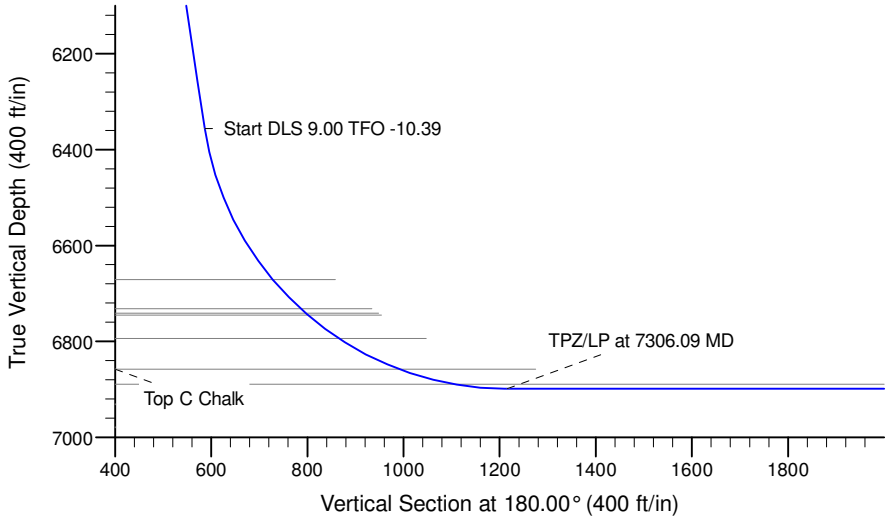
Project: Mustang
Site: D Section 22
Well: Guttersen D34-769
Wellbore: Wellbore #1
Design: Plan 1

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

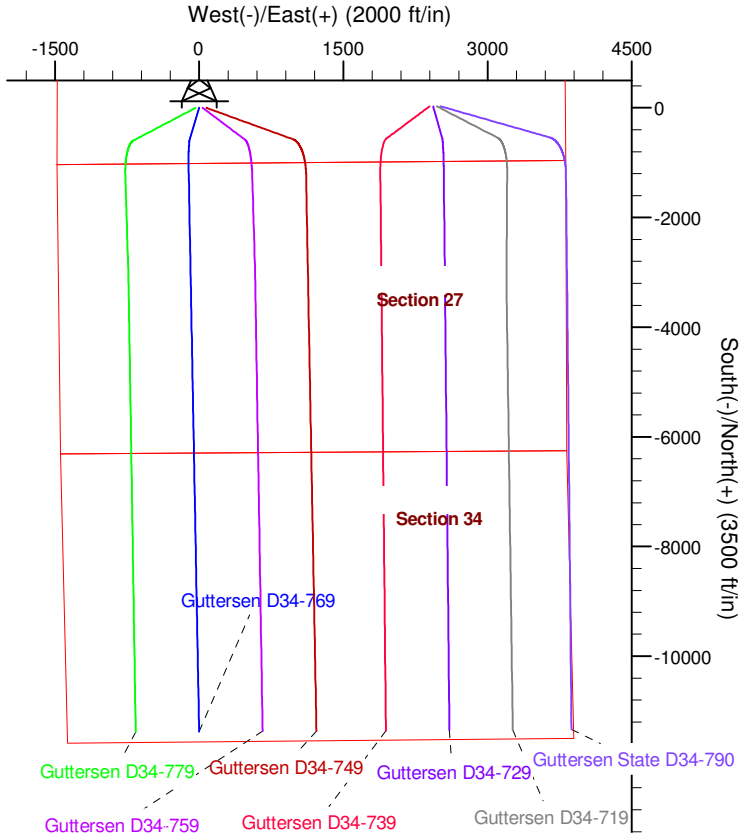
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
3	2629.25	8.59	189.66	2627.65	-31.64	-5.39	2.00	189.66	31.64	
4	6399.94	8.59	189.66	6356.09	-586.53	-99.87	0.00	0.00	586.53	
5	7306.09	90.00	179.39	6899.00	-1216.37	-107.80	9.00	-10.39	1216.36	Guttersen State D34-769 TPZ/LP
6	17464.04	90.00	179.39	6899.00	-11373.74	0.19	0.00	0.00	11373.74	Guttersen State D34-769 BHL

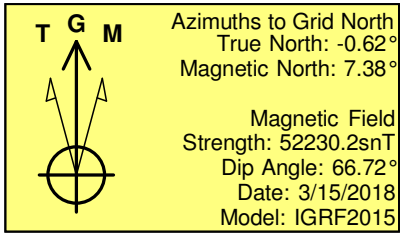


Surface:1015' FSL,1478' FWL, Sec.22

TPZ: 200' FNL, 1370' FWL, Sec.27

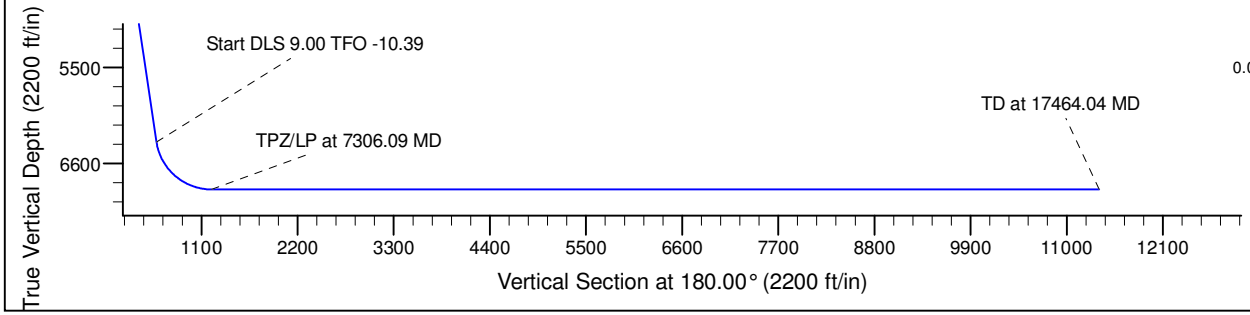
BHL: 200' FSL, 1370' FWL, Sec.34





Azimuths to Grid North
True North: -0.62°
Magnetic North: 7.38°

Magnetic Field
Strength: 52230.2snT
Dip Angle: 66.72°
Date: 3/15/2018
Model: IGRF2015



WELL DETAILS: Guttersen D34-769

	Northing	Easting	Latitude	Longitude
0.00	0.00	1319482.22	3267678.27	40.2064050	-104.5416110

4824.00

Plan: Plan 1 (Guttersen D34-769/Wellbore #1)

Created By: Colby Baxter Date: 14:09, August 13 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Mustang
D Section 22
Guttersen D34-769

Wellbore #1

Plan: Plan 1

Standard Survey Report

13 August, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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	D Section 22				
Site Position:		**Northing:**	1,323,172.04 usft	**Latitude:**	40.2165600
From:	Lat/Long	**Easting:**	3,266,778.49 usft	**Longitude:**	-104.5446900
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.62 °

Well	Guttersen D34-769					
Well Position	**+N/-S**	0.00 ft	**Northing:**	1,319,482.22 usft	**Latitude:**	40.2064050
	+E/-W	0.00 ft	**Easting:**	3,267,678.28 usft	**Longitude:**	-104.5416110
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	3/15/2018	8.00	66.72	52,230.23597242

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	180.00	

Survey Tool Program **Date** 8/1/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,464.03	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	2.00	189.66	2,299.98	-1.72	-0.29	1.72	2.00	2.00	0.00
2,400.00	4.00	189.66	2,399.84	-6.88	-1.17	6.88	2.00	2.00	0.00
2,500.00	6.00	189.66	2,499.45	-15.47	-2.63	15.47	2.00	2.00	0.00
2,600.00	8.00	189.66	2,598.70	-27.48	-4.68	27.48	2.00	2.00	0.00
2,629.25	8.59	189.66	2,627.65	-31.64	-5.39	31.64	2.00	2.00	0.00
2,700.00	8.59	189.66	2,697.60	-42.05	-7.16	42.05	0.00	0.00	0.00
2,800.00	8.59	189.66	2,796.48	-56.77	-9.67	56.77	0.00	0.00	0.00
2,900.00	8.59	189.66	2,895.36	-71.49	-12.17	71.49	0.00	0.00	0.00
3,000.00	8.59	189.66	2,994.24	-86.20	-14.68	86.20	0.00	0.00	0.00
3,100.00	8.59	189.66	3,093.12	-100.92	-17.18	100.92	0.00	0.00	0.00
3,200.00	8.59	189.66	3,192.00	-115.63	-19.69	115.63	0.00	0.00	0.00
3,300.00	8.59	189.66	3,290.88	-130.35	-22.20	130.35	0.00	0.00	0.00
3,400.00	8.59	189.66	3,389.76	-145.07	-24.70	145.06	0.00	0.00	0.00
3,500.00	8.59	189.66	3,488.64	-159.78	-27.21	159.78	0.00	0.00	0.00
3,600.00	8.59	189.66	3,587.52	-174.50	-29.71	174.50	0.00	0.00	0.00
3,700.00	8.59	189.66	3,686.40	-189.21	-32.22	189.21	0.00	0.00	0.00
3,800.00	8.59	189.66	3,785.28	-203.93	-34.72	203.93	0.00	0.00	0.00
3,900.00	8.59	189.66	3,884.16	-218.64	-37.23	218.64	0.00	0.00	0.00
4,000.00	8.59	189.66	3,983.04	-233.36	-39.74	233.36	0.00	0.00	0.00
4,100.00	8.59	189.66	4,081.92	-248.08	-42.24	248.08	0.00	0.00	0.00
4,200.00	8.59	189.66	4,180.80	-262.79	-44.75	262.79	0.00	0.00	0.00
4,300.00	8.59	189.66	4,279.68	-277.51	-47.25	277.51	0.00	0.00	0.00
4,400.00	8.59	189.66	4,378.56	-292.22	-49.76	292.22	0.00	0.00	0.00
4,500.00	8.59	189.66	4,477.43	-306.94	-52.27	306.94	0.00	0.00	0.00
4,600.00	8.59	189.66	4,576.31	-321.66	-54.77	321.65	0.00	0.00	0.00
4,700.00	8.59	189.66	4,675.19	-336.37	-57.28	336.37	0.00	0.00	0.00
4,800.00	8.59	189.66	4,774.07	-351.09	-59.78	351.09	0.00	0.00	0.00
4,900.00	8.59	189.66	4,872.95	-365.80	-62.29	365.80	0.00	0.00	0.00
5,000.00	8.59	189.66	4,971.83	-380.52	-64.79	380.52	0.00	0.00	0.00
5,100.00	8.59	189.66	5,070.71	-395.23	-67.30	395.23	0.00	0.00	0.00
5,200.00	8.59	189.66	5,169.59	-409.95	-69.81	409.95	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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	8.59	189.66	5,268.47	-424.67	-72.31	424.66	0.00	0.00	0.00
5,400.00	8.59	189.66	5,367.35	-439.38	-74.82	439.38	0.00	0.00	0.00
5,500.00	8.59	189.66	5,466.23	-454.10	-77.32	454.10	0.00	0.00	0.00
5,600.00	8.59	189.66	5,565.11	-468.81	-79.83	468.81	0.00	0.00	0.00
5,700.00	8.59	189.66	5,663.99	-483.53	-82.34	483.53	0.00	0.00	0.00
5,800.00	8.59	189.66	5,762.87	-498.25	-84.84	498.24	0.00	0.00	0.00
5,900.00	8.59	189.66	5,861.75	-512.96	-87.35	512.96	0.00	0.00	0.00
6,000.00	8.59	189.66	5,960.63	-527.68	-89.85	527.68	0.00	0.00	0.00
6,100.00	8.59	189.66	6,059.51	-542.39	-92.36	542.39	0.00	0.00	0.00
6,200.00	8.59	189.66	6,158.39	-557.11	-94.86	557.11	0.00	0.00	0.00
6,300.00	8.59	189.66	6,257.27	-571.82	-97.37	571.82	0.00	0.00	0.00
6,399.94	8.59	189.66	6,356.09	-586.53	-99.87	586.53	0.00	0.00	0.00
6,400.00	8.59	189.66	6,356.15	-586.54	-99.88	586.54	0.00	0.00	0.00
6,500.00	17.52	184.28	6,453.47	-608.96	-102.26	608.96	9.01	8.93	-5.38
6,600.00	26.49	182.49	6,546.09	-646.33	-104.35	646.32	9.00	8.98	-1.80
6,700.00	35.48	181.56	6,631.73	-697.73	-106.11	697.72	9.00	8.99	-0.93
6,800.00	44.47	180.96	6,708.28	-761.89	-107.49	761.89	9.00	8.99	-0.59
6,900.00	53.47	180.53	6,773.86	-837.25	-108.46	837.24	9.00	8.99	-0.43
7,000.00	62.46	180.20	6,826.85	-921.93	-108.98	921.93	9.00	9.00	-0.34
7,100.00	71.46	179.91	6,865.94	-1,013.86	-109.06	1,013.86	9.00	9.00	-0.29
7,200.00	80.46	179.65	6,890.18	-1,110.77	-108.68	1,110.77	9.00	9.00	-0.26
7,300.00	89.45	179.41	6,898.97	-1,210.28	-107.86	1,210.27	9.00	9.00	-0.24
7,306.09	90.00	179.39	6,899.00	-1,216.37	-107.80	1,216.36	9.00	9.00	-0.24
7,400.00	90.00	179.39	6,899.00	-1,310.27	-106.80	1,310.27	0.00	0.00	0.00
7,500.00	90.00	179.39	6,899.00	-1,410.26	-105.73	1,410.26	0.00	0.00	0.00
7,600.00	90.00	179.39	6,899.00	-1,510.26	-104.67	1,510.26	0.00	0.00	0.00
7,700.00	90.00	179.39	6,899.00	-1,610.25	-103.61	1,610.25	0.00	0.00	0.00
7,800.00	90.00	179.39	6,899.00	-1,710.25	-102.55	1,710.25	0.00	0.00	0.00
7,900.00	90.00	179.39	6,899.00	-1,810.24	-101.48	1,810.24	0.00	0.00	0.00
8,000.00	90.00	179.39	6,899.00	-1,910.24	-100.42	1,910.23	0.00	0.00	0.00
8,100.00	90.00	179.39	6,899.00	-2,010.23	-99.36	2,010.23	0.00	0.00	0.00
8,200.00	90.00	179.39	6,899.00	-2,110.23	-98.29	2,110.22	0.00	0.00	0.00
8,300.00	90.00	179.39	6,899.00	-2,210.22	-97.23	2,210.22	0.00	0.00	0.00
8,400.00	90.00	179.39	6,899.00	-2,310.21	-96.17	2,310.21	0.00	0.00	0.00
8,500.00	90.00	179.39	6,899.00	-2,410.21	-95.10	2,410.21	0.00	0.00	0.00
8,600.00	90.00	179.39	6,899.00	-2,510.20	-94.04	2,510.20	0.00	0.00	0.00
8,700.00	90.00	179.39	6,899.00	-2,610.20	-92.98	2,610.20	0.00	0.00	0.00
8,800.00	90.00	179.39	6,899.00	-2,710.19	-91.91	2,710.19	0.00	0.00	0.00
8,900.00	90.00	179.39	6,899.00	-2,810.19	-90.85	2,810.18	0.00	0.00	0.00
9,000.00	90.00	179.39	6,899.00	-2,910.18	-89.79	2,910.18	0.00	0.00	0.00
9,100.00	90.00	179.39	6,899.00	-3,010.17	-88.73	3,010.17	0.00	0.00	0.00
9,200.00	90.00	179.39	6,899.00	-3,110.17	-87.66	3,110.17	0.00	0.00	0.00
9,300.00	90.00	179.39	6,899.00	-3,210.16	-86.60	3,210.16	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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	179.39	6,899.00	-3,310.16	-85.54	3,310.16	0.00	0.00	0.00
9,500.00	90.00	179.39	6,899.00	-3,410.15	-84.47	3,410.15	0.00	0.00	0.00
9,600.00	90.00	179.39	6,899.00	-3,510.15	-83.41	3,510.14	0.00	0.00	0.00
9,700.00	90.00	179.39	6,899.00	-3,610.14	-82.35	3,610.14	0.00	0.00	0.00
9,800.00	90.00	179.39	6,899.00	-3,710.13	-81.28	3,710.13	0.00	0.00	0.00
9,900.00	90.00	179.39	6,899.00	-3,810.13	-80.22	3,810.13	0.00	0.00	0.00
10,000.00	90.00	179.39	6,899.00	-3,910.12	-79.16	3,910.12	0.00	0.00	0.00
10,100.00	90.00	179.39	6,899.00	-4,010.12	-78.10	4,010.12	0.00	0.00	0.00
10,200.00	90.00	179.39	6,899.00	-4,110.11	-77.03	4,110.11	0.00	0.00	0.00
10,300.00	90.00	179.39	6,899.00	-4,210.11	-75.97	4,210.11	0.00	0.00	0.00
10,400.00	90.00	179.39	6,899.00	-4,310.10	-74.91	4,310.10	0.00	0.00	0.00
10,500.00	90.00	179.39	6,899.00	-4,410.10	-73.84	4,410.09	0.00	0.00	0.00
10,600.00	90.00	179.39	6,899.00	-4,510.09	-72.78	4,510.09	0.00	0.00	0.00
10,700.00	90.00	179.39	6,899.00	-4,610.08	-71.72	4,610.08	0.00	0.00	0.00
10,800.00	90.00	179.39	6,899.00	-4,710.08	-70.65	4,710.08	0.00	0.00	0.00
10,900.00	90.00	179.39	6,899.00	-4,810.07	-69.59	4,810.07	0.00	0.00	0.00
11,000.00	90.00	179.39	6,899.00	-4,910.07	-68.53	4,910.07	0.00	0.00	0.00
11,100.00	90.00	179.39	6,899.00	-5,010.06	-67.46	5,010.06	0.00	0.00	0.00
11,200.00	90.00	179.39	6,899.00	-5,110.06	-66.40	5,110.05	0.00	0.00	0.00
11,300.00	90.00	179.39	6,899.00	-5,210.05	-65.34	5,210.05	0.00	0.00	0.00
11,400.00	90.00	179.39	6,899.00	-5,310.04	-64.28	5,310.04	0.00	0.00	0.00
11,500.00	90.00	179.39	6,899.00	-5,410.04	-63.21	5,410.04	0.00	0.00	0.00
11,600.00	90.00	179.39	6,899.00	-5,510.03	-62.15	5,510.03	0.00	0.00	0.00
11,700.00	90.00	179.39	6,899.00	-5,610.03	-61.09	5,610.03	0.00	0.00	0.00
11,800.00	90.00	179.39	6,899.00	-5,710.02	-60.02	5,710.02	0.00	0.00	0.00
11,900.00	90.00	179.39	6,899.00	-5,810.02	-58.96	5,810.02	0.00	0.00	0.00
12,000.00	90.00	179.39	6,899.00	-5,910.01	-57.90	5,910.01	0.00	0.00	0.00
12,100.00	90.00	179.39	6,899.00	-6,010.00	-56.83	6,010.00	0.00	0.00	0.00
12,200.00	90.00	179.39	6,899.00	-6,110.00	-55.77	6,110.00	0.00	0.00	0.00
12,300.00	90.00	179.39	6,899.00	-6,209.99	-54.71	6,209.99	0.00	0.00	0.00
12,400.00	90.00	179.39	6,899.00	-6,309.99	-53.64	6,309.99	0.00	0.00	0.00
12,500.00	90.00	179.39	6,899.00	-6,409.98	-52.58	6,409.98	0.00	0.00	0.00
12,600.00	90.00	179.39	6,899.00	-6,509.98	-51.52	6,509.98	0.00	0.00	0.00
12,700.00	90.00	179.39	6,899.00	-6,609.97	-50.46	6,609.97	0.00	0.00	0.00
12,800.00	90.00	179.39	6,899.00	-6,709.97	-49.39	6,709.96	0.00	0.00	0.00
12,900.00	90.00	179.39	6,899.00	-6,809.96	-48.33	6,809.96	0.00	0.00	0.00
13,000.00	90.00	179.39	6,899.00	-6,909.95	-47.27	6,909.95	0.00	0.00	0.00
13,100.00	90.00	179.39	6,899.00	-7,009.95	-46.20	7,009.95	0.00	0.00	0.00
13,200.00	90.00	179.39	6,899.00	-7,109.94	-45.14	7,109.94	0.00	0.00	0.00
13,300.00	90.00	179.39	6,899.00	-7,209.94	-44.08	7,209.94	0.00	0.00	0.00
13,400.00	90.00	179.39	6,899.00	-7,309.93	-43.01	7,309.93	0.00	0.00	0.00
13,500.00	90.00	179.39	6,899.00	-7,409.93	-41.95	7,409.92	0.00	0.00	0.00
13,600.00	90.00	179.39	6,899.00	-7,509.92	-40.89	7,509.92	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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	179.39	6,899.00	-7,609.91	-39.82	7,609.91	0.00	0.00	0.00
13,800.00	90.00	179.39	6,899.00	-7,709.91	-38.76	7,709.91	0.00	0.00	0.00
13,900.00	90.00	179.39	6,899.00	-7,809.90	-37.70	7,809.90	0.00	0.00	0.00
14,000.00	90.00	179.39	6,899.00	-7,909.90	-36.64	7,909.90	0.00	0.00	0.00
14,100.00	90.00	179.39	6,899.00	-8,009.89	-35.57	8,009.89	0.00	0.00	0.00
14,200.00	90.00	179.39	6,899.00	-8,109.89	-34.51	8,109.89	0.00	0.00	0.00
14,300.00	90.00	179.39	6,899.00	-8,209.88	-33.45	8,209.88	0.00	0.00	0.00
14,400.00	90.00	179.39	6,899.00	-8,309.87	-32.38	8,309.87	0.00	0.00	0.00
14,500.00	90.00	179.39	6,899.00	-8,409.87	-31.32	8,409.87	0.00	0.00	0.00
14,600.00	90.00	179.39	6,899.00	-8,509.86	-30.26	8,509.86	0.00	0.00	0.00
14,700.00	90.00	179.39	6,899.00	-8,609.86	-29.19	8,609.86	0.00	0.00	0.00
14,800.00	90.00	179.39	6,899.00	-8,709.85	-28.13	8,709.85	0.00	0.00	0.00
14,900.00	90.00	179.39	6,899.00	-8,809.85	-27.07	8,809.85	0.00	0.00	0.00
15,000.00	90.00	179.39	6,899.00	-8,909.84	-26.01	8,909.84	0.00	0.00	0.00
15,100.00	90.00	179.39	6,899.00	-9,009.84	-24.94	9,009.83	0.00	0.00	0.00
15,200.00	90.00	179.39	6,899.00	-9,109.83	-23.88	9,109.83	0.00	0.00	0.00
15,300.00	90.00	179.39	6,899.00	-9,209.82	-22.82	9,209.82	0.00	0.00	0.00
15,400.00	90.00	179.39	6,899.00	-9,309.82	-21.75	9,309.82	0.00	0.00	0.00
15,500.00	90.00	179.39	6,899.00	-9,409.81	-20.69	9,409.81	0.00	0.00	0.00
15,600.00	90.00	179.39	6,899.00	-9,509.81	-19.63	9,509.81	0.00	0.00	0.00
15,700.00	90.00	179.39	6,899.00	-9,609.80	-18.56	9,609.80	0.00	0.00	0.00
15,800.00	90.00	179.39	6,899.00	-9,709.80	-17.50	9,709.80	0.00	0.00	0.00
15,900.00	90.00	179.39	6,899.00	-9,809.79	-16.44	9,809.79	0.00	0.00	0.00
16,000.00	90.00	179.39	6,899.00	-9,909.78	-15.37	9,909.78	0.00	0.00	0.00
16,100.00	90.00	179.39	6,899.00	-10,009.78	-14.31	10,009.78	0.00	0.00	0.00
16,200.00	90.00	179.39	6,899.00	-10,109.77	-13.25	10,109.77	0.00	0.00	0.00
16,300.00	90.00	179.39	6,899.00	-10,209.77	-12.19	10,209.77	0.00	0.00	0.00
16,400.00	90.00	179.39	6,899.00	-10,309.76	-11.12	10,309.76	0.00	0.00	0.00
16,500.00	90.00	179.39	6,899.00	-10,409.76	-10.06	10,409.76	0.00	0.00	0.00
16,600.00	90.00	179.39	6,899.00	-10,509.75	-9.00	10,509.75	0.00	0.00	0.00
16,700.00	90.00	179.39	6,899.00	-10,609.74	-7.93	10,609.74	0.00	0.00	0.00
16,800.00	90.00	179.39	6,899.00	-10,709.74	-6.87	10,709.74	0.00	0.00	0.00
16,900.00	90.00	179.39	6,899.00	-10,809.73	-5.81	10,809.73	0.00	0.00	0.00
17,000.00	90.00	179.39	6,899.00	-10,909.73	-4.74	10,909.73	0.00	0.00	0.00
17,100.00	90.00	179.39	6,899.00	-11,009.72	-3.68	11,009.72	0.00	0.00	0.00
17,200.00	90.00	179.39	6,899.00	-11,109.72	-2.62	11,109.72	0.00	0.00	0.00
17,300.00	90.00	179.39	6,899.00	-11,209.71	-1.55	11,209.71	0.00	0.00	0.00
17,400.00	90.00	179.39	6,899.00	-11,309.71	-0.49	11,309.71	0.00	0.00	0.00
17,464.04	90.00	179.39	6,899.00	-11,373.74	0.19	11,373.74	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Well:	Guttersen D34-769	**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
Guttersen State D34-76(- plan hits target center - Point	0.00	0.01	0.00	0.00	0.00	1,319,482.22	3,267,678.28	40.2064050	-104.5416110
Guttersen State D34-76(- plan misses target center by 0.49ft at 6399.94ft MD (6356.09 TVD, -586.53 N, -99.87 E) - Point	0.00	0.00	6,356.10	-586.54	-99.39	1,318,895.67	3,267,578.89	40.2047979	-104.5419895
Guttersen State D34-76(- plan hits target center - Point	0.00	0.01	6,899.00	-11,373.74	0.19	1,308,108.50	3,267,678.47	40.1751846	-104.5420502
Guttersen State D34-76(- plan hits target center - Point	0.00	0.00	6,899.00	-1,216.37	-107.80	1,318,265.85	3,267,570.48	40.2030693	-104.5420439

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
643.00	643.00	Pierre			
762.00	762.00	Upper Pierre Aquifer Top			
1,644.00	1,644.00	Upper Pierre Aquifer Base			
3,758.25	3,744.00	Parkman			
4,346.85	4,326.00	Sussex			
4,990.06	4,962.00	Shannon			
6,061.06	6,021.00	Teepee Buttes			
6,749.66	6,671.00	Sharon Springs			
6,834.16	6,732.00	Top A Chalk			
6,847.65	6,741.00	Top A Marl			
6,853.75	6,745.00	Top B Chalk			
6,935.16	6,794.00	Top B Marl			
7,076.33	6,858.00	Top C Chalk			
7,193.08	6,889.00	Top C Marl			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2200	2200	0	0	Start Build 2.00
6400	6356	-587	-100	Start DLS 9.00 TFO -10.39
7306	6899	-1216	-108	TPZ/LP at 7306.09 MD
17,464	6899	-11,374	0	TD at 17464.04 MD

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Mustang
D Section 22
Guttersen D34-769

Wellbore #1
Plan 1

Anticollision Summary Report

13 August, 2018

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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** 8/1/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,464.03	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
D Section 21						
Casey Blue D 21-11 (PR) - Wellbore #1 - No Surveys	2,200.00	2,160.00	4,876.20	4,825.35	95.887	CC
Casey Blue D 21-11 (PR) - Wellbore #1 - No Surveys	6,100.00	6,019.51	4,931.96	4,790.08	34.762	ES
Casey Blue D 21-11 (PR) - Wellbore #1 - No Surveys	7,050.00	6,808.20	5,068.51	4,907.26	31.433	SF
Casey Blue D21-13 (PR) - Wellbore #1 - Gyro Surveys	6,722.94	6,700.86	5,993.92	5,946.82	127.273	CC
Casey Blue D21-13 (PR) - Wellbore #1 - Gyro Surveys	6,750.00	6,721.59	5,993.99	5,946.71	126.787	ES
Casey Blue D21-13 (PR) - Wellbore #1 - Gyro Surveys	9,700.00	6,985.74	6,802.75	6,742.68	113.256	SF
Casey Blue D21-14 (SI) - Wellbore #1 - Gyro Surveys	6,568.90	6,509.69	4,524.81	4,479.00	98.780	CC
Casey Blue D21-14 (SI) - Wellbore #1 - Gyro Surveys	6,600.00	6,532.16	4,524.91	4,478.90	98.348	ES
Casey Blue D21-14 (SI) - Wellbore #1 - Gyro Surveys	8,100.00	6,887.08	4,818.45	4,766.06	91.972	SF
Casey Blue D21-3J (PR) - Wellbore #1 - Gyro Surveys	6,419.94	6,402.84	5,801.71	5,756.82	129.258	CC
Casey Blue D21-3J (PR) - Wellbore #1 - Gyro Surveys	6,450.00	6,430.24	5,801.88	5,756.78	128.662	ES
Casey Blue D21-3J (PR) - Wellbore #1 - Gyro Surveys	8,200.00	6,917.76	6,291.82	6,239.09	119.321	SF
Guttersen 21-31 (SI) - Wellbore #1 - Gyro Surveys	2,209.07	2,157.42	4,954.41	4,939.36	329.285	CC, ES
Guttersen 21-31 (SI) - Wellbore #1 - Gyro Surveys	6,850.00	6,703.82	5,482.07	5,434.66	115.615	SF
Guttersen 21-42 (SI) - Wellbore #1 - Gyro Surveys	100.00	48.16	3,108.72	3,108.51	10,000.000	CC
Guttersen 21-42 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,309.97	3,110.55	3,094.66	195.788	ES
Guttersen 21-42 (SI) - Wellbore #1 - Gyro Surveys	6,700.00	6,600.49	3,567.02	3,520.51	76.700	SF
Guttersen 32-21 (PR) - Wellbore #1 - No Surveys	2,200.00	2,164.00	4,101.70	4,050.77	80.531	CC
Guttersen 32-21 (PR) - Wellbore #1 - No Surveys	2,400.00	2,363.84	4,104.42	4,048.83	73.830	ES
Guttersen 32-21 (PR) - Wellbore #1 - No Surveys	6,850.00	6,706.55	4,500.30	4,341.93	28.416	SF
Guttersen 33-21 (PR) - Wellbore #1 - Gyro Surveys	393.81	359.82	3,575.66	3,573.40	1,580.769	CC
Guttersen 33-21 (PR) - Wellbore #1 - Gyro Surveys	2,400.00	2,362.32	3,584.27	3,567.87	218.572	ES
Guttersen 33-21 (PR) - Wellbore #1 - Gyro Surveys	6,950.00	6,785.90	3,795.10	3,746.88	78.707	SF
Guttersen 34-21 (PR) - Wellbore #1 - Gyro Surveys	6,562.45	6,565.30	3,284.63	3,238.62	71.388	CC
Guttersen 34-21 (PR) - Wellbore #1 - Gyro Surveys	6,600.00	6,602.66	3,284.80	3,238.51	70.962	ES
Guttersen 34-21 (PR) - Wellbore #1 - Gyro Surveys	7,200.00	6,950.63	3,357.59	3,307.84	67.498	SF
Guttersen 41-21 (PR) - Wellbore #1 - Gyro Surveys	100.00	42.49	4,184.37	4,184.17	10,000.000	CC
Guttersen 41-21 (PR) - Wellbore #1 - Gyro Surveys	1,900.00	1,828.30	4,192.71	4,179.91	327.622	ES
Guttersen 41-21 (PR) - Wellbore #1 - Gyro Surveys	6,800.00	6,672.40	4,818.99	4,771.94	102.428	SF
Guttersen 43-21 (PR) - Wellbore #1 - Gyro Surveys	701.72	667.72	2,380.63	2,376.19	536.070	CC
Guttersen 43-21 (PR) - Wellbore #1 - Gyro Surveys	2,200.00	2,153.36	2,385.92	2,370.92	159.069	ES
Guttersen 43-21 (PR) - Wellbore #1 - Gyro Surveys	6,700.00	6,589.09	2,683.53	2,636.95	57.604	SF
Guttersen D21-32D (SI) - Wellbore #1 - MWD Surveys	0.00	0.00	5,100.54			
Guttersen D21-32D (SI) - Wellbore #1 - MWD Surveys	100.00	48.03	5,100.56	5,100.35	10,000.000	ES
Guttersen D21-32D (SI) - Wellbore #1 - MWD Surveys	9,000.00	9,000.00	7,840.10	7,771.77	114.726	SF
Guttersen USX D21-17 (PR) - Wellbore #1 - No Surveys	2,200.00	2,148.00	4,041.32	3,990.71	79.847	CC
Guttersen USX D21-17 (PR) - Wellbore #1 - No Surveys	2,300.00	2,247.98	4,042.38	3,989.43	76.339	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 21						
Guttersen USX D21-17 (PR) - Wellbore #1 - No Surveys	6,750.00	6,619.26	4,538.38	4,382.18	29.055	SF
Guttersen USX D21-20D (PR) - Wellbore #1 - MWD Surv	784.34	751.00	5,035.97	5,030.99	1,010.024	CC
Guttersen USX D21-20D (PR) - Wellbore #1 - MWD Surv	1,100.00	1,024.18	5,036.92	5,029.75	702.293	ES
Guttersen USX D21-20D (PR) - Wellbore #1 - MWD Surv	7,100.00	7,034.21	5,866.89	5,812.80	108.471	SF
Guttersen USX D21-21D (SI) - Wellbore #1 - MWD Surve	4,826.47	5,104.70	4,572.59	4,529.06	105.046	CC
Guttersen USX D21-21D (SI) - Wellbore #1 - MWD Surve	5,300.00	5,592.84	4,574.49	4,526.62	95.554	ES
Guttersen USX D21-21D (SI) - Wellbore #1 - MWD Surve	6,900.00	6,993.67	4,717.89	4,659.67	81.032	SF
Guttersen USX D21-24D (PR) - Wellbore #1 - MWD Surv	6,337.43	6,368.52	4,205.65	4,160.46	93.068	CC
Guttersen USX D21-24D (PR) - Wellbore #1 - MWD Surv	6,399.94	6,424.96	4,205.70	4,160.09	92.203	ES
Guttersen USX D21-24D (PR) - Wellbore #1 - MWD Surv	7,250.00	7,008.37	4,349.19	4,298.18	85.268	SF
Guttersen USX D21-25 (PR) - Wellbore #1 - MWD Surve	6,406.39	6,364.40	4,994.53	4,949.53	110.986	CC, ES
Guttersen USX D21-25 (PR) - Wellbore #1 - MWD Surve	7,300.00	6,911.81	5,142.34	5,092.12	102.386	SF
Guttersen USX D21-27D (PR) - Wellbore #1 - MWD Surv	841.71	791.68	4,043.14	4,037.83	760.901	CC
Guttersen USX D21-27D (PR) - Wellbore #1 - MWD Surv	1,000.00	904.68	4,043.69	4,037.41	644.739	ES
Guttersen USX D21-27D (PR) - Wellbore #1 - MWD Surv	6,750.00	6,749.19	5,584.58	5,535.07	112.808	SF
Guttersen USX D21-28D (PR) - Wellbore #1 - MWD Surv	100.00	44.05	4,040.02	4,039.81	10,000.000	CC
Guttersen USX D21-28D (PR) - Wellbore #1 - MWD Surv	300.00	227.60	4,040.62	4,039.37	3,230.643	ES
Guttersen USX D21-28D (PR) - Wellbore #1 - MWD Surv	9,800.00	9,800.00	8,650.92	8,578.14	118.859	SF
Guttersen USX D21-33D (SI) - Wellbore #1 - MWD Surve	100.00	65.22	5,082.27	5,082.03	10,000.000	CC
Guttersen USX D21-33D (SI) - Wellbore #1 - MWD Surve	600.00	536.04	5,084.13	5,080.50	1,400.108	ES
Guttersen USX D21-33D (SI) - Wellbore #1 - MWD Surve	10,400.00	6,929.55	8,045.18	7,975.70	115.786	SF
Guttersen USX D22-30D (PR) - Wellbore #1 - MWD Surv	2,290.52	2,398.14	3,983.51	3,964.50	209.562	CC
Guttersen USX D22-30D (PR) - Wellbore #1 - MWD Surv	2,300.00	2,404.19	3,983.53	3,964.44	208.719	ES
Guttersen USX D22-30D (PR) - Wellbore #1 - MWD Surv	6,650.00	6,864.64	5,041.97	4,983.41	86.101	SF
Gutterson 18-21 (SI) - Wellbore #1 - Gyro Surveys	2,223.78	2,197.03	6,031.47	6,016.23	395.726	CC
Gutterson 18-21 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,270.18	6,031.84	6,016.08	382.828	ES
Gutterson 18-21 (SI) - Wellbore #1 - Gyro Surveys	6,950.00	6,810.74	6,449.74	6,401.77	134.467	SF
HSR Guttersen B 5-21 (PR) - Wellbore #1 - Gyro Survey	452.98	400.00	6,460.24	6,457.62	2,466.716	CC
HSR Guttersen B 5-21 (PR) - Wellbore #1 - Gyro Survey	2,100.00	2,009.81	6,463.41	6,449.27	457.222	ES
HSR Guttersen B 5-21 (PR) - Wellbore #1 - Gyro Survey	7,050.00	6,829.78	6,760.36	6,712.18	140.328	SF
HSR Gutterson 4-21 (PR) - Wellbore #1 - Gyro Surveys	2,208.25	2,170.33	7,009.78	6,994.55	460.182	CC
HSR Gutterson 4-21 (PR) - Wellbore #1 - Gyro Surveys	2,300.00	2,256.51	7,010.29	6,994.44	442.394	ES
HSR Gutterson 4-21 (PR) - Wellbore #1 - Gyro Surveys	7,100.00	6,840.18	7,505.98	7,457.31	154.214	SF
HSR-Guttersen 3-21 (SI) - Wellbore #1 - Gyro Surveys	2,253.52	2,254.91	5,930.88	5,915.34	381.489	CC
HSR-Guttersen 3-21 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,309.74	5,931.02	5,915.13	373.111	ES
HSR-Guttersen 3-21 (SI) - Wellbore #1 - Gyro Surveys	6,850.00	7,166.54	6,228.66	6,178.30	123.694	SF
HSR-Guttersen 6-21 (SI) - Wellbore #1 - Gyro Surveys	785.21	734.22	5,256.68	5,251.71	1,056.396	CC
HSR-Guttersen 6-21 (SI) - Wellbore #1 - Gyro Surveys	2,100.00	2,013.32	5,258.91	5,244.76	371.659	ES
HSR-Guttersen 6-21 (SI) - Wellbore #1 - Gyro Surveys	6,850.00	6,728.14	5,526.68	5,479.10	116.141	SF
Two E Ranch 1-21C (SI) - Wellbore #1 - Gyro Surveys	409.94	374.94	2,502.61	2,500.23	1,053.988	CC
Two E Ranch 1-21C (SI) - Wellbore #1 - Gyro Surveys	1,600.00	1,548.49	2,508.62	2,497.88	233.575	ES
Two E Ranch 1-21C (SI) - Wellbore #1 - Gyro Surveys	6,900.00	6,758.24	2,678.32	2,630.33	55.813	SF
Vogler State D21-720 - Wellbore #1 - Plan 1	7,177.23	7,216.92	2,027.93	1,976.56	39.476	CC
Vogler State D21-720 - Wellbore #1 - Plan 1	7,200.00	7,198.37	2,027.98	1,976.54	39.427	ES
Vogler State D21-720 - Wellbore #1 - Plan 1	7,500.00	6,990.39	2,038.20	1,986.10	39.123	SF
Vogler State D21-731 - Wellbore #1 - Plan 1	6,974.68	7,583.35	2,726.31	2,674.67	52.796	CC, ES
Vogler State D21-731 - Wellbore #1 - Plan 1	7,500.00	7,374.23	2,763.46	2,710.51	52.189	SF
Vogler State D21-740 - Wellbore #1 - Plan 1	7,062.42	7,472.74	3,351.29	3,299.69	64.946	CC, ES
Vogler State D21-740 - Wellbore #1 - Plan 1	8,100.00	7,022.12	3,457.01	3,402.30	63.190	SF
Vogler State D21-750 - Wellbore #1 - Plan 1	7,132.44	7,200.41	3,974.17	3,922.97	77.624	CC
Vogler State D21-750 - Wellbore #1 - Plan 1	7,150.00	7,186.43	3,974.19	3,922.94	77.545	ES
Vogler State D21-750 - Wellbore #1 - Plan 1	8,600.00	6,665.85	4,147.38	4,091.43	74.123	SF
Vogler State D21-760 - Wellbore #1 - Plan 1	7,017.16	7,600.00	4,638.15	4,586.36	89.563	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 21						
Vogler State D21-760 - Wellbore #1 - Plan 1	9,000.00	7,074.82	4,973.29	4,914.41	84.463	SF
Vogler State D21-770 - Wellbore #1 - Plan 1	6,991.98	7,408.24	5,296.64	5,245.90	104.381	CC
Vogler State D21-770 - Wellbore #1 - Plan 1	7,000.00	7,400.00	5,296.65	5,245.88	104.324	ES
Vogler State D21-770 - Wellbore #1 - Plan 1	9,700.00	6,700.00	5,799.89	5,738.66	94.719	SF
Vogler State D21-780 - Wellbore #1 - Plan 1	2,001.99	1,967.99	5,758.39	5,744.62	418.328	CC
Vogler State D21-780 - Wellbore #1 - Plan 1	2,700.00	2,472.53	5,761.44	5,743.66	324.118	ES
Vogler State D21-780 - Wellbore #1 - Plan 1	10,400.00	6,550.00	6,608.45	6,543.59	101.884	SF
Vogler State D21-790 - Wellbore #1 - Plan 1	6,978.28	7,395.20	1,379.67	1,329.04	27.248	CC, ES
Vogler State D21-790 - Wellbore #1 - Plan 1	7,100.00	7,319.97	1,382.49	1,331.59	27.158	SF
Vogler State D33-711 - Wellbore #1 - Plan 1	17,463.45	17,494.52	1,400.03	1,206.11	7.219	CC, ES, SF
Vogler State D33-718 - Wellbore #1 - Plan 1	7,131.99	7,128.77	1,922.17	1,871.34	37.813	CC
Vogler State D33-718 - Wellbore #1 - Plan 1	17,100.00	17,086.86	2,017.19	1,829.50	10.747	ES
Vogler State D33-718 - Wellbore #1 - Plan 1	17,464.04	17,409.71	2,028.78	1,835.68	10.507	SF
Vogler State D33-728 - Wellbore #1 - Plan 1	7,277.73	7,468.01	2,582.91	2,529.26	48.145	CC
Vogler State D33-728 - Wellbore #1 - Plan 1	17,464.04	17,630.27	2,689.83	2,496.08	13.883	ES, SF
Vogler State D33-738 - Wellbore #1 - Plan 1	7,260.21	7,266.74	3,243.63	3,191.54	62.262	CC
Vogler State D33-738 - Wellbore #1 - Plan 1	17,000.00	16,951.39	3,328.42	3,142.46	17.898	ES
Vogler State D33-738 - Wellbore #1 - Plan 1	17,464.04	17,321.07	3,346.94	3,154.60	17.401	SF
Vogler State D33-752 - Wellbore #1 - Plan 1	7,052.98	7,062.94	3,893.68	3,843.26	77.229	CC
Vogler State D33-752 - Wellbore #1 - Plan 1	17,464.04	17,484.37	4,000.20	3,806.16	20.615	ES, SF
Vogler State D33-759 - Wellbore #1 - Plan 1	7,253.58	7,386.60	4,535.98	4,482.94	85.521	CC
Vogler State D33-759 - Wellbore #1 - Plan 1	17,464.04	17,550.22	4,651.05	4,457.53	24.034	ES, SF
Vogler State D33-769 - Wellbore #1 - Plan 1	7,237.00	7,283.07	5,195.89	5,143.89	99.918	CC
Vogler State D33-769 - Wellbore #1 - Plan 1	17,464.04	17,469.21	5,311.02	5,117.36	27.425	ES, SF
Vogler State D33-779 - Wellbore #1 - Plan 1	2,000.00	1,972.00	5,758.22	5,744.44	418.096	CC
Vogler State D33-779 - Wellbore #1 - Plan 1	2,100.00	2,046.66	5,758.38	5,743.99	400.170	ES
Vogler State D33-779 - Wellbore #1 - Plan 1	17,464.04	17,452.20	5,970.97	5,777.07	30.795	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 22						
Dalbey D22-05 (SI) - Wellbore #1 - Gyro Surveys	100.00	42.44	2,397.10	2,396.90	10,000.000	CC
Dalbey D22-05 (SI) - Wellbore #1 - Gyro Surveys	800.00	735.21	2,400.76	2,395.72	476.631	ES
Dalbey D22-05 (SI) - Wellbore #1 - Gyro Surveys	6,650.00	6,541.32	3,035.22	2,989.18	65.933	SF
O'SH D 22-11 (SI) - Wellbore #1 - No Surveys	2,200.00	2,175.00	762.27	711.12	14.902	CC
O'SH D 22-11 (SI) - Wellbore #1 - No Surveys	2,300.00	2,274.98	764.01	710.51	14.282	ES
O'SH D 22-11 (SI) - Wellbore #1 - No Surveys	6,450.00	6,380.25	1,364.54	1,214.36	9.086	SF
Dalbey D 22-04 (PR) - Wellbore #1 - Gyro Surveys	672.55	614.57	3,797.59	3,793.43	913.927	CC
Dalbey D 22-04 (PR) - Wellbore #1 - Gyro Surveys	1,000.00	923.38	3,798.41	3,792.01	593.253	ES
Dalbey D 22-04 (PR) - Wellbore #1 - Gyro Surveys	6,700.00	6,604.16	4,543.43	4,496.99	97.841	SF
Dalbey D 22-3 (SI) - Wellbore #1 - Gyro Surveys	202.47	154.47	3,793.02	3,792.16	4,407.314	CC
Dalbey D 22-3 (SI) - Wellbore #1 - Gyro Surveys	2,201.33	2,155.13	3,799.66	3,784.64	252.991	ES
Dalbey D 22-3 (SI) - Wellbore #1 - Gyro Surveys	6,700.00	6,585.42	4,511.94	4,465.63	97.430	SF
Dalbey D22-6 (SI) - Wellbore #1 - Gyro Surveys	612.82	564.84	2,623.71	2,619.94	696.724	CC
Dalbey D22-6 (SI) - Wellbore #1 - Gyro Surveys	1,800.00	1,732.79	2,626.01	2,613.91	217.019	ES
Dalbey D22-6 (SI) - Wellbore #1 - Gyro Surveys	6,650.00	6,514.74	3,331.53	3,285.66	72.624	SF
Guttersen D 22-18 (SI) - Wellbore #1 - Gyro Surveys	1,996.02	1,956.18	3,205.04	3,191.45	235.776	CC
Guttersen D 22-18 (SI) - Wellbore #1 - Gyro Surveys	2,100.00	2,032.83	3,205.50	3,191.27	225.231	ES
Guttersen D 22-18 (SI) - Wellbore #1 - Gyro Surveys	6,700.00	6,593.85	3,920.38	3,874.03	84.588	SF
Guttersen D34-719 - Wellbore #1 - Plan 1	2,200.00	2,208.00	2,472.14	2,456.81	161.205	CC
Guttersen D34-719 - Wellbore #1 - Plan 1	2,300.00	2,307.98	2,472.45	2,456.42	154.206	ES
Guttersen D34-719 - Wellbore #1 - Plan 1	17,464.04	17,517.73	3,263.06	3,069.72	16.877	SF
Guttersen D34-729 - Wellbore #1 - Plan 1	2,200.00	2,208.00	2,434.71	2,419.38	158.764	CC
Guttersen D34-729 - Wellbore #1 - Plan 1	17,464.04	17,461.11	2,602.99	2,409.24	13.435	ES, SF
Guttersen D34-739 - Wellbore #1 - Plan 1	17,464.04	17,457.29	1,943.51	1,750.22	10.055	CC, ES, SF
Guttersen D34-749 - Wellbore #1 - Plan 1	2,200.00	2,201.00	74.85	59.54	4.889	CC, ES
Guttersen D34-749 - Wellbore #1 - Plan 1	2,300.00	2,298.80	76.63	60.65	4.795	SF
Guttersen D34-759 - Wellbore #1 - Plan 1	2,200.00	2,201.00	37.43	22.12	2.445	CC
Guttersen D34-759 - Wellbore #1 - Plan 1	2,300.00	2,300.98	37.78	21.77	2.360	ES
Guttersen D34-759 - Wellbore #1 - Plan 1	2,400.00	2,400.84	39.28	22.59	2.354	SF
Guttersen D34-779 - Wellbore #1 - Plan 1	2,396.42	2,396.26	37.10	20.44	2.227	CC
Guttersen D34-779 - Wellbore #1 - Plan 1	2,400.00	2,399.84	37.10	20.42	2.224	ES, SF
Guttersen State D 22-22 (SI) - Wellbore #1 - Gyro Survey	576.40	557.41	2,940.42	2,936.81	814.889	CC
Guttersen State D 22-22 (SI) - Wellbore #1 - Gyro Survey	2,217.39	2,210.71	2,940.84	2,925.57	192.598	ES
Guttersen State D 22-22 (SI) - Wellbore #1 - Gyro Survey	6,800.00	6,721.62	3,541.70	3,494.43	74.919	SF
Guttersen State D 22-24 (SI) - Wellbore #1 - Gyro Survey	337.76	310.92	1,279.82	1,277.93	677.385	CC
Guttersen State D 22-24 (SI) - Wellbore #1 - Gyro Survey	500.00	462.19	1,280.46	1,277.46	426.314	ES
Guttersen State D 22-24 (SI) - Wellbore #1 - Gyro Survey	6,550.00	6,481.05	1,804.79	1,759.19	39.574	SF
Guttersen State D22-730 - Wellbore #1 - Plan 1	2,200.00	2,209.00	2,439.46	2,424.13	159.037	CC
Guttersen State D22-730 - Wellbore #1 - Plan 1	2,400.00	2,408.98	2,440.30	2,423.59	145.984	ES
Guttersen State D22-730 - Wellbore #1 - Plan 1	7,800.00	6,800.00	2,518.31	2,466.10	48.232	SF
Guttersen State D22-740 - Wellbore #1 - Plan 1	6,853.51	7,437.73	1,941.89	1,891.79	38.757	CC, ES
Guttersen State D22-740 - Wellbore #1 - Plan 1	7,200.00	7,250.00	1,955.89	1,904.97	38.408	SF
Guttersen State D22-750 - Wellbore #1 - Plan 1	2,200.00	2,200.00	167.84	152.53	10.965	CC
Guttersen State D22-750 - Wellbore #1 - Plan 1	2,300.00	2,294.49	168.08	152.12	10.530	ES
Guttersen State D22-750 - Wellbore #1 - Plan 1	2,700.00	2,670.79	177.06	158.74	9.663	SF
Guttersen State D22-760 - Wellbore #1 - Plan 1	2,777.30	2,758.82	130.75	111.75	6.881	CC
Guttersen State D22-760 - Wellbore #1 - Plan 1	2,800.00	2,780.50	130.84	111.71	6.838	ES
Guttersen State D22-760 - Wellbore #1 - Plan 1	2,900.00	2,875.95	133.45	113.73	6.769	SF
Guttersen State D22-770 - Wellbore #1 - Plan 1	6,958.02	7,338.28	49.52	-0.78	0.985	Level 1, CC, ES, SF
Guttersen State D22-780 - Wellbore #1 - Plan 1	2,000.00	2,000.00	154.69	140.81	11.150	CC, ES
Guttersen State D22-780 - Wellbore #1 - Plan 1	2,629.25	2,593.76	187.03	169.34	10.572	SF
Guttersen State D34-790 - Wellbore #1 - Plan 1	2,200.00	2,209.00	2,509.85	2,494.51	163.625	CC, ES
Guttersen State D34-790 - Wellbore #1 - Plan 1	17,464.04	17,636.91	3,872.42	3,678.97	20.018	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 22						
OSH D 22-12 (SI) - Wellbore #1 - Gyro Surveys	1,361.73	1,322.74	1,373.15	1,364.05	150.966	CC
OSH D 22-12 (SI) - Wellbore #1 - Gyro Surveys	2,000.00	1,952.02	1,375.55	1,361.97	101.322	ES
OSH D 22-12 (SI) - Wellbore #1 - Gyro Surveys	6,500.00	6,420.75	1,852.15	1,807.05	41.068	SF
OSH D 22-13 (SI) - Wellbore #1 - Gyro Surveys	6,250.78	6,179.04	898.72	855.25	20.675	CC
OSH D 22-13 (SI) - Wellbore #1 - Gyro Surveys	6,450.00	6,380.12	899.14	854.22	20.019	ES
OSH D 22-13 (SI) - Wellbore #1 - Gyro Surveys	6,650.00	6,634.63	910.20	863.64	19.550	SF
OSH D 22-14 (PR) - Wellbore #1 - Gyro Surveys	4,957.01	4,913.05	631.66	597.36	18.415	CC
OSH D 22-14 (PR) - Wellbore #1 - Gyro Surveys	5,000.00	4,952.05	631.76	597.16	18.259	ES
OSH D 22-14 (PR) - Wellbore #1 - Gyro Surveys	6,500.00	6,427.00	722.11	676.87	15.959	SF
Sevendust State D 22-1 (SI) - Wellbore #1 - Gyro Survey	2,218.83	2,223.01	4,929.02	4,913.68	321.463	CC, ES
Sevendust State D 22-1 (SI) - Wellbore #1 - Gyro Survey	6,850.00	6,713.29	5,616.62	5,569.31	118.720	SF
Spike ST GWS D 22-07 (SI) - Wellbore #1 - No Surveys	2,200.00	2,168.00	2,682.45	2,631.43	52.583	CC
Spike ST GWS D 22-07 (SI) - Wellbore #1 - No Surveys	2,300.00	2,267.98	2,683.99	2,630.64	50.306	ES
Spike ST GWS D 22-07 (SI) - Wellbore #1 - No Surveys	6,650.00	6,557.92	3,295.26	3,140.75	21.328	SF
Spike ST GWS D 22-08 (SI) - Wellbore #1 - Gyro Survey	2,145.92	2,125.93	3,961.26	3,946.54	269.079	CC
Spike ST GWS D 22-08 (SI) - Wellbore #1 - Gyro Survey	2,200.00	2,172.43	3,961.31	3,946.24	262.733	ES
Spike ST GWS D 22-08 (SI) - Wellbore #1 - Gyro Survey	6,850.00	6,781.41	4,526.50	4,478.84	94.980	SF
Spike ST GWS D 22-09 (PA) - Wellbore #1 - No Surveys	2,200.00	2,182.00	3,507.33	3,456.03	68.378	CC
Spike ST GWS D 22-09 (PA) - Wellbore #1 - No Surveys	2,300.00	2,281.98	3,508.14	3,454.51	65.410	ES
Spike ST GWS D 22-09 (PA) - Wellbore #1 - No Surveys	6,900.00	6,755.86	3,946.44	3,786.92	24.740	SF
Spike ST GWS D 22-15 (PR) - Wellbore #1 - Gyro Surve	100.00	73.08	1,777.65	1,777.39	7,003.700	CC
Spike ST GWS D 22-15 (PR) - Wellbore #1 - Gyro Surve	2,800.00	2,764.86	1,781.58	1,762.46	93.220	ES
Spike ST GWS D 22-15 (PR) - Wellbore #1 - Gyro Surve	6,900.00	6,739.63	1,950.36	1,902.48	40.736	SF
Spike ST GWS D 22-4J (PR) - Wellbore #1 - Gyro Surve	2,224.59	2,209.54	2,799.19	2,783.89	182.989	CC
Spike ST GWS D 22-4J (PR) - Wellbore #1 - Gyro Surve	2,300.00	2,273.95	2,799.52	2,783.74	177.444	ES
Spike ST GWS D 22-4J (PR) - Wellbore #1 - Gyro Surve	7,100.00	6,911.75	3,109.97	3,060.80	63.255	SF
Spike State D22-1J (PA) - Wellbore #1 - Gyro Surveys	1,139.35	1,113.42	3,711.98	3,704.40	490.127	CC
Spike State D22-1J (PA) - Wellbore #1 - Gyro Surveys	2,300.00	2,386.00	3,716.35	3,700.20	230.038	ES
Spike State D22-1J (PA) - Wellbore #1 - Gyro Surveys	6,700.00	6,670.70	4,339.26	4,292.59	92.985	SF
Spike State GWS D 22-10 (PA) - Wellbore #1 - Gyro Sur	2,218.62	2,193.91	1,927.75	1,912.54	126.784	CC, ES
Spike State GWS D 22-10 (PA) - Wellbore #1 - Gyro Sur	6,650.00	6,555.09	2,446.15	2,400.02	53.026	SF
Spike State GWS D 22-2 (PR) - Wellbore #1 - Gyro Surv	1,682.46	1,642.49	4,135.26	4,123.90	364.053	CC
Spike State GWS D 22-2 (PR) - Wellbore #1 - Gyro Surv	2,204.96	2,171.95	4,136.34	4,121.26	274.306	ES
Spike State GWS D 22-2 (PR) - Wellbore #1 - Gyro Surv	6,700.00	6,603.89	4,860.51	4,814.11	104.751	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 23						
Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys	2,183.23	2,175.42	5,424.10	5,409.07	360.886	CC
Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys	2,200.00	2,186.74	5,424.10	5,408.98	358.512	ES
Guttersen 23-20 (SI) - Wellbore #1 - Gyro Surveys	7,150.00	6,877.99	5,949.94	5,900.89	121.297	SF
Guttersen 23-32 (SI) - Wellbore #1 - Gyro Surveys	100.00	23.56	7,676.21	7,676.04	10,000.000	CC
Guttersen 23-32 (SI) - Wellbore #1 - Gyro Surveys	2,232.46	2,216.58	7,680.12	7,664.79	500.827	ES
Guttersen 23-32 (SI) - Wellbore #1 - Gyro Surveys	10,500.00	10,500.00	9,959.41	9,886.76	137.094	SF
Guttersen 23-41 (PR) - Wellbore #1 - Gyro Surveys	100.00	12.78	9,177.57	9,177.43	10,000.000	CC
Guttersen 23-41 (PR) - Wellbore #1 - Gyro Surveys	2,309.89	2,421.19	9,181.70	9,165.39	563.035	ES
Guttersen 23-41 (PR) - Wellbore #1 - Gyro Surveys	7,600.00	6,681.91	9,951.92	9,902.46	201.214	SF
Guttersen 31-23 (PR) - Wellbore #1 - Gyro Surveys	2,281.81	2,405.20	7,966.74	7,950.58	492.873	CC
Guttersen 31-23 (PR) - Wellbore #1 - Gyro Surveys	2,300.00	2,431.38	7,966.77	7,950.45	488.243	ES
Guttersen 31-23 (PR) - Wellbore #1 - Gyro Surveys	7,200.00	6,812.98	8,599.61	8,550.73	175.927	SF
Guttersen 42-23 (PR) - Wellbore #1 - Gyro Surveys	100.00	36.52	8,751.50	8,751.31	10,000.000	CC
Guttersen 42-23 (PR) - Wellbore #1 - Gyro Surveys	2,500.00	2,746.51	8,758.13	8,740.08	485.311	ES
Guttersen 42-23 (PR) - Wellbore #1 - Gyro Surveys	9,000.00	6,795.39	9,955.60	9,900.45	180.520	SF
Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surve	2,288.50	2,382.37	8,250.31	8,234.18	511.525	CC
Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surve	2,300.00	2,400.00	8,250.33	8,234.10	508.347	ES
Guttersen USX D 23-17 (PR) - Wellbore #1 - Gyro Surve	9,400.00	9,400.00	9,984.71	9,919.91	154.083	SF
Parker Blue D 23-09 (SI) - Wellbore #1 - Gyro Surveys	2,257.21	2,224.53	8,718.97	8,703.50	563.813	CC
Parker Blue D 23-09 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,252.65	8,719.08	8,703.37	555.082	ES
Parker Blue D 23-09 (SI) - Wellbore #1 - Gyro Surveys	10,200.00	6,899.67	9,955.78	9,894.18	161.605	SF
Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys	2,367.33	2,442.92	7,475.21	7,458.63	450.784	CC
Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys	2,400.00	2,467.43	7,475.28	7,458.51	445.643	ES
Parker Blue D 23-10 (SI) - Wellbore #1 - Gyro Surveys	10,600.00	6,862.54	9,183.55	9,121.23	147.367	SF
Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys	2,255.63	2,281.86	6,109.13	6,093.48	390.345	CC
Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,329.34	6,109.26	6,093.29	382.609	ES
Parker Blue D 23-11 (SI) - Wellbore #1 - Gyro Surveys	7,200.00	6,869.69	6,471.23	6,422.00	131.433	SF
Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys	2,254.90	2,256.02	4,395.07	4,379.51	282.380	CC
Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,290.29	4,395.19	4,379.35	277.513	ES
Parker Blue D 23-13 (SI) - Wellbore #1 - Gyro Surveys	7,250.00	6,910.13	4,653.90	4,604.20	93.633	SF
Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys	2,441.78	2,497.88	5,915.88	5,898.85	347.578	CC
Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys	2,600.00	2,655.75	5,916.61	5,898.52	327.101	ES
Parker Blue D 23-14 (SI) - Wellbore #1 - Gyro Surveys	9,400.00	6,845.55	6,809.95	6,752.24	118.001	SF
Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys	4,812.04	4,911.47	7,231.49	7,197.75	214.344	CC
Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys	5,100.00	5,143.42	7,232.23	7,196.62	203.122	ES
Parker Blue D 23-15 (SI) - Wellbore #1 - Gyro Surveys	11,100.00	6,910.52	8,549.51	8,483.39	129.314	SF
Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys	0.00	0.00	4,989.74			
Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys	2,300.00	2,315.72	4,999.43	4,983.52	314.164	ES
Parker Blue D 23-3J (SI) - Wellbore #1 - Gyro Surveys	7,200.00	6,817.03	5,467.49	5,415.14	104.431	SF
Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys	393.77	391.77	4,949.42	4,947.04	2,085.910	CC
Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys	2,100.00	2,070.79	4,958.33	4,943.97	345.260	ES
Parker Red D 23-05 (PR) - Wellbore #1 - Gyro Surveys	7,000.00	6,845.28	5,577.03	5,528.60	115.172	SF
Parker Red D 23-2J (SI) - Wellbore #1 - Gyro Surveys	2,203.55	2,200.00	5,923.33	5,908.14	390.067	CC, ES
Parker Red D 23-2J (SI) - Wellbore #1 - Gyro Surveys	7,100.00	7,048.28	6,514.11	6,464.38	131.005	SF
Parker Red D 23-3 (PR) - Wellbore #1 - Gyro Surveys	2,130.58	2,100.00	6,872.76	6,858.18	471.414	CC
Parker Red D 23-3 (PR) - Wellbore #1 - Gyro Surveys	2,200.00	2,132.03	6,872.96	6,858.01	460.016	ES
Parker Red D 23-3 (PR) - Wellbore #1 - Gyro Surveys	6,900.00	6,876.01	7,377.69	7,329.57	153.340	SF
Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys	1,911.07	1,891.10	5,638.60	5,625.56	432.195	CC
Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys	2,200.00	2,168.01	5,639.68	5,624.63	374.722	ES
Parker Red D 23-4 (SI) - Wellbore #1 - Gyro Surveys	6,950.00	6,771.44	6,331.64	6,283.69	132.054	SF
Two E Ranch 1-23 (SI) - Wellbore #1 - Gyro Surveys	2,558.81	2,705.38	8,173.28	8,155.16	451.055	CC
Two E Ranch 1-23 (SI) - Wellbore #1 - Gyro Surveys	3,400.00	3,531.52	8,175.14	8,151.28	342.531	ES
Two E Ranch 1-23 (SI) - Wellbore #1 - Gyro Surveys	11,600.00	6,849.27	9,997.50	9,929.08	146.127	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 26						
Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys	10,386.10	6,772.33	5,718.40	5,652.00	86.131	CC
Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys	10,400.00	6,772.48	5,718.41	5,651.93	86.010	ES
Adam Red D 26-11 (PR) - Wellbore #1 - Gyro Surveys	12,500.00	6,791.37	6,096.60	6,018.05	77.614	SF
Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys	10,371.57	6,942.08	4,515.15	4,440.77	60.705	CC
Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys	10,400.00	6,941.94	4,515.24	4,440.67	60.553	ES
Adam Red D 26-12 (PR) - Wellbore #1 - Gyro Surveys	11,600.00	6,935.98	4,679.27	4,597.78	57.424	SF
Adam Red D 26-13 (PR) - Wellbore #1 - Gyro Surveys	11,518.44	6,900.00	4,689.21	4,614.32	62.614	CC, ES
Adam Red D 26-13 (PR) - Wellbore #1 - Gyro Surveys	12,800.00	6,900.00	4,861.19	4,778.75	58.967	SF
Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys	11,540.37	6,860.82	6,053.77	5,974.11	76.002	CC
Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys	11,600.00	6,861.52	6,054.06	5,973.98	75.600	ES
Adam Red D 26-14 (PR) - Wellbore #1 - Gyro Surveys	13,600.00	6,884.84	6,394.50	6,302.49	69.499	SF
Coors Energy 14-25H (PR) - Wellbore #1 - MWD Survey	11,231.48	5,920.20	9,252.95	9,185.27	136.718	CC
Coors Energy 14-25H (PR) - Wellbore #1 - MWD Survey	11,300.00	5,920.20	9,253.20	9,185.04	135.758	ES
Coors Energy 14-25H (PR) - Wellbore #1 - MWD Survey	15,000.00	5,920.20	9,990.93	9,900.22	110.136	SF
Heyde 1-26 (PR) - Wellbore #1 - Gyro Surveys	8,071.49	6,870.42	8,212.87	8,159.99	155.312	CC
Heyde 1-26 (PR) - Wellbore #1 - Gyro Surveys	8,100.00	6,870.52	8,212.92	8,159.91	154.928	ES
Heyde 1-26 (PR) - Wellbore #1 - Gyro Surveys	12,900.00	6,887.14	9,527.09	9,449.28	122.441	SF
Heyde 26ND (PR) - Wellbore #1 - MWD Surveys	908.83	895.00	5,787.13	5,781.33	999.378	CC, ES
Heyde 26ND (PR) - Wellbore #1 - MWD Surveys	11,900.00	6,926.09	7,499.76	7,421.98	96.423	SF
Heyde 26RD (PR) - Wellbore #1 - MWD Surveys	4,926.14	5,039.00	7,895.54	7,858.15	211.197	CC
Heyde 26RD (PR) - Wellbore #1 - MWD Surveys	5,600.00	5,682.36	7,899.02	7,857.14	188.600	ES
Heyde 26RD (PR) - Wellbore #1 - MWD Surveys	11,900.00	6,893.38	9,228.81	9,154.81	124.720	SF
Heyde 26VD (PR) - Wellbore #1 - MWD Surveys	100.00	58.99	8,240.23	8,240.00	10,000.000	CC
Heyde 26VD (PR) - Wellbore #1 - MWD Surveys	1,000.00	929.21	8,242.07	8,237.05	1,639.138	ES
Heyde 26VD (PR) - Wellbore #1 - MWD Surveys	12,500.00	7,127.00	9,980.04	9,896.71	119.764	SF
Heyde 31-26 (PR) - Wellbore #1 - No Surveys	7,783.16	6,844.20	6,957.23	6,905.75	135.122	CC
Heyde 31-26 (PR) - Wellbore #1 - No Surveys	7,800.00	6,844.20	6,957.25	6,905.70	134.941	ES
Heyde 31-26 (PR) - Wellbore #1 - No Surveys	11,500.00	6,845.84	7,887.84	7,818.12	113.142	SF
Heyde 32-26 (SI) - Wellbore #1 - Gyro Surveys	9,079.15	6,737.72	7,113.16	7,055.28	122.903	CC
Heyde 32-26 (SI) - Wellbore #1 - Gyro Surveys	9,100.00	6,737.84	7,113.19	7,055.19	122.647	ES
Heyde 32-26 (SI) - Wellbore #1 - Gyro Surveys	12,600.00	6,760.25	7,936.80	7,859.65	102.873	SF
Heyde 41-26 (PR) - Wellbore #1 - Gyro Surveys	7,586.69	6,884.73	8,592.40	8,541.53	168.924	CC
Heyde 41-26 (PR) - Wellbore #1 - Gyro Surveys	7,600.00	6,885.01	8,592.41	8,541.49	168.759	ES
Heyde 41-26 (PR) - Wellbore #1 - Gyro Surveys	12,700.00	6,991.50	9,998.19	9,921.65	130.623	SF
Heyde 42-26 (PR) - Wellbore #1 - Gyro Surveys	9,037.39	6,931.48	8,513.71	8,455.39	145.983	CC
Heyde 42-26 (PR) - Wellbore #1 - Gyro Surveys	9,100.00	6,930.80	8,513.94	8,455.26	145.084	ES
Heyde 42-26 (PR) - Wellbore #1 - Gyro Surveys	13,700.00	6,918.89	9,706.73	9,622.68	115.490	SF
HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve	10,607.50	6,891.00	7,424.20	7,241.90	40.726	CC
HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve	10,700.00	6,891.00	7,424.77	7,241.84	40.588	ES
HSR-Waste Services 10-26 (SI) - Wellbore #1 - No Surve	12,400.00	6,891.00	7,637.52	7,443.70	39.406	SF
HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve	11,602.12	6,907.00	7,170.44	6,980.73	37.798	CC
HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve	11,700.00	6,907.00	7,171.11	6,980.70	37.662	ES
HSR-Waste Services 15-26 (SI) - Wellbore #1 - No Surve	13,200.00	6,907.00	7,346.32	7,146.11	36.693	SF
HSR-Waste Services 16-26 (SI) - Wellbore #1 - Gyro Su	11,618.98	7,016.64	8,419.53	8,343.91	111.336	CC
HSR-Waste Services 16-26 (SI) - Wellbore #1 - Gyro Su	11,700.00	7,016.24	8,419.92	8,343.72	110.491	ES
HSR-Waste Services 16-26 (SI) - Wellbore #1 - Gyro Su	15,300.00	6,998.33	9,189.02	9,091.48	94.211	SF
HSR-Waste Services 9-26 (PA) - Wellbore #1 - Gyro Sur	10,365.47	6,811.35	8,604.43	8,538.04	129.610	CC
HSR-Waste Services 9-26 (PA) - Wellbore #1 - Gyro Sur	10,400.00	6,811.53	8,604.49	8,537.88	129.159	ES
HSR-Waste Services 9-26 (PA) - Wellbore #1 - Gyro Sur	14,600.00	6,833.34	9,589.94	9,498.96	105.406	SF
Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur	7,865.01	6,982.85	4,526.21	4,473.91	86.540	CC
Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur	7,900.00	6,983.31	4,526.35	4,473.90	86.297	ES
Waste Management 11-26 (PR) - Wellbore #1 - Gyro Sur	9,500.00	7,004.35	4,812.42	4,752.54	80.380	SF
Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur	9,167.45	6,989.13	4,468.74	4,409.34	75.234	CC

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 26						
Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur	9,200.00	6,990.63	4,468.85	4,409.26	74.988	ES
Waste Management 12-26 (PR) - Wellbore #1 - Gyro Sur	10,700.00	7,059.91	4,723.70	4,655.81	69.578	SF
Waste Management 12-26A (PR) - Wellbore #1 - Gyro S	8,607.15	6,875.86	5,116.97	5,061.27	91.869	CC, ES
Waste Management 12-26A (PR) - Wellbore #1 - Gyro S	10,600.00	7,000.00	5,489.46	5,422.97	82.563	SF
Waste Management 21-26 (PR) - Wellbore #1 - Gyro Sur	7,650.81	6,795.97	6,001.95	5,951.15	118.159	CC, ES
Waste Management 21-26 (PR) - Wellbore #1 - Gyro Sur	10,600.00	6,824.86	6,687.32	6,622.72	103.514	SF
Waste Management 22-26 (PR) - Wellbore #1 - Gyro Sur	9,106.84	6,806.22	5,877.63	5,819.41	100.952	CC, ES
Waste Management 22-26 (PR) - Wellbore #1 - Gyro Sur	11,600.00	6,814.03	6,384.54	6,312.82	89.021	SF
Waste Management 26FD (PR) - Wellbore #1 - MWD Su	8,438.62	7,066.38	3,978.74	3,922.60	70.871	CC, ES
Waste Management 26FD (PR) - Wellbore #1 - MWD Su	9,900.00	7,061.11	4,238.63	4,174.21	65.790	SF
Waste Management 26KD (PR) - Wellbore #1 - MWD Su	9,704.49	7,041.09	5,201.53	5,132.16	74.979	CC, ES
Waste Management 26KD (PR) - Wellbore #1 - MWD Su	11,400.00	7,058.08	5,470.85	5,391.97	69.359	SF
Waste Management D 26-25 (SI) - Wellbore #1 - Gyro S	11,048.22	6,790.47	5,388.84	5,317.75	75.802	CC
Waste Management D 26-25 (SI) - Wellbore #1 - Gyro S	11,100.00	6,790.58	5,389.09	5,317.64	75.426	ES
Waste Management D 26-25 (SI) - Wellbore #1 - Gyro S	13,600.00	13,600.00	5,962.26	5,853.89	55.016	SF
Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv	7,139.55	7,015.71	5,248.02	5,195.07	99.107	CC
Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv	7,150.00	7,018.62	5,248.03	5,195.02	99.010	ES
Waste Mangement 26JD (PR) - Wellbore #1 - MWD Surv	9,400.00	7,025.74	5,703.80	5,640.98	90.806	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 27						
Camolo Red 27-3J (SI) - Wellbore #1 - Gyro Surveys	11,423.62	6,905.14	428.76	354.52	5.776	CC, ES, SF
Camolo Red D 27-02J (SI) - Wellbore #1 - Gyro Surveys	8,037.98	6,894.20	269.67	220.57	5.492	CC, ES, SF
Camolo Red D 27-04 (SI) - Wellbore #1 - Gyro Surveys	7,669.39	6,880.59	880.60	829.31	17.170	CC, ES
Camolo Red D 27-04 (SI) - Wellbore #1 - Gyro Surveys	7,700.00	6,880.75	881.13	829.71	17.137	SF
Camolo Red D 27-05 (SI) - Wellbore #1 - Gyro Surveys	9,103.41	6,927.06	670.92	612.27	11.439	CC, ES, SF
Camolo Red D 27-06 (SI) - Wellbore #1 - Gyro Surveys	8,973.67	6,878.40	651.93	594.20	11.293	CC, ES
Camolo Red D 27-06 (SI) - Wellbore #1 - Gyro Surveys	9,000.00	6,878.47	652.46	594.62	11.281	SF
Camolo Red D 27-11 (PA) - Wellbore #1 - No Surveys	10,428.37	6,923.00	595.83	414.13	3.279	CC, ES, SF
Camolo Red D 27-12 (SI) - Wellbore #1 - Gyro Surveys	10,386.33	6,887.35	784.34	717.46	11.727	CC, ES
Camolo Red D 27-12 (SI) - Wellbore #1 - Gyro Surveys	10,400.00	6,887.37	784.46	717.47	11.711	SF
Camolo Red D 27-14 (PR) - Wellbore #1 - Gyro Surveys	11,678.39	6,967.15	587.49	511.25	7.705	CC, ES
Camolo Red D 27-14 (PR) - Wellbore #1 - Gyro Surveys	11,700.00	6,967.21	587.89	511.54	7.700	SF
Estes D 27-10 (SI) - Wellbore #1 - Gyro Surveys	10,616.23	6,792.22	1,940.74	1,872.78	28.558	CC, ES
Estes D 27-10 (SI) - Wellbore #1 - Gyro Surveys	10,900.00	6,803.16	1,961.34	1,891.84	28.217	SF
Estes D27-07 (SI) - Wellbore #1 - Gyro Surveys	9,037.32	6,877.01	1,783.05	1,724.95	30.689	CC, ES
Estes D27-07 (SI) - Wellbore #1 - Gyro Surveys	9,300.00	6,872.58	1,802.29	1,742.93	30.361	SF
Hippo D 27-23 D (PR) - Wellbore #1 - MWD Surveys	11,008.30	7,110.82	2,495.20	2,419.34	32.891	CC, ES
Hippo D 27-23 D (PR) - Wellbore #1 - MWD Surveys	11,600.00	7,112.86	2,564.40	2,482.98	31.498	SF
Hippo D 27-24 D (PR) - Wellbore #1 - MWD Surveys	11,077.32	6,985.82	1,155.78	1,081.96	15.657	CC, ES
Hippo D 27-24 D (PR) - Wellbore #1 - MWD Surveys	11,200.00	6,987.52	1,162.27	1,087.77	15.601	SF
Hippo D 27-25 D (PR) - Wellbore #1 - MWD Surveys	11,080.30	7,087.75	74.12	-0.59	0.992	Level 1, CC, ES, SF
Hippo D 34-27 D (PR) - Wellbore #1 - MWD Surveys	12,322.93	7,498.08	2,547.83	2,445.92	25.001	CC, ES
Hippo D 34-27 D (PR) - Wellbore #1 - MWD Surveys	12,900.00	7,497.74	2,612.36	2,503.52	24.001	SF
Hippo D 34-28 D (PR) - Wellbore #1 - MWD Surveys	12,313.87	7,322.21	1,133.03	1,035.01	11.559	CC, ES
Hippo D 34-28 D (PR) - Wellbore #1 - MWD Surveys	12,400.00	7,321.67	1,136.30	1,037.78	11.533	SF
Hippo D 34-29 D (PR) - Wellbore #1 - MWD Surveys	12,308.12	7,399.51	128.78	29.18	1.293	Level 3, CC, ES, SF
Hippo D 34-30 D (PR) - Wellbore #1 - MWD Surveys	12,435.17	7,836.56	1,524.18	1,417.88	14.339	CC
Hippo D 34-30 D (PR) - Wellbore #1 - MWD Surveys	12,500.00	7,836.73	1,525.55	1,417.34	14.098	ES
Hippo D 34-30 D (PR) - Wellbore #1 - MWD Surveys	12,800.00	7,837.52	1,567.23	1,451.87	13.585	SF
Kyle D 27-16 (PR) - Wellbore #1 - Gyro Surveys	11,367.39	6,930.08	2,865.73	2,791.82	38.772	CC
Kyle D 27-16 (PR) - Wellbore #1 - Gyro Surveys	11,400.00	6,930.02	2,865.92	2,791.78	38.658	ES
Kyle D 27-16 (PR) - Wellbore #1 - Gyro Surveys	11,900.00	6,929.10	2,914.81	2,837.86	37.879	SF
Kyle White D 27-1 (PR) - Wellbore #1 - Gyro Surveys	7,623.00	6,890.36	3,412.50	3,361.40	66.783	CC, ES
Kyle White D 27-1 (PR) - Wellbore #1 - Gyro Surveys	8,600.00	6,895.24	3,549.60	3,494.48	64.401	SF
Kyle White D 27-15 (SI) - Wellbore #1 - Gyro Surveys	11,802.06	6,925.45	1,786.76	1,709.72	23.193	CC, ES
Kyle White D 27-15 (SI) - Wellbore #1 - Gyro Surveys	12,000.00	6,926.66	1,797.69	1,719.54	23.003	SF
Kyle White D 27-2 (SI) - Wellbore #1 - Gyro Surveys	7,657.52	6,902.78	1,925.98	1,875.01	37.789	CC, ES
Kyle White D 27-2 (SI) - Wellbore #1 - Gyro Surveys	7,900.00	6,912.08	1,941.16	1,889.28	37.414	SF
Kyle White D 27-8 (PR) - Wellbore #1 - Gyro Surveys	9,224.26	6,882.91	3,305.86	3,246.59	55.780	CC, ES
Kyle White D 27-8 (PR) - Wellbore #1 - Gyro Surveys	10,200.00	6,968.54	3,446.44	3,381.89	53.390	SF
Kyle White D 27-9 (PR) - Wellbore #1 - Gyro Surveys	10,329.35	6,845.93	3,337.71	3,271.39	50.329	CC, ES
Kyle White D 27-9 (PR) - Wellbore #1 - Gyro Surveys	11,100.00	6,927.48	3,424.76	3,353.80	48.257	SF
Rhino D 27 18 D (PR) - Wellbore #1 - MWD Surveys	8,426.78	7,121.49	1,178.86	1,115.47	18.598	CC, ES
Rhino D 27 18 D (PR) - Wellbore #1 - MWD Surveys	8,500.00	7,121.95	1,181.13	1,117.43	18.544	SF
Rhino D 27-19 D (PR) - Wellbore #1 - MWD Surveys	8,425.84	7,291.30	45.60	-19.78	0.697	Level 1, CC, ES, SF
Rhino D 27-20 D (PR) - Wellbore #1 - MWD Surveys	9,668.47	7,076.43	71.40	8.96	1.143	Level 2, CC, ES, SF
Rhino D 27-21 (PR) - Wellbore #1 - Gyro Surveys	9,849.44	6,916.95	1,115.12	1,051.83	17.620	CC, ES
Rhino D 27-21 (PR) - Wellbore #1 - Gyro Surveys	9,900.00	6,913.04	1,116.26	1,052.71	17.566	SF
Rhino D 27-22 D (PR) - Wellbore #1 - MWD Surveys	9,686.24	7,055.76	2,601.56	2,538.64	41.348	CC
Rhino D 27-22 D (PR) - Wellbore #1 - MWD Surveys	9,700.00	7,056.31	2,601.59	2,538.60	41.298	ES
Rhino D 27-22 D (PR) - Wellbore #1 - MWD Surveys	10,300.00	7,081.59	2,672.84	2,606.45	40.263	SF
Rhino State D 27-27 D (PR) - Wellbore #1 - MWD Surve	5,094.55	5,778.22	2,532.26	2,466.01	38.224	CC
Rhino State D 27-27 D (PR) - Wellbore #1 - MWD Surve	5,100.00	5,780.54	2,532.26	2,465.97	38.201	ES

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

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 27						
Rhino State D 27-27 D (PR) - Wellbore #1 - MWD Surve	6,900.00	7,629.24	2,607.22	2,527.96	32.892	SF
Rhino State D 27-28 D (PR) - Wellbore #1 - MWD Surve	7,205.83	7,519.17	1,189.79	1,114.23	15.746	CC, ES
Rhino State D 27-28 D (PR) - Wellbore #1 - MWD Surve	7,250.00	7,524.23	1,190.53	1,114.86	15.731	SF
UPRR Amoco 1 63 (PA) - Wellbore #1 - No Surveys	10,755.85	6,925.00	2,244.39	2,060.38	12.197	CC, ES
UPRR Amoco 1 63 (PA) - Wellbore #1 - No Surveys	10,900.00	6,925.00	2,249.02	2,064.11	12.163	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 28						
O'SH D 28-7 (P&A) - Wellbore #1 - No Surveys	9,055.48	6,855.00	3,343.12	3,171.62	19.493	CC, ES
O'SH D 28-7 (P&A) - Wellbore #1 - No Surveys	9,400.00	6,855.00	3,360.83	3,187.27	19.364	SF
Spike ST GWS D 28-12 (SI) - Wellbore #1 - Gyro Surve	10,412.85	6,826.63	6,085.02	6,018.20	91.073	CC, ES
Spike ST GWS D 28-12 (SI) - Wellbore #1 - Gyro Surve	12,800.00	6,850.30	6,536.46	6,455.24	80.478	SF
Guttersen D State 28-29D (PR) - Wellbore #1 - MWD Su	7,059.96	6,913.97	5,264.08	5,213.98	105.082	CC
Guttersen D State 28-29D (PR) - Wellbore #1 - MWD Su	7,100.00	6,925.59	5,264.26	5,213.95	104.644	ES
Guttersen D State 28-29D (PR) - Wellbore #1 - MWD Su	9,600.00	6,960.85	5,873.08	5,810.74	94.217	SF
Guttersen D State 28-30D - Wellbore #1 - Guttersen D S	853.02	826.34	6,199.89	6,195.61	1,448.744	CC, ES
Guttersen D State 28-30D - Wellbore #1 - Guttersen D S	11,000.00	7,006.89	7,749.19	7,681.95	115.245	SF
Guttersen State D28-18D (PR) - Wellbore #1 - MWD Sur	8,229.98	6,910.86	4,156.74	4,099.94	73.191	CC, ES
Guttersen State D28-18D (PR) - Wellbore #1 - MWD Sur	9,500.00	6,900.14	4,346.41	4,283.98	69.622	SF
Guttersen State D28-21D (SI) - Wellbore #1 - MWD Surv	9,553.65	7,076.17	4,054.30	3,989.84	62.889	CC
Guttersen State D28-21D (SI) - Wellbore #1 - MWD Surv	9,600.00	7,076.94	4,054.57	3,989.77	62.575	ES
Guttersen State D28-21D (SI) - Wellbore #1 - MWD Surv	10,800.00	7,094.81	4,241.53	4,169.26	58.688	SF
Guttersen State D28-24D (SI) - Wellbore #1 - MWD Surv	11,112.43	6,896.22	4,078.07	4,001.44	53.222	CC, ES
Guttersen State D28-24D (SI) - Wellbore #1 - MWD Surv	12,000.00	6,915.42	4,173.48	4,091.87	51.144	SF
Guttersen State D28-28D (PR) - Wellbore #1 - MWD Sur	6,978.61	6,853.24	4,091.41	4,040.33	80.100	CC
Guttersen State D28-28D (PR) - Wellbore #1 - MWD Sur	7,000.00	6,863.50	4,091.47	4,040.26	79.900	ES
Guttersen State D28-28D (PR) - Wellbore #1 - MWD Sur	8,400.00	6,933.71	4,348.62	4,291.19	75.728	SF
Guttersen State D28-79HN - Wellbore #1 - Actual	7,400.00	11,086.00	6,535.76	6,425.53	59.291	SF
Guttersen State D28-79HN - Wellbore #1 - Actual	11,112.35	7,593.00	6,391.44	6,314.38	82.941	CC
Guttersen State D28-79HN - Wellbore #1 - Actual	11,200.00	7,593.00	6,392.04	6,314.35	82.275	ES
HSR Guttersen State 10-28 (SI) - Wellbore #1 - Gyro Su	10,342.46	6,625.76	3,615.72	3,550.11	55.112	CC, ES
HSR Guttersen State 10-28 (SI) - Wellbore #1 - Gyro Su	10,800.00	10,800.00	3,644.53	3,561.34	43.808	SF
HSR Guttersen State 15-28 (SI) - Wellbore #1 - Gyro Su	11,994.94	7,005.86	3,030.41	2,950.98	38.152	CC
HSR Guttersen State 15-28 (SI) - Wellbore #1 - Gyro Su	12,000.00	7,006.46	3,030.42	2,950.94	38.130	ES
HSR Guttersen State 15-28 (SI) - Wellbore #1 - Gyro Su	12,700.00	7,090.13	3,110.21	3,025.64	36.778	SF
HSR Guttersen State 7-28 (PR) - Wellbore #1 - Gyro Sur	8,981.02	7,104.54	3,537.86	3,478.17	59.272	CC
HSR Guttersen State 7-28 (PR) - Wellbore #1 - Gyro Sur	9,000.00	7,103.72	3,537.91	3,478.11	59.164	ES
HSR Guttersen State 7-28 (PR) - Wellbore #1 - Gyro Sur	9,900.00	7,065.00	3,655.05	3,590.38	56.517	SF
O'SH D 28-1 (SI) - Wellbore #1 - Gyro Surveys	8,091.56	6,874.10	2,342.59	2,289.54	44.158	CC
O'SH D 28-1 (SI) - Wellbore #1 - Gyro Surveys	8,100.00	6,874.04	2,342.61	2,289.52	44.124	ES
O'SH D 28-1 (SI) - Wellbore #1 - Gyro Surveys	8,600.00	6,870.62	2,397.13	2,341.67	43.222	SF
O'SH D 28-2 (SI) - Wellbore #1 - Gyro Surveys	7,715.60	6,857.78	3,321.62	3,270.59	65.090	CC, ES
O'SH D 28-2 (SI) - Wellbore #1 - Gyro Surveys	8,700.00	6,857.04	3,464.42	3,408.98	62.486	SF
O'SH D 28-8 (SI) - Wellbore #1 - Gyro Surveys	9,130.77	6,917.55	1,989.47	1,930.80	33.905	CC, ES
O'SH D 28-8 (SI) - Wellbore #1 - Gyro Surveys	9,500.00	6,932.54	2,023.39	1,962.60	33.286	SF
Spike ST GWS D 28-03 (PR) - Wellbore #1 - Gyro Surve	7,569.64	6,814.82	4,562.85	4,496.55	68.828	CC
Spike ST GWS D 28-03 (PR) - Wellbore #1 - Gyro Surve	7,600.00	6,814.60	4,562.95	4,496.54	68.710	ES
Spike ST GWS D 28-03 (PR) - Wellbore #1 - Gyro Surve	9,000.00	6,804.61	4,781.78	4,709.02	65.722	SF
Spike ST GWS D 28-4 (SI) - Wellbore #1 - Gyro Surveys	7,525.56	6,848.22	5,940.54	5,889.98	117.500	CC, ES
Spike ST GWS D 28-4 (SI) - Wellbore #1 - Gyro Surveys	10,500.00	6,839.75	6,643.58	6,578.80	102.557	SF
Spike State D 28-13 (SI) - Wellbore #1 - Gyro Surveys	11,856.56	6,845.53	6,011.72	5,934.56	77.907	CC
Spike State D 28-13 (SI) - Wellbore #1 - Gyro Surveys	11,900.00	6,845.65	6,011.88	5,934.39	77.582	ES
Spike State D 28-13 (SI) - Wellbore #1 - Gyro Surveys	13,900.00	6,851.71	6,349.52	6,259.66	70.657	SF
Spike State D28-05 (PR) - Wellbore #1 - Gyro Surveys	8,869.26	6,863.36	6,088.73	6,031.69	106.742	CC
Spike State D28-05 (PR) - Wellbore #1 - Gyro Surveys	8,900.00	6,863.63	6,088.80	6,031.59	106.411	ES
Spike State D28-05 (PR) - Wellbore #1 - Gyro Surveys	11,700.00	6,887.92	6,714.54	6,641.81	92.323	SF
Spike State D28-06 (SI) - Wellbore #1 - Gyro Surveys	8,916.14	6,912.14	4,397.40	4,339.86	76.424	CC, ES
Spike State D28-06 (SI) - Wellbore #1 - Gyro Surveys	10,500.00	6,922.62	4,673.93	4,607.68	70.547	SF
Spike State D28-11 (SI) - Wellbore #1 - Gyro Surveys	10,214.55	6,711.56	4,487.70	4,422.61	68.951	CC, ES
Spike State D28-11 (SI) - Wellbore #1 - Gyro Surveys	11,700.00	6,805.38	4,726.49	4,652.31	63.713	SF
Spike State GWS D 28-14 (P&A) - Wellbore #1 - Gyro Su	11,926.43	6,858.03	4,477.80	4,400.06	57.603	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 Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 28						
Spike State GWS D 28-14 (P&A) - Wellbore #1 - Gyro Su	13,200.00	6,915.37	4,654.90	4,569.12	54.263	SF
D Section 33						
Cydney White D33-01 (PR) - Wellbore #1 - Gyro Surveys	13,109.46	6,887.16	2,005.07	1,918.36	23.126	CC, ES
Cydney White D33-01 (PR) - Wellbore #1 - Gyro Surveys	13,300.00	6,888.84	2,014.10	1,926.09	22.886	SF
Cydney White D33-02 (PR) - Wellbore #1 - Gyro Surveys	13,050.14	6,864.49	3,314.51	3,228.34	38.461	CC
Cydney White D33-02 (PR) - Wellbore #1 - Gyro Surveys	13,100.00	6,864.94	3,314.89	3,228.32	38.293	ES
Cydney White D33-02 (PR) - Wellbore #1 - Gyro Surveys	13,700.00	6,870.76	3,377.62	3,287.32	37.407	SF
Cydney White D33-07 (PR) - Wellbore #1 - Gyro Surveys	14,339.69	6,907.58	3,392.87	3,296.64	35.256	CC, ES
Cydney White D33-07 (PR) - Wellbore #1 - Gyro Surveys	14,900.00	6,911.57	3,438.83	3,338.95	34.431	SF
Guttersen D 33-09 (PR) - Wellbore #1 - Gyro Surveys	15,879.46	6,896.66	1,897.40	1,789.14	17.526	CC
Guttersen D 33-09 (PR) - Wellbore #1 - Gyro Surveys	15,900.00	6,896.73	1,897.51	1,789.08	17.500	ES
Guttersen D 33-09 (PR) - Wellbore #1 - Gyro Surveys	16,000.00	6,897.08	1,901.23	1,792.11	17.423	SF
Guttersen D 33-16 (PR) - Wellbore #1 - Gyro Surveys	17,058.21	6,881.29	2,036.65	1,936.02	20.240	CC, ES
Guttersen D 33-16 (PR) - Wellbore #1 - Gyro Surveys	17,200.00	6,879.22	2,041.58	1,939.97	20.093	SF
Guttersen D 33-23 (PR) - Wellbore #1 - Gyro Surveys	16,336.50	6,865.01	2,706.34	2,594.59	24.217	CC, ES
Guttersen D 33-23 (PR) - Wellbore #1 - Gyro Surveys	16,700.00	6,863.30	2,730.65	2,616.61	23.946	SF
Guttersen D33-10 (SI) - Wellbore #1 - No Surveys	15,593.64	6,876.00	3,353.22	3,133.61	15.269	CC
Guttersen D33-10 (SI) - Wellbore #1 - No Surveys	15,600.00	6,876.00	3,353.23	3,133.56	15.265	ES
Guttersen D33-10 (SI) - Wellbore #1 - No Surveys	15,900.00	6,876.00	3,367.19	3,145.38	15.181	SF
Guttersen D33-15 (PR) - Wellbore #1 - No Surveys	16,919.63	6,881.00	3,350.38	3,120.17	14.554	CC, ES
Guttersen D33-15 (PR) - Wellbore #1 - No Surveys	17,200.00	6,881.00	3,362.09	3,129.86	14.478	SF
HSR Guttersen 11-33 (SI) - Wellbore #1 - No Surveys	15,579.08	6,870.00	4,652.49	4,433.11	21.207	CC
HSR Guttersen 11-33 (SI) - Wellbore #1 - No Surveys	15,600.00	6,870.00	4,652.54	4,432.99	21.191	ES
HSR Guttersen 11-33 (SI) - Wellbore #1 - No Surveys	16,200.00	6,870.00	4,693.74	4,470.01	20.979	SF
HSR Guttersen 13-33 (SI) - Wellbore #1 - Gyro Surveys	16,975.18	6,899.28	6,063.90	5,946.94	51.847	CC
HSR Guttersen 13-33 (SI) - Wellbore #1 - Gyro Surveys	17,000.00	6,899.28	6,063.95	5,946.79	51.759	ES
HSR Guttersen 13-33 (SI) - Wellbore #1 - Gyro Surveys	17,464.04	6,899.24	6,083.57	5,962.93	50.426	SF
HSR Guttersen 14-33 (SI) - Wellbore #1 - Gyro Surveys	17,071.63	6,931.16	4,575.34	4,457.89	38.955	CC
HSR Guttersen 14-33 (SI) - Wellbore #1 - Gyro Surveys	17,100.00	6,931.17	4,575.43	4,457.74	38.879	ES
HSR Guttersen 14-33 (SI) - Wellbore #1 - Gyro Surveys	17,464.04	6,931.24	4,592.14	4,471.79	38.158	SF
HSR Guttersen 3-33 (SI) - Wellbore #1 - Gyro Surveys	12,600.00	12,600.00	4,642.25	4,539.64	45.242	SF
HSR Guttersen 3-33 (SI) - Wellbore #1 - Gyro Surveys	13,026.93	6,931.87	4,622.64	4,536.51	53.669	CC, ES
HSR Guttersen 4-33 (P&A) - Wellbore #1 - No Surveys	13,084.41	6,885.00	6,106.09	5,905.76	30.480	CC
HSR Guttersen 4-33 (P&A) - Wellbore #1 - No Surveys	13,100.00	6,885.00	6,106.11	5,905.66	30.462	ES
HSR Guttersen 4-33 (P&A) - Wellbore #1 - No Surveys	14,200.00	6,885.00	6,207.17	5,999.08	29.830	SF
HSR-Guttersen 12-33 (SI) - Wellbore #1 - Gyro Surveys	15,808.17	6,947.99	5,994.03	5,886.26	55.618	CC
HSR-Guttersen 12-33 (SI) - Wellbore #1 - Gyro Surveys	15,900.00	6,948.03	5,994.73	5,886.23	55.250	ES
HSR-Guttersen 12-33 (SI) - Wellbore #1 - Gyro Surveys	17,300.00	6,948.52	6,176.89	6,059.59	52.658	SF
HSR-Guttersen 5-33 (SI) - Wellbore #1 - Gyro Surveys	14,539.21	6,881.57	5,679.60	5,581.90	58.130	CC
HSR-Guttersen 5-33 (SI) - Wellbore #1 - Gyro Surveys	14,600.00	6,881.08	5,679.93	5,581.74	57.851	ES
HSR-Guttersen 5-33 (SI) - Wellbore #1 - Gyro Surveys	16,000.00	6,870.09	5,864.44	5,757.46	54.818	SF
HSR-Guttersen 6-33 (SI) - Wellbore #1 - Gyro Surveys	14,457.93	6,885.60	4,534.83	4,438.07	46.865	CC
HSR-Guttersen 6-33 (SI) - Wellbore #1 - Gyro Surveys	14,500.00	6,886.04	4,535.03	4,437.93	46.706	ES
HSR-Guttersen 6-33 (SI) - Wellbore #1 - Gyro Surveys	15,400.00	6,895.41	4,631.64	4,528.80	45.036	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
D Section 34						
HSR Waste Services 4-34 (SI) - Wellbore #1 - Gyro Surv	12,928.96	6,913.08	497.05	411.69	5.823	CC, ES, SF
HSR Waste Services 5-34 (SI) - Wellbore #1 - Gyro Surv	14,154.43	6,918.37	912.90	818.11	9.631	CC, ES
HSR Waste Services 5-34 (SI) - Wellbore #1 - Gyro Surv	14,200.00	6,918.19	914.04	818.92	9.610	SF
Liam D 34-11 (PR) - Wellbore #1 - Gyro Surveys	15,756.12	6,923.49	613.60	506.23	5.715	CC, ES, SF
Liam D 34-12 (PR) - Wellbore #1 - Gyro Surveys	15,542.18	6,922.05	782.72	677.03	7.406	CC, ES
Liam D 34-12 (PR) - Wellbore #1 - Gyro Surveys	15,600.00	6,921.69	784.85	678.83	7.403	SF
Liam D 34-13 (PR) - Wellbore #1 - Gyro Surveys	16,924.91	6,913.45	741.39	624.80	6.359	CC, ES, SF
Liam D 34-14 (PR) - Wellbore #1 - Gyro Surveys	17,077.30	6,922.42	623.15	505.30	5.288	CC, ES
Liam D 34-14 (PR) - Wellbore #1 - Gyro Surveys	17,100.00	6,922.05	623.56	505.63	5.287	SF
Liam D 34-25 (SI) - Wellbore #1 - Gyro Surveys	16,323.48	6,916.26	72.23	-39.59	0.646	Level 1, CC, ES, SF
Liam D 34-33 (SI) - Wellbore #1 - Gyro Surveys	16,317.48	6,910.72	1,225.95	1,114.18	10.968	CC, ES
Liam D 34-33 (SI) - Wellbore #1 - Gyro Surveys	16,400.00	6,909.90	1,228.73	1,116.42	10.941	SF
D Section 35						
UPRR 1 (DA) - Wellbore #1 - No Surveys	13,050.12	6,950.00	4,547.13	4,345.76	22.581	CC
UPRR 1 (DA) - Wellbore #1 - No Surveys	13,100.00	6,950.00	4,547.40	4,345.67	22.541	ES
UPRR 1 (DA) - Wellbore #1 - No Surveys	13,600.00	6,950.00	4,580.26	4,375.20	22.336	SF
Waste Management 22-35 (SI) - Wellbore #1 - Gyro Surv	14,445.84	6,965.19	5,931.93	5,834.82	61.085	CC
Waste Management 22-35 (SI) - Wellbore #1 - Gyro Surv	14,500.00	6,965.27	5,932.17	5,834.65	60.830	ES
Waste Management 22-35 (SI) - Wellbore #1 - Gyro Surv	16,000.00	6,967.64	6,132.14	6,025.53	57.517	SF
Waste Management 31-35 (SI) - Wellbore #1 - Gyro Surv	12,928.78	6,998.51	6,954.33	6,868.98	81.479	CC
Waste Management 31-35 (SI) - Wellbore #1 - Gyro Surv	13,000.00	6,998.01	6,954.70	6,868.82	80.983	ES
Waste Management 31-35 (SI) - Wellbore #1 - Gyro Surv	15,300.00	6,981.69	7,347.46	7,247.82	73.744	SF
Waste Management 41-35 (SI) - Wellbore #1 - Gyro Surv	13,047.44	6,938.40	8,523.64	8,437.24	98.663	CC
Waste Management 41-35 (SI) - Wellbore #1 - Gyro Surv	13,100.00	6,938.04	8,523.80	8,437.01	98.219	ES
Waste Management 41-35 (SI) - Wellbore #1 - Gyro Surv	16,400.00	6,915.53	9,159.23	9,052.57	85.873	SF
Waste Management D 35-15 (PR) - Wellbore #1 - Gyro S	17,117.23	6,918.31	7,087.52	6,969.37	59.985	CC
Waste Management D 35-15 (PR) - Wellbore #1 - Gyro S	17,200.00	6,916.79	7,088.01	6,969.22	59.668	ES
Waste Management D 35-15 (PR) - Wellbore #1 - Gyro S	17,464.04	6,911.68	7,096.00	6,975.26	58.771	SF
Waste Management USX D 35-11 (SI) - Wellbore #1 - Gy	15,777.84	6,923.23	5,828.27	5,720.79	54.227	CC
Waste Management USX D 35-11 (SI) - Wellbore #1 - Gy	15,800.00	6,924.35	5,828.31	5,720.66	54.141	ES
Waste Management USX D 35-11 (SI) - Wellbore #1 - Gy	17,200.00	6,995.12	5,998.84	5,882.69	51.646	SF
Waste Management USX D 35-14 (SI) - Wellbore #1 - No	16,818.82	6,938.00	5,935.55	5,705.00	25.745	CC
Waste Management USX D 35-14 (SI) - Wellbore #1 - No	16,900.00	6,938.00	5,936.10	5,704.93	25.678	ES
Waste Management USX D 35-14 (SI) - Wellbore #1 - No	17,464.04	6,938.00	5,970.51	5,735.45	25.399	SF
Waste Management USX D 35-7 (PR) - Wellbore #1 - Gy	14,290.95	6,894.93	7,138.90	7,043.08	74.498	CC
Waste Management USX D 35-7 (PR) - Wellbore #1 - Gy	14,300.00	6,894.84	7,138.91	7,043.01	74.444	ES
Waste Management USX D 35-7 (PR) - Wellbore #1 - Gy	16,500.00	6,871.17	7,472.85	7,363.60	68.404	SF
Waste Management USX D 35-9 (SI) - Wellbore #1 - No	15,766.32	7,559.00	8,726.93	8,497.22	37.991	CC
Waste Management USX D 35-9 (SI) - Wellbore #1 - No	15,800.00	7,559.00	8,726.99	8,497.03	37.949	ES
Waste Management USX D 35-9 (SI) - Wellbore #1 - No	17,464.04	7,559.00	8,890.53	8,649.21	36.841	SF
Waste Services 21-35 (PR) - Wellbore #1 - Gyro Surveys	12,855.57	6,902.81	5,991.95	5,907.08	70.602	CC
Waste Services 21-35 (PR) - Wellbore #1 - Gyro Surveys	12,900.00	6,902.54	5,992.11	5,906.91	70.333	ES
Waste Services 21-35 (PR) - Wellbore #1 - Gyro Surveys	14,700.00	6,890.94	6,269.39	6,173.51	65.392	SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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
Y Section 02						
Waste Management 2I-221 - Wellbore #1 - Wellbore #1 -	17,464.04	11,210.02	4,468.61	4,289.04	24.884	CC, ES, SF
Waste Management 2I-401 - Wellbore #1 - Wellbore #1 -	17,464.04	11,425.02	4,134.47	3,955.89	23.151	CC, ES, SF
Waste Management 2L-201 - Wellbore #1 - Wellbore #1	17,464.04	11,213.02	5,113.44	4,932.65	28.284	CC, ES, SF
Waste Management 2L-301 - Wellbore #1 - Wellbore #1	17,464.04	11,326.02	5,452.82	5,273.24	30.363	CC, ES, SF
Waste Management 2L-421 - Wellbore #1 - Wellbore #1	17,464.04	11,433.02	5,787.56	5,607.19	32.089	CC, ES, SF
Waste Management 2L-441 - Wellbore #1 - Wellbore #1	17,464.04	11,379.02	4,770.71	4,590.44	26.463	CC, ES, SF
Waste Management 2Q-201 - Wellbore #1 - Wellbore #1	17,464.04	11,274.02	6,726.96	6,547.35	37.454	CC, ES, SF
Waste Management 2Q-321 - Wellbore #1 - Wellbore #1	17,464.04	11,347.02	7,050.64	6,870.23	39.080	CC, ES, SF
Waste Management 2Q-341 - Wellbore #1 - Wellbore #1	17,464.04	11,345.02	6,133.55	5,952.50	33.878	CC, ES, SF
Waste Management 2Q-401 - Wellbore #1 - Wellbore #1	17,464.04	11,502.02	6,448.22	6,266.64	35.511	CC, ES, SF
Waste Management 2T-221 - Wellbore #1 - Wellbore #1	17,464.04	11,189.02	8,403.86	8,221.94	46.194	CC, ES, SF
Waste Management 2T-241 - Wellbore #1 - Wellbore #1	17,464.04	11,213.02	7,389.26	7,208.40	40.856	CC, ES, SF
Waste Management 2T-301 - Wellbore #1 - Wellbore #1	17,464.04	11,316.02	7,687.73	7,506.12	42.332	CC, ES, SF
Waste Management 2T-401 - Wellbore #1 - Wellbore #1	17,464.04	11,385.02	8,070.04	7,888.11	44.359	CC, ES, SF
Waste Management 2Y-201 - Wellbore #1 - Wellbore #1	17,464.04	11,229.02	9,062.78	8,880.42	49.696	CC, ES, SF
Waste Management 2Y-441 - Wellbore #1 - Wellbore #1	17,464.04	11,403.02	8,744.84	8,562.73	48.018	CC, ES, SF
Y Section 03						
Waste Management USX Y03-03 - Wellbore #1 - Wellbo	17,464.04	6,923.36	1,075.78	990.06	12.551	CC, ES, SF
Waste Management USX Y03-04 - Wellbore #1 - Wellbo	17,464.04	6,923.28	1,143.07	1,052.97	12.686	CC, ES, SF
Waste Management USX Y03-05 - Wellbore #1 - Wellbo	17,464.04	6,906.27	2,208.27	2,144.62	34.693	CC, ES, SF
Waste Management USX Y03-06 - Wellbore #1 - Wellbo	17,464.04	7,014.15	2,306.76	2,243.18	36.282	CC, ES, SF
Waste Management USX Y03-11 - Wellbore #1 - Wellbor	17,464.04	6,899.87	3,573.06	3,516.61	63.296	CC, ES, SF
Waste Management USX Y03-12 - Wellbore #1 - Wellbo	17,464.04	6,962.04	3,444.74	3,382.73	55.548	CC, ES, SF
Waste Management USX Y03-13 - Wellbore #1 - Wellbo	17,464.04	6,909.27	4,777.82	4,720.28	83.035	CC, ES, SF
Waste Management USX Y03-14 - Wellbore #1 - Wellbo	17,464.04	6,854.52	4,942.82	4,887.00	88.548	CC, ES, SF
Waste Management USX Y03-19 - Wellbore #1 - Wellbo	17,464.04	6,927.82	1,449.27	1,393.19	25.842	CC, ES, SF
Waste Management USX Y03-25 - Wellbore #1 - Wellbo	17,464.04	6,919.68	4,039.40	3,984.82	74.015	CC, ES, SF
Waste Management USX Y3-15 - Wellbore #1 - As Drille	17,464.04	6,924.89	5,209.06	5,136.32	71.612	CC, ES, SF
Y Section 04						
HSR-Guttersen 01-04 - Original Drilling - Original Drilling	17,464.04	6,825.14	2,434.07	2,319.16	21.182	CC, ES, SF
HSR-Guttersen 02-04 - Original Drilling - Original Drilling	17,464.04	6,918.36	3,489.54	3,371.28	29.508	CC, ES, SF
HSR-Guttersen 03-04 - Original Drilling - Original Drilling	17,464.04	6,969.82	4,913.63	4,794.26	41.166	CC, ES, SF
HSR-Guttersen 05-04 - Original Drilling - Original Drilling	17,464.04	7,226.00	6,353.40	6,237.68	54.906	CC, ES, SF
HSR-Guttersen 07-04 - Original Drilling - Original Drilling	17,464.04	6,934.66	4,100.82	3,992.17	37.742	CC, ES, SF
Melvin Y04-04 - Original Drilling - Original Drilling - As Dr	17,464.04	7,176.21	5,749.19	5,629.34	47.969	CC, ES, SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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

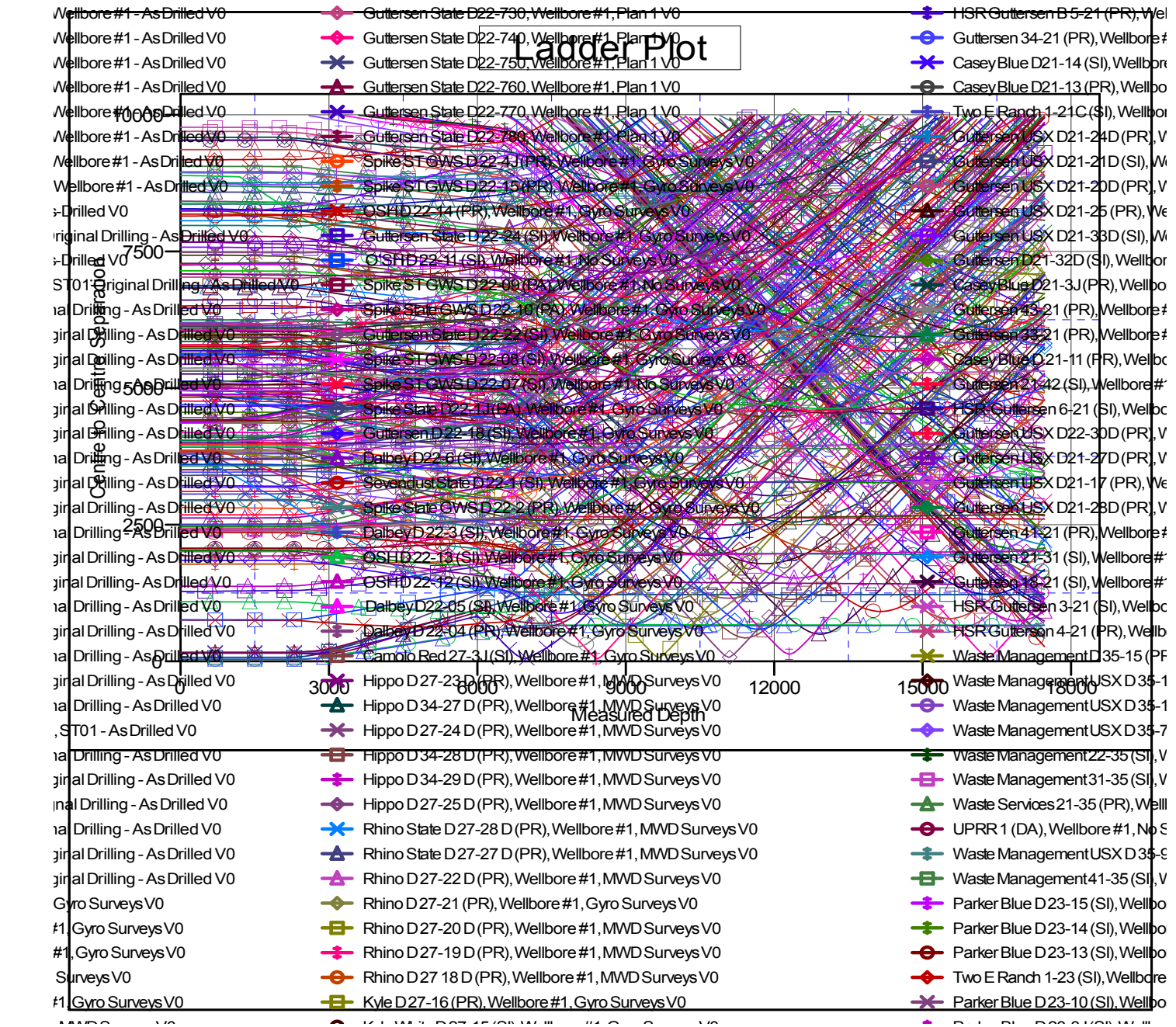
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Y Section 10						
Bison Ridge Y22-711 - Original Drilling - As-Drilled	17,464.04	5,478.00	9,103.71	9,039.31	141.359	CC, ES, SF
Bison Ridge Y22-719 - Original Drilling - Original Drilling	17,464.04	6,297.00	8,890.12	8,825.76	138.123	CC, ES, SF
Bison Ridge Y22-771 - Original Drilling - As-Drilled	17,464.04	6,426.00	8,320.92	8,271.00	166.687	CC, ES, SF
Oscar Y10-72-1HC - Original Drilling - Original Drilling - A	17,464.04	14,600.03	3,459.06	3,296.04	21.219	CC, ES, SF
Oscar Y10-72-1HN - Original Drilling - Original Drilling - A	17,464.04	14,333.03	3,605.70	3,435.68	21.208	CC, ES, SF
Oscar Y10-72HN - Original Drilling - Original Drilling - As	17,464.04	14,445.03	3,361.64	3,192.26	19.847	CC, ES, SF
Oscar Y10-73-1HC - Original Drilling - Original Drilling - A	17,464.04	14,438.03	2,787.55	2,619.42	16.580	CC, ES, SF
Oscar Y10-73-1HN - Original Drilling - Original Drilling - A	17,464.04	14,398.03	2,971.94	2,802.37	17.526	CC, ES, SF
Oscar Y10-73HN - Original Drilling - Original Drilling - As	17,464.04	14,549.00	2,662.74	2,494.43	15.820	CC, ES, SF
Oscar Y10-74-1HC - Original Drilling - Original Drilling- A	17,464.04	14,684.00	2,131.68	1,969.19	13.119	CC, ES, SF
Oscar Y10-74-1HN - Original Drilling - Original Drilling - A	17,464.04	14,377.03	2,319.31	2,156.78	14.270	CC, ES, SF
Oscar Y10-74HN - Original Drilling - Original Drilling - As	17,464.04	12,678.03	2,813.55	2,700.02	24.783	CC, ES, SF
Oscar Y10-75-1HC - Original Drilling - Original Drilling - A	17,464.04	14,440.00	1,516.28	1,355.31	9.420	CC, ES, SF
Oscar Y10-75-1HN - Original Drilling - Original Drilling - A	17,464.04	14,437.03	1,646.45	1,485.05	10.201	CC, ES, SF
Oscar Y10-75HN - Original Drilling - Original Drilling - As	17,464.04	14,544.00	1,319.71	1,159.13	8.218	CC, ES, SF
Oscar Y10-76-1HN - Original Drilling - Original Drilling - A	17,464.04	14,399.00	1,071.25	912.38	6.743	CC, ES, SF
Oscar Y10-76HN - Original Drilling - Original Drilling - As	17,464.04	14,574.99	739.64	585.81	4.808	CC, ES, SF
Oscar Y10-77-1HC - Original Drilling - Original Drilling - A	17,464.04	14,740.00	466.35	327.17	3.351	CC, ES, SF
Oscar Y10-77HN - Original Drilling - Original Drilling - As	17,464.04	14,600.00	271.50	206.28	4.163	CC, ES, SF
Oscar Y10-78-1HC - Original Drilling - Original Drilling - A	17,464.04	14,759.00	425.56	251.65	2.447	CC, ES, SF
Oscar Y10-78-1HN - Orignal Drilling - Orignal Drilling - As	17,464.04	14,469.00	432.59	257.13	2.465	CC, ES, SF
Oscar Y10-78HN - Original Drilling - Original Drilling - As	17,464.04	13,936.00	1,150.04	1,046.44	11.100	CC, ES, SF
Oscar Y10-79-1HC - Original Drilling - Original Drilling - A	17,464.04	14,740.00	1,000.71	772.37	4.383	CC, ES, SF
Oscar Y10-79-1HN - Original Drilling - Original Drilling - A	17,464.04	14,437.00	1,002.15	773.67	4.386	CC, ES, SF
Oscar Y10-79HN - Original Drilling - Original Drilling - As	17,464.04	7,926.00	7,075.34	7,014.30	115.918	CC, ES, SF
Oscar Y10-79HN - Original Drilling - ST01 - ST01 - As Dr	17,464.04	14,611.00	1,241.38	1,009.01	5.342	CC, ES, SF
Oscar Y11-79HN - Original Drilling - Original Drilling - As	17,464.04	8,396.02	7,419.35	7,331.78	84.730	CC, ES, SF
Oscar Y11-79HN - ST01 Original Drilling - ST01 Original	17,464.04	14,458.03	3,897.85	3,728.22	22.978	CC, ES, SF

Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Guttersen D34-769
Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
Reference Site:	D Section 22	**MD Reference:**	KB @ 4854.00ft
Site Error:	0.00 ft	**North Reference:**	Grid
Reference Well:	Guttersen D34-769	**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: Guttersen D34-769
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: 0.62°



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

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Anticollision Summary Report

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Project:	Mustang	**TVD Reference:**	KB @ 4854.00ft
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Reference Wellbore	Wellbore #1	**Database:**	EDMP
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Reference Depths are relative to KB @ 4854.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Guttersen D34-769
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.62°