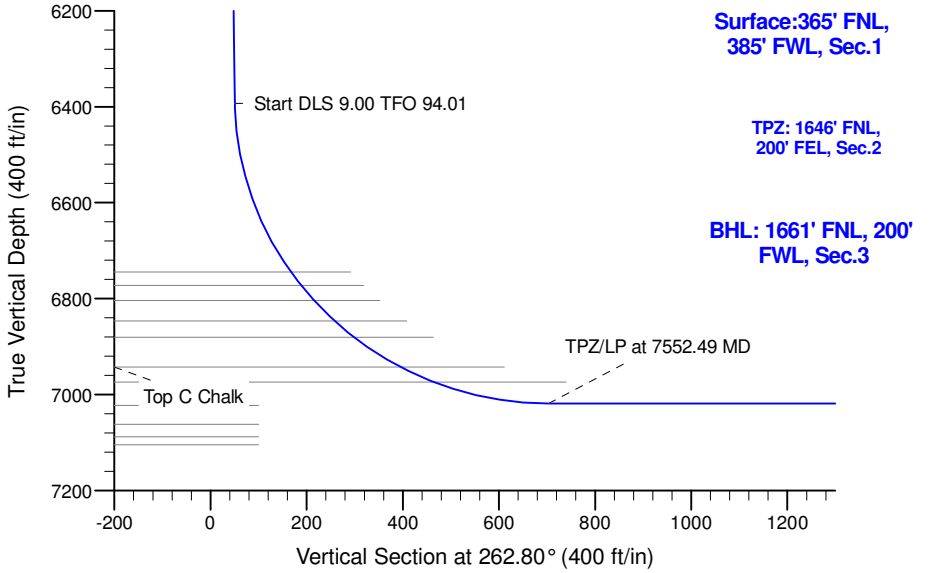
Project: Mustang
Site: H Section 01
Well: Shelton H3-665
Wellbore: Wellbore #1
Design: Plan #1

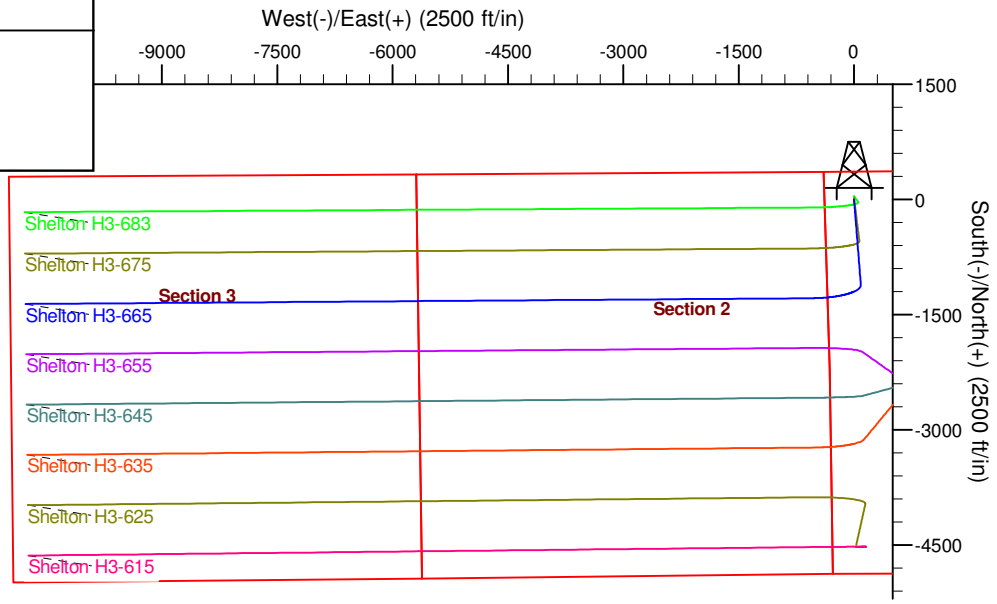
Northern Region - DJ Basin

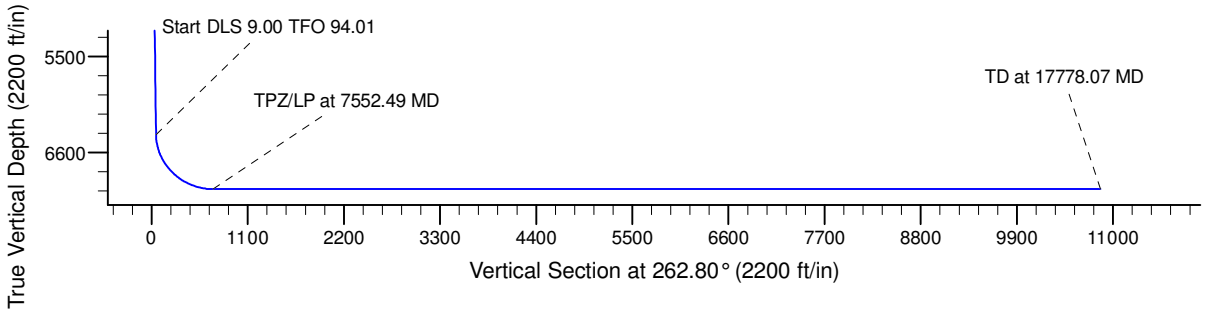
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

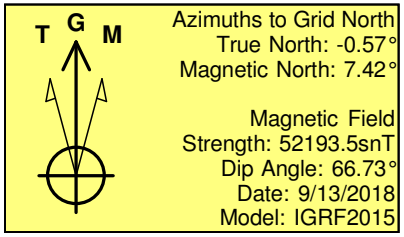
SECTION DETAILS

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	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2775.65	15.51	175.42	2766.21	-104.03	8.33	2.00	175.42	4.77	
4	6540.14	15.51	175.42	6393.56	-1107.66	88.67	0.00	0.00	50.79	
5	7552.49	90.00	269.58	7019.00	-1285.46	-546.55	9.00	94.01	703.28	TPZ Shelton H3-665
6	17778.07	90.00	269.58	7019.00	-1360.18	-10771.85	0.00	0.00	10857.39	BHL Shelton H3-665









Azimuths to Grid North
True North: -0.57°
Magnetic North: 7.42°

Magnetic Field
Strength: 52193.5snT
Dip Angle: 66.73°
Date: 9/13/2018
Model: IGRF2015

WELL DETAILS: Shelton H3-665

	Northing	Easting	Latitude	Longitude
0.00	1338962.39	3245726.14	40.2605020	-104.6195100

4824.00

Plan: Plan #1 (Shelton H3-665/Wellbore #1)

Created By: Colby Baxter Date: 10:21, October 01 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Mustang
H Section 01
Shelton H3-665

Wellbore #1

Plan: Plan #1

Standard Survey Report

01 October, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

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 01				
Site Position:		**Northing:**	1,334,244.42 usft	**Latitude:**	40.2479754
From:	Map	**Easting:**	3,229,641.33 usft	**Longitude:**	-104.6772988
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.53 °

Well	Shelton H3-665					
Well Position	**+N/-S**	0.00 ft	**Northing:**	1,338,962.39 usft	**Latitude:**	40.2605020
	+E/-W	0.00 ft	**Easting:**	3,245,726.14 usft	**Longitude:**	-104.6195100
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,824.00 ft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	9/13/2018	7.99	66.73	52,193.46183878

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	262.80

Survey Tool Program **Date** 10/1/2018

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.00	17,778.07	Plan #1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Planned Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
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

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

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)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	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	2.00	175.42	2,099.98	-1.74	0.14	0.08	2.00	2.00	0.00
2,200.00	4.00	175.42	2,199.84	-6.96	0.56	0.32	2.00	2.00	0.00
2,300.00	6.00	175.42	2,299.45	-15.64	1.25	0.72	2.00	2.00	0.00
2,400.00	8.00	175.42	2,398.70	-27.79	2.22	1.27	2.00	2.00	0.00
2,500.00	10.00	175.42	2,497.47	-43.38	3.47	1.99	2.00	2.00	0.00
2,600.00	12.00	175.42	2,595.62	-62.40	5.00	2.86	2.00	2.00	0.00
2,700.00	14.00	175.42	2,693.06	-84.83	6.79	3.89	2.00	2.00	0.00
2,775.65	15.51	175.42	2,766.21	-104.03	8.33	4.77	2.00	2.00	0.00
2,800.00	15.51	175.42	2,789.67	-110.52	8.85	5.07	0.00	0.00	0.00
2,900.00	15.51	175.42	2,886.03	-137.18	10.98	6.29	0.00	0.00	0.00
3,000.00	15.51	175.42	2,982.38	-163.84	13.12	7.51	0.00	0.00	0.00
3,100.00	15.51	175.42	3,078.74	-190.51	15.25	8.74	0.00	0.00	0.00
3,200.00	15.51	175.42	3,175.10	-217.17	17.38	9.96	0.00	0.00	0.00
3,300.00	15.51	175.42	3,271.46	-243.83	19.52	11.18	0.00	0.00	0.00
3,400.00	15.51	175.42	3,367.81	-270.49	21.65	12.40	0.00	0.00	0.00
3,500.00	15.51	175.42	3,464.17	-297.15	23.79	13.63	0.00	0.00	0.00
3,600.00	15.51	175.42	3,560.53	-323.81	25.92	14.85	0.00	0.00	0.00
3,700.00	15.51	175.42	3,656.88	-350.47	28.06	16.07	0.00	0.00	0.00
3,800.00	15.51	175.42	3,753.24	-377.13	30.19	17.29	0.00	0.00	0.00
3,900.00	15.51	175.42	3,849.60	-403.79	32.32	18.52	0.00	0.00	0.00
4,000.00	15.51	175.42	3,945.95	-430.45	34.46	19.74	0.00	0.00	0.00
4,100.00	15.51	175.42	4,042.31	-457.11	36.59	20.96	0.00	0.00	0.00
4,200.00	15.51	175.42	4,138.67	-483.77	38.73	22.18	0.00	0.00	0.00
4,300.00	15.51	175.42	4,235.03	-510.43	40.86	23.41	0.00	0.00	0.00
4,400.00	15.51	175.42	4,331.38	-537.09	42.99	24.63	0.00	0.00	0.00
4,500.00	15.51	175.42	4,427.74	-563.75	45.13	25.85	0.00	0.00	0.00
4,600.00	15.51	175.42	4,524.10	-590.41	47.26	27.07	0.00	0.00	0.00
4,700.00	15.51	175.42	4,620.45	-617.07	49.40	28.30	0.00	0.00	0.00
4,800.00	15.51	175.42	4,716.81	-643.73	51.53	29.52	0.00	0.00	0.00
4,900.00	15.51	175.42	4,813.17	-670.39	53.67	30.74	0.00	0.00	0.00
5,000.00	15.51	175.42	4,909.52	-697.05	55.80	31.96	0.00	0.00	0.00
5,100.00	15.51	175.42	5,005.88	-723.72	57.93	33.19	0.00	0.00	0.00
5,200.00	15.51	175.42	5,102.24	-750.38	60.07	34.41	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	15.51	175.42	5,198.59	-777.04	62.20	35.63	0.00	0.00	0.00
5,400.00	15.51	175.42	5,294.95	-803.70	64.34	36.85	0.00	0.00	0.00
5,500.00	15.51	175.42	5,391.31	-830.36	66.47	38.08	0.00	0.00	0.00
5,600.00	15.51	175.42	5,487.67	-857.02	68.60	39.30	0.00	0.00	0.00
5,700.00	15.51	175.42	5,584.02	-883.68	70.74	40.52	0.00	0.00	0.00
5,800.00	15.51	175.42	5,680.38	-910.34	72.87	41.75	0.00	0.00	0.00
5,900.00	15.51	175.42	5,776.74	-937.00	75.01	42.97	0.00	0.00	0.00
6,000.00	15.51	175.42	5,873.09	-963.66	77.14	44.19	0.00	0.00	0.00
6,100.00	15.51	175.42	5,969.45	-990.32	79.28	45.41	0.00	0.00	0.00
6,200.00	15.51	175.42	6,065.81	-1,016.98	81.41	46.64	0.00	0.00	0.00
6,300.00	15.51	175.42	6,162.16	-1,043.64	83.54	47.86	0.00	0.00	0.00
6,400.00	15.51	175.42	6,258.52	-1,070.30	85.68	49.08	0.00	0.00	0.00
6,500.00	15.51	175.42	6,354.88	-1,096.96	87.81	50.30	0.00	0.00	0.00
6,540.14	15.51	175.42	6,393.56	-1,107.66	88.67	50.79	0.00	0.00	0.00
6,600.00	16.04	195.24	6,451.20	-1,123.63	87.13	54.32	9.00	0.88	33.10
6,700.00	20.28	221.07	6,546.35	-1,150.09	72.09	72.56	9.00	4.24	25.83
6,800.00	26.90	236.50	6,638.03	-1,175.69	41.77	105.84	9.00	6.61	15.44
6,900.00	34.54	245.87	6,723.98	-1,199.81	-3.06	153.34	9.00	7.65	9.36
7,000.00	42.67	252.10	6,802.09	-1,221.86	-61.30	213.89	9.00	8.13	6.23
7,100.00	51.04	256.65	6,870.44	-1,241.30	-131.52	285.99	9.00	8.37	4.54
7,200.00	59.55	260.22	6,927.33	-1,257.63	-211.99	367.87	9.00	8.51	3.57
7,300.00	68.14	263.21	6,971.37	-1,270.48	-300.73	457.52	9.00	8.59	2.99
7,400.00	76.78	265.85	7,001.48	-1,279.50	-395.55	552.73	9.00	8.64	2.65
7,500.00	85.45	268.32	7,016.92	-1,284.50	-494.12	651.15	9.00	8.66	2.46
7,552.49	90.00	269.58	7,019.00	-1,285.46	-546.55	703.28	9.00	8.67	2.41
7,600.00	90.00	269.58	7,019.00	-1,285.80	-594.06	750.46	0.00	0.00	0.00
7,700.00	90.00	269.58	7,019.00	-1,286.54	-694.06	849.76	0.00	0.00	0.00
7,800.00	90.00	269.58	7,019.00	-1,287.27	-794.05	949.06	0.00	0.00	0.00
7,900.00	90.00	269.58	7,019.00	-1,288.00	-894.05	1,048.36	0.00	0.00	0.00
8,000.00	90.00	269.58	7,019.00	-1,288.73	-994.05	1,147.66	0.00	0.00	0.00
8,100.00	90.00	269.58	7,019.00	-1,289.46	-1,094.04	1,246.96	0.00	0.00	0.00
8,200.00	90.00	269.58	7,019.00	-1,290.19	-1,194.04	1,346.27	0.00	0.00	0.00
8,300.00	90.00	269.58	7,019.00	-1,290.92	-1,294.04	1,445.57	0.00	0.00	0.00
8,400.00	90.00	269.58	7,019.00	-1,291.65	-1,394.04	1,544.87	0.00	0.00	0.00
8,500.00	90.00	269.58	7,019.00	-1,292.38	-1,494.03	1,644.17	0.00	0.00	0.00
8,600.00	90.00	269.58	7,019.00	-1,293.11	-1,594.03	1,743.47	0.00	0.00	0.00
8,700.00	90.00	269.58	7,019.00	-1,293.84	-1,694.03	1,842.77	0.00	0.00	0.00
8,800.00	90.00	269.58	7,019.00	-1,294.57	-1,794.03	1,942.07	0.00	0.00	0.00
8,900.00	90.00	269.58	7,019.00	-1,295.30	-1,894.02	2,041.37	0.00	0.00	0.00
9,000.00	90.00	269.58	7,019.00	-1,296.03	-1,994.02	2,140.67	0.00	0.00	0.00
9,100.00	90.00	269.58	7,019.00	-1,296.77	-2,094.02	2,239.98	0.00	0.00	0.00
9,200.00	90.00	269.58	7,019.00	-1,297.50	-2,194.02	2,339.28	0.00	0.00	0.00
9,300.00	90.00	269.58	7,019.00	-1,298.23	-2,294.01	2,438.58	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

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)
9,400.00	90.00	269.58	7,019.00	-1,298.96	-2,394.01	2,537.88	0.00	0.00	0.00
9,500.00	90.00	269.58	7,019.00	-1,299.69	-2,494.01	2,637.18	0.00	0.00	0.00
9,600.00	90.00	269.58	7,019.00	-1,300.42	-2,594.00	2,736.48	0.00	0.00	0.00
9,700.00	90.00	269.58	7,019.00	-1,301.15	-2,694.00	2,835.78	0.00	0.00	0.00
9,800.00	90.00	269.58	7,019.00	-1,301.88	-2,794.00	2,935.08	0.00	0.00	0.00
9,900.00	90.00	269.58	7,019.00	-1,302.61	-2,894.00	3,034.38	0.00	0.00	0.00
10,000.00	90.00	269.58	7,019.00	-1,303.34	-2,993.99	3,133.68	0.00	0.00	0.00
10,100.00	90.00	269.58	7,019.00	-1,304.07	-3,093.99	3,232.99	0.00	0.00	0.00
10,200.00	90.00	269.58	7,019.00	-1,304.80	-3,193.99	3,332.29	0.00	0.00	0.00
10,300.00	90.00	269.58	7,019.00	-1,305.53	-3,293.99	3,431.59	0.00	0.00	0.00
10,400.00	90.00	269.58	7,019.00	-1,306.26	-3,393.98	3,530.89	0.00	0.00	0.00
10,500.00	90.00	269.58	7,019.00	-1,307.00	-3,493.98	3,630.19	0.00	0.00	0.00
10,600.00	90.00	269.58	7,019.00	-1,307.73	-3,593.98	3,729.49	0.00	0.00	0.00
10,700.00	90.00	269.58	7,019.00	-1,308.46	-3,693.98	3,828.79	0.00	0.00	0.00
10,800.00	90.00	269.58	7,019.00	-1,309.19	-3,793.97	3,928.09	0.00	0.00	0.00
10,900.00	90.00	269.58	7,019.00	-1,309.92	-3,893.97	4,027.39	0.00	0.00	0.00
11,000.00	90.00	269.58	7,019.00	-1,310.65	-3,993.97	4,126.70	0.00	0.00	0.00
11,100.00	90.00	269.58	7,019.00	-1,311.38	-4,093.96	4,226.00	0.00	0.00	0.00
11,200.00	90.00	269.58	7,019.00	-1,312.11	-4,193.96	4,325.30	0.00	0.00	0.00
11,300.00	90.00	269.58	7,019.00	-1,312.84	-4,293.96	4,424.60	0.00	0.00	0.00
11,400.00	90.00	269.58	7,019.00	-1,313.57	-4,393.96	4,523.90	0.00	0.00	0.00
11,500.00	90.00	269.58	7,019.00	-1,314.30	-4,493.95	4,623.20	0.00	0.00	0.00
11,600.00	90.00	269.58	7,019.00	-1,315.03	-4,593.95	4,722.50	0.00	0.00	0.00
11,700.00	90.00	269.58	7,019.00	-1,315.76	-4,693.95	4,821.80	0.00	0.00	0.00
11,800.00	90.00	269.58	7,019.00	-1,316.49	-4,793.95	4,921.10	0.00	0.00	0.00
11,900.00	90.00	269.58	7,019.00	-1,317.23	-4,893.94	5,020.41	0.00	0.00	0.00
12,000.00	90.00	269.58	7,019.00	-1,317.96	-4,993.94	5,119.71	0.00	0.00	0.00
12,100.00	90.00	269.58	7,019.00	-1,318.69	-5,093.94	5,219.01	0.00	0.00	0.00
12,200.00	90.00	269.58	7,019.00	-1,319.42	-5,193.94	5,318.31	0.00	0.00	0.00
12,300.00	90.00	269.58	7,019.00	-1,320.15	-5,293.93	5,417.61	0.00	0.00	0.00
12,400.00	90.00	269.58	7,019.00	-1,320.88	-5,393.93	5,516.91	0.00	0.00	0.00
12,500.00	90.00	269.58	7,019.00	-1,321.61	-5,493.93	5,616.21	0.00	0.00	0.00
12,600.00	90.00	269.58	7,019.00	-1,322.34	-5,593.92	5,715.51	0.00	0.00	0.00
12,700.00	90.00	269.58	7,019.00	-1,323.07	-5,693.92	5,814.81	0.00	0.00	0.00
12,800.00	90.00	269.58	7,019.00	-1,323.80	-5,793.92	5,914.12	0.00	0.00	0.00
12,900.00	90.00	269.58	7,019.00	-1,324.53	-5,893.92	6,013.42	0.00	0.00	0.00
13,000.00	90.00	269.58	7,019.00	-1,325.26	-5,993.91	6,112.72	0.00	0.00	0.00
13,100.00	90.00	269.58	7,019.00	-1,325.99	-6,093.91	6,212.02	0.00	0.00	0.00
13,200.00	90.00	269.58	7,019.00	-1,326.73	-6,193.91	6,311.32	0.00	0.00	0.00
13,300.00	90.00	269.58	7,019.00	-1,327.46	-6,293.91	6,410.62	0.00	0.00	0.00
13,400.00	90.00	269.58	7,019.00	-1,328.19	-6,393.90	6,509.92	0.00	0.00	0.00
13,500.00	90.00	269.58	7,019.00	-1,328.92	-6,493.90	6,609.22	0.00	0.00	0.00
13,600.00	90.00	269.58	7,019.00	-1,329.65	-6,593.90	6,708.52	0.00	0.00	0.00

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

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)
13,700.00	90.00	269.58	7,019.00	-1,330.38	-6,693.90	6,807.82	0.00	0.00	0.00
13,800.00	90.00	269.58	7,019.00	-1,331.11	-6,793.89	6,907.13	0.00	0.00	0.00
13,900.00	90.00	269.58	7,019.00	-1,331.84	-6,893.89	7,006.43	0.00	0.00	0.00
14,000.00	90.00	269.58	7,019.00	-1,332.57	-6,993.89	7,105.73	0.00	0.00	0.00
14,100.00	90.00	269.58	7,019.00	-1,333.30	-7,093.88	7,205.03	0.00	0.00	0.00
14,200.00	90.00	269.58	7,019.00	-1,334.03	-7,193.88	7,304.33	0.00	0.00	0.00
14,300.00	90.00	269.58	7,019.00	-1,334.76	-7,293.88	7,403.63	0.00	0.00	0.00
14,400.00	90.00	269.58	7,019.00	-1,335.49	-7,393.88	7,502.93	0.00	0.00	0.00
14,500.00	90.00	269.58	7,019.00	-1,336.22	-7,493.87	7,602.23	0.00	0.00	0.00
14,600.00	90.00	269.58	7,019.00	-1,336.96	-7,593.87	7,701.53	0.00	0.00	0.00
14,700.00	90.00	269.58	7,019.00	-1,337.69	-7,693.87	7,800.84	0.00	0.00	0.00
14,800.00	90.00	269.58	7,019.00	-1,338.42	-7,793.87	7,900.14	0.00	0.00	0.00
14,900.00	90.00	269.58	7,019.00	-1,339.15	-7,893.86	7,999.44	0.00	0.00	0.00
15,000.00	90.00	269.58	7,019.00	-1,339.88	-7,993.86	8,098.74	0.00	0.00	0.00
15,100.00	90.00	269.58	7,019.00	-1,340.61	-8,093.86	8,198.04	0.00	0.00	0.00
15,200.00	90.00	269.58	7,019.00	-1,341.34	-8,193.86	8,297.34	0.00	0.00	0.00
15,300.00	90.00	269.58	7,019.00	-1,342.07	-8,293.85	8,396.64	0.00	0.00	0.00
15,400.00	90.00	269.58	7,019.00	-1,342.80	-8,393.85	8,495.94	0.00	0.00	0.00
15,500.00	90.00	269.58	7,019.00	-1,343.53	-8,493.85	8,595.24	0.00	0.00	0.00
15,600.00	90.00	269.58	7,019.00	-1,344.26	-8,593.84	8,694.55	0.00	0.00	0.00
15,700.00	90.00	269.58	7,019.00	-1,344.99	-8,693.84	8,793.85	0.00	0.00	0.00
15,800.00	90.00	269.58	7,019.00	-1,345.72	-8,793.84	8,893.15	0.00	0.00	0.00
15,900.00	90.00	269.58	7,019.00	-1,346.45	-8,893.84	8,992.45	0.00	0.00	0.00
16,000.00	90.00	269.58	7,019.00	-1,347.19	-8,993.83	9,091.75	0.00	0.00	0.00
16,100.00	90.00	269.58	7,019.00	-1,347.92	-9,093.83	9,191.05	0.00	0.00	0.00
16,200.00	90.00	269.58	7,019.00	-1,348.65	-9,193.83	9,290.35	0.00	0.00	0.00
16,300.00	90.00	269.58	7,019.00	-1,349.38	-9,293.83	9,389.65	0.00	0.00	0.00
16,400.00	90.00	269.58	7,019.00	-1,350.11	-9,393.82	9,488.95	0.00	0.00	0.00
16,500.00	90.00	269.58	7,019.00	-1,350.84	-9,493.82	9,588.26	0.00	0.00	0.00
16,600.00	90.00	269.58	7,019.00	-1,351.57	-9,593.82	9,687.56	0.00	0.00	0.00
16,700.00	90.00	269.58	7,019.00	-1,352.30	-9,693.82	9,786.86	0.00	0.00	0.00
16,800.00	90.00	269.58	7,019.00	-1,353.03	-9,793.81	9,886.16	0.00	0.00	0.00
16,900.00	90.00	269.58	7,019.00	-1,353.76	-9,893.81	9,985.46	0.00	0.00	0.00
17,000.00	90.00	269.58	7,019.00	-1,354.49	-9,993.81	10,084.76	0.00	0.00	0.00
17,100.00	90.00	269.58	7,019.00	-1,355.22	-10,093.80	10,184.06	0.00	0.00	0.00
17,200.00	90.00	269.58	7,019.00	-1,355.95	-10,193.80	10,283.36	0.00	0.00	0.00
17,300.00	90.00	269.58	7,019.00	-1,356.68	-10,293.80	10,382.66	0.00	0.00	0.00
17,400.00	90.00	269.58	7,019.00	-1,357.42	-10,393.80	10,481.96	0.00	0.00	0.00
17,500.00	90.00	269.58	7,019.00	-1,358.15	-10,493.79	10,581.27	0.00	0.00	0.00
17,600.00	90.00	269.58	7,019.00	-1,358.88	-10,593.79	10,680.57	0.00	0.00	0.00
17,700.00	90.00	269.58	7,019.00	-1,359.61	-10,693.79	10,779.87	0.00	0.00	0.00
17,778.07	90.00	269.58	7,019.00	-1,360.18	-10,771.85	10,857.39	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Well:	Shelton H3-665	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan #1	**Database:**	EDMP

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
SHL Shelton H3-665 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,338,962.39	3,245,726.14	40.2605020	-104.6195100
KOP Shelton H3-665 - plan hits target center - Point	0.00	0.00	6,393.56	-1,107.66	88.67	1,337,854.73	3,245,814.81	40.2574591	-104.6192317
BHL Shelton H3-665 - plan hits target center - Point	0.00	0.00	7,019.00	-1,360.18	-10,771.85	1,337,602.21	3,234,954.31	40.2570555	-104.6581517
TPZ Shelton H3-665 - plan hits target center - Point	0.00	0.00	7,019.00	-1,285.46	-546.55	1,337,676.93	3,245,179.59	40.2569883	-104.6215139

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
456.00	456.00	Pierre			
651.00	651.00	Upper Pierre Aquifer Top			
1,556.00	1,556.00	Upper Pierre Aquifer Base			
2,846.01	2,834.00	Top A Marl			
3,756.16	3,711.00	Parkman			
4,209.68	4,148.00	Sussex			
5,034.74	4,943.00	Shannon			
6,925.84	6,745.00	Teepee Buttes			
6,961.40	6,773.00	Sharon Springs			
7,002.60	6,804.00	Top A Chalk			
7,063.90	6,847.00	Top B Chalk			
7,117.07	6,881.00	Top B Marl			
7,232.26	6,943.00	Top C Chalk			
7,307.15	6,974.00	Top C Marl			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2000	2000	0	0	Start Build 2.00
6540	6394	-1108	89	Start DLS 9.00 TFO 94.01
7552	7019	-1285	-547	TPZ/LP at 7552.49 MD
17,778	7019	-1360	-10,772	TD at 17778.07 MD

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Mustang
H Section 01
Shelton H3-665

Wellbore #1
Plan #1

Anticollision Summary Report

01 October, 2018

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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	17,778.07	Plan #1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

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 01						
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	4,096.10	4,044.34	4,005.05	3,976.74	141.461	CC
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	4,400.00	4,325.27	4,006.01	3,975.54	131.483	ES
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	6,900.00	6,726.14	4,207.36	4,158.71	86.475	SF
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril	6,589.42	6,486.62	2,815.00	2,768.29	60.274	CC, ES
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril	6,850.00	6,732.05	2,867.45	2,818.93	59.090	SF
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	5,506.54	5,286.02	3,566.57	3,528.31	93.209	CC
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	5,700.00	5,459.40	3,567.22	3,527.57	89.978	ES
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	6,900.00	6,752.78	3,672.14	3,623.28	75.152	SF
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D	6,599.59	6,443.67	3,597.97	3,551.40	77.263	CC
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D	6,600.00	6,444.04	3,597.97	3,551.40	77.258	ES
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D	6,900.00	6,698.91	3,666.71	3,618.16	75.517	SF
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As D	1,201.01	1,207.81	2,694.88	2,686.75	331.468	CC, ES
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As D	6,800.00	6,781.07	3,619.93	3,570.17	72.761	SF
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D	4,612.33	4,746.14	2,445.73	2,410.07	68.590	CC
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D	4,700.00	4,812.28	2,446.27	2,409.93	67.323	ES
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D	6,700.00	6,659.37	2,622.46	2,571.51	51.478	SF
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	6,623.75	6,597.28	2,518.82	2,460.63	43.287	CC, ES
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	6,750.00	6,748.82	2,529.53	2,470.85	43.110	SF
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys	2,988.43	2,937.10	28.44	8.06	1.395	Level 3, CC, ES, SF
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	6,795.60	6,598.11	666.51	584.40	8.118	CC
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	6,800.00	6,602.03	666.52	584.36	8.113	ES
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	6,850.00	6,645.86	668.40	585.66	8.079	SF
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	6,613.69	6,428.35	1,675.99	1,595.63	20.855	CC, ES
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	6,750.00	6,556.77	1,690.27	1,608.25	20.609	SF
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	4,340.32	4,253.66	2,654.72	2,624.74	88.546	CC
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	5,000.00	4,910.20	2,657.48	2,622.61	76.227	ES
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	6,750.00	6,634.15	2,752.01	2,704.17	57.527	SF
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	6,566.26	6,380.23	4,107.20	4,060.93	88.759	CC, ES
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	6,900.00	6,695.82	4,192.97	4,144.38	86.298	SF
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	6,720.07	6,677.96	1,403.09	1,351.66	27.284	CC, ES
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	6,800.00	6,759.01	1,406.87	1,355.06	27.153	SF
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	1,433.58	1,409.74	194.53	184.87	20.142	CC
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	1,500.00	1,474.31	194.84	184.71	19.250	ES
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	7,200.00	7,011.72	251.15	198.95	4.811	SF
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	6,682.75	6,515.19	5,855.60	5,808.67	124.763	CC, ES
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	7,100.00	6,917.80	5,963.97	5,914.29	120.049	SF
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	7,026.43	6,808.18	3,621.15	3,536.63	42.846	CC

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 Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 01						
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	7,050.00	6,824.60	3,621.35	3,536.62	42.740	ES
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	7,350.00	6,975.23	3,661.65	3,574.70	42.109	SF
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys	7,072.74	6,832.87	1,658.19	1,573.33	19.542	CC, ES
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys	7,200.00	6,907.33	1,665.86	1,579.97	19.394	SF
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled	6,671.07	6,514.57	4,254.77	4,207.89	90.756	CC, ES
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled	7,400.00	7,400.00	4,586.28	4,534.15	87.975	SF
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	6,740.32	6,636.76	3,218.04	3,170.63	67.884	CC
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	6,750.00	6,647.70	3,218.09	3,170.61	67.781	ES
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	7,000.00	6,839.53	3,257.44	3,208.43	66.454	SF
Shelton H13-715 - Shelton H13-715 - Plan #1	6,653.86	6,350.00	5,480.65	5,433.89	117.201	CC, ES
Shelton H13-715 - Shelton H13-715 - Plan #1	7,000.00	6,400.00	5,564.06	5,515.95	115.650	SF
Shelton H13-724 - Shelton H13-724 - Plan #1	6,688.62	6,550.00	5,076.09	5,028.50	106.666	CC, ES
Shelton H13-724 - Shelton H13-724 - Plan #1	6,950.00	6,572.24	5,123.09	5,074.52	105.471	SF
Shelton H13-730 - Shelton H13-730 - Plan #1	6,713.13	6,700.00	4,863.73	4,815.08	99.977	CC, ES
Shelton H13-730 - Shelton H13-730 - Plan #1	6,950.00	6,750.00	4,901.84	4,852.20	98.737	SF
Shelton H13-734 - Shelton H13-734 - Plan #1	6,704.91	6,625.89	4,665.66	4,617.12	96.116	CC, ES
Shelton H13-734 - Shelton H13-734 - Plan #1	7,000.00	6,670.48	4,721.57	4,671.94	95.145	SF
Shelton H13-744 - Shelton H13-744 - Plan #1	6,687.19	6,218.47	4,110.99	4,064.88	89.150	CC
Shelton H13-744 - Shelton H13-744 - Plan #1	6,700.00	6,230.15	4,111.07	4,064.87	88.976	ES
Shelton H13-744 - Shelton H13-744 - Plan #1	6,950.00	6,428.78	4,145.76	4,097.97	86.760	SF
Shelton H13-753 - Shelton H13-753 - Plan #1	6,772.36	6,500.00	3,842.75	3,795.41	81.170	CC, ES
Shelton H13-753 - Shelton H13-753 - Plan #1	7,050.00	6,550.00	3,884.69	3,836.23	80.166	SF
Shelton H13-763 - Shelton H13-763 - Plan #1	6,833.10	6,572.69	3,570.89	3,522.47	73.745	CC, ES
Shelton H13-763 - Shelton H13-763 - Plan #1	7,050.00	6,600.00	3,592.67	3,543.46	73.007	SF
Shelton H13-768 - Shelton H13-768 - Plan #1	6,918.87	6,555.20	3,380.73	3,332.23	69.699	CC, ES
Shelton H13-768 - Shelton H13-768 - Plan #1	7,200.00	6,600.00	3,411.56	3,361.98	68.814	SF
Shelton H13-773 - Shelton H13-773 - Plan #1	6,940.81	6,400.00	3,328.08	3,280.36	69.746	CC, ES
Shelton H13-773 - Shelton H13-773 - Plan #1	7,250.00	6,450.00	3,359.68	3,310.85	68.809	SF
Shelton H13-782 - Shelton H13-782 - Plan #1	7,122.90	6,419.52	3,189.74	3,141.49	66.115	CC, ES
Shelton H13-782 - Shelton H13-782 - Plan #1	8,000.00	6,450.00	3,364.47	3,312.67	64.940	SF
Shelton H3-615 - Wellbore #1 - Plan #1	7,544.34	7,453.40	3,241.57	3,189.26	61.967	CC
Shelton H3-615 - Wellbore #1 - Plan #1	17,778.07	17,687.06	3,277.70	3,006.24	12.075	ES, SF
Shelton H3-625 - Wellbore #1 - Plan #1	7,545.92	7,478.89	2,593.17	2,540.37	49.110	CC
Shelton H3-625 - Wellbore #1 - Plan #1	17,778.07	17,710.99	2,622.12	2,350.53	9.655	ES, SF
Shelton H3-635 - Wellbore #1 - Plan #1	7,061.76	6,669.86	1,936.34	1,886.74	39.041	CC
Shelton H3-635 - Wellbore #1 - Plan #1	17,778.07	17,788.43	1,966.63	1,691.91	7.159	ES, SF
Shelton H3-645 - Wellbore #1 - Plan #1	7,549.13	7,465.39	1,296.45	1,242.72	24.132	CC
Shelton H3-645 - Wellbore #1 - Plan #1	17,778.07	17,694.31	1,311.03	1,036.32	4.773	ES, SF
Shelton H3-655 - Wellbore #1 - Plan #1	7,550.82	7,476.42	648.19	594.13	11.990	CC
Shelton H3-655 - Wellbore #1 - Plan #1	17,778.07	17,703.67	655.53	380.83	2.386	ES, SF
Shelton H3-675 - Wellbore #1 - Plan #1	2,000.00	2,000.00	22.59	8.71	1.628	CC, ES, SF
Shelton H3-683 - Wellbore #1 - Plan #1	2,000.00	2,000.00	45.18	31.30	3.256	CC, ES
Shelton H3-683 - Wellbore #1 - Plan #1	2,100.00	2,100.02	46.91	32.34	3.220	SF
Shelton State H1-759 - Wellbore #1 - Plan #1	6,710.43	11,034.93	1,731.63	1,666.44	26.562	CC, ES
Shelton State H1-759 - Wellbore #1 - Plan #1	6,750.00	11,024.85	1,733.28	1,667.92	26.516	SF
Shelton State H1-766 - Wellbore #1 - Plan #1	6,753.45	11,077.96	1,247.74	1,181.66	18.882	CC, ES
Shelton State H1-766 - Wellbore #1 - Plan #1	6,800.00	11,066.45	1,250.24	1,183.97	18.864	SF
Shelton State H1-780 - Wellbore #1 - Plan #1	6,850.98	10,973.84	676.63	616.29	11.213	CC, ES
Shelton State H1-780 - Wellbore #1 - Plan #1	6,950.00	10,951.90	690.97	628.37	11.038	SF
Shelton State H1-783 - Wellbore #1 - Plan #1	7,022.44	10,889.91	262.61	204.97	4.556	CC, ES
Shelton State H1-783 - Wellbore #1 - Plan #1	7,050.00	10,884.85	264.59	205.00	4.441	SF
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	7,053.97	6,820.31	1,579.66	1,542.53	42.545	CC, ES
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	7,200.00	6,907.33	1,590.01	1,552.28	42.137	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 Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 01						
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	7,241.35	6,925.17	2,839.71	2,753.61	32.982	CC
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	7,250.00	6,929.03	2,839.74	2,753.58	32.959	ES
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	7,450.00	6,989.07	2,856.68	2,769.37	32.719	SF
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	6,625.87	6,533.49	4,427.99	4,381.06	94.354	CC, ES
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	7,000.00	6,833.91	4,530.62	4,481.34	91.944	SF
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	6,660.14	6,529.92	3,191.96	3,145.03	68.006	CC, ES
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	6,950.00	6,802.30	3,248.46	3,199.56	66.423	SF
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	6,752.15	6,571.64	4,243.92	4,196.69	89.849	CC, ES
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	7,150.00	6,910.60	4,327.55	4,277.87	87.107	SF
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	6,679.60	6,532.02	5,136.16	5,089.19	109.367	CC, ES
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	7,100.00	6,877.79	5,248.69	5,199.14	105.924	SF
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	6,980.89	6,773.86	2,498.83	2,414.73	29.714	CC
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	7,000.00	6,788.09	2,498.98	2,414.70	29.651	ES
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	7,200.00	6,913.33	2,519.52	2,433.53	29.300	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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						
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbo	9,475.28	6,949.00	2,969.63	2,869.33	29.608	CC
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbo	9,500.00	6,949.00	2,969.73	2,869.18	29.533	ES
ARISTOCRAT ANGUS #34-2(PR) - Wellbore #1 - Wellbo	10,200.00	6,949.00	3,056.78	2,949.26	28.430	SF
ARISTOCRAT ANGUS #43-2(PR) - Wellbore #1 - No Sur	7,852.74	6,977.00	1,434.75	1,346.24	16.210	CC, ES
ARISTOCRAT ANGUS #43-2(PR) - Wellbore #1 - No Sur	8,000.00	6,977.00	1,442.28	1,352.91	16.137	SF
ARISTOCRAT ANGUS #44-2(PR) - Wellbore #1 - No Sur	8,329.93	6,969.00	2,559.81	2,468.71	28.099	CC, ES
ARISTOCRAT ANGUS #44-2(PR) - Wellbore #1 - No Sur	8,900.00	6,969.00	2,622.51	2,526.86	27.416	SF
ARISTOCRAT ANGUS #44-2A(PR) - Wellbore #1 - Wellb	7,851.78	6,977.00	3,103.91	3,015.41	35.071	CC, ES
ARISTOCRAT ANGUS #44-2A(PR) - Wellbore #1 - Wellb	8,700.00	6,977.00	3,217.73	3,123.60	34.186	SF
ARISTOCRAT ANGUS #4-8-2(PR) - Wellbore #1 - No Su	9,520.49	6,946.00	2,973.75	2,873.05	29.531	CC, ES
ARISTOCRAT ANGUS #4-8-2(PR) - Wellbore #1 - No Su	10,300.00	6,946.00	3,074.22	2,965.79	28.352	SF
Aristocrat Angus 5-6-2(PR) - Wellbore #1 - As Drilled	9,107.64	7,052.43	2,190.17	2,128.18	35.334	CC, ES
Aristocrat Angus 5-6-2(PR) - Wellbore #1 - As Drilled	9,800.00	7,071.98	2,296.91	2,227.53	33.105	SF
Aristocrat Angus 6-4-2(PR) - Wellbore #1 - As Drilled	8,662.48	7,413.13	1,015.41	951.57	15.906	CC
Aristocrat Angus 6-4-2(PR) - Wellbore #1 - As Drilled	8,700.00	7,413.71	1,016.10	951.38	15.699	ES
Aristocrat Angus 6-4-2(PR) - Wellbore #1 - As Drilled	9,000.00	7,418.09	1,070.02	998.53	14.967	SF
Aristocrat H14-715 - Aristocrat H14-715 - Plan #1	7,631.49	6,500.00	3,209.66	3,159.94	64.562	CC, ES
Aristocrat H14-715 - Aristocrat H14-715 - Plan #1	9,100.00	6,500.00	3,529.65	3,470.64	59.815	SF
Aristocrat H14-725 - Aristocrat H14-725 - Plan #1	8,224.19	6,550.00	3,212.35	3,158.75	59.932	CC, ES
Aristocrat H14-725 - Aristocrat H14-725 - Plan #1	9,700.00	6,600.00	3,534.56	3,469.45	54.287	SF
Aristocrat H14-735 - Aristocrat H14-735 - Plan #1	8,804.58	6,650.00	3,219.20	3,159.74	54.141	CC, ES
Aristocrat H14-735 - Aristocrat H14-735 - Plan #1	10,200.00	6,750.00	3,502.74	3,430.98	48.814	SF
Aristocrat H14-744 - Aristocrat H14-744 - Plan #1	9,388.26	6,900.00	3,216.45	3,148.78	47.530	CC
Aristocrat H14-744 - Aristocrat H14-744 - Plan #1	9,400.00	6,900.00	3,216.47	3,148.68	47.446	ES
Aristocrat H14-744 - Aristocrat H14-744 - Plan #1	10,500.00	7,000.00	3,395.24	3,316.67	43.213	SF
Aristocrat H14-756 - Aristocrat H14-756 - Plan #1	10,218.83	6,520.77	3,224.82	3,153.66	45.317	CC, ES
Aristocrat H14-756 - Aristocrat H14-756 - Plan #1	11,300.00	6,550.00	3,400.35	3,318.56	41.573	SF
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	10,791.87	6,634.96	3,225.34	3,146.51	40.914	CC
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	10,800.00	6,637.41	3,225.35	3,146.41	40.858	ES
Aristocrat H14-765 - Aristocrat H14-765 - Plan #1	11,800.00	6,722.52	3,373.84	3,284.45	37.741	SF
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	11,334.10	6,806.98	3,221.05	3,133.71	36.878	CC
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	11,400.00	6,822.18	3,221.59	3,133.35	36.507	ES
Aristocrat H14-775 - Aristocrat H14-775 - Plan #1	12,300.00	7,000.00	3,346.00	3,247.43	33.944	SF
Aristocrat H14-785 - Aristocrat H14-785 - Plan #1	11,839.01	7,003.30	3,213.49	3,117.24	33.387	CC
Aristocrat H14-785 - Aristocrat H14-785 - Plan #1	11,900.00	7,037.96	3,213.88	3,116.62	33.045	ES
Aristocrat H14-785 - Aristocrat H14-785 - Plan #1	12,900.00	7,329.19	3,343.69	3,233.96	30.471	SF
Aristocrat PC H11-27D(PR) - Wellbore #1 - As Drilled	8,657.31	7,126.61	3,657.27	3,597.23	60.915	CC
Aristocrat PC H11-27D(PR) - Wellbore #1 - As Drilled	8,700.00	7,127.49	3,657.52	3,597.07	60.509	ES
Aristocrat PC H11-27D(PR) - Wellbore #1 - As Drilled	10,300.00	7,156.13	4,009.07	3,933.67	53.168	SF
Bonkiewicz 1(PA) - Wellbore #1 - Wellbore #1	9,017.68	6,900.00	224.77	168.14	3.969	CC, ES, SF
Jenson 21-2C(SI) - Wellbore #1 - Wellbore #1	11,065.57	6,915.00	126.50	10.02	1.086	Level 2, CC, ES, SF
Jepsen #1(SI) - Wellbore #1 - Wellbore #1	10,985.67	6,935.00	2,515.48	2,399.70	21.727	CC
Jepsen #1(SI) - Wellbore #1 - Wellbore #1	11,000.00	6,935.00	2,515.52	2,399.57	21.693	ES
Jepsen #1(SI) - Wellbore #1 - Wellbore #1	11,500.00	6,935.00	2,567.53	2,446.16	21.155	SF
JEPSEN #2(PR) - Wellbore #1 - As Drilled	11,571.79	6,900.00	308.82	223.48	3.619	CC, ES, SF
JEPSEN #23A-2(DA) - Wellbore #1 - Wellbore #1	1,559.32	1,500.00	5,440.93	5,430.18	506.487	CC, ES
JEPSEN #23A-2(DA) - Wellbore #1 - Wellbore #1	13,900.00	1,500.00	7,110.34	7,042.64	105.029	SF
Jepsen #3(PA) - Wellbore #1 - Wellbore #1	11,767.75	6,900.00	2,963.29	2,875.31	33.684	CC
Jepsen #3(PA) - Wellbore #1 - Wellbore #1	11,800.00	6,900.00	2,963.46	2,875.08	33.530	ES
Jepsen #3(PA) - Wellbore #1 - Wellbore #1	12,500.00	6,900.00	3,052.42	2,956.78	31.916	SF
Jepsen #4(SI) - Wellbore #1 - Wellbore #1	12,152.70	6,920.00	1,591.94	1,463.16	12.361	CC, ES
Jepsen #4(SI) - Wellbore #1 - Wellbore #1	12,300.00	6,920.00	1,598.74	1,468.10	12.238	SF
Jepsen 11-2(PA) - Wellbore #1 - Wellbore #1	12,113.09	6,950.01	878.75	786.45	9.520	CC, ES, SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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	11,044.22	6,918.24	968.53	888.58	12.114	CC, ES
Jepsen 21-02(TA) - Wellbore #1 - Wellbore #1	11,100.00	6,917.88	970.13	889.89	12.090	SF
JEPSEN 22-2(SI) - Wellbore #1 - Wellbore #1	10,500.10	6,400.00	1,720.19	1,647.89	23.793	CC, ES
JEPSEN 22-2(SI) - Wellbore #1 - Wellbore #1	10,800.00	6,350.16	1,744.29	1,669.40	23.292	SF
Jepsen 23-2(SI) - Wellbore #1 - Wellbore #1	10,624.54	6,930.00	1,588.57	1,476.76	14.207	CC, ES
Jepsen 23-2(SI) - Wellbore #1 - Wellbore #1	10,800.00	6,930.00	1,598.23	1,484.31	14.029	SF
Jepsen 5-2(PA) - Wellbore #1 - Wellbore #1	12,086.09	6,900.00	289.32	197.41	3.148	CC, ES
Jepsen 5-2(PA) - Wellbore #1 - Wellbore #1	12,100.00	6,900.00	289.66	197.44	3.141	SF
Shelton 17-2(PA) - Wellbore #1 - Wellbore #1	8,800.46	6,945.26	524.78	467.24	9.120	CC, ES, SF
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	3,581.53	3,746.32	1,266.04	1,226.65	32.140	CC
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	3,600.00	3,759.14	1,266.11	1,226.56	32.015	ES
Shelton 27-2(SI) - Wellbore #1 - Wellbore #1	9,200.00	7,600.97	1,648.64	1,571.08	21.256	SF
Shelton 31-2(PA) - Wellbore #1 - Wellbore #1	9,442.13	6,944.60	1,240.18	1,176.75	19.551	CC, ES
Shelton 31-2(PA) - Wellbore #1 - Wellbore #1	9,600.00	6,939.14	1,250.18	1,185.94	19.462	SF
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	3,197.76	3,112.37	964.35	942.55	44.245	CC
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	3,300.00	3,213.43	964.70	942.18	42.837	ES
Shelton 41-2(PA) - Wellbore #1 - Wellbore #1	7,900.00	6,984.95	1,034.48	982.36	19.849	SF
Shelton 42-2(PR) - Wellbore #1 - Wellbore #1	7,868.27	6,979.50	371.74	319.86	7.165	CC, ES
Shelton 42-2(PR) - Wellbore #1 - Wellbore #1	7,900.00	6,979.58	373.09	320.94	7.154	SF
Shelton 7-2(PR) - Wellbore #1 - Gyro Surveys	9,506.57	6,933.17	301.79	237.76	4.713	CC, ES, SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 03						
Beebe 17-3(PR) - Wellbore #1 - Wellbore #1	13,883.92	6,900.00	276.16	164.52	2.474	CC, ES, SF
ARISTOCRAT #24-3C(PR) - Wellbore #1 - Wellbore #1	16,133.35	6,958.00	2,757.84	206.92	1.081	Level 2, CC
ARISTOCRAT #24-3C(PR) - Wellbore #1 - Wellbore #1	16,200.00	6,958.00	2,758.65	206.84	1.081	Level 2, ES, SF
ARISTOCRAT #33-3C(PR) - Wellbore #1 - Wellbore #1	14,653.71	6,939.00	1,658.32	1,499.95	10.471	CC
ARISTOCRAT #33-3C(PR) - Wellbore #1 - Wellbore #1	14,700.00	6,939.00	1,658.97	1,499.94	10.432	ES
ARISTOCRAT #33-3C(PR) - Wellbore #1 - Wellbore #1	14,800.00	6,939.00	1,664.76	1,504.58	10.393	SF
ARISTOCRAT #43-3C(PR) - Wellbore #1 - Wellbore #1	13,327.10	6,925.00	1,643.20	1,500.70	11.531	CC, ES
ARISTOCRAT #43-3C(PR) - Wellbore #1 - Wellbore #1	13,500.00	6,925.00	1,652.27	1,507.66	11.426	SF
ARISTOCRAT ANGUS #11-3(PR) - Wellbore #1 - Wellbo	17,259.68	6,940.00	930.25	-1,628.03	0.364	Level 1, CC, ES, SF
ARISTOCRAT ANGUS #12-3C(PR) - Wellbore #1 - No S	17,399.79	6,939.00	461.28	269.75	2.408	CC
ARISTOCRAT ANGUS #12-3C(PR) - Wellbore #1 - No S	17,400.00	6,939.00	461.28	269.74	2.408	ES, SF
ARISTOCRAT ANGUS #1-3(PR) - Wellbore #1 - Wellbor	13,895.26	6,940.00	2,173.48	-344.30	0.863	Level 1, CC
ARISTOCRAT ANGUS #1-3(PR) - Wellbore #1 - Wellbor	13,900.00	6,940.00	2,173.49	-344.36	0.863	Level 1, ES, SF
ARISTOCRAT ANGUS #13-3(PR) - Wellbore #1 - No Sur	17,477.09	6,970.00	1,609.32	1,416.58	8.350	CC
ARISTOCRAT ANGUS #13-3(PR) - Wellbore #1 - No Sur	17,500.00	6,970.00	1,609.48	1,416.41	8.336	ES
ARISTOCRAT ANGUS #13-3(PR) - Wellbore #1 - No Sur	17,600.00	6,970.00	1,614.01	1,419.77	8.310	SF
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellb	17,274.24	4,603.00	3,802.21	2,426.00	2.763	CC
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellb	17,300.00	4,603.00	3,802.30	2,425.77	2.762	ES
ARISTOCRAT ANGUS #14-3 (PR) - Wellbore #1 - Wellb	17,500.00	4,603.00	3,808.91	2,428.85	2.760	SF
ARISTOCRAT ANGUS #14-3A(PR) - Wellbore #1 - Wellb	17,232.33	6,968.00	3,115.84	548.10	1.213	Level 3, CC
ARISTOCRAT ANGUS #14-3A(PR) - Wellbore #1 - Wellb	17,300.00	6,968.00	3,116.57	547.94	1.213	Level 3, ES, SF
ARISTOCRAT ANGUS #2-0-3(PR) - Wellbore #1 - Wellb	16,892.71	6,941.00	690.99	-1,863.17	0.271	Level 1, CC, ES, SF
ARISTOCRAT ANGUS #21-3(PR) - Wellbore #1 - Wellbo	15,833.93	6,945.00	730.89	-1,811.86	0.287	Level 1, CC, ES, SF
ARISTOCRAT ANGUS #23-3(PR) - Wellbore #1 - No Sur	15,992.37	4,640.00	2,830.59	2,711.41	23.750	CC
ARISTOCRAT ANGUS #23-3(PR) - Wellbore #1 - No Sur	16,000.00	4,640.00	2,830.60	2,711.34	23.734	ES
ARISTOCRAT ANGUS #23-3(PR) - Wellbore #1 - No Sur	16,500.00	4,640.00	2,875.75	2,752.04	23.246	SF
ARISTOCRAT ANGUS #23-3C(PR) - Wellbore #1 - No S	15,991.50	6,934.00	1,545.90	1,371.48	8.863	CC
ARISTOCRAT ANGUS #23-3C(PR) - Wellbore #1 - No S	16,000.00	6,934.00	1,545.93	1,371.38	8.857	ES
ARISTOCRAT ANGUS #23-3C(PR) - Wellbore #1 - No S	16,100.00	6,934.00	1,549.70	1,373.91	8.815	SF
ARISTOCRAT ANGUS #2-4-3X(PR) - Wellbore #1 - Well	15,095.66	6,941.00	1,125.30	-1,407.17	0.444	Level 1, CC
ARISTOCRAT ANGUS #2-4-3X(PR) - Wellbore #1 - Well	15,100.00	6,941.00	1,125.30	-1,407.24	0.444	Level 1, ES, SF
ARISTOCRAT ANGUS #34-3C(PR) - Wellbore #1 - Wellb	14,485.93	6,951.00	2,755.17	226.50	1.090	Level 2, CC
ARISTOCRAT ANGUS #34-3C(PR) - Wellbore #1 - Wellb	14,500.00	6,951.00	2,755.21	226.35	1.090	Level 2, ES, SF
ARISTOCRAT ANGUS #4-0-3(PR) - Wellbore #1 - Wellb	15,865.60	6,930.00	789.83	-1,748.05	0.311	Level 1, CC, ES, SF
ARISTOCRAT ANGUS #44-3C(PR) - Wellbore #1 - No S	13,256.32	6,938.00	2,888.53	2,746.75	20.373	CC
ARISTOCRAT ANGUS #44-3C(PR) - Wellbore #1 - No S	13,300.00	6,938.00	2,888.86	2,746.50	20.293	ES
ARISTOCRAT ANGUS #44-3C(PR) - Wellbore #1 - No S	13,800.00	6,938.00	2,939.25	2,791.55	19.900	SF
ARISTOCRAT ANGUS #4-6-3X(PR) - Wellbore #1 - No S	15,725.11	6,970.00	607.99	436.47	3.545	CC, ES, SF
ARISTOCRAT ANGUS #6-4-3(PR) - Wellbore #1 - Wellb	14,611.07	6,936.00	1,628.72	-896.20	0.645	Level 1, CC, ES, SF
ARISTOCRAT ANGUS #7-6-3(PR) - Wellbore #1 - Wellb	13,876.25	6,940.00	2,185.10	-332.47	0.868	Level 1, CC
ARISTOCRAT ANGUS #7-6-3(PR) - Wellbore #1 - Wellb	13,900.00	6,940.00	2,185.22	-332.66	0.868	Level 1, ES, SF
Aristocrat Angus 0-8-3(PR) - Wellbore #1 - Wellbore #1	17,778.07	7,068.92	3,598.21	3,434.93	22.037	CC, ES, SF
Aristocrat Angus 2-0-3 - Wellbore #1 - Actual	16,669.62	7,082.23	1,609.93	1,463.51	10.995	CC, ES
Aristocrat Angus 2-0-3 - Wellbore #1 - Actual	16,700.00	7,081.89	1,610.22	1,463.58	10.981	SF
ARISTOCRAT ANGUS 2-3(PR) - Wellbore #1 - Wellbore	16,610.96	7,039.97	245.22	95.88	1.642	CC, ES, SF
Aristocrat Angus 3-3(PR) - Wellbore #1 - Wellbore #1	16,591.72	7,067.38	2,268.18	2,119.91	15.298	CC
Aristocrat Angus 3-3(PR) - Wellbore #1 - Wellbore #1	16,600.00	7,067.29	2,268.20	2,119.80	15.284	ES
Aristocrat Angus 3-3(PR) - Wellbore #1 - Wellbore #1	16,900.00	7,064.29	2,289.04	2,136.88	15.044	SF
Aristocrat Angus 4-0-3 - Aristocrat Angus 4-0-3 - Actual	15,394.97	7,047.53	1,562.99	1,430.21	11.771	CC
Aristocrat Angus 4-0-3 - Aristocrat Angus 4-0-3 - Actual	15,400.00	7,047.45	1,563.00	1,430.18	11.768	ES
Aristocrat Angus 4-0-3 - Aristocrat Angus 4-0-3 - Actual	15,500.00	7,045.77	1,566.52	1,433.24	11.754	SF
Aristocrat Angus 4-0-3 (DO NOT USE) - Original Drilling	15,383.13	6,995.43	332.39	199.81	2.507	CC, ES, SF
ARISTOCRAT ANGUS 4-2-3(PR) - Wellbore #1 - Wellbo	15,383.13	6,995.43	332.40	199.82	2.507	CC, ES, SF

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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 03						
Aristocrat Angus 6-4-3(PR) - Wellbore #1 - Wellbore #1	14,611.07	6,936.00	1,628.72	1,470.88	10.319	CC, ES
Aristocrat Angus 6-4-3(PR) - Wellbore #1 - Wellbore #1	14,800.00	6,936.00	1,639.64	1,479.60	10.246	SF
ARISTOCRAT ANGUS 6-8-3(PR) - Wellbore #1 - Wellbo	14,027.73	7,118.74	3,527.84	3,411.52	30.329	CC
ARISTOCRAT ANGUS 6-8-3(PR) - Wellbore #1 - Wellbo	14,100.00	7,119.53	3,528.58	3,411.29	30.085	ES
ARISTOCRAT ANGUS 6-8-3(PR) - Wellbore #1 - Wellbo	14,900.00	7,128.75	3,634.06	3,508.10	28.850	SF
BB DRAW H #3-12JI(SI) - Wellbore #1 - No Surveys	17,495.04	6,975.00	1,697.88	1,504.88	8.797	CC
BB DRAW H #3-12JI(SI) - Wellbore #1 - No Surveys	17,500.00	6,975.00	1,697.89	1,504.81	8.794	ES
BB DRAW H #3-12JI(SI) - Wellbore #1 - No Surveys	17,600.00	6,975.00	1,701.12	1,506.79	8.754	SF
BB DRAW H #3-14JI(PR) - Wellbore #1 - Wellbore #1	16,183.30	6,960.00	2,763.42	211.19	1.083	Level 2, CC
BB DRAW H #3-14JI(PR) - Wellbore #1 - Wellbore #1	16,200.00	6,960.00	2,763.47	211.02	1.083	Level 2, ES, SF
BB DRAW H #3-5JI(SI) - Wellbore #1 - No Surveys	17,293.70	6,945.00	478.17	287.87	2.513	CC
BB DRAW H #3-5JI(SI) - Wellbore #1 - No Surveys	17,300.00	6,945.00	478.21	287.79	2.511	ES, SF
BB DRAW H #3-6JI(SI) - Wellbore #1 - Wellbore #1	15,831.84	6,965.00	190.76	-2,358.97	0.075	Level 1, CC, ES, SF
BB Draw H 03-02J(PA) - Wellbore #1 - Wellbore #1	16,874.48	6,948.29	572.64	423.89	3.850	CC, ES, SF
BB Draw H3-3J(PR) - Wellbore #1 - Wellbore #1	16,868.46	6,995.87	2,680.32	2,531.56	18.017	CC
BB Draw H3-3J(PR) - Wellbore #1 - Wellbore #1	16,900.00	6,995.40	2,680.51	2,531.31	17.966	ES
BB Draw H3-3J(PR) - Wellbore #1 - Wellbore #1	17,200.00	6,990.91	2,700.75	2,548.29	17.715	SF
Beebe Draw H15-715 - Wellbore #1 - Plan #1	13,383.94	6,728.51	3,207.17	3,090.13	27.401	CC
Beebe Draw H15-715 - Wellbore #1 - Plan #1	13,400.00	6,721.41	3,207.21	3,090.06	27.377	ES
Beebe Draw H15-715 - Wellbore #1 - Plan #1	13,800.00	6,544.55	3,228.81	3,109.57	27.077	SF
Beebe Draw H15-725 - Wellbore #1 - Plan #1	13,945.49	6,505.08	3,206.90	3,090.02	27.436	CC
Beebe Draw H15-725 - Wellbore #1 - Plan #1	14,000.00	6,487.24	3,207.32	3,089.95	27.328	ES
Beebe Draw H15-725 - Wellbore #1 - Plan #1	14,500.00	6,323.59	3,249.42	3,128.69	26.913	SF
Beebe Draw H15-736 - Wellbore #1 - Plan #1	14,494.15	6,356.72	3,210.45	3,090.97	26.869	CC
Beebe Draw H15-736 - Wellbore #1 - Plan #1	14,500.00	6,355.53	3,210.46	3,090.91	26.855	ES
Beebe Draw H15-736 - Wellbore #1 - Plan #1	15,000.00	6,254.03	3,248.44	3,124.50	26.211	SF
Beebe Draw H15-746 - Wellbore #1 - Plan #1	15,023.50	6,326.58	3,219.36	3,094.73	25.831	CC
Beebe Draw H15-746 - Wellbore #1 - Plan #1	15,100.00	6,322.10	3,220.26	3,094.69	25.645	ES
Beebe Draw H15-746 - Wellbore #1 - Plan #1	15,600.00	6,307.19	3,270.39	3,139.97	25.075	SF
Beebe Draw H15-754 - Wellbore #1 - Plan #1	15,705.53	6,550.00	3,231.75	3,097.94	24.152	CC, ES
Beebe Draw H15-754 - Wellbore #1 - Plan #1	16,300.00	6,525.77	3,285.43	3,145.55	23.488	SF
Beebe Draw H15-764 - Wellbore #1 - Plan #1	16,270.02	6,500.00	3,234.11	3,094.15	23.108	CC
Beebe Draw H15-764 - Wellbore #1 - Plan #1	16,300.00	6,500.00	3,234.25	3,093.90	23.043	ES
Beebe Draw H15-764 - Wellbore #1 - Plan #1	16,900.00	6,520.62	3,294.51	3,148.13	22.507	SF
Beebe Draw H15-774 - Wellbore #1 - Plan #1	16,864.92	6,550.00	3,235.36	3,087.25	21.844	CC
Beebe Draw H15-774 - Wellbore #1 - Plan #1	16,900.00	6,550.00	3,235.55	3,086.98	21.778	ES
Beebe Draw H15-774 - Wellbore #1 - Plan #1	17,400.00	6,577.56	3,278.60	3,124.84	21.322	SF
Beebe Draw H15-783 - Wellbore #1 - Plan #1	17,380.67	6,670.06	3,233.46	3,078.07	20.808	CC
Beebe Draw H15-783 - Wellbore #1 - Plan #1	17,400.00	6,670.90	3,233.64	3,077.98	20.775	ES
Beebe Draw H15-783 - Wellbore #1 - Plan #1	17,778.07	6,700.00	3,260.01	3,100.13	20.390	SF
Gun Club 43-3 #1(PA) - Wellbore #1 - Wellbore #1	13,390.10	6,600.00	1,137.82	1,036.35	11.213	CC
Gun Club 43-3 #1(PA) - Wellbore #1 - Wellbore #1	13,400.00	6,600.00	1,137.86	1,036.32	11.206	ES, SF
Gun Club UPRR 31-3 2(PA) - Wellbore #1 - Wellbore #1	14,459.08	6,915.70	928.80	809.32	7.774	CC, ES
Gun Club UPRR 31-3 2(PA) - Wellbore #1 - Wellbore #1	14,500.00	6,915.49	929.70	810.03	7.769	SF
Moser UPRR 32-3 #1(PA) - Wellbore #1 - Wellbore #1	14,744.08	6,924.21	400.42	277.48	3.257	CC, ES, SF
Moser UPRR 42-3 #2(PA) - Wellbore #1 - Wellbore #1	13,271.82	6,923.92	339.22	233.84	3.219	CC, ES
Moser UPRR 42-3 #2(PA) - Wellbore #1 - Wellbore #1	13,300.00	6,923.82	340.38	234.55	3.216	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 12						
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys	7,157.21	7,107.26	8,702.16	8,652.17	174.069	CC, ES
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys	10,700.00	7,235.85	9,996.28	9,922.78	136.003	SF
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey	6,950.81	6,950.44	9,540.45	9,490.69	191.718	CC, ES
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey	8,300.00	7,181.78	9,993.46	9,937.83	179.626	SF
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys	7,011.44	6,830.32	7,671.71	7,618.57	144.375	CC, ES
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys	11,700.00	6,971.06	9,971.95	9,889.91	121.558	SF
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	6,896.68	7,153.18	2,574.46	2,514.10	42.654	CC
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	6,900.00	7,155.69	2,574.46	2,514.08	42.635	ES
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys	7,200.00	7,273.00	2,619.41	2,556.72	41.785	SF
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys	7,450.00	7,445.95	2,393.26	2,337.34	42.799	SF
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys	7,492.97	7,452.18	2,392.46	2,336.57	42.812	CC, ES
STROH #H 12-03(SI) - Wellbore #1 - No Surveys	6,921.89	6,738.82	4,528.02	4,444.38	54.139	CC, ES
STROH #H 12-03(SI) - Wellbore #1 - No Surveys	7,300.00	6,968.37	4,586.30	4,499.50	52.841	SF
Stroh #H12-16(SI) - Wellbore #1 - No Surveys	6,863.57	6,666.47	9,529.35	9,446.49	115.010	CC, ES
Stroh #H12-16(SI) - Wellbore #1 - No Surveys	7,500.00	6,989.92	9,690.62	9,602.99	110.589	SF
Stroh #H12-18(PR) - Wellbore #1 - No Surveys	6,903.62	6,726.96	5,343.28	5,259.80	64.002	CC, ES
Stroh #H12-18(PR) - Wellbore #1 - No Surveys	7,350.00	6,988.23	5,424.33	5,337.20	62.256	SF
Stroh #H12-22(PR) - Wellbore #1 - Gyro Surveys	6,835.29	6,664.23	6,993.47	6,945.87	146.925	CC, ES
Stroh #H12-22(PR) - Wellbore #1 - Gyro Surveys	9,900.00	6,800.00	8,732.10	8,670.46	141.652	SF
Stroh #H12-32(PR) - Wellbore #1 - No Surveys	7,417.63	6,988.29	6,040.83	5,953.71	69.342	CC, ES
Stroh #H12-32(PR) - Wellbore #1 - No Surveys	10,400.00	7,002.00	6,884.60	6,776.90	63.924	SF
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled	6,717.17	6,559.92	5,930.06	5,882.94	125.855	CC, ES
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled	7,200.00	6,916.15	6,064.13	6,014.24	121.546	SF
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys	6,734.67	6,564.53	6,665.33	6,618.14	141.235	CC, ES
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys	7,250.00	6,900.00	6,810.47	6,760.50	136.277	SF
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	7,186.80	6,856.67	5,284.62	5,235.44	107.468	CC
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	7,200.00	6,862.72	5,284.67	5,235.44	107.339	ES
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys	10,200.00	7,042.48	6,466.72	6,399.54	96.255	SF
STROH H #12-06(SI) - Wellbore #1 - No Surveys	6,976.29	6,785.39	5,990.00	5,905.82	71.154	CC
STROH H #12-06(SI) - Wellbore #1 - No Surveys	7,000.00	6,803.09	5,990.21	5,905.79	70.963	ES
STROH H #12-06(SI) - Wellbore #1 - No Surveys	7,450.00	7,012.07	6,071.86	5,984.25	69.306	SF
STROH H #12-08(PR) - Wellbore #1 - No Surveys	6,776.68	6,617.08	7,206.48	7,124.26	87.639	CC, ES
STROH H #12-08(PR) - Wellbore #1 - No Surveys	7,300.00	6,971.37	7,341.68	7,254.75	84.451	SF
STROH H #12-10(PR) - Wellbore #1 - No Surveys	6,924.91	6,953.25	7,423.84	7,338.33	86.813	CC
STROH H #12-10(PR) - Wellbore #1 - No Surveys	6,950.00	6,973.14	7,424.08	7,338.31	86.559	ES
STROH H #12-10(PR) - Wellbore #1 - No Surveys	7,450.00	7,220.07	7,527.54	7,438.09	84.157	SF
STROH H #12-11(SI) - Wellbore #1 - No Surveys	7,113.30	6,888.70	7,098.77	7,013.32	83.079	CC, ES
STROH H #12-11(SI) - Wellbore #1 - No Surveys	10,200.00	7,029.00	8,276.01	8,170.93	78.759	SF
STROH H #12-12(SI) - Wellbore #1 - No Surveys	7,388.45	6,985.75	6,864.47	6,777.46	78.887	CC
STROH H #12-12(SI) - Wellbore #1 - No Surveys	7,400.00	6,988.48	6,864.51	6,777.44	78.835	ES
STROH H #12-12(SI) - Wellbore #1 - No Surveys	11,000.00	7,006.00	7,971.84	7,859.12	70.722	SF
STROH H #12-13(SI) - Wellbore #1 - No Surveys	7,382.54	6,976.27	8,531.00	8,444.08	98.149	CC
STROH H #12-13(SI) - Wellbore #1 - No Surveys	7,400.00	6,980.48	8,531.08	8,444.08	98.051	ES
STROH H #12-13(SI) - Wellbore #1 - No Surveys	12,000.00	6,998.00	9,985.42	9,863.60	81.966	SF
STROH H #12-14(PA) - Wellbore #1 - No Surveys	7,144.33	6,904.16	7,836.30	7,750.63	91.478	CC
STROH H #12-14(PA) - Wellbore #1 - No Surveys	7,150.00	6,907.41	7,836.31	7,750.60	91.431	ES
STROH H #12-14(PA) - Wellbore #1 - No Surveys	11,100.00	7,026.00	9,399.17	9,286.96	83.759	SF
STROH H #12-20(PR) - Wellbore #1 - No Surveys	7,128.68	6,895.99	6,181.06	6,095.51	72.251	CC
STROH H #12-20(PR) - Wellbore #1 - No Surveys	7,150.00	6,908.41	6,181.21	6,095.48	72.109	ES
STROH H #12-20(PR) - Wellbore #1 - No Surveys	9,300.00	7,027.00	6,912.13	6,813.70	70.226	SF
STROH H #12-21(PR) - Wellbore #1 - No Surveys	6,910.15	6,737.30	6,612.82	6,529.23	79.108	CC, ES
STROH H #12-21(PR) - Wellbore #1 - No Surveys	7,400.00	7,006.48	6,706.64	6,619.21	76.705	SF
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys	6,804.60	6,904.03	4,086.35	4,020.57	62.118	CC, ES

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 Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**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 12						
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys	7,050.00	7,107.62	4,113.83	4,046.92	61.486	SF
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	6,885.12	6,698.64	8,740.66	8,657.47	105.067	CC
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	6,900.00	6,710.98	8,740.75	8,657.40	104.870	ES
STROH H #12-4J(PR) - Wellbore #1 - No Surveys	7,450.00	6,998.07	8,865.53	8,778.00	101.288	SF
STROH H #12-9(PR) - Wellbore #1 - No Surveys	6,816.86	6,641.99	8,094.76	8,012.23	98.080	CC, ES
STROH H #12-9(PR) - Wellbore #1 - No Surveys	7,400.00	6,990.48	8,246.25	8,158.90	94.401	SF
Stroh H 12-04(PR) - Wellbore #1 - Wellbore #1	7,308.11	6,998.54	4,059.82	4,009.70	81.010	CC, ES
Stroh H 12-04(PR) - Wellbore #1 - Wellbore #1	9,100.00	7,006.97	4,602.58	4,542.63	76.784	SF
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled	6,808.88	6,658.03	4,909.53	4,861.90	103.081	CC, ES
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,250.00	6,960.08	5,003.03	4,952.97	99.940	SF
Stroh H12-27 - Wellbore #1 - Wellbore #1 - As Drilled	6,732.71	6,554.52	5,127.18	5,080.05	108.789	CC, ES
Stroh H12-27 - Wellbore #1 - Wellbore #1 - As Drilled	7,200.00	6,902.74	5,247.07	5,197.24	105.299	SF
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys	7,316.54	6,453.00	4,849.80	4,801.43	100.261	CC, ES
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys	10,300.00	6,260.00	5,825.49	5,759.04	87.678	SF
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys	7,423.80	7,116.04	3,446.29	3,393.72	65.563	CC, ES
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys	8,700.00	7,123.65	3,738.25	3,679.93	64.091	SF
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	7,448.46	7,195.75	4,674.62	4,622.35	89.431	CC
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	7,450.00	7,195.98	4,674.63	4,622.35	89.421	ES
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys	10,100.00	7,183.48	5,481.16	5,410.52	77.599	SF
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys	6,826.91	6,699.49	6,141.80	6,093.99	128.469	CC, ES
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys	7,350.00	6,986.45	6,267.75	6,217.32	124.280	SF

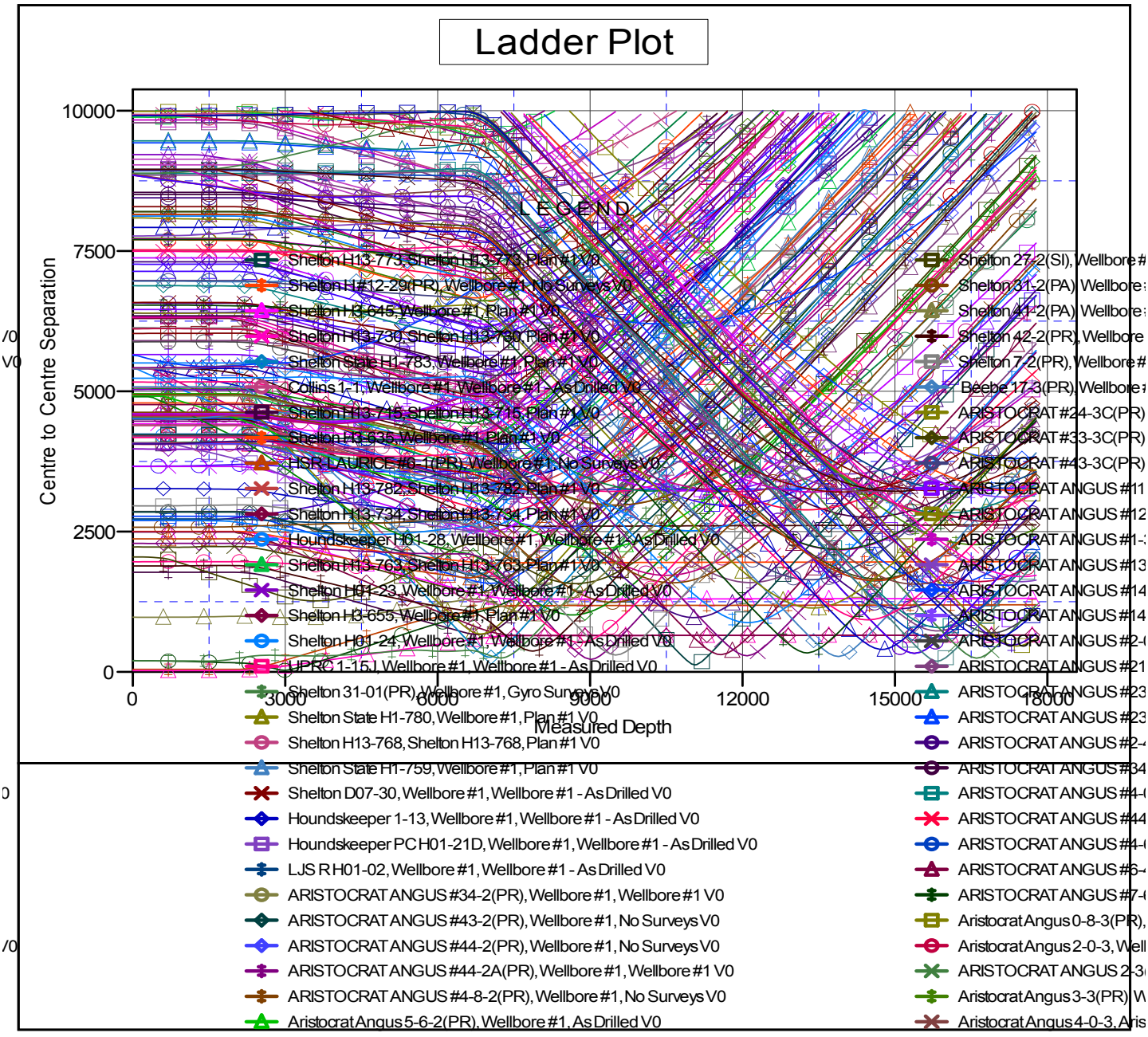
Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDMP
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 4854.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Shelton H3-665
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



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 Shelton H3-665
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	H Section 01	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Shelton H3-665	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 ft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDMP
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 4854.00ft	Coordinates are relative to: Shelton H3-665
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.5000000	Grid Convergence at Surface is: 0.57°