

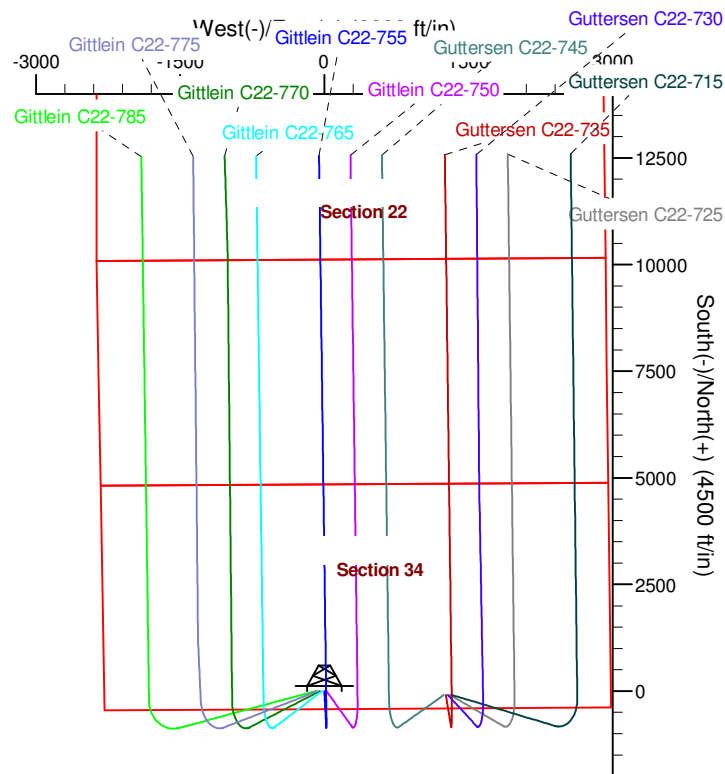
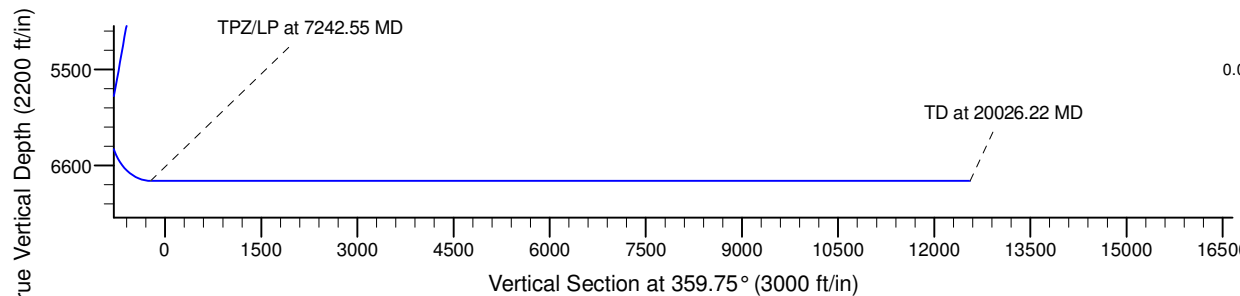
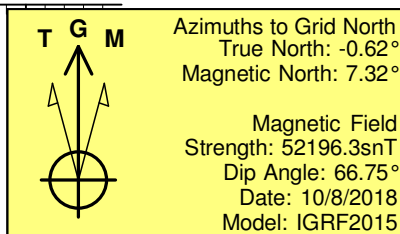
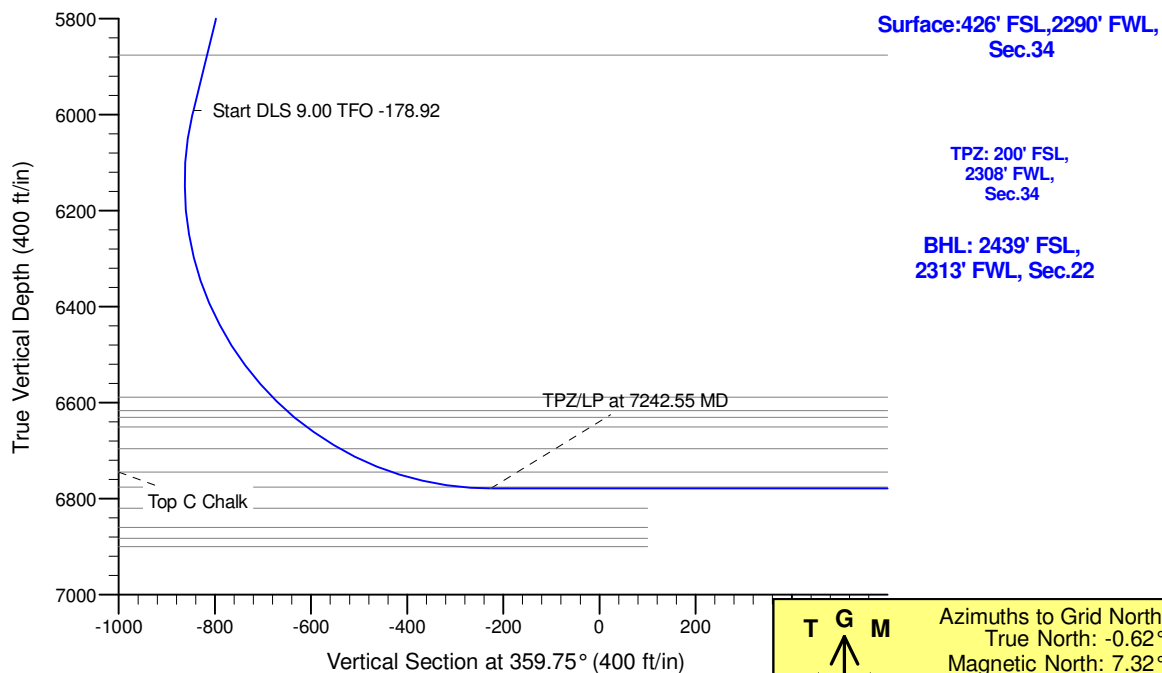
Project: Mustang
Site: C Section 34
Well: Gittlein C22-755
Wellbore: Wellbore #1
Design: Plan #1

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	2888.81	13.78	178.61	2882.20	-82.39	1.99	2.00	178.61	-82.40	
4	6089.51	13.78	178.61	5990.81	-844.35	20.44	0.00	0.00	-844.43	
5	7242.55	90.00	359.66	6779.00	-226.03	20.32	9.00	-178.92	-226.11	TPZ Gittlein C22-755
6	20026.22	90.00	359.66	6779.00	12557.42	-55.09	0.00	0.00	12557.54	BHL Gittlein C22-755



WELL DETAILS: Gittlein C22-755

	Northing	Easting	Latitude	Longitude
0.00	0.00	1340077.39	4699.00 40.2629170	-104.5383400

Plan: Plan #1 (Gittlein C22-755/Wellbore #1)

Created By: Colby Baxter Date: 16:19, October 08 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Mustang

C Section 34

Gittlein C22-755

Wellbore #1

Plan: Plan #1

Standard Survey Report

08 October, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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		C Section 34			
Site Position:		Northing:	1,341,626.72 usft	Latitude:	40.2670999
From:	Map	Easting:	3,270,704.36 usft	Longitude:	-104.5299100
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.63 °

Well	Gittlein C22-755					
Well Position	+N/-S	0.00 ft	Northing:	1,340,077.39 usft	Latitude:	40.2629170
	+E/-W	0.00 ft	Easting:	3,268,368.58 usft	Longitude:	-104.5383400
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,699.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/8/2018	7.94	66.75	52,196.28820609

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	359.75	

Survey Tool Program	Date	10/8/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	20,026.22	Plan #1 (Wellbore #1)	2_MWD+IFR1	A005Mb: IFR declination correction only	

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 Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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	178.61	2,299.98	-1.74	0.04	-1.74	2.00	2.00	0.00	
2,400.00	4.00	178.61	2,399.84	-6.98	0.17	-6.98	2.00	2.00	0.00	
2,500.00	6.00	178.61	2,499.45	-15.69	0.38	-15.69	2.00	2.00	0.00	
2,600.00	8.00	178.61	2,598.70	-27.87	0.67	-27.87	2.00	2.00	0.00	
2,700.00	10.00	178.61	2,697.47	-43.51	1.05	-43.51	2.00	2.00	0.00	
2,800.00	12.00	178.61	2,795.62	-62.58	1.51	-62.59	2.00	2.00	0.00	
2,888.81	13.78	178.61	2,882.20	-82.39	1.99	-82.40	2.00	2.00	0.00	
2,900.00	13.78	178.61	2,893.06	-85.05	2.06	-85.06	0.00	0.00	0.00	
3,000.00	13.78	178.61	2,990.18	-108.86	2.63	-108.87	0.00	0.00	0.00	
3,100.00	13.78	178.61	3,087.31	-132.66	3.21	-132.68	0.00	0.00	0.00	
3,200.00	13.78	178.61	3,184.43	-156.47	3.79	-156.48	0.00	0.00	0.00	
3,300.00	13.78	178.61	3,281.55	-180.28	4.36	-180.29	0.00	0.00	0.00	
3,400.00	13.78	178.61	3,378.68	-204.08	4.94	-204.10	0.00	0.00	0.00	
3,500.00	13.78	178.61	3,475.80	-227.89	5.52	-227.91	0.00	0.00	0.00	
3,600.00	13.78	178.61	3,572.92	-251.69	6.09	-251.72	0.00	0.00	0.00	
3,700.00	13.78	178.61	3,670.05	-275.50	6.67	-275.53	0.00	0.00	0.00	
3,800.00	13.78	178.61	3,767.17	-299.31	7.24	-299.33	0.00	0.00	0.00	
3,900.00	13.78	178.61	3,864.29	-323.11	7.82	-323.14	0.00	0.00	0.00	
4,000.00	13.78	178.61	3,961.42	-346.92	8.40	-346.95	0.00	0.00	0.00	
4,100.00	13.78	178.61	4,058.54	-370.72	8.97	-370.76	0.00	0.00	0.00	
4,200.00	13.78	178.61	4,155.66	-394.53	9.55	-394.57	0.00	0.00	0.00	
4,300.00	13.78	178.61	4,252.79	-418.34	10.13	-418.38	0.00	0.00	0.00	
4,400.00	13.78	178.61	4,349.91	-442.14	10.70	-442.19	0.00	0.00	0.00	
4,500.00	13.78	178.61	4,447.03	-465.95	11.28	-465.99	0.00	0.00	0.00	
4,600.00	13.78	178.61	4,544.16	-489.76	11.85	-489.80	0.00	0.00	0.00	
4,700.00	13.78	178.61	4,641.28	-513.56	12.43	-513.61	0.00	0.00	0.00	
4,800.00	13.78	178.61	4,738.40	-537.37	13.01	-537.42	0.00	0.00	0.00	
4,900.00	13.78	178.61	4,835.53	-561.17	13.58	-561.23	0.00	0.00	0.00	
5,000.00	13.78	178.61	4,932.65	-584.98	14.16	-585.04	0.00	0.00	0.00	
5,100.00	13.78	178.61	5,029.77	-608.79	14.73	-608.85	0.00	0.00	0.00	
5,200.00	13.78	178.61	5,126.90	-632.59	15.31	-632.65	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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	13.78	178.61	5,224.02	-656.40	15.89	-656.46	0.00	0.00	0.00
5,400.00	13.78	178.61	5,321.14	-680.20	16.46	-680.27	0.00	0.00	0.00
5,500.00	13.78	178.61	5,418.27	-704.01	17.04	-704.08	0.00	0.00	0.00
5,600.00	13.78	178.61	5,515.39	-727.82	17.62	-727.89	0.00	0.00	0.00
5,700.00	13.78	178.61	5,612.51	-751.62	18.19	-751.70	0.00	0.00	0.00
5,800.00	13.78	178.61	5,709.64	-775.43	18.77	-775.50	0.00	0.00	0.00
5,900.00	13.78	178.61	5,806.76	-799.24	19.34	-799.31	0.00	0.00	0.00
6,000.00	13.78	178.61	5,903.88	-823.04	19.92	-823.12	0.00	0.00	0.00
6,089.51	13.78	178.61	5,990.81	-844.35	20.44	-844.43	0.00	0.00	0.00
6,100.00	12.83	178.53	6,001.03	-846.76	20.50	-846.85	9.00	-9.00	-0.76
6,200.00	3.84	175.83	6,099.87	-861.23	21.03	-861.32	9.00	-8.99	-2.71
6,300.00	5.18	2.50	6,199.76	-860.06	21.47	-860.15	9.00	1.34	-173.33
6,400.00	14.17	0.68	6,298.23	-843.28	21.81	-843.37	9.00	9.00	-1.82
6,500.00	23.17	0.26	6,392.87	-811.30	22.04	-811.39	9.00	9.00	-0.42
6,600.00	32.17	0.07	6,481.35	-764.90	22.17	-764.99	9.00	9.00	-0.19
6,700.00	41.17	359.96	6,561.47	-705.24	22.18	-705.33	9.00	9.00	-0.11
6,800.00	50.17	359.88	6,631.28	-633.78	22.07	-633.87	9.00	9.00	-0.08
6,900.00	59.17	359.82	6,689.04	-552.28	21.85	-552.37	9.00	9.00	-0.06
7,000.00	68.17	359.76	6,733.35	-462.75	21.52	-462.84	9.00	9.00	-0.05
7,100.00	77.17	359.72	6,763.11	-367.39	21.09	-367.48	9.00	9.00	-0.04
7,200.00	86.17	359.68	6,777.58	-268.55	20.57	-268.63	9.00	9.00	-0.04
7,242.55	90.00	359.66	6,779.00	-226.03	20.32	-226.11	9.00	9.00	-0.04
7,300.00	90.00	359.66	6,779.00	-168.58	19.99	-168.67	0.00	0.00	0.00
7,400.00	90.00	359.66	6,779.00	-68.58	19.40	-68.67	0.00	0.00	0.00
7,500.00	90.00	359.66	6,779.00	31.42	18.81	31.33	0.00	0.00	0.00
7,600.00	90.00	359.66	6,779.00	131.42	18.22	131.33	0.00	0.00	0.00
7,700.00	90.00	359.66	6,779.00	231.41	17.63	231.33	0.00	0.00	0.00
7,800.00	90.00	359.66	6,779.00	331.41	17.04	331.33	0.00	0.00	0.00
7,900.00	90.00	359.66	6,779.00	431.41	16.45	431.33	0.00	0.00	0.00
8,000.00	90.00	359.66	6,779.00	531.41	15.86	531.33	0.00	0.00	0.00
8,100.00	90.00	359.66	6,779.00	631.41	15.27	631.33	0.00	0.00	0.00
8,200.00	90.00	359.66	6,779.00	731.41	14.68	731.33	0.00	0.00	0.00
8,300.00	90.00	359.66	6,779.00	831.40	14.09	831.33	0.00	0.00	0.00
8,400.00	90.00	359.66	6,779.00	931.40	13.50	931.33	0.00	0.00	0.00
8,500.00	90.00	359.66	6,779.00	1,031.40	12.91	1,031.33	0.00	0.00	0.00
8,600.00	90.00	359.66	6,779.00	1,131.40	12.32	1,131.33	0.00	0.00	0.00
8,700.00	90.00	359.66	6,779.00	1,231.40	11.73	1,231.33	0.00	0.00	0.00
8,800.00	90.00	359.66	6,779.00	1,331.39	11.14	1,331.33	0.00	0.00	0.00
8,900.00	90.00	359.66	6,779.00	1,431.39	10.55	1,431.33	0.00	0.00	0.00
9,000.00	90.00	359.66	6,779.00	1,531.39	9.96	1,531.33	0.00	0.00	0.00
9,100.00	90.00	359.66	6,779.00	1,631.39	9.37	1,631.33	0.00	0.00	0.00
9,200.00	90.00	359.66	6,779.00	1,731.39	8.78	1,731.33	0.00	0.00	0.00
9,300.00	90.00	359.66	6,779.00	1,831.39	8.19	1,831.33	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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	359.66	6,779.00	1,931.38	7.60	1,931.33	0.00	0.00	0.00
9,500.00	90.00	359.66	6,779.00	2,031.38	7.01	2,031.33	0.00	0.00	0.00
9,600.00	90.00	359.66	6,779.00	2,131.38	6.42	2,131.33	0.00	0.00	0.00
9,700.00	90.00	359.66	6,779.00	2,231.38	5.83	2,231.33	0.00	0.00	0.00
9,800.00	90.00	359.66	6,779.00	2,331.38	5.24	2,331.33	0.00	0.00	0.00
9,900.00	90.00	359.66	6,779.00	2,431.38	4.65	2,431.33	0.00	0.00	0.00
10,000.00	90.00	359.66	6,779.00	2,531.37	4.06	2,531.33	0.00	0.00	0.00
10,100.00	90.00	359.66	6,779.00	2,631.37	3.47	2,631.33	0.00	0.00	0.00
10,200.00	90.00	359.66	6,779.00	2,731.37	2.88	2,731.33	0.00	0.00	0.00
10,300.00	90.00	359.66	6,779.00	2,831.37	2.29	2,831.33	0.00	0.00	0.00
10,400.00	90.00	359.66	6,779.00	2,931.37	1.70	2,931.33	0.00	0.00	0.00
10,500.00	90.00	359.66	6,779.00	3,031.37	1.11	3,031.33	0.00	0.00	0.00
10,600.00	90.00	359.66	6,779.00	3,131.36	0.52	3,131.33	0.00	0.00	0.00
10,700.00	90.00	359.66	6,779.00	3,231.36	-0.07	3,231.33	0.00	0.00	0.00
10,800.00	90.00	359.66	6,779.00	3,331.36	-0.66	3,331.33	0.00	0.00	0.00
10,900.00	90.00	359.66	6,779.00	3,431.36	-1.25	3,431.33	0.00	0.00	0.00
11,000.00	90.00	359.66	6,779.00	3,531.36	-1.84	3,531.33	0.00	0.00	0.00
11,100.00	90.00	359.66	6,779.00	3,631.35	-2.43	3,631.33	0.00	0.00	0.00
11,200.00	90.00	359.66	6,779.00	3,731.35	-3.02	3,731.33	0.00	0.00	0.00
11,300.00	90.00	359.66	6,779.00	3,831.35	-3.61	3,831.33	0.00	0.00	0.00
11,400.00	90.00	359.66	6,779.00	3,931.35	-4.20	3,931.33	0.00	0.00	0.00
11,500.00	90.00	359.66	6,779.00	4,031.35	-4.79	4,031.33	0.00	0.00	0.00
11,600.00	90.00	359.66	6,779.00	4,131.35	-5.38	4,131.33	0.00	0.00	0.00
11,700.00	90.00	359.66	6,779.00	4,231.34	-5.97	4,231.33	0.00	0.00	0.00
11,800.00	90.00	359.66	6,779.00	4,331.34	-6.56	4,331.33	0.00	0.00	0.00
11,900.00	90.00	359.66	6,779.00	4,431.34	-7.15	4,431.33	0.00	0.00	0.00
12,000.00	90.00	359.66	6,779.00	4,531.34	-7.74	4,531.33	0.00	0.00	0.00
12,100.00	90.00	359.66	6,779.00	4,631.34	-8.33	4,631.33	0.00	0.00	0.00
12,200.00	90.00	359.66	6,779.00	4,731.34	-8.92	4,731.33	0.00	0.00	0.00
12,300.00	90.00	359.66	6,779.00	4,831.33	-9.51	4,831.33	0.00	0.00	0.00
12,400.00	90.00	359.66	6,779.00	4,931.33	-10.10	4,931.33	0.00	0.00	0.00
12,500.00	90.00	359.66	6,779.00	5,031.33	-10.69	5,031.33	0.00	0.00	0.00
12,600.00	90.00	359.66	6,779.00	5,131.33	-11.28	5,131.33	0.00	0.00	0.00
12,700.00	90.00	359.66	6,779.00	5,231.33	-11.87	5,231.33	0.00	0.00	0.00
12,800.00	90.00	359.66	6,779.00	5,331.33	-12.46	5,331.33	0.00	0.00	0.00
12,900.00	90.00	359.66	6,779.00	5,431.32	-13.05	5,431.33	0.00	0.00	0.00
13,000.00	90.00	359.66	6,779.00	5,531.32	-13.64	5,531.33	0.00	0.00	0.00
13,100.00	90.00	359.66	6,779.00	5,631.32	-14.23	5,631.33	0.00	0.00	0.00
13,200.00	90.00	359.66	6,779.00	5,731.32	-14.82	5,731.33	0.00	0.00	0.00
13,300.00	90.00	359.66	6,779.00	5,831.32	-15.41	5,831.33	0.00	0.00	0.00
13,400.00	90.00	359.66	6,779.00	5,931.31	-16.00	5,931.33	0.00	0.00	0.00
13,500.00	90.00	359.66	6,779.00	6,031.31	-16.59	6,031.33	0.00	0.00	0.00
13,600.00	90.00	359.66	6,779.00	6,131.31	-17.18	6,131.33	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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	359.66	6,779.00	6,231.31	-17.77	6,231.33	0.00	0.00	0.00
13,800.00	90.00	359.66	6,779.00	6,331.31	-18.36	6,331.33	0.00	0.00	0.00
13,900.00	90.00	359.66	6,779.00	6,431.31	-18.95	6,431.33	0.00	0.00	0.00
14,000.00	90.00	359.66	6,779.00	6,531.30	-19.54	6,531.33	0.00	0.00	0.00
14,100.00	90.00	359.66	6,779.00	6,631.30	-20.13	6,631.33	0.00	0.00	0.00
14,200.00	90.00	359.66	6,779.00	6,731.30	-20.72	6,731.33	0.00	0.00	0.00
14,300.00	90.00	359.66	6,779.00	6,831.30	-21.31	6,831.33	0.00	0.00	0.00
14,400.00	90.00	359.66	6,779.00	6,931.30	-21.90	6,931.33	0.00	0.00	0.00
14,500.00	90.00	359.66	6,779.00	7,031.30	-22.49	7,031.33	0.00	0.00	0.00
14,600.00	90.00	359.66	6,779.00	7,131.29	-23.08	7,131.33	0.00	0.00	0.00
14,700.00	90.00	359.66	6,779.00	7,231.29	-23.67	7,231.33	0.00	0.00	0.00
14,800.00	90.00	359.66	6,779.00	7,331.29	-24.26	7,331.33	0.00	0.00	0.00
14,900.00	90.00	359.66	6,779.00	7,431.29	-24.85	7,431.33	0.00	0.00	0.00
15,000.00	90.00	359.66	6,779.00	7,531.29	-25.44	7,531.33	0.00	0.00	0.00
15,100.00	90.00	359.66	6,779.00	7,631.29	-26.03	7,631.33	0.00	0.00	0.00
15,200.00	90.00	359.66	6,779.00	7,731.28	-26.62	7,731.33	0.00	0.00	0.00
15,300.00	90.00	359.66	6,779.00	7,831.28	-27.21	7,831.33	0.00	0.00	0.00
15,400.00	90.00	359.66	6,779.00	7,931.28	-27.80	7,931.33	0.00	0.00	0.00
15,500.00	90.00	359.66	6,779.00	8,031.28	-28.39	8,031.33	0.00	0.00	0.00
15,600.00	90.00	359.66	6,779.00	8,131.28	-28.98	8,131.33	0.00	0.00	0.00
15,700.00	90.00	359.66	6,779.00	8,231.27	-29.57	8,231.33	0.00	0.00	0.00
15,800.00	90.00	359.66	6,779.00	8,331.27	-30.16	8,331.33	0.00	0.00	0.00
15,900.00	90.00	359.66	6,779.00	8,431.27	-30.75	8,431.33	0.00	0.00	0.00
16,000.00	90.00	359.66	6,779.00	8,531.27	-31.34	8,531.32	0.00	0.00	0.00
16,100.00	90.00	359.66	6,779.00	8,631.27	-31.93	8,631.32	0.00	0.00	0.00
16,200.00	90.00	359.66	6,779.00	8,731.27	-32.52	8,731.32	0.00	0.00	0.00
16,300.00	90.00	359.66	6,779.00	8,831.26	-33.11	8,831.32	0.00	0.00	0.00
16,400.00	90.00	359.66	6,779.00	8,931.26	-33.70	8,931.32	0.00	0.00	0.00
16,500.00	90.00	359.66	6,779.00	9,031.26	-34.29	9,031.32	0.00	0.00	0.00
16,600.00	90.00	359.66	6,779.00	9,131.26	-34.88	9,131.32	0.00	0.00	0.00
16,700.00	90.00	359.66	6,779.00	9,231.26	-35.47	9,231.32	0.00	0.00	0.00
16,800.00	90.00	359.66	6,779.00	9,331.26	-36.06	9,331.32	0.00	0.00	0.00
16,900.00	90.00	359.66	6,779.00	9,431.25	-36.65	9,431.32	0.00	0.00	0.00
17,000.00	90.00	359.66	6,779.00	9,531.25	-37.24	9,531.32	0.00	0.00	0.00
17,100.00	90.00	359.66	6,779.00	9,631.25	-37.83	9,631.32	0.00	0.00	0.00
17,200.00	90.00	359.66	6,779.00	9,731.25	-38.42	9,731.32	0.00	0.00	0.00
17,300.00	90.00	359.66	6,779.00	9,831.25	-39.01	9,831.32	0.00	0.00	0.00
17,400.00	90.00	359.66	6,779.00	9,931.25	-39.60	9,931.32	0.00	0.00	0.00
17,500.00	90.00	359.66	6,779.00	10,031.24	-40.19	10,031.32	0.00	0.00	0.00
17,600.00	90.00	359.66	6,779.00	10,131.24	-40.78	10,131.32	0.00	0.00	0.00
17,700.00	90.00	359.66	6,779.00	10,231.24	-41.37	10,231.32	0.00	0.00	0.00
17,800.00	90.00	359.66	6,779.00	10,331.24	-41.96	10,331.32	0.00	0.00	0.00
17,900.00	90.00	359.66	6,779.00	10,431.24	-42.55	10,431.32	0.00	0.00	0.00
18,000.00	90.00	359.66	6,779.00	10,531.23	-43.14	10,531.32	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	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)
18,100.00	90.00	359.66	6,779.00	10,631.23	-43.73	10,631.32	0.00	0.00	0.00
18,200.00	90.00	359.66	6,779.00	10,731.23	-44.32	10,731.32	0.00	0.00	0.00
18,300.00	90.00	359.66	6,779.00	10,831.23	-44.91	10,831.32	0.00	0.00	0.00
18,400.00	90.00	359.66	6,779.00	10,931.23	-45.50	10,931.32	0.00	0.00	0.00
18,500.00	90.00	359.66	6,779.00	11,031.23	-46.09	11,031.32	0.00	0.00	0.00
18,600.00	90.00	359.66	6,779.00	11,131.22	-46.68	11,131.32	0.00	0.00	0.00
18,700.00	90.00	359.66	6,779.00	11,231.22	-47.27	11,231.32	0.00	0.00	0.00
18,800.00	90.00	359.66	6,779.00	11,331.22	-47.86	11,331.32	0.00	0.00	0.00
18,900.00	90.00	359.66	6,779.00	11,431.22	-48.45	11,431.32	0.00	0.00	0.00
19,000.00	90.00	359.66	6,779.00	11,531.22	-49.04	11,531.32	0.00	0.00	0.00
19,100.00	90.00	359.66	6,779.00	11,631.22	-49.63	11,631.32	0.00	0.00	0.00
19,200.00	90.00	359.66	6,779.00	11,731.21	-50.22	11,731.32	0.00	0.00	0.00
19,300.00	90.00	359.66	6,779.00	11,831.21	-50.81	11,831.32	0.00	0.00	0.00
19,400.00	90.00	359.66	6,779.00	11,931.21	-51.40	11,931.32	0.00	0.00	0.00
19,500.00	90.00	359.66	6,779.00	12,031.21	-51.99	12,031.32	0.00	0.00	0.00
19,600.00	90.00	359.66	6,779.00	12,131.21	-52.58	12,131.32	0.00	0.00	0.00
19,700.00	90.00	359.66	6,779.00	12,231.21	-53.17	12,231.32	0.00	0.00	0.00
19,800.00	90.00	359.66	6,779.00	12,331.20	-53.76	12,331.32	0.00	0.00	0.00
19,900.00	90.00	359.66	6,779.00	12,431.20	-54.35	12,431.32	0.00	0.00	0.00
20,000.00	90.00	359.66	6,779.00	12,531.20	-54.94	12,531.32	0.00	0.00	0.00
20,026.22	90.00	359.66	6,779.00	12,557.42	-55.09	12,557.54	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL Gittlein C22-755	0.00	0.00	0.00	0.00	0.00	1,340,077.39	3,268,368.58	40.2629170	-104.5383400
- plan hits target center									
- Point									
KOP Gittlein C22-755	0.00	0.00	5,990.82	-844.35	20.44	1,339,233.04	3,268,389.02	40.2605987	-104.5382996
- plan hits target center									
- Point									
BHL Gittlein C22-755	0.00	0.00	6,779.00	12,557.42	-55.09	1,352,634.79	3,268,313.49	40.2973877	-104.5380493
- plan hits target center									
- Point									
TPZ Gittlein C22-755	0.00	0.00	6,779.00	-226.03	20.32	1,339,851.36	3,268,388.91	40.2622960	-104.5382759
- plan hits target center									
- Point									

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Well:	Gittlein C22-755	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDMP

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
438.00	438.00	Pierre				
571.00	571.00	Upper Pierre Aquifer Top				
1,475.00	1,475.00	Upper Pierre Aquifer Base				
3,612.43	3,585.00	Parkman				
4,281.69	4,235.00	Sussex				
4,896.37	4,832.00	Shannon				
5,971.29	5,876.00	Teepee Buttes				
6,737.56	6,589.00	Sharon Springs				
6,778.16	6,617.00	Top A Chalk				
6,799.57	6,631.00	Top A Marl				
6,831.76	6,651.00	Top B Chalk				
6,913.83	6,696.00	Top B Marl				
7,033.55	6,745.00	Top C Chalk				
7,180.72	6,776.00	Top C Marl				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2200	2200	0	0	Start Build 2.00	
6090	5991	-844	20	Start DLS 9.00 TFO -178.92	
7243	6779	-226	20	TPZ/LP at 7242.55 MD	
20,026	6779	12,557	-55	TD at 20026.22 MD	

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------

Northern Region - DJ Basin

Mustang

C Section 34

Gittlein C22-755

Wellbore #1

Plan #1

Anticollision Summary Report

09 October, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	10/9/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	20,026.22	Plan #1 (Wellbore #1)	2_MWD+IFR1	A005Mb: IFR declination correction only

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C Section 22						
BORYS C #22-20(PR) - Wellbore #1 - No Surveys	20,026.22	6,716.00	891.34	694.93	4.538	CC, ES, SF
CANTRELL #1(PR) - Wellbore #1 - No Surveys	19,508.10	6,713.00	337.95	135.36	1.668	CC, ES, SF
CANTRELL #22-10(SI) - Wellbore #1 - No Surveys	19,581.10	6,707.00	1,084.29	880.97	5.333	CC
CANTRELL #22-10(SI) - Wellbore #1 - No Surveys	19,600.00	6,707.00	1,084.46	880.96	5.329	ES, SF
CANTRELL #22-12(SI) - Wellbore #1 - No Surveys	19,738.93	6,719.00	1,478.83	1,273.71	7.210	CC, ES
CANTRELL #22-12(SI) - Wellbore #1 - No Surveys	19,800.00	6,719.00	1,480.09	1,274.43	7.197	SF
COLEMAN #22-114(PR) - Wellbore #1 - No Surveys	20,026.22	6,700.00	3,325.62	3,153.60	19.333	CC, ES, SF
COLEMAN #22-714(PA) - Wellbore #1 - Gyro Surveys	20,026.22	6,712.98	1,451.52	1,309.09	10.191	CC, ES, SF
COLEMAN #22-814(PR) - Wellbore #1 - No Surveys	20,026.22	6,706.00	2,547.95	2,353.25	13.087	CC, ES, SF
Coleman #C22-18D(PR) - Wellbore #1 - MWD Surveys	20,026.22	6,845.15	1,446.25	1,381.87	22.464	CC, ES, SF
Coleman #C22-27 (PR) - Wellbore #1 - No Surveys	20,026.22	6,702.00	3,154.12	3,011.78	22.159	CC, ES, SF
Coleman C #22-17(PR) - Wellbore #1 - No Surveys	20,026.22	6,706.00	2,270.91	2,104.58	13.653	CC, ES, SF
COLEMAN C #23-32(PR) - Wellbore #1 - No Surveys	20,026.22	6,707.00	2,795.56	2,588.90	13.527	CC, ES, SF
Coleman C22-21D(SI) - Wellbore #1 - MWD Surveys	20,026.22	6,931.24	386.15	259.37	3.046	CC, ES, SF
CONRAD #1(PR) - Wellbore #1 - No Surveys	20,026.22	6,706.00	2,204.43	2,109.17	23.142	CC, ES, SF
DARLENE DINNEL #1(PR) - Wellbore #1 - No Surveys	18,233.01	6,715.00	351.18	162.26	1.859	CC, ES, SF
DINNEL #22-15(SI) - Wellbore #1 - No Surveys	18,447.28	6,715.00	983.95	792.73	5.146	CC, ES
DINNEL #22-15(SI) - Wellbore #1 - No Surveys	18,500.00	6,715.00	985.36	793.76	5.143	SF
DINNEL #C27-28D(SI) - Wellbore #1 - MWD Surveys	17,718.13	6,839.84	436.00	286.32	2.913	CC, ES, SF
DINNEL #C27-29D(PA) - Wellbore #1 - Gyro Surveys	17,703.65	6,819.28	993.43	842.55	6.584	CC, ES
DINNEL #C27-29D(PA) - Wellbore #1 - Gyro Surveys	17,800.00	6,818.56	998.10	846.10	6.567	SF
HERBST #1(SI) - Wellbore #1 - Gyro Surveys	18,239.79	6,726.18	1,677.78	1,524.08	10.916	CC, ES
HERBST #1(SI) - Wellbore #1 - Gyro Surveys	18,300.00	6,725.36	1,678.86	1,524.60	10.883	SF
HERBST #1-22-4-64(SI) - Wellbore #1 - No Surveys	19,633.87	6,708.00	2,307.74	2,103.85	11.318	CC, ES
HERBST #1-22-4-64(SI) - Wellbore #1 - No Surveys	19,800.00	6,708.00	2,313.71	2,108.40	11.269	SF
HERBST #22-16(PR) - Wellbore #1 - No Surveys	18,264.50	6,715.00	2,309.90	2,120.65	12.205	CC
HERBST #22-16(PR) - Wellbore #1 - No Surveys	18,300.00	6,715.00	2,310.17	2,120.55	12.183	ES
HERBST #22-16(PR) - Wellbore #1 - No Surveys	18,400.00	6,715.00	2,313.87	2,123.38	12.147	SF
HERBST #22-614(PR) - Wellbore #1 - No Surveys	20,026.22	6,710.00	1,427.61	1,330.71	14.732	CC, ES, SF
Herbst #C22-22D(PR) - Wellbore #1 - MWD Surveys	20,026.22	6,815.02	1,742.58	1,570.00	10.097	CC, ES, SF
HERBST C #22-24(SI) - Wellbore #1 - No Surveys	19,010.40	6,718.00	235.51	38.23	1.194	Level 2, CC, ES, SF
HERBST C #22-25(SI) - Wellbore #1 - No Surveys	18,728.02	6,722.00	1,030.08	835.79	5.302	CC, ES, SF
JOHNSTON #22-4(SI) - Wellbore #1 - Gyro Surveys	20,026.22	6,726.93	2,503.12	2,384.13	21.036	CC, ES, SF
Lang #C22-28D(PR) - Wellbore #1 - MWD Surveys	20,026.22	6,841.61	2,918.82	2,859.50	49.211	CC, ES, SF
LYMAN #1(SI) - Wellbore #1 - Gyro Surveys	20,026.22	6,697.18	1,876.49	1,718.18	11.853	CC, ES, SF
VOLKENS #31-22(PR) - Wellbore #1 - No Surveys	20,026.22	6,703.00	2,424.40	2,297.26	19.069	CC, ES, SF
VROOMAN C #22-23(SI) - Wellbore #1 - No Surveys	18,885.39	6,715.00	1,685.83	1,489.92	8.605	CC

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C Section 22						
VROOMAN C #22-23(SI) - Wellbore #1 - No Surveys	18,900.00	6,715.00	1,685.89	1,489.83	8.599	ES
VROOMAN C #22-23(SI) - Wellbore #1 - No Surveys	19,000.00	6,715.00	1,689.72	1,492.88	8.584	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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
C Section 27						
Born Sitzman 3(PA) - Wellbore #1 - Gyro Surveys	15,630.27	6,707.57	983.56	857.76	7.819	CC, ES
Born Sitzman 3(PA) - Wellbore #1 - Gyro Surveys	15,700.00	6,707.16	986.03	859.72	7.807	SF
BORN SITZMAN C #27-17(SI) - Wellbore #1 - No Survey	16,283.75	6,723.00	1,641.41	1,473.23	9.760	CC
BORN SITZMAN C #27-17(SI) - Wellbore #1 - No Survey	16,300.00	6,723.00	1,641.49	1,473.14	9.751	ES
BORN SITZMAN C #27-17(SI) - Wellbore #1 - No Survey	16,400.00	6,723.00	1,645.53	1,476.37	9.728	SF
BORN SITZMAN C #27-23(PR) - Wellbore #1 - No Surve	13,812.00	6,733.00	1,638.74	1,496.51	11.522	CC, ES
BORN SITZMAN C #27-23(PR) - Wellbore #1 - No Surve	13,900.00	6,733.00	1,641.10	1,498.07	11.474	SF
BORN-SITZMAN #1(SI) - Wellbore #1 - Gyro Surveys	16,986.69	6,715.83	2,307.20	2,166.90	16.445	CC
BORN-SITZMAN #1(SI) - Wellbore #1 - Gyro Surveys	17,000.00	6,715.13	2,307.24	2,166.80	16.429	ES
BORN-SITZMAN #1(SI) - Wellbore #1 - Gyro Surveys	17,200.00	6,705.10	2,317.02	2,174.96	16.310	SF
BORN-SITZMAN #2(PR) - Wellbore #1 - No Surveys	14,366.69	6,925.00	2,337.92	2,188.23	15.618	CC
BORN-SITZMAN #2(PR) - Wellbore #1 - No Surveys	14,400.00	6,925.00	2,338.16	2,188.12	15.584	ES
BORN-SITZMAN #2(PR) - Wellbore #1 - No Surveys	14,600.00	6,925.00	2,349.54	2,197.81	15.485	SF
BORN-SITZMAN #4(PR) - Wellbore #1 - No Surveys	16,928.16	6,718.00	980.37	805.37	5.602	CC, ES, SF
BORN-SITZMAN #5(SI) - Wellbore #1 - No Surveys	14,290.68	6,730.00	982.36	835.16	6.674	CC
BORN-SITZMAN #5(SI) - Wellbore #1 - No Surveys	14,300.00	6,730.00	982.41	835.11	6.670	ES, SF
CONRAD HERBST #2(SI) - Wellbore #1 - No Surveys	15,898.01	6,723.00	325.71	161.62	1.985	CC
CONRAD HERBST #2(SI) - Wellbore #1 - No Surveys	15,900.00	6,723.00	325.72	161.61	1.985	ES, SF
FOOS C #27-18(PR) - Wellbore #1 - No Surveys	16,320.02	6,723.00	441.07	272.50	2.617	CC, ES, SF
FOOS C #27-22(PR) - Wellbore #1 - No Surveys	14,896.38	6,726.00	1,613.77	1,460.25	10.511	CC
FOOS C #27-22(PR) - Wellbore #1 - No Surveys	14,900.00	6,726.00	1,613.78	1,460.21	10.509	ES
FOOS C #27-22(PR) - Wellbore #1 - No Surveys	15,000.00	6,726.00	1,617.10	1,462.66	10.471	SF
HERBST #C27-31D - HERBST #C27-31D - As-Drilled	16,120.62	7,142.20	2,390.69	2,244.14	16.314	CC, ES
HERBST #C27-31D - HERBST #C27-31D - As-Drilled	16,400.00	7,145.47	2,406.95	2,257.22	16.075	SF
HERBST #C27-31D(PR) - Wellbore #1 - MWD Surveys	16,116.99	7,142.21	2,387.88	2,241.28	16.288	CC, ES
HERBST #C27-31D(PR) - Wellbore #1 - MWD Surveys	16,400.00	7,145.53	2,404.59	2,254.80	16.053	SF
Herbst #C27-32D(SI) - Wellbore #1 - MWD Surveys	14,858.77	6,871.85	2,245.66	2,125.98	18.763	CC
Herbst #C27-32D(SI) - Wellbore #1 - MWD Surveys	14,900.00	6,871.79	2,246.04	2,125.88	18.692	ES
Herbst #C27-32D(SI) - Wellbore #1 - MWD Surveys	15,100.00	6,871.51	2,258.58	2,136.53	18.506	SF
Herbst #C27-33D(SI) - Wellbore #1 - MWD Surveys	13,592.65	6,872.93	2,247.23	2,138.50	20.667	CC
Herbst #C27-33D(SI) - Wellbore #1 - MWD Surveys	13,600.00	6,872.92	2,247.25	2,138.45	20.655	ES
Herbst #C27-33D(SI) - Wellbore #1 - MWD Surveys	13,800.00	6,872.64	2,256.78	2,146.62	20.486	SF
HERBST C #27-19(SI) - Wellbore #1 - No Surveys	16,154.53	6,726.00	1,129.60	962.77	6.771	CC, ES
HERBST C #27-19(SI) - Wellbore #1 - No Surveys	16,200.00	6,726.00	1,130.52	963.28	6.760	SF
HERBST C #27-20(PR) - Wellbore #1 - No Surveys	15,138.90	6,738.00	605.70	449.51	3.878	CC, ES, SF
HERBST C #27-21(SI) - Wellbore #1 - No Surveys	15,290.96	6,729.00	161.89	4.18	1.026	Level 2, CC, ES, SF
HERBST C #27-30(SI) - Wellbore #1 - No Surveys	17,388.57	6,933.00	2,136.58	1,954.79	11.753	CC
HERBST C #27-30(SI) - Wellbore #1 - No Surveys	17,400.00	6,933.00	2,136.61	1,954.70	11.746	ES
HERBST C #27-30(SI) - Wellbore #1 - No Surveys	17,600.00	6,933.00	2,147.01	1,963.54	11.702	SF
HERBST C #34-29(PR) - Wellbore #1 - No Surveys	12,502.44	6,755.00	990.60	861.69	7.684	CC, ES
HERBST C #34-29(PR) - Wellbore #1 - No Surveys	12,600.00	6,755.00	995.39	865.79	7.680	SF
HERBST, CONRAD #1(SI) - Wellbore #1 - No Surveys	16,907.09	6,718.00	327.90	153.13	1.876	CC, ES, SF
LEHFELDT #C 27-11(PA) - Wellbore #1 - Gyro Surveys	14,214.37	6,729.15	329.67	218.68	2.970	CC, ES, SF
LEHFELDT #C 27-12(SI) - Wellbore #1 - No Surveys	14,284.93	6,751.00	1,659.74	1,512.42	11.266	CC
LEHFELDT #C 27-12(SI) - Wellbore #1 - No Surveys	14,300.00	6,751.00	1,659.81	1,512.33	11.255	ES
LEHFELDT #C 27-12(SI) - Wellbore #1 - No Surveys	14,400.00	6,751.00	1,663.73	1,515.39	11.216	SF
LEHFELDT #C 27-13(PR) - Wellbore #1 - No Surveys	12,958.92	6,758.00	1,656.06	1,522.45	12.394	CC, ES
LEHFELDT #C 27-13(PR) - Wellbore #1 - No Surveys	13,100.00	6,758.00	1,662.06	1,527.24	12.328	SF
LEHFELDT #C 27-14(PA) - Wellbore #1 - Gyro Surveys	12,962.11	6,737.82	364.43	266.41	3.718	CC, ES, SF
LEHFELDT #C 27-5(SI) - Wellbore #1 - No Surveys	15,606.68	6,755.00	1,788.95	1,627.67	11.092	CC, ES
LEHFELDT #C 27-5(SI) - Wellbore #1 - No Surveys	15,700.00	6,755.00	1,791.38	1,629.24	11.049	SF
LEHFELDT #C27-04(SI) - Wellbore #1 - No Surveys	16,706.54	6,725.00	1,852.62	1,679.92	10.728	CC, ES
LEHFELDT #C27-04(SI) - Wellbore #1 - No Surveys	16,800.00	6,725.00	1,854.97	1,681.42	10.688	SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C Section 27						
LEHFELDT #C27-15(SI) - Wellbore #1 - No Surveys	12,953.62	6,734.00	961.13	827.78	7.208	CC, ES
LEHFELDT #C27-15(SI) - Wellbore #1 - No Surveys	13,000.00	6,734.00	962.25	828.50	7.195	SF
LEHFELDT C #27-16(SI) - Wellbore #1 - No Suveys	13,004.03	6,732.00	2,297.36	2,163.51	17.164	CC, ES
LEHFELDT C #27-16(SI) - Wellbore #1 - No Suveys	13,300.00	6,732.00	2,316.35	2,180.02	16.991	SF
LEHFELDT C #27-25(PR) - Wellbore #1 - No Surveys	13,659.42	6,749.00	1,216.70	1,075.92	8.643	CC, ES
LEHFELDT C #27-25(PR) - Wellbore #1 - No Surveys	13,700.00	6,749.00	1,217.37	1,076.21	8.624	SF
SITZMAN #27-8(PR) - Wellbore #1 - No Surveys	15,634.47	6,723.00	2,345.48	2,184.19	14.542	CC, ES
SITZMAN #27-8(PR) - Wellbore #1 - No Surveys	15,900.00	6,723.00	2,360.46	2,196.98	14.439	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C Section 34						
ALOYSIOUS #C34-11(PA) - Wellbore #1 - Gyro Surveys	8,906.75	6,743.03	346.74	287.20	5.823	CC, ES, SF
ALOYSIOUS #C34-8(PR) - Wellbore #1 - No Surveys	10,325.06	6,743.00	1,659.95	1,552.59	15.462	CC, ES
ALOYSIOUS #C34-8(PR) - Wellbore #1 - No Surveys	10,500.00	6,743.00	1,669.14	1,560.36	15.343	SF
ALOYSIOUS #C34-9(SI) - Wellbore #1 - Gyro Surveys	9,037.90	6,750.68	2,262.44	2,201.86	37.343	CC, ES
ALOYSIOUS #C34-9(SI) - Wellbore #1 - Gyro Surveys	9,500.00	6,750.48	2,309.15	2,245.27	36.143	SF
ALOYSIOUS #34-1(PR) - Wellbore #1 - No Surveys	11,647.46	6,773.00	1,658.03	1,537.59	13.766	CC, ES
ALOYSIOUS #34-1(PR) - Wellbore #1 - No Surveys	11,800.00	6,773.00	1,665.03	1,543.29	13.677	SF
ALOYSIOUS #34-2(PR) - Wellbore #1 - No Surveys	7,714.15	6,742.00	2,229.14	2,142.09	25.609	CC, ES
ALOYSIOUS #34-2(PR) - Wellbore #1 - No Surveys	8,000.00	6,742.00	2,247.39	2,158.87	25.389	SF
ALOYSIOUS #34-3(PR) - Wellbore #1 - No Surveys	11,650.29	6,747.00	338.23	217.99	2.813	CC, ES, SF
ALOYSIOUS #34-4(SI) - Wellbore #1 - No Surveys	10,327.68	6,740.00	384.73	277.37	3.584	CC, ES, SF
ALOYSIOUS #34-5(PA) - Wellbore #1 - Gyro Surveys	9,055.03	6,734.20	999.23	938.55	16.467	CC, ES
ALOYSIOUS #34-5(PA) - Wellbore #1 - Gyro Surveys	9,200.00	6,731.61	1,009.69	948.07	16.388	SF
ALOYSIOUS #34-6(PR) - Wellbore #1 - Gyro Surveys	7,578.65	6,750.18	374.14	323.13	7.335	CC, ES, SF
ALOYSIOUS #34-7(PR) - Wellbore #1 - Gyro Surveys	160.63	129.62	1,643.20	1,642.58	2,645.169	CC
ALOYSIOUS #34-7(PR) - Wellbore #1 - Gyro Surveys	7,646.18	6,751.40	1,677.82	1,626.52	32.704	ES
ALOYSIOUS #34-7(PR) - Wellbore #1 - Gyro Surveys	7,900.00	6,751.25	1,696.91	1,644.40	32.312	SF
ALOYSIOUS #C34-15(PR) - Wellbore #1 - No Surveys	7,708.26	6,743.00	981.42	894.40	11.278	CC, ES
ALOYSIOUS #C34-15(PR) - Wellbore #1 - No Surveys	7,800.00	6,743.00	985.70	898.25	11.271	SF
Aloysius C #34-18(PA) - Wellbore #1 - Gyro Surveys	10,968.37	6,739.42	174.80	96.80	2.241	CC, ES, SF
ALOYSIOUS C #34-19(PR) - Wellbore #1 - No Surveys	10,991.32	6,750.00	996.30	882.52	8.757	CC
ALOYSIOUS C #34-19(PR) - Wellbore #1 - No Surveys	11,000.00	6,750.00	996.34	882.48	8.751	ES
ALOYSIOUS C #34-19(PR) - Wellbore #1 - No Surveys	11,100.00	6,750.00	1,002.21	887.64	8.748	SF
Aloysius C #34-20D(PR) - Wellbore #1 - MWD Surveys	9,517.78	6,859.44	1,038.32	972.85	15.860	CC, ES
Aloysius C #34-20D(PR) - Wellbore #1 - MWD Surveys	9,700.00	6,853.24	1,054.17	986.91	15.673	SF
Aloysius C #34-21D(SI) - Wellbore #1 - MWD Surveys	9,800.00	6,904.93	174.61	104.78	2.501	SF
Aloysius C #34-21D(SI) - Wellbore #1 - MWD Surveys	9,809.08	6,904.52	174.37	104.73	2.504	CC, ES
ALOYSIOUS C #34-22D(PR) - Wellbore #1 - MWD Survey	9,801.82	6,879.92	1,708.84	1,639.11	24.505	CC, ES
ALOYSIOUS C #34-22D(PR) - Wellbore #1 - MWD Survey	10,000.00	6,877.80	1,720.29	1,649.51	24.303	SF
ALOYSIOUS C #34-23(PR) - Wellbore #1 - Gyro Surveys	8,328.19	6,755.12	1,565.81	1,510.48	28.301	CC, ES
ALOYSIOUS C #34-23(PR) - Wellbore #1 - Gyro Surveys	8,600.00	6,754.35	1,589.22	1,532.25	27.893	SF
Aloysius C #34-24(SI) - Wellbore #1 - No Surveys	8,346.51	6,745.00	469.50	378.64	5.167	CC, ES, SF
ALOYSIOUS C #34-27D(PR) - Wellbore #1 - MWD Survey	12,215.80	6,844.10	1,650.18	1,558.84	18.066	CC, ES
ALOYSIOUS C #34-27D(PR) - Wellbore #1 - MWD Survey	12,400.00	6,844.52	1,660.43	1,567.97	17.958	SF
ALOYSIOUS C #34-28D(PA) - Wellbore #1 - Gyro Surveys	12,226.75	6,881.66	501.63	405.96	5.243	CC, ES
ALOYSIOUS C #34-28D(PA) - Wellbore #1 - Gyro Surveys	12,300.00	6,881.52	506.95	409.35	5.194	SF
Aloysius C #34-31(PA) - Wellbore #1 - Gyro Surveys	11,023.34	6,776.96	2,156.93	2,078.24	27.412	CC, ES
Aloysius C #34-31(PA) - Wellbore #1 - Gyro Surveys	11,400.00	6,774.21	2,189.57	2,107.93	26.821	SF
Aloysius C #34-32D(PR) - Wellbore #1 - MWD Surveys	100.00	79.60	1,841.62	1,841.35	6,935.636	CC
Aloysius C #34-32D(PR) - Wellbore #1 - MWD Surveys	600.00	570.94	1,843.17	1,840.25	630.716	ES
Aloysius C #34-32D(PR) - Wellbore #1 - MWD Surveys	10,100.00	6,968.48	2,299.17	2,224.76	30.902	SF
Aloysius C34-33D(PR) - Wellbore #1 - MWD Surveys	0.00	0.00	1,681.31			
Aloysius C34-33D(PR) - Wellbore #1 - MWD Surveys	200.00	177.92	1,681.63	1,680.83	2,108.488	ES
Aloysius C34-33D(PR) - Wellbore #1 - MWD Surveys	8,900.00	6,846.26	2,311.58	2,249.96	37.514	SF
Aloysius C34-99HZ - Original Drilling - Original Drilling - A	8,439.50	8,782.19	91.15	56.02	2.595	CC
Aloysius C34-99HZ - Original Drilling - Original Drilling - A	8,500.00	8,764.90	108.06	50.85	1.889	ES, SF
DONOVAN D #02-30(PR) - Wellbore #1 - No Surveys	7,221.88	6,745.66	2,775.83	2,690.81	32.649	CC, ES
DONOVAN D #02-30(PR) - Wellbore #1 - No Surveys	7,600.00	6,746.00	2,801.52	2,715.08	32.409	SF
Gittlein C22-750 - Wellbore #1 - Plan #1	2,242.15	2,242.15	22.60	7.00	1.449	Level 3, CC
Gittlein C22-750 - Wellbore #1 - Plan #1	2,300.00	2,300.02	22.65	6.64	1.415	Level 3, ES
Gittlein C22-750 - Wellbore #1 - Plan #1	20,026.22	20,138.99	342.18	50.33	1.172	Level 2, SF
Gittlein C22-765 - Wellbore #1 - Plan #1	2,000.00	2,000.00	22.61	8.74	1.630	CC, ES
Gittlein C22-765 - Wellbore #1 - Plan #1	2,100.00	2,099.57	23.52	8.95	1.615	SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
C Section 34						
Gittlein C22-770 - Wellbore #1 - Plan #1	2,200.00	2,201.00	44.94	29.63	2.935	CC
Gittlein C22-770 - Wellbore #1 - Plan #1	2,400.00	2,400.84	45.68	28.99	2.737	ES, SF
Gittlein C22-775 - Wellbore #1 - Plan #1	2,200.00	2,201.00	67.54	52.23	4.412	CC, ES
Gittlein C22-775 - Wellbore #1 - Plan #1	2,300.00	2,299.23	68.91	52.93	4.312	SF
Gittlein C22-785 - Wellbore #1 - Plan #1	2,000.00	2,001.00	89.87	75.99	6.476	CC, ES
Gittlein C22-785 - Wellbore #1 - Plan #1	20,026.22	20,289.25	1,849.59	1,553.38	6.244	SF
Guttersen C22-715 - Wellbore #1 - Plan #1	2,200.00	2,198.00	1,335.11	1,319.81	87.264	CC, ES
Guttersen C22-715 - Wellbore #1 - Plan #1	20,026.22	20,173.05	2,617.90	2,320.93	8.815	SF
Guttersen C22-725 - Wellbore #1 - Plan #1	2,000.00	1,998.00	1,312.55	1,298.68	94.662	CC, ES
Guttersen C22-725 - Wellbore #1 - Plan #1	20,026.22	19,968.87	1,964.44	1,666.62	6.596	SF
Guttersen C22-730 - Wellbore #1 - Plan #1	2,697.92	2,678.76	1,287.32	1,268.67	69.048	CC
Guttersen C22-730 - Wellbore #1 - Plan #1	2,800.00	2,763.98	1,287.91	1,268.65	66.866	ES
Guttersen C22-730 - Wellbore #1 - Plan #1	20,026.22	20,096.34	1,638.48	1,340.49	5.499	SF
Guttersen C22-735 - Wellbore #1 - Plan #1	2,200.00	2,198.00	1,267.75	1,252.45	82.862	CC
Guttersen C22-735 - Wellbore #1 - Plan #1	20,026.22	19,991.38	1,308.95	1,010.18	4.381	ES, SF
Guttersen C22-745 - Wellbore #1 - Plan #1	7,245.23	7,188.42	655.76	604.23	12.726	CC
Guttersen C22-745 - Wellbore #1 - Plan #1	20,026.22	19,966.84	657.50	360.36	2.213	ES, SF
GUTTERSEN D #03-27(PR) - Wellbore #1 - No Surveys	7,205.22	6,744.91	1,637.27	1,552.31	19.271	CC, ES
GUTTERSEN D #03-27(PR) - Wellbore #1 - No Surveys	7,300.00	6,746.00	1,640.03	1,554.75	19.232	SF
LANE #34-214(PR) - Wellbore #1 - No Surveys	11,480.04	6,739.00	1,178.87	1,060.39	9.950	CC
LANE #34-214(PR) - Wellbore #1 - No Surveys	11,500.00	6,739.00	1,179.04	1,060.37	9.935	ES
LANE #34-214(PR) - Wellbore #1 - No Surveys	11,600.00	6,739.00	1,184.96	1,065.55	9.924	SF
LANE #34-814(PR) - Wellbore #1 - No Surveys	10,539.97	6,739.00	2,301.13	2,191.78	21.044	CC, ES
LANE #34-814(PR) - Wellbore #1 - No Surveys	10,900.00	6,739.00	2,329.13	2,216.85	20.746	SF
LANE C #34-17(PR) - Wellbore #1 - No Surveys	11,020.45	6,737.00	1,716.08	1,602.13	15.060	CC, ES
LANE C #34-17(PR) - Wellbore #1 - No Surveys	11,200.00	6,737.00	1,725.45	1,610.00	14.946	SF
POLLOCK-HADDIX #2(PA) - Wellbore #1 - Gyro Surveys	11,715.12	6,705.64	2,330.29	2,245.04	27.336	CC, ES
POLLOCK-HADDIX #2(PA) - Wellbore #1 - Gyro Surveys	12,100.00	6,705.09	2,361.86	2,273.50	26.730	SF
POLLOCK-HADDIX #34-1(SI) - Wellbore #1 - No Survey	10,338.45	6,740.00	1,052.30	944.85	9.793	CC, ES
POLLOCK-HADDIX #34-1(SI) - Wellbore #1 - No Survey	10,400.00	6,740.00	1,054.10	946.13	9.763	SF
TWO E RANCHES #1(PR) - Wellbore #1 - Gyro Surveys	8,679.75	6,840.60	1,295.30	1,237.20	22.296	CC, ES
TWO E RANCHES #1(PR) - Wellbore #1 - Gyro Surveys	8,800.00	6,841.76	1,300.86	1,241.94	22.077	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
D Section 03						
Becca D 3-11 (PR) - Wellbore #1 - No Surveys	6,242.24	6,136.07	2,980.37	2,715.11	11.236	CC
Becca D 3-11 (PR) - Wellbore #1 - No Surveys	6,300.00	6,206.24	2,982.97	2,714.72	11.120	ES
Becca D 3-11 (PR) - Wellbore #1 - No Surveys	6,500.00	6,386.87	3,031.54	2,755.54	10.984	SF
Becca D 3-12 (PR) - Wellbore #1 - No Surveys	6,240.98	6,130.82	3,428.48	3,163.18	12.923	CC
Becca D 3-12 (PR) - Wellbore #1 - No Surveys	6,250.00	6,139.84	3,428.54	3,162.85	12.904	ES
Becca D 3-12 (PR) - Wellbore #1 - No Surveys	6,600.00	6,471.35	3,515.20	3,235.35	12.561	SF
Becca D03-32D - Wellbore #1 - Wellbore #1 - As Drilled	6,234.83	6,306.47	3,268.65	3,205.40	51.685	CC, ES
Becca D03-32D - Wellbore #1 - Wellbore #1 - As Drilled	6,600.00	6,714.42	3,339.60	3,274.06	50.956	SF
Cody D #03-28(SI) - Wellbore #1 - No Surveys	6,965.50	6,689.66	477.70	394.00	5.707	CC, ES
Cody D #03-28(SI) - Wellbore #1 - No Surveys	7,000.00	6,703.35	478.76	394.84	5.705	SF
Cody D 3-20 (PR) - Wellbore #1 - No Surveys	6,241.32	6,133.16	2,499.50	2,234.25	9.423	CC
Cody D 3-20 (PR) - Wellbore #1 - No Surveys	6,300.00	6,208.24	2,501.99	2,233.55	9.320	ES
Cody D 3-20 (PR) - Wellbore #1 - No Surveys	6,500.00	6,384.87	2,547.19	2,271.15	9.228	SF
Cody D 3-28 (SI) - Wellbore #1 - No Surveys	6,965.50	6,705.66	477.70	186.47	1.640	CC, ES
Cody D 3-28 (SI) - Wellbore #1 - No Surveys	7,000.00	6,719.35	478.76	186.88	1.640	SF
CODY WHITE #D 3-2(PR) - Wellbore #1 - No Surveys	6,255.71	6,121.54	1,005.56	929.05	13.143	CC
CODY WHITE #D 3-2(PR) - Wellbore #1 - No Surveys	6,300.00	6,165.76	1,005.89	928.86	13.058	ES
CODY WHITE #D 3-2(PR) - Wellbore #1 - No Surveys	6,550.00	6,404.02	1,022.23	942.39	12.804	SF
Cody White D 3-1 (PR) - Wellbore #1 - No Surveys	6,274.25	6,149.07	2,311.98	2,045.03	8.661	CC
Cody White D 3-1 (PR) - Wellbore #1 - No Surveys	6,500.00	6,367.87	2,316.08	2,039.69	8.380	ES
Cody White D 3-1 (PR) - Wellbore #1 - No Surveys	6,900.00	6,664.04	2,357.71	2,068.32	8.147	SF
Cody White D 3-2 (PR) - Wellbore #1 - No Surveys	6,255.71	6,131.54	1,005.56	739.41	3.778	CC
Cody White D 3-2 (PR) - Wellbore #1 - No Surveys	6,350.00	6,225.33	1,007.08	736.89	3.727	ES
Cody White D 3-2 (PR) - Wellbore #1 - No Surveys	6,550.00	6,414.02	1,022.23	743.92	3.673	SF
Guttersen D 03-25 (PR) - Wellbore #1 - No Surveys	6,241.73	6,135.56	3,553.24	3,288.03	13.398	CC
Guttersen D 03-25 (PR) - Wellbore #1 - No Surveys	6,300.00	6,206.24	3,555.80	3,287.58	13.257	ES
Guttersen D 03-25 (PR) - Wellbore #1 - No Surveys	6,550.00	6,432.02	3,623.62	3,345.73	13.040	SF
HSR-GITTLEIN, D #4-3(PR) - Wellbore #1 - No Surveys	6,126.54	6,000.02	1,825.79	1,750.75	24.331	CC
HSR-GITTLEIN, D #4-3(PR) - Wellbore #1 - No Surveys	6,400.00	6,271.23	1,827.24	1,748.93	23.332	ES
HSR-GITTLEIN, D #4-3(PR) - Wellbore #1 - No Surveys	6,900.00	6,662.04	1,860.35	1,777.16	22.361	SF
HSR-Gittlein, D 4-3 (PR) - Wellbore #1 - No Surveys	6,126.54	6,010.02	1,825.79	1,564.91	6.999	CC
HSR-Gittlein, D 4-3 (PR) - Wellbore #1 - No Surveys	6,600.00	6,464.35	1,832.03	1,551.45	6.530	ES
HSR-Gittlein, D 4-3 (PR) - Wellbore #1 - No Surveys	6,950.00	6,704.04	1,869.08	1,577.92	6.420	SF
HSR-Gittlein, L 3-3 (PR) - Wellbore #1 - No Surveys	6,237.98	6,117.82	407.67	142.37	1.537	CC
HSR-Gittlein, L 3-3 (PR) - Wellbore #1 - No Surveys	6,300.00	6,179.76	409.28	141.30	1.527	ES, SF
HSR-Guttersen "A" 9-3 (SI) - Wellbore #1 - Gyro Surveys	6,253.12	6,169.35	3,731.86	3,688.13	85.328	CC, ES
HSR-Guttersen "A" 9-3 (SI) - Wellbore #1 - Gyro Surveys	6,550.00	6,458.12	3,788.27	3,742.74	83.190	SF
HSR-Guttersen 10-3 (SI) - Wellbore #1 - No Surveys	6,243.54	6,132.38	3,047.97	2,782.76	11.492	CC
HSR-Guttersen 10-3 (SI) - Wellbore #1 - No Surveys	6,250.00	6,138.84	3,048.00	2,782.51	11.480	ES
HSR-Guttersen 10-3 (SI) - Wellbore #1 - No Surveys	6,550.00	6,427.02	3,116.43	2,838.62	11.218	SF

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

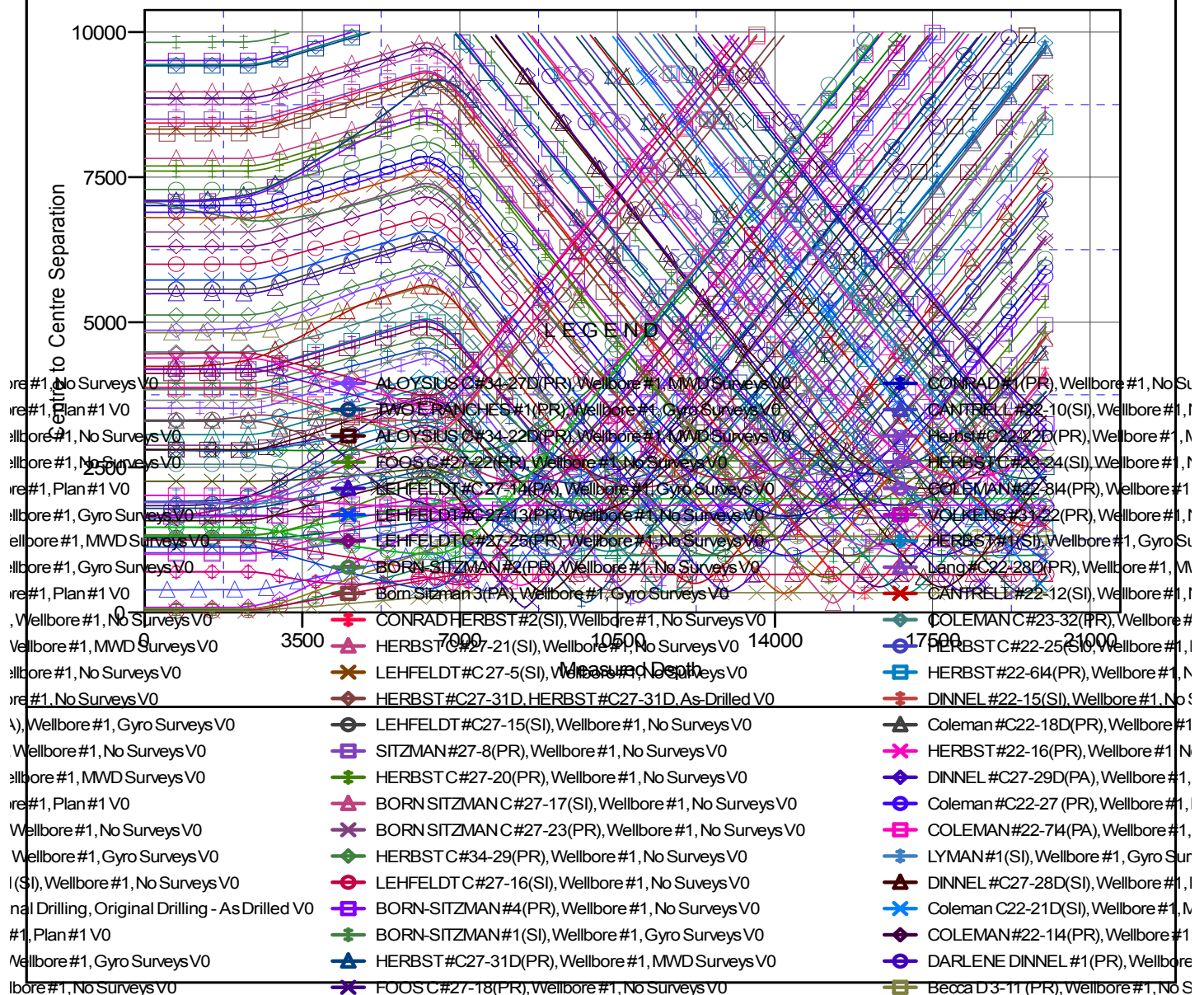
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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

Coordinates are relative to: Gittlein C22-755

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.62°



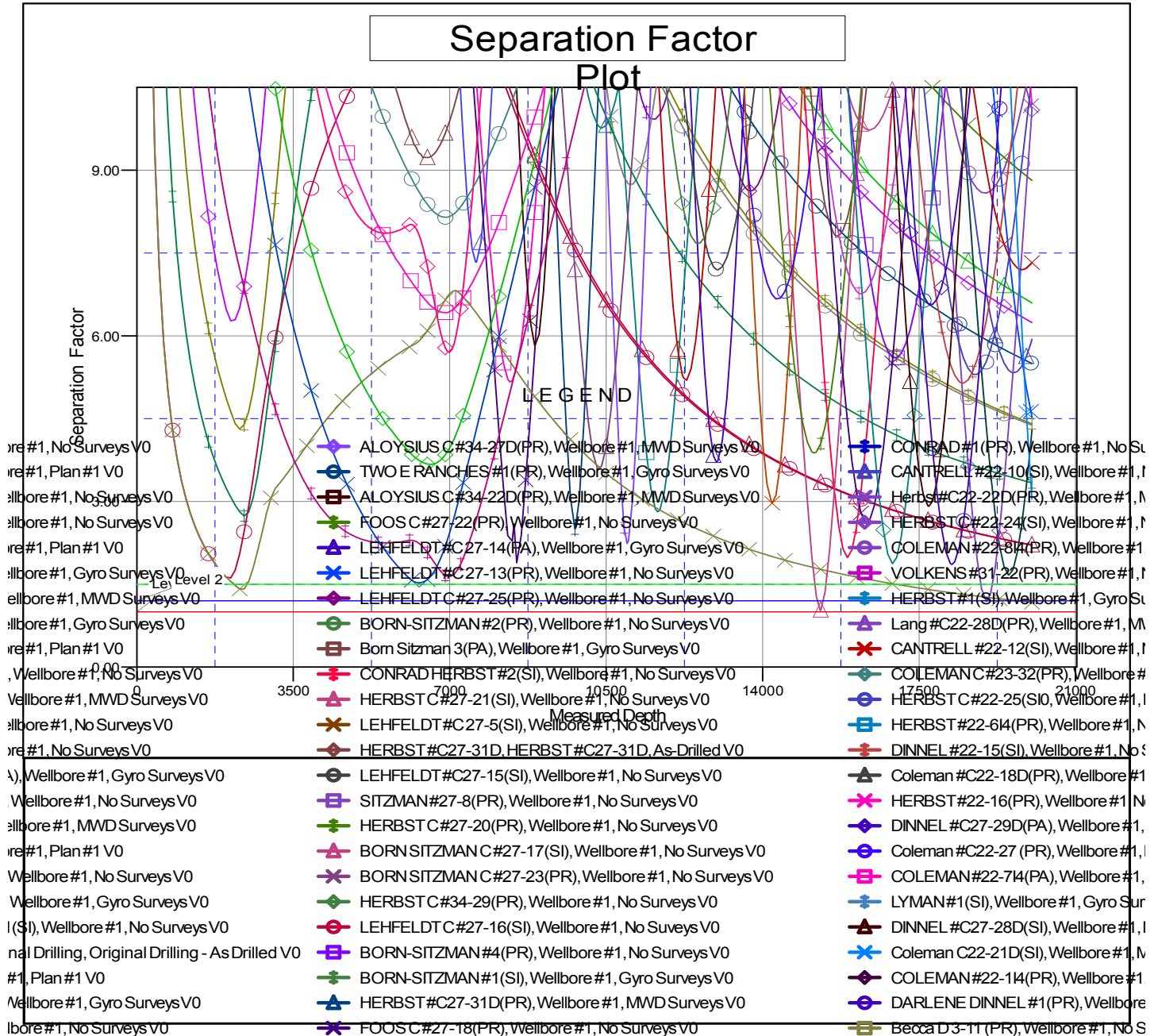
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Gittlein C22-755
Project:	Mustang	TVD Reference:	KB @ 4729.00ft
Reference Site:	C Section 34	MD Reference:	KB @ 4729.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Gittlein C22-755	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 @ 4729.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Gittlein C22-755
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.62°



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