-3,206.60	-2,679.46	3,780.43	0.00	0.00	0.00
10,100.00	90.00	179.96	6,948.00	-3,306.60	-2,679.38	3,877.15	0.00	0.00	0.00
10,200.00	90.00	179.96	6,948.00	-3,406.60	-2,679.31	3,973.88	0.00	0.00	0.00
10,300.00	90.00	179.96	6,948.00	-3,506.60	-2,679.23	4,070.60	0.00	0.00	0.00
10,400.00	90.00	179.96	6,948.00	-3,606.60	-2,679.16	4,167.32	0.00	0.00	0.00
10,500.00	90.00	179.96	6,948.00	-3,706.60	-2,679.08	4,264.05	0.00	0.00	0.00
10,600.00	90.00	179.96	6,948.00	-3,806.60	-2,679.01	4,360.77	0.00	0.00	0.00
10,700.00	90.00	179.96	6,948.00	-3,906.60	-2,678.93	4,457.50	0.00	0.00	0.00
10,800.00	90.00	179.96	6,948.00	-4,006.60	-2,678.86	4,554.22	0.00	0.00	0.00
10,900.00	90.00	179.96	6,948.00	-4,106.60	-2,678.78	4,650.94	0.00	0.00	0.00
11,000.00	90.00	179.96	6,948.00	-4,206.60	-2,678.70	4,747.67	0.00	0.00	0.00
11,100.00	90.00	179.96	6,948.00	-4,306.60	-2,678.63	4,844.39	0.00	0.00	0.00
11,200.00	90.00	179.96	6,948.00	-4,406.60	-2,678.55	4,941.12	0.00	0.00	0.00
11,300.00	90.00	179.96	6,948.00	-4,506.60	-2,678.48	5,037.84	0.00	0.00	0.00
11,400.00	90.00	179.96	6,948.00	-4,606.60	-2,678.40	5,134.56	0.00	0.00	0.00
11,500.00	90.00	179.96	6,948.00	-4,706.60	-2,678.33	5,231.29	0.00	0.00	0.00
11,600.00	90.00	179.96	6,948.00	-4,806.60	-2,678.25	5,328.01	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Aristocrat H14-785
Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

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)
11,700.00	90.00	179.96	6,948.00	-4,906.60	-2,678.18	5,424.74	0.00	0.00	0.00
11,800.00	90.00	179.96	6,948.00	-5,006.60	-2,678.10	5,521.46	0.00	0.00	0.00
11,900.00	90.00	179.96	6,948.00	-5,106.60	-2,678.03	5,618.19	0.00	0.00	0.00
12,000.00	90.00	179.96	6,948.00	-5,206.60	-2,677.95	5,714.91	0.00	0.00	0.00
12,100.00	90.00	179.96	6,948.00	-5,306.60	-2,677.88	5,811.63	0.00	0.00	0.00
12,200.00	90.00	179.96	6,948.00	-5,406.60	-2,677.80	5,908.36	0.00	0.00	0.00
12,300.00	90.00	179.96	6,948.00	-5,506.60	-2,677.73	6,005.08	0.00	0.00	0.00
12,400.00	90.00	179.96	6,948.00	-5,606.60	-2,677.65	6,101.81	0.00	0.00	0.00
12,500.00	90.00	179.96	6,948.00	-5,706.60	-2,677.58	6,198.53	0.00	0.00	0.00
12,600.00	90.00	179.96	6,948.00	-5,806.60	-2,677.50	6,295.25	0.00	0.00	0.00
12,700.00	90.00	179.96	6,948.00	-5,906.60	-2,677.43	6,391.98	0.00	0.00	0.00
12,800.00	90.00	179.96	6,948.00	-6,006.60	-2,677.35	6,488.70	0.00	0.00	0.00
12,900.00	90.00	179.96	6,948.00	-6,106.60	-2,677.28	6,585.43	0.00	0.00	0.00
13,000.00	90.00	179.96	6,948.00	-6,206.60	-2,677.20	6,682.15	0.00	0.00	0.00
13,100.00	90.00	179.96	6,948.00	-6,306.60	-2,677.13	6,778.87	0.00	0.00	0.00
13,200.00	90.00	179.96	6,948.00	-6,406.60	-2,677.05	6,875.60	0.00	0.00	0.00
13,300.00	90.00	179.96	6,948.00	-6,506.60	-2,676.98	6,972.32	0.00	0.00	0.00
13,400.00	90.00	179.96	6,948.00	-6,606.60	-2,676.90	7,069.05	0.00	0.00	0.00
13,500.00	90.00	179.96	6,948.00	-6,706.60	-2,676.83	7,165.77	0.00	0.00	0.00
13,600.00	90.00	179.96	6,948.00	-6,806.60	-2,676.75	7,262.50	0.00	0.00	0.00
13,700.00	90.00	179.96	6,948.00	-6,906.60	-2,676.68	7,359.22	0.00	0.00	0.00
13,800.00	90.00	179.96	6,948.00	-7,006.60	-2,676.60	7,455.94	0.00	0.00	0.00
13,900.00	90.00	179.96	6,948.00	-7,106.60	-2,676.53	7,552.67	0.00	0.00	0.00
14,000.00	90.00	179.96	6,948.00	-7,206.60	-2,676.45	7,649.39	0.00	0.00	0.00
14,100.00	90.00	179.96	6,948.00	-7,306.60	-2,676.38	7,746.12	0.00	0.00	0.00
14,200.00	90.00	179.96	6,948.00	-7,406.60	-2,676.30	7,842.84	0.00	0.00	0.00
14,300.00	90.00	179.96	6,948.00	-7,506.60	-2,676.23	7,939.56	0.00	0.00	0.00
14,400.00	90.00	179.96	6,948.00	-7,606.60	-2,676.15	8,036.29	0.00	0.00	0.00
14,500.00	90.00	179.96	6,948.00	-7,706.60	-2,676.08	8,133.01	0.00	0.00	0.00
14,600.00	90.00	179.96	6,948.00	-7,806.60	-2,676.00	8,229.74	0.00	0.00	0.00
14,700.00	90.00	179.96	6,948.00	-7,906.60	-2,675.93	8,326.46	0.00	0.00	0.00
14,800.00	90.00	179.96	6,948.00	-8,006.60	-2,675.85	8,423.18	0.00	0.00	0.00
14,900.00	90.00	179.96	6,948.00	-8,106.60	-2,675.78	8,519.91	0.00	0.00	0.00
15,000.00	90.00	179.96	6,948.00	-8,206.60	-2,675.70	8,616.63	0.00	0.00	0.00
15,100.00	90.00	179.96	6,948.00	-8,306.60	-2,675.63	8,713.36	0.00	0.00	0.00
15,200.00	90.00	179.96	6,948.00	-8,406.60	-2,675.55	8,810.08	0.00	0.00	0.00
15,300.00	90.00	179.96	6,948.00	-8,506.60	-2,675.48	8,906.81	0.00	0.00	0.00
15,400.00	90.00	179.96	6,948.00	-8,606.60	-2,675.40	9,003.53	0.00	0.00	0.00
15,500.00	90.00	179.96	6,948.00	-8,706.60	-2,675.33	9,100.25	0.00	0.00	0.00
15,600.00	90.00	179.96	6,948.00	-8,806.60	-2,675.25	9,196.98	0.00	0.00	0.00
15,700.00	90.00	179.96	6,948.00	-8,906.60	-2,675.18	9,293.70	0.00	0.00	0.00
15,800.00	90.00	179.96	6,948.00	-9,006.60	-2,675.10	9,390.43	0.00	0.00	0.00
15,900.00	90.00	179.96	6,948.00	-9,106.60	-2,675.03	9,487.15	0.00	0.00	0.00
16,000.00	90.00	179.96	6,948.00	-9,206.60	-2,674.95	9,583.87	0.00	0.00	0.00
16,100.00	90.00	179.96	6,948.00	-9,306.60	-2,674.88	9,680.60	0.00	0.00	0.00
16,200.00	90.00	179.96	6,948.00	-9,406.60	-2,674.80	9,777.32	0.00	0.00	0.00
16,300.00	90.00	179.96	6,948.00	-9,506.60	-2,674.73	9,874.05	0.00	0.00	0.00
16,400.00	90.00	179.96	6,948.00	-9,606.60	-2,674.65	9,970.77	0.00	0.00	0.00
16,500.00	90.00	179.96	6,948.00	-9,706.60	-2,674.58	10,067.50	0.00	0.00	0.00
16,600.00	90.00	179.96	6,948.00	-9,806.60	-2,674.50	10,164.22	0.00	0.00	0.00
16,700.00	90.00	179.96	6,948.00	-9,906.60	-2,674.43	10,260.94	0.00	0.00	0.00
16,800.00	90.00	179.96	6,948.00	-10,006.60	-2,674.35	10,357.67	0.00	0.00	0.00
16,900.00	90.00	179.96	6,948.00	-10,106.60	-2,674.28	10,454.39	0.00	0.00	0.00
17,000.00	90.00	179.96	6,948.00	-10,206.60	-2,674.20	10,551.12	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Aristocrat H14-785
Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

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)
17,013.71	90.00	179.96	6,948.00	-10,220.31	-2,674.19	10,564.38	0.00	0.00	0.00
TD @ 17013.71' MD/6948.00' TVD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Aristocrat H14-785-SI - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,335,198.22	3,243,140.96	40.2502396	-104.6289051
Aristocrat H14-785-KC - plan hits target center - Point	0.00	0.00	6,519.48	-742.59	-2,379.29	1,334,455.64	3,240,761.68	40.2482651	-104.6374547
Aristocrat H14-785-TF - plan hits target center - Point	0.00	0.00	6,948.00	-1,369.44	-2,680.83	1,333,828.78	3,240,460.13	40.2465524	-104.6385567
Aristocrat H14-785-BI - plan hits target center - Point	0.00	0.00	6,948.00	-10,220.31	-2,674.19	1,324,977.93	3,240,466.78	40.2222569	-104.6388408

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
499.00	499.00	Pierre				
659.00	659.00	Upper Pierre Aquifer Top				
1,573.00	1,573.00	Upper Pierre Aquifer Base				
3,908.49	3,809.00	Parkman				
4,413.98	4,217.00	Sussex				
5,308.89	4,937.00	Shannon				
6,815.31	6,149.00	Teepee Buttes				
7,644.76	6,785.00	Sharon Springs				
7,712.22	6,823.00	Top A Chalk				
7,723.63	6,829.00	Top A Marl				
7,759.47	6,847.00	Top B Chalk				
7,873.00	6,895.00	Top B Marl				
8,083.81	6,944.00	Top C Chalk				

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Aristocrat H14-785
Company:	Northern Region - DJ Basin	TVD Reference:	Well @ 4810.00ft
Project:	Mustang	MD Reference:	Well @ 4810.00ft
Site:	H Section 02	North Reference:	Grid
Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Wellbore:	Aristocrat H14-785		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,200.00	2,200.00	0.00	0.00	Build: 2°/100'
4,021.63	3,901.33	-166.81	-534.48	Hold: 36.43° Inc, 252.67° Azm
7,275.80	6,519.49	-742.59	-2,379.29	KOP: Build 9°/100' @ 7275.79' MD
8,162.83	6,948.00	-1,369.44	-2,680.83	LP: 8162.83' MD, 90.00° Inc, 179.96° Azm
17,013.71	6,948.00	-10,220.31	-2,674.19	TD @ 17013.71' MD/6948.00' TVD

Northern Region - DJ Basin

Mustang

H Section 02

Aristocrat H14-785

Aristocrat H14-785

Plan #1

Anticollision Summary Report

01 October, 2018

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	10/1/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	17,013.71	Plan #1 (Aristocrat H14-785)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 01						
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	198.80	256.81	7,537.04	7,535.83	6,256.926	CC
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	2,227.33	2,355.99	7,539.13	7,523.33	477.224	ES
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	6,900.00	6,900.00	9,796.89	9,748.13	200.910	SF
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Drilled	2,296.11	2,557.93	5,849.88	5,833.14	349.486	CC
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Drilled	2,300.00	2,561.85	5,849.88	5,833.12	348.921	ES
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Drilled	7,800.00	6,942.58	8,664.63	8,612.02	164.689	SF
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As Drilled	0.00	49.37	6,666.78			
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As Drilled	500.00	521.92	6,668.52	6,665.31	2,076.071	ES
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As Drilled	7,275.80	7,275.80	9,310.34	9,258.35	179.112	SF
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As Drilled	2,297.06	2,572.05	6,312.14	6,295.35	375.896	CC
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As Drilled	2,300.00	2,575.03	6,312.14	6,295.33	375.437	ES
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As Drilled	7,850.00	6,859.76	9,164.78	9,112.38	174.902	SF
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As Drilled	990.96	1,035.98	6,280.10	6,273.33	928.575	CC
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As Drilled	1,100.00	1,100.00	6,280.63	6,273.25	851.258	ES
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As Drilled	7,700.00	7,018.02	9,885.40	9,831.73	184.209	SF
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As Drilled	1,673.53	1,718.60	6,275.75	6,264.15	540.777	CC
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As Drilled	1,800.00	1,800.00	6,276.33	6,263.98	508.414	ES
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As Drilled	7,350.00	7,350.00	8,717.45	8,661.31	155.265	SF
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	3,049.30	4,900.01	5,628.27	5,599.47	195.443	CC, ES
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	7,900.00	7,143.15	7,988.49	7,933.83	146.156	SF
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys	2,282.06	2,394.49	4,468.77	4,452.56	275.672	CC
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys	2,300.00	2,400.00	4,468.83	4,452.54	274.291	ES
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys	7,500.00	6,721.81	6,829.30	6,777.38	131.545	SF
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	2,200.00	2,208.00	3,627.50	3,600.58	134.741	CC, ES
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	7,550.00	6,732.95	6,232.85	6,146.19	71.922	SF
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	2,200.00	2,208.00	4,732.49	4,705.57	175.786	CC, ES
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	7,700.00	6,824.43	7,478.98	7,391.14	85.148	SF
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	2,209.53	2,272.66	6,261.96	6,246.52	405.359	CC, ES
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,750.00	6,993.67	9,016.52	8,963.62	170.434	SF
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	1,890.24	1,935.28	7,059.81	7,046.69	537.817	CC
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	2,100.00	2,109.38	7,060.36	7,045.88	487.391	ES
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	7,900.00	6,900.01	9,977.53	9,924.89	189.533	SF
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	200.00	246.94	3,033.21	3,031.97	2,451.818	CC
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	213.16	245.26	3,033.22	3,031.94	2,372.908	ES
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	7,700.00	7,110.42	6,700.82	6,646.56	123.484	SF
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	3,046.29	4,146.16	4,127.17	4,101.85	163.006	CC, ES
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	7,400.00	6,747.29	5,913.22	5,860.45	112.052	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 01						
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	2,217.29	2,300.00	7,229.12	7,213.54	463.981	CC, ES
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	7,800.00	7,800.00	9,904.33	9,847.49	174.246	SF
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	2,200.00	2,231.00	3,660.22	3,633.09	134.951	CC, ES
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	8,150.00	6,978.90	6,234.19	6,142.88	68.275	SF
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys	2,200.00	2,224.00	3,032.04	3,004.97	112.042	CC, ES
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys	7,550.00	6,748.95	5,694.18	5,607.49	65.681	SF
Shelton H13-715 - Shelton H13-715 - Plan #1	2,231.65	2,358.28	6,075.51	6,059.66	383.357	CC, ES
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled	11,400.00	6,700.01	9,996.94	9,936.64	165.787	SF
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	2,266.10	2,439.69	4,886.87	4,870.64	301.050	CC, ES
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	8,000.00	6,900.01	7,654.33	7,601.16	143.970	SF
Shelton H13-715 - Shelton H13-715 - Plan #1	2,200.00	2,284.00	7,066.37	7,050.76	452.745	CC, ES
Shelton H13-715 - Shelton H13-715 - Plan #1	17,013.71	14,839.77	9,847.43	9,693.78	64.090	SF
Shelton H13-724 - Shelton H13-724 - Plan #1	2,579.40	3,519.06	6,993.81	6,972.69	331.238	CC
Shelton H13-724 - Shelton H13-724 - Plan #1	2,600.00	3,539.62	6,993.87	6,972.62	329.010	ES
Shelton H13-724 - Shelton H13-724 - Plan #1	17,013.71	14,977.41	9,220.85	9,067.33	60.063	SF
Shelton H13-730 - Shelton H13-730 - Plan #1	2,754.48	4,081.57	6,891.46	6,867.82	291.507	CC, ES
Shelton H13-730 - Shelton H13-730 - Plan #1	17,000.00	15,130.80	8,906.66	8,732.35	51.097	SF
Shelton H13-734 - Shelton H13-734 - Plan #1	2,983.22	4,809.84	6,748.79	6,721.77	249.794	CC
Shelton H13-734 - Shelton H13-734 - Plan #1	3,000.00	4,826.53	6,748.83	6,721.69	248.669	ES
Shelton H13-734 - Shelton H13-734 - Plan #1	17,000.00	15,012.37	8,593.80	8,441.18	56.309	SF
Shelton H13-744 - Shelton H13-744 - Plan #1	2,200.00	2,286.00	4,932.52	4,916.91	315.883	CC, ES
Shelton H13-744 - Shelton H13-744 - Plan #1	17,000.00	14,986.34	7,968.93	7,814.65	51.653	SF
Shelton H13-753 - Shelton H13-753 - Plan #1	2,200.00	2,285.00	4,887.89	4,872.28	313.097	CC, ES
Shelton H13-753 - Shelton H13-753 - Plan #1	16,700.00	14,986.78	7,297.90	7,145.68	47.944	SF
Shelton H13-763 - Shelton H13-763 - Plan #1	2,777.37	3,746.96	4,764.71	4,742.24	212.071	CC
Shelton H13-763 - Shelton H13-763 - Plan #1	2,800.00	3,769.56	4,764.79	4,742.17	210.577	ES
Shelton H13-763 - Shelton H13-763 - Plan #1	16,400.00	15,057.58	6,633.55	6,482.32	43.863	SF
Shelton H13-768 - Shelton H13-768 - Plan #1	2,105.93	2,160.93	2,876.77	2,861.94	193.991	CC
Shelton H13-768 - Shelton H13-768 - Plan #1	2,200.00	2,227.62	2,877.03	2,861.63	186.789	ES
Shelton H13-768 - Shelton H13-768 - Plan #1	16,500.00	15,127.64	6,332.65	6,179.64	41.389	SF
Shelton H13-773 - Shelton H13-773 - Plan #1	2,107.54	2,161.54	2,854.87	2,840.03	192.410	CC
Shelton H13-773 - Shelton H13-773 - Plan #1	2,200.00	2,227.16	2,855.12	2,839.72	185.387	ES
Shelton H13-773 - Shelton H13-773 - Plan #1	16,400.00	14,927.16	6,006.03	5,854.35	39.597	SF
Shelton H13-782 - Shelton H13-782 - Plan #1	2,200.00	2,254.00	2,832.97	2,817.47	182.769	CC, ES
Shelton H13-782 - Shelton H13-782 - Plan #1	16,200.00	14,997.54	5,356.13	5,206.21	35.727	SF
Shelton H3-615 - Wellbore #1 - Plan #1	7,703.42	12,126.79	231.63	152.02	2.909	CC
Shelton H3-615 - Wellbore #1 - Plan #1	7,750.00	12,144.13	237.11	149.27	2.699	ES
Shelton H3-615 - Wellbore #1 - Plan #1	7,800.00	12,161.02	254.55	159.56	2.680	SF
Shelton H3-625 - Wellbore #1 - Plan #1	7,436.96	12,024.61	721.24	628.66	7.791	CC
Shelton H3-625 - Wellbore #1 - Plan #1	7,450.00	12,031.46	721.45	628.23	7.739	ES
Shelton H3-625 - Wellbore #1 - Plan #1	7,550.00	12,081.59	737.27	639.59	7.547	SF
Shelton H3-635 - Wellbore #1 - Plan #1	7,338.72	12,046.43	1,319.04	1,217.29	12.964	CC
Shelton H3-635 - Wellbore #1 - Plan #1	7,350.00	12,052.69	1,319.17	1,217.16	12.933	ES
Shelton H3-635 - Wellbore #1 - Plan #1	7,450.00	12,106.61	1,331.83	1,227.73	12.794	SF
Shelton H3-645 - Wellbore #1 - Plan #1	7,288.26	11,921.71	1,941.42	1,839.97	19.138	CC
Shelton H3-645 - Wellbore #1 - Plan #1	7,300.00	11,928.35	1,941.55	1,839.89	19.099	ES
Shelton H3-645 - Wellbore #1 - Plan #1	7,450.00	12,010.21	1,966.21	1,862.02	18.870	SF
Shelton H3-655 - Wellbore #1 - Plan #1	7,176.95	11,865.55	2,577.74	2,478.05	25.858	CC
Shelton H3-655 - Wellbore #1 - Plan #1	7,275.80	11,921.73	2,579.02	2,477.64	25.439	ES
Shelton H3-655 - Wellbore #1 - Plan #1	7,400.00	12,009.28	2,596.24	2,492.64	25.060	SF
Shelton H3-665 - Wellbore #1 - Plan #1	7,003.30	11,839.01	3,213.49	3,117.24	33.387	CC
Shelton H3-665 - Wellbore #1 - Plan #1	7,100.00	11,906.05	3,214.48	3,116.79	32.905	ES
Shelton H3-665 - Wellbore #1 - Plan #1	7,450.00	12,089.33	3,257.80	3,155.87	31.963	SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
H Section 01						
Shelton H3-675 - Wellbore #1 - Plan #1	6,834.88	11,601.87	3,850.14	3,757.19	41.422	CC
Shelton H3-675 - Wellbore #1 - Plan #1	6,900.00	11,638.86	3,850.51	3,756.64	41.021	ES
Shelton H3-675 - Wellbore #1 - Plan #1	7,500.00	11,973.33	3,927.11	3,825.40	38.610	SF
Shelton H3-683 - Wellbore #1 - Plan #1	6,686.89	11,457.70	4,372.74	4,282.31	48.351	CC
Shelton H3-683 - Wellbore #1 - Plan #1	6,800.00	11,521.94	4,373.74	4,281.68	47.510	ES
Shelton H3-683 - Wellbore #1 - Plan #1	7,500.00	11,913.10	4,461.85	4,360.38	43.976	SF
Shelton State H1-759 - Wellbore #1 - Plan #1	2,429.00	2,864.98	4,927.72	4,909.47	269.981	CC, ES
Shelton State H1-759 - Wellbore #1 - Plan #1	10,700.00	6,800.00	7,515.17	7,454.99	124.876	SF
Shelton State H1-766 - Wellbore #1 - Plan #1	2,724.97	3,601.53	4,818.66	4,796.84	220.813	CC, ES
Shelton State H1-766 - Wellbore #1 - Plan #1	6,500.00	7,947.26	5,910.50	5,858.47	113.589	SF
Shelton State H1-780 - Wellbore #1 - Plan #1	2,106.67	2,166.67	2,893.19	2,878.34	194.793	CC
Shelton State H1-780 - Wellbore #1 - Plan #1	2,200.00	2,235.18	2,893.45	2,878.02	187.567	ES
Shelton State H1-780 - Wellbore #1 - Plan #1	8,000.00	8,000.00	5,924.23	5,865.74	101.287	SF
Shelton State H1-783 - Wellbore #1 - Plan #1	1,903.34	1,953.34	2,871.48	2,858.12	214.945	CC
Shelton State H1-783 - Wellbore #1 - Plan #1	2,000.00	2,038.47	2,871.58	2,857.58	205.063	ES
Shelton State H1-783 - Wellbore #1 - Plan #1	6,700.00	7,810.76	4,903.24	4,851.81	95.345	SF
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	2,200.00	2,224.00	3,073.85	3,062.31	266.434	CC, ES
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	7,650.00	6,812.10	5,798.81	5,758.78	144.871	SF
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	2,200.00	2,222.00	2,773.94	2,746.90	102.571	CC, ES
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	7,750.00	6,864.37	5,406.06	5,317.17	60.815	SF
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	2,285.40	2,566.33	6,880.86	6,864.12	411.145	CC
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	2,300.00	2,580.34	6,880.90	6,864.06	408.715	ES
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	8,000.00	6,996.11	9,688.70	9,635.17	181.020	SF
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	417.32	495.36	5,380.68	5,377.86	1,905.360	CC
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	2,236.64	2,383.02	5,384.35	5,368.42	338.034	ES
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	7,900.00	6,975.60	8,240.67	8,187.51	155.010	SF
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	2,235.06	2,353.36	5,308.93	5,293.10	335.413	CC, ES
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	12,900.00	12,900.00	9,621.96	9,534.24	109.690	SF
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	2,230.69	2,352.91	6,717.22	6,701.42	425.016	CC, ES
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	10,500.00	6,963.08	9,981.33	9,921.07	165.631	SF
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	2,200.00	2,230.00	3,351.49	3,324.37	123.608	CC, ES
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	7,750.00	6,872.37	6,066.58	5,977.88	68.390	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 02						
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbore	2,530.76	2,504.02	522.95	492.31	17.070	CC
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbore	2,700.00	2,671.47	523.52	490.84	16.020	ES
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbore	3,400.00	3,339.21	570.73	529.72	13.915	SF
ARISTOCRAT ANGUS #43-2(PR) - Wellbore #1 - No Sur	2,200.00	2,202.00	2,035.67	2,008.80	75.761	CC, ES
ARISTOCRAT ANGUS #43-2(PR) - Wellbore #1 - No Sur	7,300.00	6,540.89	4,511.74	4,427.86	53.784	SF
ARISTOCRAT ANGUS #44-2(PR) - Wellbore #1 - No Sur	2,200.00	2,194.00	1,282.85	1,256.05	47.868	CC, ES
ARISTOCRAT ANGUS #44-2(PR) - Wellbore #1 - No Sur	3,500.00	3,449.84	1,556.68	1,514.49	36.893	SF
ARISTOCRAT ANGUS #44-2A(PR) - Wellbore #1 - Wellbore	2,200.00	2,202.00	1,870.37	1,843.50	69.609	CC, ES
ARISTOCRAT ANGUS #44-2A(PR) - Wellbore #1 - Wellbore	4,021.63	3,903.33	2,342.23	2,294.15	48.714	SF
Aristocrat Angus 5-6-2(PR) - Wellbore #1 - As Drilled	2,384.26	2,418.60	314.81	296.69	17.379	CC
Aristocrat Angus 5-6-2(PR) - Wellbore #1 - As Drilled	2,400.00	2,434.40	314.85	296.60	17.246	ES
Aristocrat Angus 5-6-2(PR) - Wellbore #1 - As Drilled	2,600.00	2,620.00	327.04	307.10	16.395	SF
Aristocrat Angus 6-4-2(PR) - Wellbore #1 - As Drilled	2,230.28	2,280.46	266.22	248.41	14.943	CC, ES
Aristocrat Angus 6-4-2(PR) - Wellbore #1 - As Drilled	2,300.00	2,341.84	268.89	250.41	14.555	SF
Aristocrat H14-715 - Aristocrat H14-715 - Plan #1	2,200.00	2,239.00	2,060.64	2,045.19	133.405	CC, ES
Aristocrat H14-715 - Aristocrat H14-715 - Plan #1	17,013.71	16,285.95	4,466.14	4,295.72	26.206	SF
Aristocrat H14-725 - Aristocrat H14-725 - Plan #1	2,643.07	2,958.64	2,034.25	2,014.98	105.590	CC, ES
Aristocrat H14-725 - Aristocrat H14-725 - Plan #1	17,013.71	16,331.34	3,828.17	3,657.40	22.417	SF
Aristocrat H14-735 - Aristocrat H14-735 - Plan #1	3,129.46	3,741.80	1,954.71	1,931.34	83.628	CC, ES
Aristocrat H14-735 - Aristocrat H14-735 - Plan #1	17,009.43	16,444.52	3,190.07	3,019.41	18.692	SF
Aristocrat H14-744 - Aristocrat H14-744 - Plan #1	3,609.42	4,502.86	1,825.50	1,797.95	66.260	CC, ES
Aristocrat H14-744 - Aristocrat H14-744 - Plan #1	17,000.00	16,697.10	2,552.07	2,380.90	14.909	SF
Aristocrat H14-756 - Aristocrat H14-756 - Plan #1	2,200.00	2,202.00	67.50	52.19	4.408	CC, ES
Aristocrat H14-756 - Aristocrat H14-756 - Plan #1	2,400.00	2,398.51	70.57	53.93	4.240	SF
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	2,200.00	2,201.00	45.00	29.69	2.939	CC
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	2,300.00	2,300.22	45.36	29.36	2.835	ES
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	2,500.00	2,498.63	48.13	30.80	2.778	SF
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	2,200.00	2,201.00	22.50	7.19	1.470	Level 3, CC
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	2,500.00	2,500.12	23.67	6.32	1.365	Level 3, ES
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	2,600.00	2,599.82	24.57	6.54	1.363	Level 3, SF
Aristocrat PC H11-27D(PR) - Wellbore #1 - As Drilled	2,624.73	2,853.32	1,678.08	1,657.56	81.769	CC, ES
Aristocrat PC H11-27D(PR) - Wellbore #1 - As Drilled	4,600.00	4,651.76	2,089.79	2,052.23	55.635	SF
Bonkiewicz 1(PA) - Wellbore #1 - Wellbore #1	2,250.03	2,251.37	2,734.08	2,718.56	176.256	CC
Bonkiewicz 1(PA) - Wellbore #1 - Wellbore #1	2,300.00	2,304.91	2,734.26	2,718.38	172.265	ES
Bonkiewicz 1(PA) - Wellbore #1 - Wellbore #1	7,300.00	6,499.07	4,531.65	4,480.61	88.782	SF
Jenson 21-2C(SI) - Wellbore #1 - Wellbore #1	4,156.08	3,949.51	2,901.93	2,852.26	58.420	CC
Jenson 21-2C(SI) - Wellbore #1 - Wellbore #1	4,300.00	4,065.30	2,903.19	2,851.79	56.481	ES
Jenson 21-2C(SI) - Wellbore #1 - Wellbore #1	7,350.00	6,518.43	3,470.77	3,382.18	39.182	SF
Jepsen #1(SI) - Wellbore #1 - Wellbore #1	5,321.69	4,907.31	350.99	286.64	5.454	CC, ES
Jepsen #1(SI) - Wellbore #1 - Wellbore #1	5,400.00	4,970.31	354.06	288.77	5.423	SF
JEPSEN #2(PR) - Wellbore #1 - As Drilled	4,833.74	4,425.33	3,226.05	3,191.98	94.675	CC
JEPSEN #2(PR) - Wellbore #1 - As Drilled	5,000.00	5,000.00	3,227.32	3,190.29	87.158	ES
JEPSEN #2(PR) - Wellbore #1 - As Drilled	7,450.00	6,591.90	3,587.56	3,531.63	64.142	SF
JEPSEN #23A-2(DA) - Wellbore #1 - Wellbore #1	1,515.32	1,500.00	946.03	935.27	87.902	CC, ES
JEPSEN #23A-2(DA) - Wellbore #1 - Wellbore #1	1,700.00	1,500.00	963.89	952.68	86.018	SF
Jepsen #3(PA) - Wellbore #1 - Wellbore #1	6,793.56	6,078.33	145.47	94.03	2.828	CC, ES
Jepsen #3(PA) - Wellbore #1 - Wellbore #1	6,800.00	6,083.48	145.52	94.04	2.827	SF
Jepsen #4(SI) - Wellbore #1 - Wellbore #1	6,749.33	6,040.92	1,574.13	1,491.31	19.007	CC
Jepsen #4(SI) - Wellbore #1 - Wellbore #1	6,800.00	6,081.68	1,574.41	1,490.94	18.861	ES
Jepsen #4(SI) - Wellbore #1 - Wellbore #1	7,350.00	6,523.43	1,618.29	1,527.95	17.913	SF
Jepsen 11-2(PA) - Wellbore #1 - Wellbore #1	5,766.60	5,358.00	3,965.70	3,923.00	92.877	CC
Jepsen 11-2(PA) - Wellbore #1 - Wellbore #1	5,800.00	5,379.04	3,965.77	3,922.80	92.292	ES
Jepsen 11-2(PA) - Wellbore #1 - Wellbore #1	7,500.00	6,736.02	4,150.47	4,093.00	72.216	SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	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 02						
Jepsen 21-02(TA) - Wellbore #1 - Wellbore #1	3,647.13	3,496.97	3,726.47	3,701.50	149.195	CC
Jepsen 21-02(TA) - Wellbore #1 - Wellbore #1	3,900.00	3,763.29	3,727.88	3,700.87	138.069	ES
Jepsen 21-02(TA) - Wellbore #1 - Wellbore #1	7,450.00	6,598.98	4,339.36	4,283.98	78.363	SF
JEPSEN 22-2(SI) - Wellbore #1 - Wellbore #1	4,293.67	4,077.08	1,166.94	1,136.99	38.960	CC
JEPSEN 22-2(SI) - Wellbore #1 - Wellbore #1	4,300.00	4,082.04	1,166.95	1,136.95	38.896	ES
JEPSEN 22-2(SI) - Wellbore #1 - Wellbore #1	5,700.00	5,700.00	1,462.29	1,420.19	34.731	SF
Jepsen 23-2(SI) - Wellbore #1 - Wellbore #1	4,285.81	4,068.88	1,132.74	1,081.37	22.053	CC
Jepsen 23-2(SI) - Wellbore #1 - Wellbore #1	4,300.00	4,080.30	1,132.77	1,081.23	21.981	ES
Jepsen 23-2(SI) - Wellbore #1 - Wellbore #1	5,100.00	4,723.94	1,231.62	1,170.56	20.169	SF
Jepsen 5-2(PA) - Wellbore #1 - Wellbore #1	6,120.68	5,582.70	2,801.64	2,755.97	61.347	CC, ES
Jepsen 5-2(PA) - Wellbore #1 - Wellbore #1	7,400.00	6,533.41	2,928.73	2,872.56	52.141	SF
Shelton 17-2(PA) - Wellbore #1 - Wellbore #1	551.36	541.37	3,046.78	3,043.32	880.279	CC
Shelton 17-2(PA) - Wellbore #1 - Wellbore #1	2,225.84	2,230.71	3,055.83	3,040.47	198.918	ES
Shelton 17-2(PA) - Wellbore #1 - Wellbore #1	7,450.00	6,549.46	4,994.28	4,942.51	96.483	SF
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	0.00	23.45	2,718.70			
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	300.00	299.37	2,719.39	2,717.59	1,514.424	ES
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	6,700.00	6,700.00	5,464.95	5,392.24	75.162	SF
Shelton 31-2(PA) - Wellbore #1 - Wellbore #1	690.99	672.00	3,626.81	3,622.38	820.189	CC
Shelton 31-2(PA) - Wellbore #1 - Wellbore #1	1,900.00	1,854.76	3,631.55	3,618.67	281.885	ES
Shelton 31-2(PA) - Wellbore #1 - Wellbore #1	7,400.00	6,421.59	5,160.12	5,107.75	98.527	SF
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	1,543.17	1,538.32	3,754.29	3,743.78	357.225	CC
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	1,700.00	1,677.93	3,754.60	3,743.03	324.614	ES
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	7,550.00	6,751.57	6,084.59	6,031.84	115.339	SF
Shelton 42-2(PR) - Wellbore #1 - Wellbore #1	1,696.78	1,699.83	2,699.61	2,688.00	232.359	CC
Shelton 42-2(PR) - Wellbore #1 - Wellbore #1	2,216.87	2,233.32	2,700.32	2,684.98	175.994	ES
Shelton 42-2(PR) - Wellbore #1 - Wellbore #1	7,350.00	6,616.45	5,040.31	4,989.82	99.828	SF
Shelton 7-2(PR) - Wellbore #1 - Gyro Surveys	1,274.40	1,232.47	2,200.58	2,192.11	259.880	CC
Shelton 7-2(PR) - Wellbore #1 - Gyro Surveys	2,400.00	2,391.57	2,203.48	2,186.96	133.353	ES
Shelton 7-2(PR) - Wellbore #1 - Gyro Surveys	7,275.80	6,518.06	3,808.90	3,757.70	74.388	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 03						
Beebe 17-3(PR) - Wellbore #1 - Wellbore #1	7,353.13	6,523.89	3,940.70	3,884.36	69.940	CC, ES
Beebe 17-3(PR) - Wellbore #1 - Wellbore #1	7,650.00	6,735.72	4,008.08	3,949.20	68.066	SF
ARISTOCRAT #24-3C(PR) - Wellbore #1 - Wellbore #1	7,940.01	6,899.45	3,946.95	1,500.34	1.613	CC
ARISTOCRAT #24-3C(PR) - Wellbore #1 - Wellbore #1	8,000.00	6,914.08	3,949.08	1,497.01	1.611	ES
ARISTOCRAT #24-3C(PR) - Wellbore #1 - Wellbore #1	8,050.00	6,922.85	3,954.10	1,498.68	1.610	SF
ARISTOCRAT #33-3C(PR) - Wellbore #1 - Wellbore #1	7,617.34	6,732.38	2,995.53	2,903.67	32.611	CC, ES
ARISTOCRAT #33-3C(PR) - Wellbore #1 - Wellbore #1	7,850.00	6,850.43	3,032.71	2,938.20	32.090	SF
ARISTOCRAT #43-3C(PR) - Wellbore #1 - Wellbore #1	7,435.51	6,593.76	2,021.77	1,930.51	22.155	CC
ARISTOCRAT #43-3C(PR) - Wellbore #1 - Wellbore #1	7,450.00	6,604.49	2,021.93	1,930.48	22.108	ES
ARISTOCRAT #43-3C(PR) - Wellbore #1 - Wellbore #1	7,600.00	6,707.54	2,043.31	1,949.88	21.870	SF
ARISTOCRAT ANGUS #11-3(PR) - Wellbore #1 - Wellbore #1	7,554.72	6,693.11	6,636.74	4,260.80	2.793	CC
ARISTOCRAT ANGUS #11-3(PR) - Wellbore #1 - Wellbore #1	7,700.00	6,781.43	6,650.49	4,242.71	2.762	ES
ARISTOCRAT ANGUS #11-3(PR) - Wellbore #1 - Wellbore #1	7,850.00	6,851.43	6,693.10	4,259.97	2.751	SF
ARISTOCRAT ANGUS #1-3(PR) - Wellbore #1 - Wellbore #1	7,618.13	6,733.87	2,078.67	-311.28	0.870	Level 1, CC
ARISTOCRAT ANGUS #1-3(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,807.37	2,091.46	-325.27	0.865	Level 1, ES, SF
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellbore #1	5,400.00	5,009.31	6,347.11	4,574.65	3.581	SF
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellbore #1	7,750.00	4,603.00	5,543.87	4,037.45	3.680	ES
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellbore #1	7,863.25	4,603.00	5,540.63	4,040.12	3.692	CC
ARISTOCRAT ANGUS #14-3A(PR) - Wellbore #1 - Wellbore #1	8,042.33	6,931.71	4,973.41	2,515.91	2.024	CC
ARISTOCRAT ANGUS #14-3A(PR) - Wellbore #1 - Wellbore #1	8,100.00	6,938.47	4,975.26	2,515.13	2.022	ES, SF
ARISTOCRAT ANGUS #2-0-3(PR) - Wellbore #1 - Wellbore #1	7,550.21	6,691.10	6,201.61	3,826.35	2.611	CC
ARISTOCRAT ANGUS #2-0-3(PR) - Wellbore #1 - Wellbore #1	7,700.00	6,782.43	6,216.34	3,808.16	2.581	ES
ARISTOCRAT ANGUS #2-0-3(PR) - Wellbore #1 - Wellbore #1	7,850.00	6,852.43	6,260.16	3,826.63	2.572	SF
ARISTOCRAT ANGUS #21-3(PR) - Wellbore #1 - Wellbore #1	7,480.94	6,646.97	5,458.81	3,098.76	2.313	CC
ARISTOCRAT ANGUS #21-3(PR) - Wellbore #1 - Wellbore #1	7,650.00	6,758.10	5,478.70	3,078.66	2.283	ES
ARISTOCRAT ANGUS #21-3(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,812.37	5,508.93	3,089.30	2.277	SF
ARISTOCRAT ANGUS #2-4-3X(PR) - Wellbore #1 - Wellbore #1	7,586.32	6,714.82	3,664.51	1,281.09	1.538	CC
ARISTOCRAT ANGUS #2-4-3X(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,808.37	3,682.65	1,265.37	1.523	ES
ARISTOCRAT ANGUS #2-4-3X(PR) - Wellbore #1 - Wellbore #1	7,800.00	6,831.75	3,695.41	1,269.63	1.523	SF
ARISTOCRAT ANGUS #34-3C(PR) - Wellbore #1 - Wellbore #1	7,834.97	6,856.51	2,356.52	-75.48	0.969	Level 1, CC
ARISTOCRAT ANGUS #34-3C(PR) - Wellbore #1 - Wellbore #1	7,900.00	6,880.28	2,359.38	-81.42	0.967	Level 1, ES, SF
ARISTOCRAT ANGUS #4-0-3(PR) - Wellbore #1 - Wellbore #1	7,479.39	6,630.85	5,523.51	3,169.10	2.346	CC
ARISTOCRAT ANGUS #4-0-3(PR) - Wellbore #1 - Wellbore #1	7,650.00	6,743.10	5,543.78	3,148.97	2.315	ES
ARISTOCRAT ANGUS #4-0-3(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,797.37	5,574.22	3,159.84	2.309	SF
ARISTOCRAT ANGUS #44-3C(PR) - Wellbore #1 - No S	7,717.29	6,788.68	1,165.50	1,073.56	12.678	CC, ES
ARISTOCRAT ANGUS #44-3C(PR) - Wellbore #1 - No S	7,800.00	6,828.75	1,171.36	1,078.21	12.575	SF
ARISTOCRAT ANGUS #6-4-3(PR) - Wellbore #1 - Wellbore #1	7,607.99	6,723.57	2,977.07	590.68	1.248	Level 3, CC
ARISTOCRAT ANGUS #6-4-3(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,803.37	2,990.99	575.64	1.238	Level 3, ES, SF
ARISTOCRAT ANGUS #7-6-3(PR) - Wellbore #1 - Wellbore #1	7,617.87	6,733.71	2,056.42	-333.48	0.860	Level 1, CC
ARISTOCRAT ANGUS #7-6-3(PR) - Wellbore #1 - Wellbore #1	7,750.00	6,807.37	2,069.29	-347.45	0.856	Level 1, ES, SF
Aristocrat Angus 0-8-3(PR) - Wellbore #1 - Wellbore #1	8,133.39	7,110.60	5,629.63	5,572.04	97.765	CC, ES
Aristocrat Angus 0-8-3(PR) - Wellbore #1 - Wellbore #1	11,200.00	7,130.83	6,482.55	6,405.34	83.957	SF
Aristocrat Angus 2-0-3 - Wellbore #1 - Actual	7,487.45	6,848.29	6,675.11	6,615.30	111.595	CC
Aristocrat Angus 2-0-3 - Wellbore #1 - Actual	7,500.00	6,859.66	6,675.22	6,615.30	111.395	ES
Aristocrat Angus 2-0-3 - Wellbore #1 - Actual	7,900.00	7,090.39	6,789.44	6,726.74	108.296	SF
ARISTOCRAT ANGUS 2-3(PR) - Wellbore #1 - Wellbore #1	7,578.94	6,950.16	5,705.75	5,643.83	92.153	CC, ES
ARISTOCRAT ANGUS 2-3(PR) - Wellbore #1 - Wellbore #1	7,950.00	7,297.09	5,790.79	5,725.90	89.249	SF
Aristocrat Angus 3-3(PR) - Wellbore #1 - Wellbore #1	7,874.48	7,065.71	4,512.52	4,451.21	73.606	CC, ES
Aristocrat Angus 3-3(PR) - Wellbore #1 - Wellbore #1	8,500.00	7,123.20	4,684.18	4,619.19	72.083	SF
Aristocrat Angus 4-0-3 - Aristocrat Angus 4-0-3 - Actual	7,410.93	6,721.54	5,831.86	5,770.94	95.725	CC, ES
Aristocrat Angus 4-0-3 - Aristocrat Angus 4-0-3 - Actual	7,850.00	6,992.23	5,969.85	5,905.75	93.143	SF
Aristocrat Angus 4-0-3 (DO NOT USE) - Original Drilling	7,481.04	6,750.45	4,863.69	4,806.17	84.553	CC, ES
Aristocrat Angus 4-0-3 (DO NOT USE) - Original Drilling	7,850.00	6,968.22	4,958.39	4,897.85	81.910	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 03						
ARISTOCRAT ANGUS 4-2-3(PR) - Wellbore #1 - Wellbo	7,481.04	6,750.45	4,863.70	4,806.18	84.553	CC, ES
ARISTOCRAT ANGUS 4-2-3(PR) - Wellbore #1 - Wellbo	7,850.00	6,968.22	4,958.40	4,897.86	81.910	SF
Aristocrat Angus 6-4-3(PR) - Wellbore #1 - Wellbore #1	7,607.99	6,723.57	2,977.07	2,885.25	32.424	CC, ES
Aristocrat Angus 6-4-3(PR) - Wellbore #1 - Wellbore #1	7,850.00	6,847.43	3,017.50	2,922.91	31.903	SF
ARISTOCRAT ANGUS 6-8-3(PR) - Wellbore #1 - Wellbo	8,055.55	7,081.07	1,742.56	1,677.46	26.766	CC, ES
ARISTOCRAT ANGUS 6-8-3(PR) - Wellbore #1 - Wellbo	8,200.00	7,087.87	1,757.21	1,691.09	26.577	SF
BB DRAW H #3-14JI(PR) - Wellbore #1 - Wellbore #1	7,943.30	6,902.37	3,994.61	1,546.99	1.632	CC
BB DRAW H #3-14JI(PR) - Wellbore #1 - Wellbore #1	8,000.00	6,916.08	3,996.50	1,543.76	1.629	ES
BB DRAW H #3-14JI(PR) - Wellbore #1 - Wellbore #1	8,050.00	6,924.85	4,001.31	1,545.23	1.629	SF
BB DRAW H #3-6JI(SI) - Wellbore #1 - Wellbore #1	7,549.57	6,714.67	4,822.16	2,438.65	2.023	CC
BB DRAW H #3-6JI(SI) - Wellbore #1 - Wellbore #1	7,700.00	6,806.43	4,837.34	2,420.72	2.002	ES
BB DRAW H #3-6JI(SI) - Wellbore #1 - Wellbore #1	7,800.00	6,855.75	4,864.11	2,429.63	1.998	SF
BB Draw H 03-02J(PA) - Wellbore #1 - Wellbore #1	7,576.19	6,914.10	6,116.67	6,059.43	106.860	CC, ES
BB Draw H 03-02J(PA) - Wellbore #1 - Wellbore #1	8,000.00	7,027.60	6,236.15	6,176.04	103.741	SF
BB Draw H3-3J(PR) - Wellbore #1 - Wellbore #1	7,957.45	6,997.21	4,682.73	4,626.85	83.808	CC, ES
BB Draw H3-3J(PR) - Wellbore #1 - Wellbore #1	9,400.00	7,024.45	5,139.68	5,075.96	80.656	SF
Beebe Draw H15-715 - Wellbore #1 - Plan #1	13,329.38	13,113.87	690.13	553.35	5.046	CC, ES, SF
Beebe Draw H15-725 - Wellbore #1 - Plan #1	13,984.23	13,544.40	1,359.49	1,212.12	9.225	CC, ES
Beebe Draw H15-725 - Wellbore #1 - Plan #1	14,000.00	13,540.63	1,359.63	1,212.17	9.220	SF
Beebe Draw H15-736 - Wellbore #1 - Plan #1	8,177.78	7,576.08	2,020.66	1,958.98	32.760	CC
Beebe Draw H15-736 - Wellbore #1 - Plan #1	14,700.00	14,037.99	2,029.14	1,869.62	12.720	ES
Beebe Draw H15-736 - Wellbore #1 - Plan #1	14,800.00	14,037.99	2,034.57	1,874.30	12.695	SF
Beebe Draw H15-746 - Wellbore #1 - Plan #1	8,162.27	7,465.50	2,680.43	2,619.83	44.231	CC
Beebe Draw H15-746 - Wellbore #1 - Plan #1	15,300.00	14,598.32	2,697.15	2,525.96	15.755	ES
Beebe Draw H15-746 - Wellbore #1 - Plan #1	15,600.00	14,603.19	2,713.95	2,539.93	15.595	SF
Beebe Draw H15-754 - Wellbore #1 - Plan #1	10,926.53	10,173.18	3,317.94	3,231.02	38.172	CC
Beebe Draw H15-754 - Wellbore #1 - Plan #1	16,000.00	15,214.27	3,366.67	3,193.62	19.456	ES
Beebe Draw H15-754 - Wellbore #1 - Plan #1	16,400.00	15,204.30	3,395.38	3,219.02	19.252	SF
Beebe Draw H15-764 - Wellbore #1 - Plan #1	8,147.97	7,310.57	4,000.03	3,944.02	71.420	CC
Beebe Draw H15-764 - Wellbore #1 - Plan #1	16,700.00	15,834.37	4,036.24	3,851.07	21.798	ES
Beebe Draw H15-764 - Wellbore #1 - Plan #1	17,013.71	15,834.37	4,054.90	3,866.81	21.558	SF
Beebe Draw H15-774 - Wellbore #1 - Plan #1	8,023.24	6,259.10	4,615.23	4,560.11	83.731	CC
Beebe Draw H15-774 - Wellbore #1 - Plan #1	17,013.71	16,251.99	4,703.05	4,512.03	24.621	ES, SF
Beebe Draw H15-783 - Wellbore #1 - Plan #1	8,014.78	5,725.55	5,026.74	4,972.71	93.046	CC, ES
Beebe Draw H15-783 - Wellbore #1 - Plan #1	17,013.71	16,307.34	5,245.32	5,078.73	31.486	SF
Gun Club 43-3 #1(PA) - Wellbore #1 - Wellbore #1	7,286.21	6,492.14	4,505.45	4,449.53	80.570	CC, ES
Gun Club 43-3 #1(PA) - Wellbore #1 - Wellbore #1	7,550.00	6,600.00	4,561.51	4,503.65	78.842	SF
Gun Club UPRR 31-3 2(PA) - Wellbore #1 - Wellbore #1	7,376.83	6,587.29	4,795.15	4,738.55	84.718	CC, ES
Gun Club UPRR 31-3 2(PA) - Wellbore #1 - Wellbore #1	7,750.00	6,816.98	4,898.96	4,839.35	82.188	SF
Moser UPRR 32-3 #1(PA) - Wellbore #1 - Wellbore #1	7,478.84	6,633.79	3,889.23	3,832.62	68.711	CC, ES
Moser UPRR 32-3 #1(PA) - Wellbore #1 - Wellbore #1	7,800.00	6,831.86	3,962.24	3,902.91	66.791	SF
Moser UPRR 42-3 #2(PA) - Wellbore #1 - Wellbore #1	7,316.75	6,459.46	3,117.99	3,062.01	55.696	CC, ES
Moser UPRR 42-3 #2(PA) - Wellbore #1 - Wellbore #1	7,550.00	6,651.05	3,160.17	3,102.09	54.413	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 10						
ARISTOCRAT #21-10C(PR) - Wellbore #1 - Wellbore #1	8,710.04	6,946.00	3,714.67	3,621.56	39.896	CC, ES
ARISTOCRAT #21-10C(PR) - Wellbore #1 - Wellbore #1	9,800.00	6,946.00	3,871.28	3,770.60	38.453	SF
ARISTOCRAT #31-10C(PR) - Wellbore #1 - Wellbore #1	8,717.39	6,927.00	2,320.77	2,227.80	24.963	CC, ES
ARISTOCRAT #31-10C(PR) - Wellbore #1 - Wellbore #1	9,200.00	6,927.00	2,370.42	2,273.54	24.467	SF
ARISTOCRAT #41-10C(PR) - Wellbore #1 - Wellbore #1	8,594.74	6,910.00	779.24	686.82	8.432	CC
ARISTOCRAT #41-10C(PR) - Wellbore #1 - Wellbore #1	8,600.00	6,910.00	779.25	686.76	8.425	ES
ARISTOCRAT #41-10C(PR) - Wellbore #1 - Wellbore #1	8,700.00	6,910.00	786.31	692.31	8.365	SF
ARISTOCRAT ANGUS #1-10(PR) - Wellbore #1 - Wellbore #1	8,696.35	6,937.00	2,454.39	2,361.41	26.396	CC
ARISTOCRAT ANGUS #1-10(PR) - Wellbore #1 - Wellbore #1	8,700.00	6,937.00	2,454.40	2,361.39	26.389	ES
ARISTOCRAT ANGUS #1-10(PR) - Wellbore #1 - Wellbore #1	9,200.00	6,937.00	2,505.54	2,408.59	25.845	SF
ARISTOCRAT ANGUS #13-10(PR) - Wellbore #1 - Wellbore #1	11,443.45	6,953.00	5,214.67	5,107.46	48.640	CC
ARISTOCRAT ANGUS #13-10(PR) - Wellbore #1 - Wellbore #1	11,500.00	6,953.00	5,214.98	5,107.26	48.413	ES
ARISTOCRAT ANGUS #13-10(PR) - Wellbore #1 - Wellbore #1	13,200.00	6,953.00	5,502.57	5,380.85	45.206	SF
ARISTOCRAT ANGUS #1-6-10(PR) - Wellbore #1 - Wellbore #1	11,479.16	6,955.00	5,215.48	5,108.02	48.537	CC
ARISTOCRAT ANGUS #1-6-10(PR) - Wellbore #1 - Wellbore #1	11,500.00	6,955.00	5,215.52	5,107.88	48.453	ES
ARISTOCRAT ANGUS #1-6-10(PR) - Wellbore #1 - Wellbore #1	13,200.00	6,955.00	5,492.04	5,370.31	45.116	SF
ARISTOCRAT ANGUS #21-10(PR) - Wellbore #1 - Wellbore #1	8,646.16	4,575.00	4,355.64	4,284.93	61.596	CC, ES
ARISTOCRAT ANGUS #21-10(PR) - Wellbore #1 - Wellbore #1	10,400.00	4,575.00	4,695.48	4,612.79	56.780	SF
ARISTOCRAT ANGUS #42-10(PR) - Wellbore #1 - No S	9,865.46	6,915.00	619.92	522.14	6.340	CC, ES
ARISTOCRAT ANGUS #42-10(PR) - Wellbore #1 - No S	10,000.00	6,915.00	634.36	533.55	6.293	SF
ARISTOCRAT ANGUS #5-2-10(PR) - Wellbore #1 - Wellbore #1	8,707.91	6,937.00	2,443.41	2,350.38	26.266	CC, ES
ARISTOCRAT ANGUS #5-2-10(PR) - Wellbore #1 - Wellbore #1	9,200.00	6,937.00	2,492.46	2,395.55	25.719	SF
ARISTOCRAT ANGUS #7-2-10(PR) - Wellbore #1 - Wellbore #1	9,835.64	6,917.00	626.05	528.40	6.411	CC, ES
ARISTOCRAT ANGUS #7-2-10(PR) - Wellbore #1 - Wellbore #1	9,900.00	6,917.00	629.35	530.21	6.348	SF
Aristocrat Angus 14-10 - Wellbore #1 - Wellbore #1 - As	12,522.90	6,957.80	5,231.64	5,153.59	67.036	CC
Aristocrat Angus 14-10 - Wellbore #1 - Wellbore #1 - As	12,600.00	6,957.33	5,232.20	5,153.42	66.413	ES
Aristocrat Angus 14-10 - Wellbore #1 - Wellbore #1 - As	14,600.00	6,945.52	5,628.88	5,534.05	59.361	SF
Aristocrat Angus 6-4-10(PR) - Wellbore #1 - MWD Surve	10,470.85	7,113.13	1,572.46	1,505.18	23.370	CC
Aristocrat Angus 6-4-10(PR) - Wellbore #1 - MWD Surve	10,500.00	7,112.13	1,572.73	1,504.91	23.189	ES
Aristocrat Angus 6-4-10(PR) - Wellbore #1 - MWD Surve	11,000.00	7,093.93	1,659.01	1,583.08	21.848	SF
ARISTOCRAT ANGUS FEDERAL #0-4-10(PR) - Wellbore #1	10,602.10	7,060.65	5,692.63	5,622.73	81.440	CC, ES
ARISTOCRAT ANGUS FEDERAL #0-4-10(PR) - Wellbore #1	13,100.00	7,075.99	6,216.53	6,129.39	71.333	SF
ARISTOCRAT ANGUS FEDERAL #1-2-10(PR) - Wellbore #1	8,348.07	6,939.00	4,517.64	4,425.70	49.139	CC, ES
ARISTOCRAT ANGUS FEDERAL #1-2-10(PR) - Wellbore #1	9,800.00	6,939.00	4,745.22	4,644.40	47.062	SF
ARISTOCRAT ANGUS FEDERAL #2-10(PR) - Wellbore #1	8,368.84	6,939.00	4,517.73	4,425.74	49.110	CC
ARISTOCRAT ANGUS FEDERAL #2-10(PR) - Wellbore #1	8,400.00	6,939.00	4,517.84	4,425.71	49.035	ES
ARISTOCRAT ANGUS FEDERAL #2-10(PR) - Wellbore #1	9,900.00	6,939.00	4,770.16	4,668.69	47.012	SF
ARISTOCRAT ANGUS FEDERAL #2-4-10(PR) - Wellbore #1	11,408.18	6,950.00	5,181.48	5,074.52	48.443	CC
ARISTOCRAT ANGUS FEDERAL #2-4-10(PR) - Wellbore #1	11,500.00	6,950.00	5,182.29	5,074.51	48.080	ES
ARISTOCRAT ANGUS FEDERAL #2-4-10(PR) - Wellbore #1	13,100.00	6,950.00	5,450.68	5,329.68	45.044	SF
FEDERAL #11-10(PR) - Wellbore #1 - No Surveys	8,372.54	6,934.00	4,607.31	4,515.35	50.102	CC
FEDERAL #11-10(PR) - Wellbore #1 - No Surveys	8,400.00	6,934.00	4,607.39	4,515.31	50.035	ES
FEDERAL #11-10(PR) - Wellbore #1 - No Surveys	9,900.00	6,934.00	4,853.91	4,752.54	47.883	SF
FEDERAL #12-10(PR) - Wellbore #1 - Wellbore #1	9,675.50	6,955.00	4,093.93	3,996.73	42.120	CC
FEDERAL #12-10(PR) - Wellbore #1 - Wellbore #1	9,700.00	6,955.00	4,094.00	3,996.62	42.040	ES
FEDERAL #12-10(PR) - Wellbore #1 - Wellbore #1	10,900.00	6,955.00	4,273.13	4,166.24	39.978	SF
FEDERAL #22-10(PR) - Wellbore #1 - Wellbore #1	9,678.95	6,954.00	4,071.56	3,974.36	41.886	CC
FEDERAL #22-10(PR) - Wellbore #1 - Wellbore #1	9,700.00	6,954.00	4,071.62	3,974.25	41.818	ES
FEDERAL #22-10(PR) - Wellbore #1 - Wellbore #1	10,900.00	6,954.00	4,250.72	4,143.84	39.770	SF
FEDERAL #32-10(PR) - Wellbore #1 - Wellbore #1	9,799.90	6,925.00	2,134.45	2,036.91	21.882	CC
FEDERAL #32-10(PR) - Wellbore #1 - Wellbore #1	9,800.00	6,925.00	2,134.45	2,036.91	21.882	ES
FEDERAL #32-10(PR) - Wellbore #1 - Wellbore #1	10,300.00	6,925.00	2,192.26	2,089.58	21.351	SF
FRICO #23-10(PR) - Wellbore #1 - Wellbore #1	10,768.15	6,948.00	3,651.58	3,548.56	35.443	CC

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 10						
FRICO #23-10(PR) - Wellbore #1 - Wellbore #1	10,800.00	6,948.00	3,651.72	3,548.39	35.340	ES
FRICO #23-10(PR) - Wellbore #1 - Wellbore #1	11,800.00	6,948.00	3,794.57	3,682.30	33.799	SF
Frico 28-15 - Original Drilling - Original Drilling - As Drille	12,600.00	7,555.17	3,296.65	3,195.13	32.473	SF
Frico 28-15 - Original Drilling - Original Drilling - As Drille	13,363.10	7,566.60	3,207.13	3,111.26	33.452	CC, ES
HSR-BEEBE DRAW #14-10(PA) - Wellbore #1 - Wellbor	12,898.47	6,948.00	5,215.90	5,098.98	44.613	CC
HSR-BEEBE DRAW #14-10(PA) - Wellbore #1 - Wellbor	12,900.00	6,948.00	5,215.90	5,098.97	44.607	ES
HSR-BEEBE DRAW #14-10(PA) - Wellbore #1 - Wellbor	14,500.00	6,948.00	5,456.23	5,325.56	41.756	SF
HSR-BEEBE DRAW #4-15(PR) - Wellbore #1 - Wellbore	13,987.65	7,050.00	5,047.25	4,945.91	49.806	CC
HSR-BEEBE DRAW #4-15(PR) - Wellbore #1 - Wellbore	14,000.00	7,050.00	5,047.27	4,945.81	49.750	ES
HSR-BEEBE DRAW #4-15(PR) - Wellbore #1 - Wellbore	15,300.00	7,050.00	5,215.08	5,103.90	46.910	SF
HSR-Beebe Draw 3-15 - Original Drilling - Original Drillin	13,978.01	7,250.40	5,015.36	4,913.64	49.305	CC
HSR-Beebe Draw 3-15 - Original Drilling - Original Drillin	14,000.00	7,249.37	5,015.41	4,913.48	49.207	ES
HSR-Beebe Draw 3-15 - Original Drilling - Original Drillin	15,300.00	7,188.37	5,186.29	5,074.70	46.474	SF
HSR-FRICO #10-10(PR) - Wellbore #1 - Wellbore #1	10,878.49	6,951.00	3,357.47	3,253.76	32.374	CC
HSR-FRICO #10-10(PR) - Wellbore #1 - Wellbore #1	10,900.00	6,951.00	3,357.54	3,253.62	32.308	ES
HSR-FRICO #10-10(PR) - Wellbore #1 - Wellbore #1	11,800.00	6,951.00	3,481.64	3,369.39	31.017	SF
HSR-FRICO #15-10(PR) - Wellbore #1 - Wellbore #1	10,904.14	6,952.00	3,373.99	3,270.12	32.483	CC, ES
HSR-FRICO #15-10(PR) - Wellbore #1 - Wellbore #1	11,800.00	6,952.00	3,490.90	3,378.70	31.112	SF
HSR-FRICO #16-10(PR) - Wellbore #1 - Wellbore #1	10,933.47	6,953.00	3,396.07	3,292.01	32.637	CC
HSR-FRICO #16-10(PR) - Wellbore #1 - Wellbore #1	11,000.00	6,953.00	3,396.72	3,292.01	32.438	ES
HSR-FRICO #16-10(PR) - Wellbore #1 - Wellbore #1	11,800.00	6,953.00	3,504.88	3,392.73	31.252	SF
HSR-OVIATT #11-10(PR) - Wellbore #1 - Wellbore #1	12,894.56	6,947.00	5,185.22	5,068.34	44.364	CC
HSR-OVIATT #11-10(PR) - Wellbore #1 - Wellbore #1	12,900.00	6,947.00	5,185.22	5,068.29	44.344	ES
HSR-OVIATT #11-10(PR) - Wellbore #1 - Wellbore #1	14,500.00	6,947.00	5,428.07	5,297.41	41.544	SF
REI #11-10(PR) - Wellbore #1 - Wellbore #1	10,753.95	6,948.00	3,693.59	3,590.64	35.879	CC
REI #11-10(PR) - Wellbore #1 - Wellbore #1	10,800.00	6,948.00	3,693.87	3,590.50	35.732	ES
REI #11-10(PR) - Wellbore #1 - Wellbore #1	11,800.00	6,948.00	3,838.86	3,726.58	34.192	SF
REI #35-10(PR) - Wellbore #1 - Wellbore #1	13,216.22	7,203.87	4,368.23	4,283.39	51.489	CC, ES
REI #35-10(PR) - Wellbore #1 - Wellbore #1	14,600.00	7,210.58	4,582.16	4,485.83	47.569	SF
REI #38-9(PR) - Wellbore #1 - Wellbore #1	13,240.93	7,110.67	5,952.25	5,867.74	70.426	CC
REI #38-9(PR) - Wellbore #1 - Wellbore #1	13,300.00	7,109.66	5,952.55	5,867.44	69.938	ES
REI #38-9(PR) - Wellbore #1 - Wellbore #1	15,700.00	7,070.11	6,440.08	6,335.03	61.308	SF
REI FEDERAL #25-10(PA) - Wellbore #1 - Wellbore #1	11,318.20	7,707.93	2,936.66	2,850.39	34.042	CC
REI FEDERAL #25-10(PA) - Wellbore #1 - Wellbore #1	11,400.00	7,709.24	2,937.80	2,849.81	33.387	ES
REI FEDERAL #25-10(PA) - Wellbore #1 - Wellbore #1	12,600.00	7,727.92	3,204.15	3,094.92	29.335	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	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 11						
ARISTOCRAT #11-1(SI) - ARISTOCRAT #11-1 - Wellbor	2,600.05	2,715.43	3,532.65	3,517.64	235.234	CC
ARISTOCRAT #11-1(SI) - ARISTOCRAT #11-1 - Wellbor	2,700.00	2,816.71	3,533.01	3,517.47	227.301	ES
ARISTOCRAT #11-1(SI) - ARISTOCRAT #11-1 - Wellbor	10,800.00	6,896.65	4,465.97	4,414.28	86.394	SF
ARISTOCRAT #11-2(PA) - ARISTOCRAT #11-2 - Wellbore	2,259.74	2,295.21	2,419.75	2,407.01	189.864	CC
ARISTOCRAT #11-2(PA) - ARISTOCRAT #11-2 - Wellbore	2,300.00	2,334.14	2,419.88	2,406.90	186.434	ES
ARISTOCRAT #11-2(PA) - ARISTOCRAT #11-2 - Wellbore	9,200.00	6,950.01	4,335.73	4,290.68	96.246	SF
ARISTOCRAT #11-21(PR) - ARISTOCRAT #11-21(PR) -	5,789.36	5,291.82	1,510.40	1,475.69	43.517	CC
ARISTOCRAT #11-21(PR) - ARISTOCRAT #11-21(PR) -	5,800.00	5,300.37	1,510.42	1,475.62	43.410	ES
ARISTOCRAT #11-21(PR) - ARISTOCRAT #11-21(PR) -	8,500.00	6,806.01	1,620.98	1,575.41	35.567	SF
ARISTOCRAT #11-24(PR) - ARISTOCRAT #11-24 - We	9,600.00	6,909.16	1,534.39	1,483.68	30.258	SF
ARISTOCRAT #11-24(PR) - ARISTOCRAT #11-24 - We	9,715.48	6,909.52	1,530.04	1,479.61	30.341	CC, ES
ARISTOCRAT #39-11(PR) - ARISTOCRAT #39-11 - We	11,308.30	6,968.00	4,354.71	1,870.23	1.753	CC, ES, SF
ARISTOCRAT PC #H11-07(SI) - ARISTOCRAT PC #H11-	10,148.09	6,966.00	2,783.46	2,731.63	53.705	CC, ES
ARISTOCRAT PC #H11-07(SI) - ARISTOCRAT PC #H11-	10,300.00	6,967.12	2,787.60	2,735.64	53.644	SF
ARISTOCRAT PC H#11-18D(PR) - ARISTOCRAT PC H	5,094.47	4,950.94	2,286.19	2,251.24	65.429	CC
ARISTOCRAT PC H#11-18D(PR) - ARISTOCRAT PC H	5,100.00	4,953.91	2,286.19	2,251.20	65.349	ES
ARISTOCRAT PC H#11-18D(PR) - ARISTOCRAT PC H	9,100.00	7,000.01	2,442.75	2,392.50	48.608	SF
ARISTOCRAT PC H#11-19D(PR) - ARISTOCRAT PC H	8,762.56	6,907.00	1,467.26	-982.87	0.599	Level 1, CC, ES, SF
ARISTOCRAT PC H#11-30D (PR) - ARISTOCRAT PC H	8,759.37	6,906.00	1,416.98	-1,032.78	0.578	Level 1, CC, ES, SF
ARISTOCRAT PC H#11-32D(SI) - ARISTOCRAT PC H	10,489.44	7,336.76	304.57	245.81	5.183	CC
ARISTOCRAT PC H#11-32D(SI) - ARISTOCRAT PC H	10,500.00	7,336.86	304.75	245.33	5.129	ES
ARISTOCRAT PC H#11-32D(SI) - ARISTOCRAT PC H	10,600.00	7,337.74	324.02	259.17	4.997	SF
Aristocrat PC H11-22D - Wellbore #1 - Wellbore #1 - As	1,256.41	1,243.79	3,191.38	3,182.72	368.536	CC
Aristocrat PC H11-22D - Wellbore #1 - Wellbore #1 - As	1,600.00	1,576.28	3,192.72	3,180.70	265.530	ES
Aristocrat PC H11-22D - Wellbore #1 - Wellbore #1 - As	11,700.00	7,351.09	3,892.27	3,812.29	48.665	SF
Aristocrat PC H11-29D - Wellbore #1 - Wellbore #1 - As	6,470.14	5,959.45	664.87	615.88	13.569	CC, ES
Aristocrat PC H11-29D - Wellbore #1 - Wellbore #1 - As	6,600.00	6,063.38	669.35	619.47	13.418	SF
Aristocrat PC H11-89HZ - Original Drilling - Original Drilli	9,200.00	11,400.00	212.78	106.17	1.996	SF
Aristocrat PC H11-89HZ - Original Drilling - Original Drilli	9,319.45	11,400.00	176.09	105.84	2.507	CC
Aristocrat PC H11-89HZ - Original Drilling - Original Drilli	9,400.00	11,400.00	193.64	98.78	2.041	ES
BEEBE DRAW #11-2(PR) - BEEBE DRAW #11-2 - Wellbore	3,124.90	3,108.51	2,886.38	2,870.13	177.709	CC
BEEBE DRAW #11-2(PR) - BEEBE DRAW #11-2 - Wellbore	3,200.00	3,178.64	2,886.50	2,869.85	173.452	ES
BEEBE DRAW #11-2(PR) - BEEBE DRAW #11-2 - Wellbore	10,000.00	6,969.15	3,451.59	3,401.25	68.563	SF
CORNELIUS #11-22 (PR) - CORNELIUS #11-22 - Wellbore	8,700.00	6,934.06	321.42	273.91	6.766	SF
CORNELIUS #11-22 (PR) - CORNELIUS #11-22 - Wellbore	8,747.89	6,932.57	317.83	271.55	6.867	CC, ES
CORNELIUS #11-23 (PR) - CORNELIUS #11-23 - Wellbore	9,700.00	7,164.45	318.46	264.73	5.927	SF
CORNELIUS #11-23 (PR) - CORNELIUS #11-23 - Wellbore	9,773.23	7,169.83	309.97	257.96	5.961	CC, ES
CPC BEEBE DRAW #11-1(PA) - CPC BEEBE DRAW #1	3,590.08	3,554.50	1,631.54	1,610.83	78.767	CC
CPC BEEBE DRAW #11-1(PA) - CPC BEEBE DRAW #1	3,600.00	3,563.37	1,631.55	1,610.78	78.551	ES
CPC BEEBE DRAW #11-1(PA) - CPC BEEBE DRAW #1	9,400.00	9,400.00	3,052.54	3,002.30	60.755	SF
FRICO #12-11(PA) - FRICO #12-11 - Wellbore #1 - As D	11,100.00	7,100.01	146.81	83.79	2.329	SF
FRICO #12-11(PA) - FRICO #12-11 - Wellbore #1 - As D	11,152.44	7,100.01	137.13	78.68	2.346	CC, ES
FRICO #23-11(PA) - FRICO #23-11 - Wellbore #1 - As D	11,923.21	6,950.31	2,565.54	2,503.28	41.205	CC, ES
FRICO #23-11(PA) - FRICO #23-11 - Wellbore #1 - As D	12,000.00	6,949.56	2,566.69	2,504.36	41.179	SF
FRICO #25-11(PR) - FRICO #25-11 - Wellbore #1 - As D	11,207.70	6,938.00	3,161.38	688.02	1.278	Level 3, CC, ES, SF
FRICO #33-11(SI) - FRICO #33-11 - Wellbore #1 - As Dr	12,028.81	7,304.98	299.68	229.44	4.266	CC, ES
FRICO #33-11(SI) - FRICO #33-11 - Wellbore #1 - As Dr	12,100.00	7,304.57	308.02	233.29	4.122	SF
FRICO #35-11(SI) - FRICO #35-11 - Wellbore #1 - As Dr	12,672.56	6,948.00	2,959.99	473.47	1.190	Level 2, CC, ES, SF
FRICO #36-11(SI) - FRICO #36-11 - Wellbore #1 - As Dr	12,701.43	6,948.00	2,990.96	504.25	1.203	Level 3, CC, ES, SF
FRICO #37-11(SI) - FRICO #37-11 - Wellbore #1 - As Dr	13,199.60	7,018.28	3,525.23	3,449.83	46.757	CC
FRICO #37-11(SI) - FRICO #37-11 - Wellbore #1 - As Dr	13,200.00	7,018.27	3,525.23	3,449.83	46.756	ES
FRICO #37-11(SI) - FRICO #37-11 - Wellbore #1 - As Dr	13,600.00	7,019.15	3,547.87	3,471.45	46.426	SF
FRICO #38-10(SI) - FRICO #38-10 - Wellbore #1 - As Dr	13,173.88	7,674.83	495.41	410.68	5.847	CC

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 11						
FRICO #38-10(SI) - FRICO #38-10 - Wellbore #1 - As Dr	13,200.00	7,674.91	496.10	409.90	5.755	ES
FRICO #38-10(SI) - FRICO #38-10 - Wellbore #1 - As Dr	13,300.00	7,675.22	511.21	420.85	5.657	SF
FRICO #9-10A(PA) - FRICO #9-10A - Wellbore #1 - As C	10,985.70	7,349.43	883.27	819.88	13.933	CC
FRICO #9-10A(PA) - FRICO #9-10A - Wellbore #1 - As C	11,000.00	7,349.69	883.39	819.69	13.869	ES
FRICO #9-10A(PA) - FRICO #9-10A - Wellbore #1 - As C	11,200.00	7,353.35	908.89	841.11	13.410	SF
Frico 38-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,173.89	7,674.83	495.41	340.61	3.200	CC
Frico 38-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,200.00	7,674.91	496.10	336.73	3.113	ES
Frico 38-10 - Wellbore #1 - Wellbore #1 - As Drilled	13,300.00	7,675.22	511.21	338.02	2.952	SF
HSR-BOST #12-11(PA) - HSR-BOST #12-11 - Wellbore	11,700.00	7,238.82	1,036.58	973.57	16.450	SF
HSR-BOST #12-11(PA) - HSR-BOST #12-11 - Wellbore	11,758.12	7,237.16	1,034.95	972.38	16.539	CC, ES
HSR-CALIENTE #16-11(SI) - HSR-CALIENTE #16-11 - V	12,694.34	6,953.00	4,169.14	1,680.73	1.675	CC
HSR-CALIENTE #16-11(SI) - HSR-CALIENTE #16-11 - V	12,700.00	6,953.00	4,169.14	1,680.71	1.675	ES, SF
HSR-CULLEN #10-11(PR) - HSR-CULLEN #10-11 - Wel	11,242.34	6,946.00	3,198.27	721.90	1.292	Level 3, CC, ES, SF
HSR-GULICK #15-11(SI) - HSR-GULICK #15-11 - Wellb	12,246.56	6,946.00	3,335.83	852.93	1.344	Level 3, CC, ES, SF
HSR-KATE #13-11(PA) - HSR-KATE #13-11 - Wellbore #	12,700.00	7,650.02	177.55	108.17	2.559	ES, SF
HSR-KATE #13-11(PA) - HSR-KATE #13-11 - Wellbore #	12,735.68	7,650.02	173.92	109.72	2.709	CC
HSR-LIBBY #11-11(PA) - HSR-LIBBY #11-11 - Wellbore	11,278.85	7,150.01	1,713.24	1,655.34	29.591	CC, ES, SF
HSR-NICHOLAS #14-11(PA) - HSR-NICHOLAS #14-11	12,600.00	7,150.01	1,633.98	1,561.66	22.593	SF
HSR-NICHOLAS #14-11(PA) - HSR-NICHOLAS #14-11	12,648.18	7,150.01	1,633.27	1,561.10	22.630	CC, ES
HSR-PORTER #9-11(PR) - HSR-PORTER #9-11 - Wellb	11,260.92	6,965.00	4,357.07	1,873.93	1.755	CC, ES
HSR-PORTER #9-11(PR) - HSR-PORTER #9-11 - Wellb	11,300.00	6,965.00	4,357.24	1,873.99	1.755	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 12						
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys	12,793.36	7,024.35	6,912.76	6,832.76	86.409	CC
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys	12,800.00	7,024.20	6,912.77	6,832.73	86.375	ES
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys	14,700.00	6,981.19	7,170.75	7,083.12	81.829	SF
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey	233.73	304.24	7,876.77	7,875.29	5,338.345	CC
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey	800.00	815.57	7,878.26	7,872.99	1,494.423	ES
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey	16,200.00	7,056.38	9,192.75	9,092.75	91.930	SF
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys	2,243.53	2,335.87	6,733.84	6,717.53	412.761	CC
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys	2,400.00	2,600.66	6,734.60	6,716.25	366.970	ES
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys	13,800.00	7,113.07	7,726.51	7,643.81	93.428	SF
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	579.35	617.40	3,353.25	3,349.38	866.734	CC
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	2,300.00	2,500.24	3,356.51	3,335.41	159.093	ES
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	7,550.00	7,550.00	6,290.55	6,223.56	93.905	SF
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys	3,058.86	4,045.15	2,781.66	2,750.31	88.744	CC
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys	3,100.00	4,092.47	2,781.94	2,750.06	87.274	ES
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys	5,100.00	5,502.22	3,450.71	3,398.67	66.308	SF
STROH #H 12-03(SI) - Wellbore #1 - No Surveys	2,200.00	2,241.00	4,603.28	4,576.07	169.176	CC, ES
STROH #H 12-03(SI) - Wellbore #1 - No Surveys	9,900.00	6,989.00	7,143.53	7,047.49	74.380	SF
Stroh #H12-16(SI) - Wellbore #1 - No Surveys	2,200.00	2,217.00	9,114.42	9,087.42	337.565	CC
Stroh #H12-16(SI) - Wellbore #1 - No Surveys	2,300.00	2,316.98	9,115.35	9,087.13	323.013	ES
Stroh #H12-16(SI) - Wellbore #1 - No Surveys	15,400.00	6,965.00	9,982.19	9,853.08	77.315	SF
Stroh #H12-18(PR) - Wellbore #1 - No Surveys	2,200.00	2,244.00	5,280.32	5,253.08	193.872	CC, ES
Stroh #H12-18(PR) - Wellbore #1 - No Surveys	11,100.00	6,992.00	7,681.07	7,579.69	75.767	SF
Stroh #H12-22(PR) - Wellbore #1 - Gyro Surveys	2,231.01	2,327.99	7,022.59	7,006.97	449.490	CC, ES
Stroh #H12-22(PR) - Wellbore #1 - Gyro Surveys	14,300.00	6,800.00	9,617.74	9,538.85	121.913	SF
Stroh #H12-32(PR) - Wellbore #1 - No Surveys	2,200.00	2,227.00	4,373.99	4,346.91	161.475	CC
Stroh #H12-32(PR) - Wellbore #1 - No Surveys	2,300.00	2,326.98	4,374.55	4,346.24	154.538	ES
Stroh #H12-32(PR) - Wellbore #1 - No Surveys	11,100.00	6,975.00	5,296.27	5,193.13	51.347	SF
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled	227.06	270.09	7,068.49	7,067.14	5,229.513	CC
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled	2,211.82	2,280.06	7,068.84	7,053.36	456.572	ES
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled	11,200.00	6,981.32	9,985.37	9,920.76	154.546	SF
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys	1,959.90	2,000.00	7,577.43	7,563.81	556.576	CC
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys	2,100.00	2,100.00	7,577.86	7,563.39	523.925	ES
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys	11,000.00	6,927.55	9,999.26	9,934.36	154.076	SF
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	468.33	492.35	4,325.56	4,322.73	1,533.427	CC
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	2,228.75	2,276.43	4,326.48	4,311.13	281.801	ES
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	11,200.00	7,043.56	6,210.20	6,145.10	95.394	SF
STROH H #12-06(SI) - Wellbore #1 - No Surveys	2,200.00	2,245.00	5,476.03	5,448.79	200.994	CC
STROH H #12-06(SI) - Wellbore #1 - No Surveys	2,300.00	2,344.98	5,477.11	5,448.65	192.422	ES
STROH H #12-06(SI) - Wellbore #1 - No Surveys	11,800.00	6,993.00	7,431.36	7,325.86	70.440	SF
STROH H #12-08(PR) - Wellbore #1 - No Surveys	2,200.00	2,244.00	7,619.23	7,591.99	279.747	CC, ES
STROH H #12-08(PR) - Wellbore #1 - No Surveys	12,800.00	6,992.00	9,989.77	9,878.58	89.838	SF
STROH H #12-10(PR) - Wellbore #1 - No Surveys	2,200.00	2,453.00	6,901.80	6,872.74	237.502	CC
STROH H #12-10(PR) - Wellbore #1 - No Surveys	2,300.00	2,552.98	6,902.78	6,872.50	227.971	ES
STROH H #12-10(PR) - Wellbore #1 - No Surveys	13,400.00	7,201.00	8,391.16	8,274.03	71.643	SF
STROH H #12-11(SI) - Wellbore #1 - No Surveys	2,200.00	2,254.00	5,960.79	5,933.47	218.157	CC
STROH H #12-11(SI) - Wellbore #1 - No Surveys	2,300.00	2,353.98	5,961.53	5,932.99	208.863	ES
STROH H #12-11(SI) - Wellbore #1 - No Surveys	12,700.00	7,002.00	6,864.92	6,752.90	61.281	SF
STROH H #12-12(SI) - Wellbore #1 - No Surveys	2,200.00	2,231.00	5,143.99	5,116.87	189.657	CC
STROH H #12-12(SI) - Wellbore #1 - No Surveys	2,300.00	2,330.98	5,144.44	5,116.10	181.512	ES
STROH H #12-12(SI) - Wellbore #1 - No Surveys	12,000.00	6,979.00	5,476.33	5,367.79	50.452	SF
STROH H #12-13(SI) - Wellbore #1 - No Surveys	12,815.24	6,971.00	5,566.83	5,450.30	47.770	CC, ES
STROH H #12-13(SI) - Wellbore #1 - No Surveys	13,700.00	6,971.00	5,636.70	5,516.76	46.996	SF
STROH H #12-14(PA) - Wellbore #1 - No Surveys	2,200.00	2,251.00	6,531.30	6,504.00	239.266	CC

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 12						
STROH H #12-14(PA) - Wellbore #1 - No Surveys	2,300.00	2,350.98	6,531.91	6,503.39	229.056	ES
STROH H #12-14(PA) - Wellbore #1 - No Surveys	13,400.00	6,999.00	6,837.51	6,720.62	58.500	SF
STROH H #12-20(PR) - Wellbore #1 - No Surveys	2,200.00	2,252.00	5,139.99	5,112.68	188.237	CC
STROH H #12-20(PR) - Wellbore #1 - No Surveys	2,300.00	2,351.98	5,140.85	5,112.32	180.221	ES
STROH H #12-20(PR) - Wellbore #1 - No Surveys	11,700.00	7,000.00	6,568.94	6,463.13	62.081	SF
STROH H #12-21(PR) - Wellbore #1 - No Surveys	2,200.00	2,249.00	6,273.87	6,246.59	229.983	CC
STROH H #12-21(PR) - Wellbore #1 - No Surveys	2,300.00	2,348.98	6,274.96	6,246.46	220.182	ES
STROH H #12-21(PR) - Wellbore #1 - No Surveys	12,600.00	6,997.00	8,207.93	8,097.96	74.642	SF
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys	457.99	496.00	3,374.13	3,371.40	1,238.324	CC
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys	800.00	818.00	3,374.48	3,369.41	666.464	ES
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys	5,900.00	5,900.00	5,755.18	5,708.72	123.886	SF
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	2,200.00	2,231.00	8,272.77	8,245.65	305.013	CC
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	2,300.00	2,330.98	8,273.71	8,245.37	291.925	ES
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	15,000.00	6,979.00	9,444.45	9,319.13	75.362	SF
STROH H #12-9(PR) - Wellbore #1 - No Surveys	2,200.00	2,233.00	8,103.16	8,076.02	298.568	CC
STROH H #12-9(PR) - Wellbore #1 - No Surveys	2,300.00	2,332.98	8,104.29	8,075.93	285.772	ES
STROH H #12-9(PR) - Wellbore #1 - No Surveys	14,100.00	6,981.00	9,997.48	9,878.24	83.844	SF
Stroh H 12-04(PR) - Wellbore #1 - Wellbore #1	2,319.84	2,430.82	3,231.51	3,215.12	197.171	CC, ES
Stroh H 12-04(PR) - Wellbore #1 - Wellbore #1	9,300.00	6,856.88	5,521.93	5,465.57	97.973	SF
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled	1,881.68	1,933.83	5,528.06	5,514.96	421.939	CC
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled	2,100.00	2,120.53	5,528.84	5,514.30	380.389	ES
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled	12,000.00	6,944.36	8,741.83	8,675.81	132.423	SF
Stroh H12-27 - Wellbore #1 - Wellbore #1 - As Drilled	2,242.79	2,387.44	6,167.59	6,151.60	385.708	CC, ES
Stroh H12-27 - Wellbore #1 - Wellbore #1 - As Drilled	12,700.00	6,900.01	9,918.30	9,850.15	145.534	SF
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys	2,365.33	2,487.38	3,443.52	3,426.99	208.373	CC
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys	2,400.00	2,527.93	3,443.59	3,426.80	205.145	ES
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys	10,300.00	6,175.00	5,410.97	5,356.14	98.680	SF
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys	2,886.38	3,504.46	2,919.47	2,895.80	123.317	CC
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys	2,900.00	3,519.00	2,919.50	2,895.71	122.749	ES
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys	8,500.00	7,051.07	5,121.51	5,062.77	87.197	SF
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	2,265.55	2,373.02	3,282.15	3,265.24	194.103	CC
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	2,400.00	2,592.21	3,282.86	3,264.42	178.030	ES
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	9,600.00	7,029.91	5,116.73	5,056.30	84.679	SF
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys	419.37	474.37	6,449.86	6,447.11	2,340.548	CC
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys	2,200.00	2,221.03	6,454.10	6,438.86	423.541	ES
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys	13,400.00	6,900.28	9,318.01	9,244.20	126.241	SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 13						
DILLER #42-13(PR) - Wellbore #1 - No Surveys	15,383.71	6,969.00	9,208.76	9,073.51	68.084	CC
DILLER #42-13(PR) - Wellbore #1 - No Surveys	15,400.00	6,969.00	9,208.78	9,073.43	68.037	ES
DILLER #42-13(PR) - Wellbore #1 - No Surveys	17,013.71	6,969.00	9,351.91	9,208.00	64.983	SF
EPHRAIM H #13-19(SI) - Wellbore #1 - No Surveys	14,706.69	6,978.00	6,002.49	5,872.23	46.080	CC, ES
EPHRAIM H #13-19(SI) - Wellbore #1 - No Surveys	15,700.00	6,978.00	6,084.12	5,949.72	45.267	SF
FORD H #13-29(PR) - Wellbore #1 - No Surveys	13,425.66	6,983.00	6,097.08	5,976.13	50.410	CC, ES
FORD H #13-29(PR) - Wellbore #1 - No Surveys	14,500.00	6,983.00	6,191.01	6,065.62	49.375	SF
FRIDGE USX H #13-22(SI) - Wellbore #1 - No Surveys	16,046.81	6,975.00	8,849.70	8,709.36	63.060	CC
FRIDGE USX H #13-22(SI) - Wellbore #1 - No Surveys	16,100.00	6,975.00	8,849.86	8,709.21	62.921	ES
FRIDGE USX H #13-22(SI) - Wellbore #1 - No Surveys	17,013.71	6,975.00	8,902.36	8,756.71	61.120	SF
KARAKAKES H #13-23(SI) - Wellbore #1 - No Surveys	17,013.71	6,973.00	8,657.55	8,509.74	58.569	CC, ES, SF
Karakakes H13-25 - Original Drilling - Original Drilling - A	17,013.71	7,061.21	6,413.08	6,300.53	56.977	CC, ES, SF
Karakakes H13-32 - Gyros - Gyros	15,868.28	7,100.00	5,029.56	4,926.06	48.593	CC
Karakakes H13-32 - Gyros - Gyros	15,900.00	7,100.00	5,029.66	4,925.96	48.500	ES
Karakakes H13-32 - Gyros - Gyros	17,000.00	7,100.00	5,155.32	5,045.55	46.967	SF
Karakakes H13-32 - Karakakes H13-32 OH - As-Drilled	15,868.17	7,145.65	5,029.38	4,925.71	48.513	CC
Karakakes H13-32 - Karakakes H13-32 OH - As-Drilled	15,900.00	7,145.56	5,029.49	4,925.61	48.420	ES
Karakakes H13-32 - Karakakes H13-32 OH - As-Drilled	17,000.00	7,142.44	5,155.17	5,045.25	46.901	SF
Karakakes H13-33 - Original Drilling - Original Drilling - A	17,013.71	6,997.62	5,086.17	4,974.80	45.670	CC, ES, SF
Karakakes H14-63HN - Original Drilling - Original Drilling	16,900.00	11,623.02	209.79	49.35	1.308	Level 3, SF
Karakakes H14-63HN - Original Drilling - Original Drilling	17,000.00	11,623.02	168.88	45.01	1.363	Level 3, ES
Karakakes H14-63HN - Original Drilling - Original Drilling	17,013.71	11,623.02	167.20	47.91	1.402	Level 3, CC
MILDENVERGER-MOORE H #13-1(SI) - Wellbore #1 - N	13,706.66	6,972.00	9,344.17	9,221.29	76.047	CC
MILDENVERGER-MOORE H #13-1(SI) - Wellbore #1 - N	13,800.00	6,972.00	9,344.63	9,221.24	75.728	ES
MILDENVERGER-MOORE H #13-1(SI) - Wellbore #1 - N	16,500.00	6,972.00	9,752.75	9,616.19	71.417	SF
MOORE UPRC H #13-2(SI) - Wellbore #1 - No Surveys	13,991.30	6,989.00	8,000.98	7,875.90	63.963	CC
MOORE UPRC H #13-2(SI) - Wellbore #1 - No Surveys	14,000.00	6,989.00	8,000.99	7,875.85	63.939	ES
MOORE UPRC H #13-2(SI) - Wellbore #1 - No Surveys	15,900.00	6,989.00	8,225.50	8,091.42	61.346	SF
SHAFFER #32-13(SI) - Wellbore #1 - No Surveys	15,197.51	6,980.00	8,078.92	7,944.97	60.313	CC
SHAFFER #32-13(SI) - Wellbore #1 - No Surveys	15,200.00	6,980.00	8,078.92	7,944.96	60.307	ES
SHAFFER #32-13(SI) - Wellbore #1 - No Surveys	17,013.71	6,980.00	8,280.55	8,137.88	58.041	SF
UPRC #13-10J(SI) - Wellbore #1 - Gyro Surveys	16,300.00	16,300.00	8,001.01	7,861.62	57.397	ES, SF
UPRC #13-10J(SI) - Wellbore #1 - Gyro Surveys	16,504.11	7,058.04	7,998.54	7,890.81	74.245	CC
UPRC #13-11J(SI) - Wellbore #1 - No Surveys	17,013.71	7,005.00	8,657.55	8,509.46	58.458	CC, ES, SF
UPRC #13-12J(SI) - Wellbore #1 - No Surveys	16,744.76	6,968.00	5,825.78	5,680.15	40.004	CC
UPRC #13-12J(SI) - Wellbore #1 - No Surveys	16,800.00	6,968.00	5,826.04	5,680.13	39.931	ES
UPRC #13-12J(SI) - Wellbore #1 - No Surveys	17,013.71	6,968.00	5,831.98	5,685.07	39.697	SF
UPRC #13-3J(SI) - Wellbore #1 - Gyro Surveys	14,004.86	7,100.00	6,661.38	6,572.20	74.695	CC, ES
UPRC #13-3J(SI) - Wellbore #1 - Gyro Surveys	15,600.00	7,100.00	6,849.70	6,753.83	71.449	SF
UPRC #13-4J(SI) - Wellbore #1 - No Surveys	14,096.23	6,974.00	5,435.64	5,309.92	43.235	CC
UPRC #13-4J(SI) - Wellbore #1 - No Surveys	14,100.00	6,974.00	5,435.64	5,309.90	43.229	ES
UPRC #13-4J(SI) - Wellbore #1 - No Surveys	14,900.00	6,974.00	5,494.74	5,365.88	42.640	SF
UPRC #13-5J(SI) - Wellbore #1 - No Surveys	15,390.98	6,992.00	5,670.92	5,535.40	41.849	CC
UPRC #13-5J(SI) - Wellbore #1 - No Surveys	15,400.00	6,992.00	5,670.92	5,535.37	41.835	ES
UPRC #13-5J(SI) - Wellbore #1 - No Surveys	16,200.00	6,992.00	5,728.33	5,589.50	41.262	SF
UPRC #13-6J(SI) - Wellbore #1 - Gyro Surveys	15,056.01	7,000.00	6,981.83	6,885.53	72.505	CC
UPRC #13-6J(SI) - Wellbore #1 - Gyro Surveys	15,100.00	7,000.00	6,981.96	6,885.44	72.332	ES
UPRC #13-6J(SI) - Wellbore #1 - Gyro Surveys	16,700.00	7,000.00	7,172.77	7,069.35	69.356	SF
UPRC #13-9J5(SI) - Wellbore #1 - No Surveys	16,847.61	6,943.00	9,546.08	9,399.88	65.293	CC
UPRC #13-9J5(SI) - Wellbore #1 - No Surveys	16,900.00	6,943.00	9,546.22	9,399.70	65.152	ES
UPRC #13-9J5(SI) - Wellbore #1 - No Surveys	17,013.71	6,943.00	9,547.52	9,400.32	64.859	SF
UPRC 13-13J - Original Drilling - Original Drilling - As Dri	17,013.71	7,133.94	5,818.88	5,705.42	51.284	CC, ES, SF
UPRC 13-14J - Original Drilling - Original Drilling - As Dri	17,013.71	6,845.45	6,849.85	6,737.20	60.805	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

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 13						
UPRC 13-15J - Original Drilling - Original Drilling - As Dri	17,013.71	6,956.11	8,227.54	8,114.75	72.946	CC, ES, SF
UPRC 13-16J - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	6,944.30	9,227.20	9,115.25	82.429	CC, ES, SF
UPRC H13-28D(SI) - Wellbore #1 - MWD Surveys	13,350.63	7,379.33	7,179.70	7,090.44	80.436	CC, ES
UPRC H13-28D(SI) - Wellbore #1 - MWD Surveys	15,000.00	7,373.00	7,366.72	7,272.21	77.953	SF
UPRC H13-30D - UPRC H13-30D OH - As-drilled	13,142.10	13,142.10	5,064.48	4,959.26	48.133	CC
UPRC H13-30D - UPRC H13-30D OH - As-drilled	13,200.00	13,200.00	5,064.81	4,959.15	47.938	ES
UPRC H13-30D - UPRC H13-30D OH - As-drilled	13,500.00	13,500.00	5,077.10	4,969.28	47.085	SF
UPRR # 39 PAN AM 'B' #2(DA) - Wellbore #1 - No Surve	14,223.39	4,595.00	6,444.64	6,347.91	66.628	CC, ES
UPRR # 39 PAN AM 'B' #2(DA) - Wellbore #1 - No Surve	15,700.00	4,595.00	6,611.63	6,508.89	64.351	SF
UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr	17,013.71	6,996.00	5,549.15	5,320.99	24.321	CC, ES, SF
H Section 14						
Bohlender H14-09 - Original Drilling - Original Drilling - A	16,382.35	7,100.21	4,404.76	4,297.55	41.086	CC
Bohlender H14-09 - Original Drilling - Original Drilling - A	16,400.00	7,100.46	4,404.80	4,297.51	41.057	ES
Bohlender H14-09 - Original Drilling - Original Drilling - A	16,900.00	7,107.46	4,435.07	4,326.10	40.699	SF
Bohlender H14-15 - Original Drilling - Original Drilling - A	17,013.71	7,057.24	3,258.79	3,146.25	28.956	CC, ES, SF
Bohlender H14-16 - Original Drilling - Original Drilling - A	17,013.71	6,973.60	3,944.55	3,832.01	35.052	CC, ES, SF
FARMERS #2-14HZ(PR) - FARMERS #2-14HZ - Wellbor	13,404.92	6,957.00	4,147.71	1,652.89	1.663	CC, ES, SF
FRICO #1-14(PR) - FRICO #1-14 - Wellbore #1 - As Drill	13,854.78	6,960.00	4,352.85	1,853.74	1.742	CC, ES
FRICO #1-14(PR) - FRICO #1-14 - Wellbore #1 - As Drill	13,900.00	6,960.00	4,353.08	1,853.81	1.742	SF
FRICO #17-14 (PR) - FRICO #17-14 - Wellbore #1 - As I	14,553.11	6,948.00	3,677.92	1,177.89	1.471	Level 3, CC, ES, SF
FRICO #18-14(PR) - FRICO #18-14 - Wellbore #1 - As D	14,673.57	6,948.00	3,651.10	1,150.17	1.460	Level 3, CC, ES
FRICO #18-14(PR) - FRICO #18-14 - Wellbore #1 - As D	14,700.00	6,948.00	3,651.19	1,150.18	1.460	Level 3, SF
FRICO #21-14(PR) - FRICO #21-14 - Wellbore #1 - As D	14,618.81	6,948.00	3,664.56	1,164.04	1.466	Level 3, CC, ES, SF
FRICO #3-14(PR) - FRICO #3-14 - Wellbore #1 - As Drill	13,685.94	6,949.00	3,692.36	1,198.32	1.480	Level 3, CC
FRICO #3-14(PR) - FRICO #3-14 - Wellbore #1 - As Drill	13,700.00	6,949.00	3,692.39	1,198.31	1.480	Level 3, ES, SF
FRICO #41-14(PR) - FRICO #41-14 - Wellbore #1 - As D	13,900.71	6,958.00	4,349.36	1,850.62	1.741	CC, ES, SF
FRICO #4-14(PR) - FRICO #4-14 - Wellbore #1 - As Drill	13,671.50	6,947.00	3,678.27	1,185.04	1.475	Level 3, CC, ES
FRICO #4-14(PR) - FRICO #4-14 - Wellbore #1 - As Drill	13,700.00	6,947.00	3,678.38	1,185.06	1.475	Level 3, SF
FRICO #8-14(PR) - FRICO #8-14 - Wellbore #1 - As Drill	15,169.82	6,961.00	4,362.07	1,852.89	1.738	CC
FRICO #8-14(PR) - FRICO #8-14 - Wellbore #1 - As Drill	15,200.00	6,961.00	4,362.18	1,852.88	1.738	ES, SF
Frico 2-14(PR) - Frico 2-14 - Wellbore #1 - As Drilled	13,953.22	6,981.39	3,101.59	3,022.85	39.394	CC, ES
Frico 2-14(PR) - Frico 2-14 - Wellbore #1 - As Drilled	14,100.00	6,980.63	3,105.06	3,026.06	39.306	SF
Frico 22-14X(PR) - Frico 22-14X - Wellbore #1 - As Drille	15,800.00	7,618.04	969.62	867.14	9.461	ES, SF
Frico 22-14X(PR) - Frico 22-14X - Wellbore #1 - As Drille	15,813.20	7,618.81	969.53	867.15	9.470	CC
Frico 24-14(PR) - Frico 24-14 - Wellbore #1 - As Drilled	15,855.17	7,011.33	3,664.20	3,571.21	39.404	CC, ES
Frico 24-14(PR) - Frico 24-14 - Wellbore #1 - As Drilled	16,200.00	7,018.33	3,680.38	3,586.39	39.157	SF
Frico 5-14(PR) - Frico 5-14 - Wellbore #1 - As Drilled	15,100.00	7,650.02	475.12	377.93	4.889	SF
Frico 5-14(PR) - Frico 5-14 - Wellbore #1 - As Drilled	15,157.00	7,650.02	471.69	375.34	4.896	CC, ES
Frico 6-14(PR) - Frico 6-14 - Wellbore #1 - As Drilled	15,152.86	7,295.63	1,749.79	1,660.69	19.639	CC, ES, SF
Frico 7-14(PR) - Frico 7-14 - Wellbore #1 - As Drilled	15,169.64	7,000.01	3,152.81	3,064.89	35.858	CC, ES
Frico 7-14(PR) - Frico 7-14 - Wellbore #1 - As Drilled	15,400.00	7,000.01	3,161.22	3,072.81	35.758	SF
Wilcox H14-03J - Original Drilling - Original Drilling - As C	17,013.71	7,400.60	1,843.25	1,719.83	14.935	CC, ES, SF
Wilcox H14-10 - Original Drilling - Original Drilling - As Dr	16,392.16	7,334.90	3,130.49	3,007.77	25.508	CC
Wilcox H14-10 - Original Drilling - Original Drilling - As Dr	16,400.00	7,335.01	3,130.50	3,007.76	25.504	ES
Wilcox H14-10 - Original Drilling - Original Drilling - As Dr	16,500.00	7,336.44	3,132.35	3,009.40	25.478	SF
Wilcox H14-11 - Original Drilling - Original Drilling - As Dr	16,391.37	7,608.59	2,023.28	1,864.29	12.725	CC
Wilcox H14-11 - Original Drilling - Original Drilling - As Dr	16,400.00	7,608.73	2,023.30	1,864.10	12.709	ES
Wilcox H14-11 - Original Drilling - Original Drilling - As Dr	16,700.00	7,613.51	2,046.68	1,881.70	12.405	SF
Wilcox H14-13 - Original Drilling - Original Drilling - As Dr	17,013.71	7,599.21	1,217.36	1,049.42	7.249	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

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 15						
BEEBE DRAW 41-15 #2(PA) - Wellbore #1 - No Surveys	13,612.15	5,475.00	4,195.33	4,083.30	37.447	CC, ES
BEEBE DRAW 41-15 #2(PA) - Wellbore #1 - No Surveys	14,700.00	5,475.00	4,334.08	4,212.81	35.741	SF
BEEBE DRAW CATL. CO 32-15 #1(PA) - Wellbore #1 - I	13,720.91	5,153.00	4,265.49	4,155.63	38.829	CC
BEEBE DRAW CATL. CO 32-15 #1(PA) - Wellbore #1 - I	13,800.00	5,153.00	4,266.22	4,155.60	38.567	ES
BEEBE DRAW CATL. CO 32-15 #1(PA) - Wellbore #1 - I	14,800.00	5,153.00	4,399.86	4,280.98	37.011	SF
Frico 10-15 - Wellbore #1 - Wellbore #1 - As Drilled	16,585.18	7,641.32	2,316.63	2,204.06	20.579	CC
Frico 10-15 - Wellbore #1 - Wellbore #1 - As Drilled	16,600.00	7,641.05	2,316.68	2,203.93	20.548	ES
Frico 10-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,630.02	2,355.92	2,238.07	19.991	SF
Frico 11-15 - Original Drilling - Original Drilling - As Drille	16,552.22	7,105.23	3,830.83	3,722.23	35.274	CC
Frico 11-15 - Original Drilling - Original Drilling - As Drille	16,600.00	7,105.90	3,831.13	3,722.01	35.110	ES
Frico 11-15 - Original Drilling - Original Drilling - As Drille	17,013.71	7,111.55	3,858.52	3,745.12	34.025	SF
Frico 1-15XHZ - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	6,940.00	4,923.75	4,815.94	45.670	CC, ES, SF
Frico 14-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,154.61	3,760.44	3,654.18	35.390	CC, ES, SF
Frico 15-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,524.13	2,530.93	2,411.13	21.126	CC, ES, SF
Frico 16-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,989.89	1,452.42	1,339.34	12.844	CC, ES, SF
Frico 20-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,873.31	1,842.05	1,719.80	15.068	CC, ES, SF
Frico 22-15 - Original Drilling - Original Drilling - As Drille	15,953.74	7,009.79	4,431.15	4,326.92	42.514	CC
Frico 22-15 - Original Drilling - Original Drilling - As Drille	16,000.00	7,009.56	4,431.39	4,326.63	42.299	ES
Frico 22-15 - Original Drilling - Original Drilling - As Drille	17,013.71	7,004.47	4,556.16	4,441.61	39.773	SF
Frico 23-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,463.56	2,994.28	2,875.37	25.182	CC, ES, SF
Frico 25-15 - Original Drilling - Original Drilling - As Drille	15,991.91	7,470.94	3,217.88	3,107.70	29.206	CC, ES
Frico 25-15 - Original Drilling - Original Drilling - As Drille	17,013.71	7,470.35	3,376.21	3,256.18	28.127	SF
Frico 36-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,357.36	3,250.01	3,129.67	27.005	CC, ES, SF
Frico 37-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	7,748.59	2,270.30	2,085.65	12.295	CC, ES, SF
Frico 9-15 - Original Drilling - Original Drilling - As Drilled	15,800.00	8,267.29	1,402.28	1,200.63	6.954	SF
Frico 9-15 - Original Drilling - Original Drilling - As Drilled	16,500.00	8,271.00	1,164.54	1,040.30	9.373	ES
Frico 9-15 - Original Drilling - Original Drilling - As Drilled	16,585.90	8,271.44	1,161.37	1,043.13	9.822	CC
Frico State 31-15 - Original Drilling - Original Drilling - As	14,752.76	6,966.37	5,689.33	5,592.00	58.455	CC
Frico State 31-15 - Original Drilling - Original Drilling - As	14,800.00	6,964.78	5,689.52	5,591.75	58.188	ES
Frico State 31-15 - Original Drilling - Original Drilling - As	16,600.00	6,914.76	5,981.40	5,869.82	53.606	SF
HSR-Frico 12-15 - Wellbore #1 - Wellbore #1 - As Drilled	16,590.30	6,985.68	5,093.84	4,986.14	47.298	CC
HSR-Frico 12-15 - Wellbore #1 - Wellbore #1 - As Drilled	16,600.00	6,985.65	5,093.85	4,986.05	47.253	ES
HSR-Frico 12-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	6,984.49	5,111.41	4,999.40	45.636	SF
HSR-Frico 13-15 - Wellbore #1 - Wellbore #1 - As Drilled	17,013.71	6,971.34	5,200.94	5,092.01	47.746	CC, ES, SF
Wardell Gerald J GU 1 - Wellbore #1 - Wellbore #1 - As I	17,013.71	6,919.17	6,671.56	6,596.58	88.969	CC, ES, SF

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

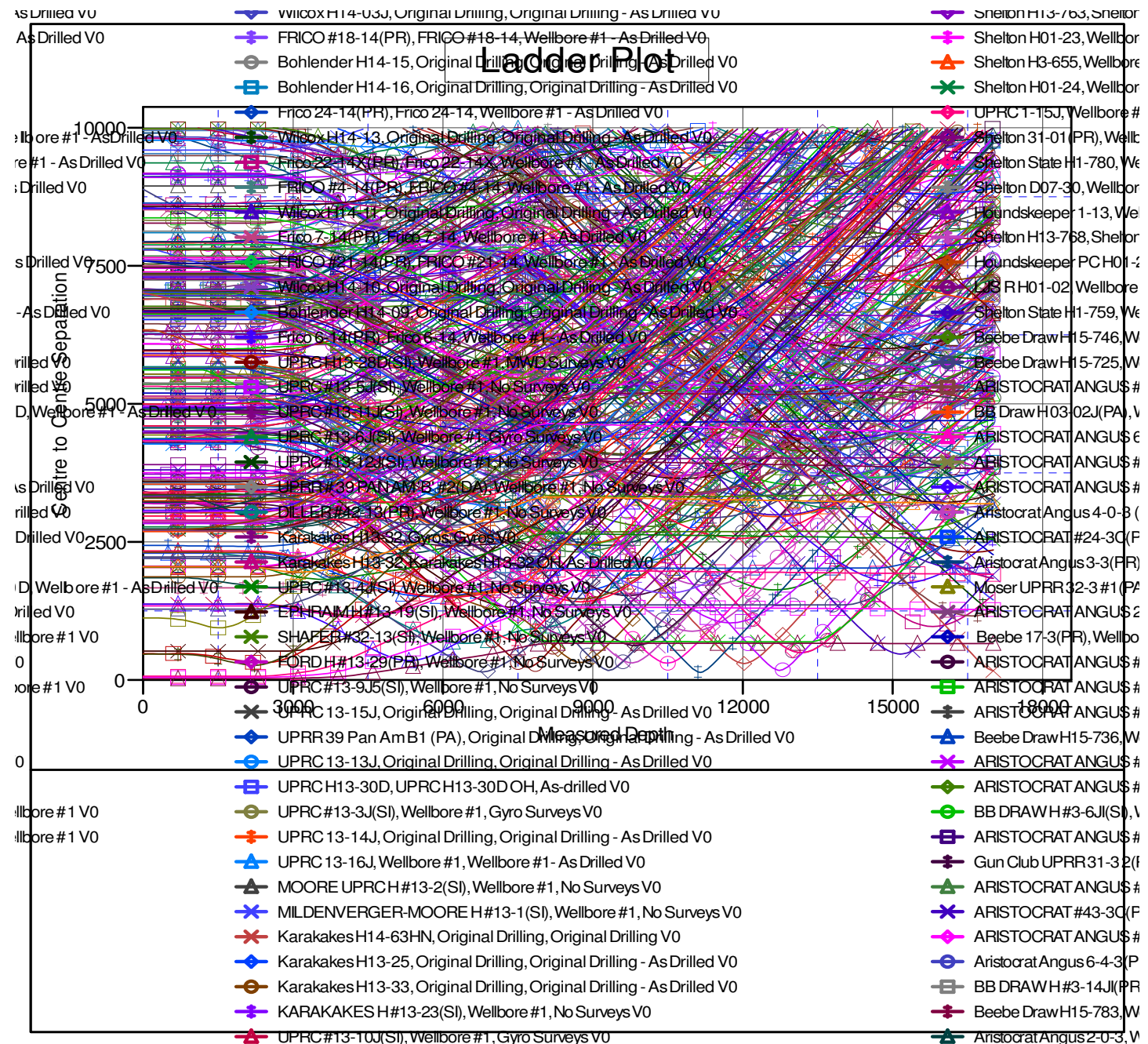
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Coordinates are relative to: Aristocrat H14-785

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.56°



Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Aristocrat H14-785
Project:	Mustang	TVD Reference:	Well @ 4810.00ft
Reference Site:	H Section 02	MD Reference:	Well @ 4810.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Aristocrat H14-785	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Aristocrat H14-785	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Coordinates are relative to: Aristocrat H14-785

Coordinate System is US State Plane 1983 Colorado Northern Zone

Grid Convergence at Surface is: 0.56°

