

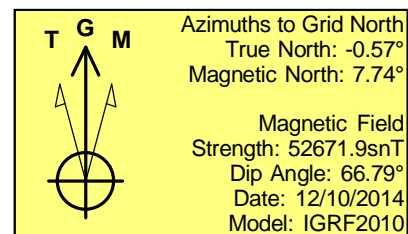
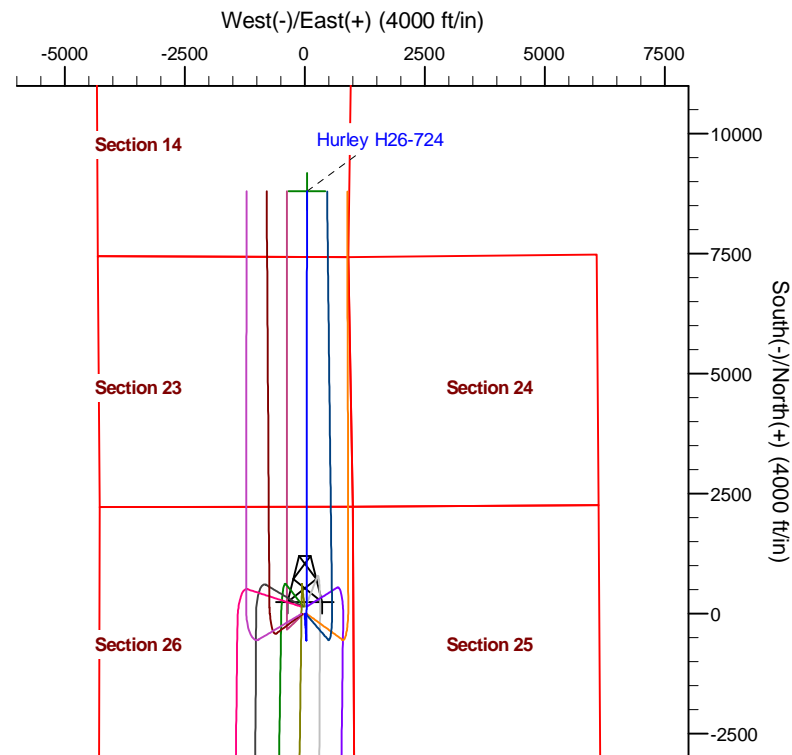
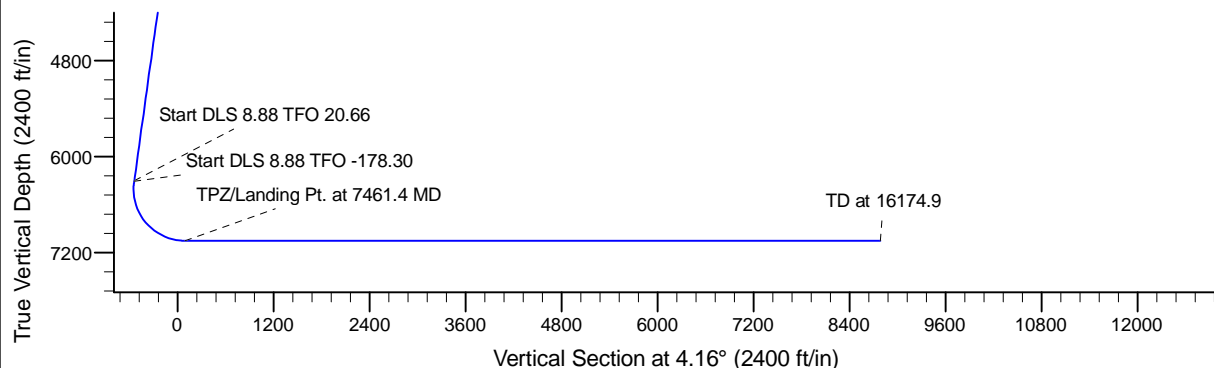
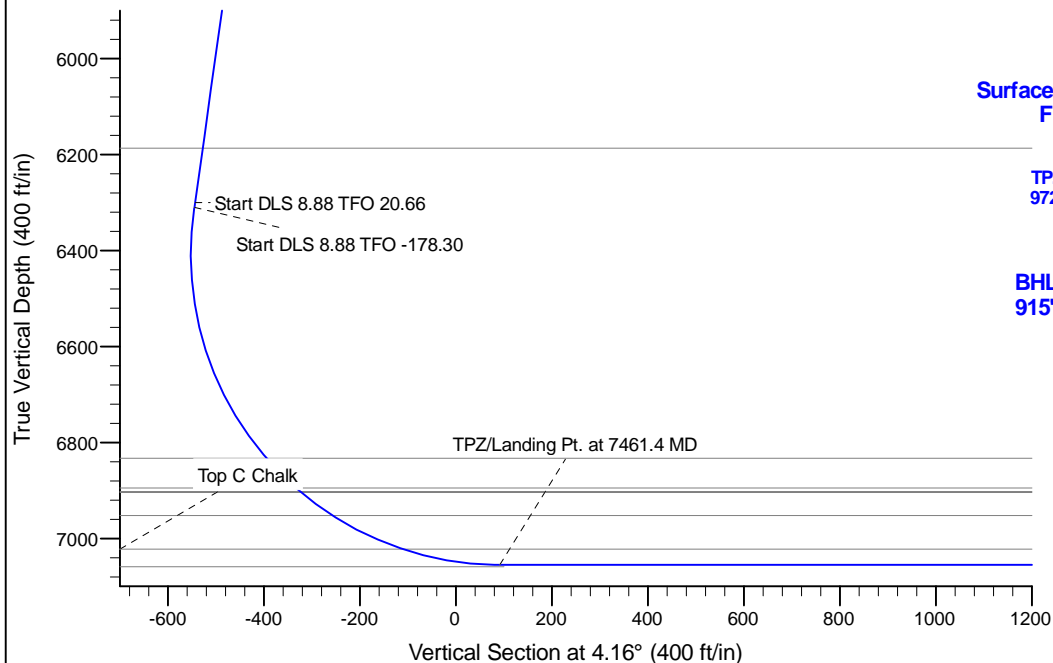
Project: Conceptual Wells
Site: DP 408
Well: Hurley H26-724
Wellbore: Wellbore #1
Design: Design #1

Northern Region Drilling - 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	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0	
3	2600.0	8.00	176.25	2598.7	-27.8	1.8	2.00	176.25	-27.6	
4	6337.7	8.00	176.25	6300.0	-546.9	35.8	0.00	0.00	-542.8	
5	6348.1	8.88	178.38	6310.4	-548.4	35.9	8.88	20.66	-544.4	
6	7461.4	90.00	0.06	7055.0	89.0	40.0	8.88	-178.30	91.7	
7	16174.9	90.00	0.07	7055.0	8802.4	50.0	0.00	90.00	8782.9	Hurley H26-724 BHL



WELL DETAILS: Hurley H26-724

Ground Level: 4855.0		Latitude	
Northing	Easting	Longitude	
0.00.0	1315961.90	3244487.91	40.197400
			-104.624760

Plan: Design #1 (Hurley H26-724/Wellbore #1)

Created By: Chad Stich Date: 10:19, November 01 2017

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region Drilling - Sandbox

Conceptual Wells

DP 408

Hurley H26-724

Wellbore #1

Plan: Design #1

Standard Planning Report

01 November, 2017

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Hurley H26-724
Company:	Northern Region Drilling - Sandbox	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Project:	Conceptual Wells	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site:	DP 408	North Reference:	Grid
Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Conceptual Wells		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	DP 408			
Site Position:		Northing:	1,318,184.69 usft	Latitude: 40.203616
From:	Lat/Long	Easting:	3,240,225.17 usft	Longitude: -104.639942
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.56 °

Well	Hurley H26-724			
Well Position	+N/-S	-2,222.9 ft	Northing:	1,315,961.90 usft
	+E/-W	4,262.9 ft	Easting:	3,244,487.91 usft
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft
			Ground Level:	4,855.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/10/2014	8.30	66.79	52,671.90871176

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	4.16

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,600.0	8.00	176.25	2,598.7	-27.8	1.8	2.00	2.00	0.00	176.25	
6,337.7	8.00	176.25	6,300.0	-546.9	35.8	0.00	0.00	0.00	0.00	
6,348.1	8.88	178.38	6,310.4	-548.4	35.9	8.88	8.37	20.31	20.66	
7,461.4	90.00	0.06	7,055.0	89.0	40.0	8.88	7.29	-16.02	-178.30	
16,174.9	90.00	0.07	7,055.0	8,802.4	50.0	0.00	0.00	0.00	90.00	Hurley H26-724 BHL

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Hurley H26-724
Company:	Northern Region Drilling - Sandbox	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Project:	Conceptual Wells	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site:	DP 408	North Reference:	Grid
Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	2.00	176.25	2,300.0	-1.7	0.1	-1.7	2.00	2.00	0.00
2,400.0	4.00	176.25	2,399.8	-7.0	0.5	-6.9	2.00	2.00	0.00
2,500.0	6.00	176.25	2,499.5	-15.7	1.0	-15.5	2.00	2.00	0.00
2,600.0	8.00	176.25	2,598.7	-27.8	1.8	-27.6	2.00	2.00	0.00
2,700.0	8.00	176.25	2,697.7	-41.7	2.7	-41.4	0.00	0.00	0.00
2,800.0	8.00	176.25	2,796.8	-55.6	3.6	-55.2	0.00	0.00	0.00
2,900.0	8.00	176.25	2,895.8	-69.5	4.6	-69.0	0.00	0.00	0.00
3,000.0	8.00	176.25	2,994.8	-83.4	5.5	-82.8	0.00	0.00	0.00
3,100.0	8.00	176.25	3,093.8	-97.3	6.4	-96.5	0.00	0.00	0.00
3,200.0	8.00	176.25	3,192.9	-111.1	7.3	-110.3	0.00	0.00	0.00
3,300.0	8.00	176.25	3,291.9	-125.0	8.2	-124.1	0.00	0.00	0.00
3,400.0	8.00	176.25	3,390.9	-138.9	9.1	-137.9	0.00	0.00	0.00
3,500.0	8.00	176.25	3,489.9	-152.8	10.0	-151.7	0.00	0.00	0.00
3,600.0	8.00	176.25	3,589.0	-166.7	10.9	-165.5	0.00	0.00	0.00
3,700.0	8.00	176.25	3,688.0	-180.6	11.8	-179.2	0.00	0.00	0.00
3,800.0	8.00	176.25	3,787.0	-194.5	12.7	-193.0	0.00	0.00	0.00
3,900.0	8.00	176.25	3,886.1	-208.4	13.7	-206.8	0.00	0.00	0.00
4,000.0	8.00	176.25	3,985.1	-222.2	14.6	-220.6	0.00	0.00	0.00
4,100.0	8.00	176.25	4,084.1	-236.1	15.5	-234.4	0.00	0.00	0.00
4,200.0	8.00	176.25	4,183.1	-250.0	16.4	-248.2	0.00	0.00	0.00
4,300.0	8.00	176.25	4,282.2	-263.9	17.3	-262.0	0.00	0.00	0.00
4,400.0	8.00	176.25	4,381.2	-277.8	18.2	-275.7	0.00	0.00	0.00
4,500.0	8.00	176.25	4,480.2	-291.7	19.1	-289.5	0.00	0.00	0.00
4,600.0	8.00	176.25	4,579.2	-305.6	20.0	-303.3	0.00	0.00	0.00
4,700.0	8.00	176.25	4,678.3	-319.5	20.9	-317.1	0.00	0.00	0.00
4,800.0	8.00	176.25	4,777.3	-333.3	21.8	-330.9	0.00	0.00	0.00
4,900.0	8.00	176.25	4,876.3	-347.2	22.8	-344.7	0.00	0.00	0.00
5,000.0	8.00	176.25	4,975.3	-361.1	23.7	-358.5	0.00	0.00	0.00
5,100.0	8.00	176.25	5,074.4	-375.0	24.6	-372.2	0.00	0.00	0.00
5,200.0	8.00	176.25	5,173.4	-388.9	25.5	-386.0	0.00	0.00	0.00
5,300.0	8.00	176.25	5,272.4	-402.8	26.4	-399.8	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Hurley H26-724
Company:	Northern Region Drilling - Sandbox	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Project:	Conceptual Wells	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site:	DP 408	North Reference:	Grid
Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	8.00	176.25	5,371.5	-416.7	27.3	-413.6	0.00	0.00	0.00
5,500.0	8.00	176.25	5,470.5	-430.6	28.2	-427.4	0.00	0.00	0.00
5,600.0	8.00	176.25	5,569.5	-444.4	29.1	-441.2	0.00	0.00	0.00
5,700.0	8.00	176.25	5,668.5	-458.3	30.0	-454.9	0.00	0.00	0.00
5,800.0	8.00	176.25	5,767.6	-472.2	31.0	-468.7	0.00	0.00	0.00
5,900.0	8.00	176.25	5,866.6	-486.1	31.9	-482.5	0.00	0.00	0.00
6,000.0	8.00	176.25	5,965.6	-500.0	32.8	-496.3	0.00	0.00	0.00
6,100.0	8.00	176.25	6,064.6	-513.9	33.7	-510.1	0.00	0.00	0.00
6,200.0	8.00	176.25	6,163.7	-527.8	34.6	-523.9	0.00	0.00	0.00
6,300.0	8.00	176.25	6,262.7	-541.7	35.5	-537.7	0.00	0.00	0.00
6,337.7	8.00	176.25	6,300.0	-546.9	35.8	-542.8	0.00	0.00	0.00
6,348.1	8.88	178.38	6,310.4	-548.4	35.9	-544.4	8.88	8.37	20.31
6,400.0	4.27	176.54	6,361.9	-554.4	36.1	-550.3	8.88	-8.87	-3.54
6,500.0	4.62	3.31	6,461.8	-554.1	36.6	-549.9	8.88	0.35	-173.23
6,600.0	13.50	1.16	6,560.4	-538.3	37.1	-534.2	8.88	8.88	-2.16
6,700.0	22.38	0.70	6,655.5	-507.6	37.5	-503.5	8.88	8.88	-0.46
6,800.0	31.26	0.49	6,744.6	-462.5	38.0	-458.5	8.88	8.88	-0.21
6,900.0	40.14	0.37	6,825.7	-404.2	38.4	-400.4	8.88	8.88	-0.12
7,000.0	49.02	0.29	6,896.9	-334.1	38.8	-330.4	8.88	8.88	-0.08
7,100.0	57.90	0.22	6,956.4	-253.8	39.2	-250.3	8.88	8.88	-0.06
7,200.0	66.78	0.17	7,002.7	-165.3	39.5	-162.0	8.88	8.88	-0.05
7,300.0	75.66	0.13	7,034.9	-70.8	39.7	-67.7	8.88	8.88	-0.05
7,400.0	84.54	0.09	7,052.1	27.7	39.9	30.5	8.88	8.88	-0.04
7,461.4	90.00	0.06	7,055.0	89.0	40.0	91.7	8.88	8.88	-0.04
7,500.0	90.00	0.06	7,055.0	127.6	40.0	130.1	0.00	0.00	0.00
7,600.0	90.00	0.06	7,055.0	227.6	40.1	229.9	0.00	0.00	0.00
7,700.0	90.00	0.06	7,055.0	327.6	40.3	329.6	0.00	0.00	0.00
7,800.0	90.00	0.06	7,055.0	427.6	40.4	429.4	0.00	0.00	0.00
7,900.0	90.00	0.06	7,055.0	527.6	40.5	529.1	0.00	0.00	0.00
8,000.0	90.00	0.06	7,055.0	627.6	40.6	628.8	0.00	0.00	0.00
8,100.0	90.00	0.06	7,055.0	727.6	40.7	728.6	0.00	0.00	0.00
8,200.0	90.00	0.06	7,055.0	827.6	40.8	828.3	0.00	0.00	0.00
8,300.0	90.00	0.06	7,055.0	927.6	40.9	928.1	0.00	0.00	0.00
8,400.0	90.00	0.06	7,055.0	1,027.6	41.0	1,027.8	0.00	0.00	0.00
8,500.0	90.00	0.06	7,055.0	1,127.6	41.1	1,127.6	0.00	0.00	0.00
8,600.0	90.00	0.06	7,055.0	1,227.6	41.2	1,227.3	0.00	0.00	0.00
8,700.0	90.00	0.06	7,055.0	1,327.6	41.3	1,327.1	0.00	0.00	0.00
8,800.0	90.00	0.06	7,055.0	1,427.6	41.4	1,426.8	0.00	0.00	0.00
8,900.0	90.00	0.06	7,055.0	1,527.6	41.5	1,526.5	0.00	0.00	0.00
9,000.0	90.00	0.06	7,055.0	1,627.6	41.6	1,626.3	0.00	0.00	0.00
9,100.0	90.00	0.06	7,055.0	1,727.6	41.7	1,726.0	0.00	0.00	0.00
9,200.0	90.00	0.06	7,055.0	1,827.6	41.9	1,825.8	0.00	0.00	0.00
9,300.0	90.00	0.06	7,055.0	1,927.6	42.0	1,925.5	0.00	0.00	0.00
9,400.0	90.00	0.06	7,055.0	2,027.6	42.1	2,025.3	0.00	0.00	0.00
9,500.0	90.00	0.06	7,055.0	2,127.6	42.2	2,125.0	0.00	0.00	0.00
9,600.0	90.00	0.06	7,055.0	2,227.6	42.3	2,224.8	0.00	0.00	0.00
9,700.0	90.00	0.06	7,055.0	2,327.6	42.4	2,324.5	0.00	0.00	0.00
9,800.0	90.00	0.06	7,055.0	2,427.6	42.5	2,424.2	0.00	0.00	0.00
9,900.0	90.00	0.06	7,055.0	2,527.6	42.6	2,524.0	0.00	0.00	0.00
10,000.0	90.00	0.06	7,055.0	2,627.6	42.7	2,623.7	0.00	0.00	0.00
10,100.0	90.00	0.06	7,055.0	2,727.6	42.8	2,723.5	0.00	0.00	0.00
10,200.0	90.00	0.06	7,055.0	2,827.6	43.0	2,823.2	0.00	0.00	0.00
10,300.0	90.00	0.06	7,055.0	2,927.6	43.1	2,923.0	0.00	0.00	0.00
10,400.0	90.00	0.06	7,055.0	3,027.6	43.2	3,022.7	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

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Company:	Northern Region Drilling - Sandbox	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Project:	Conceptual Wells	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site:	DP 408	North Reference:	Grid
Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	90.00	0.06	7,055.0	3,127.6	43.3	3,122.5	0.00	0.00	0.00
10,600.0	90.00	0.06	7,055.0	3,227.6	43.4	3,222.2	0.00	0.00	0.00
10,700.0	90.00	0.06	7,055.0	3,327.6	43.5	3,321.9	0.00	0.00	0.00
10,800.0	90.00	0.06	7,055.0	3,427.6	43.6	3,421.7	0.00	0.00	0.00
10,900.0	90.00	0.06	7,055.0	3,527.6	43.7	3,521.4	0.00	0.00	0.00
11,000.0	90.00	0.06	7,055.0	3,627.6	43.8	3,621.2	0.00	0.00	0.00
11,100.0	90.00	0.06	7,055.0	3,727.6	44.0	3,720.9	0.00	0.00	0.00
11,200.0	90.00	0.06	7,055.0	3,827.6	44.1	3,820.7	0.00	0.00	0.00
11,300.0	90.00	0.06	7,055.0	3,927.6	44.2	3,920.4	0.00	0.00	0.00
11,400.0	90.00	0.06	7,055.0	4,027.6	44.3	4,020.2	0.00	0.00	0.00
11,500.0	90.00	0.07	7,055.0	4,127.6	44.4	4,119.9	0.00	0.00	0.00
11,600.0	90.00	0.07	7,055.0	4,227.6	44.5	4,219.7	0.00	0.00	0.00
11,700.0	90.00	0.07	7,055.0	4,327.6	44.6	4,319.4	0.00	0.00	0.00
11,800.0	90.00	0.07	7,055.0	4,427.6	44.7	4,419.1	0.00	0.00	0.00
11,900.0	90.00	0.07	7,055.0	4,527.6	44.9	4,518.9	0.00	0.00	0.00
12,000.0	90.00	0.07	7,055.0	4,627.6	45.0	4,618.6	0.00	0.00	0.00
12,100.0	90.00	0.07	7,055.0	4,727.6	45.1	4,718.4	0.00	0.00	0.00
12,200.0	90.00	0.07	7,055.0	4,827.6	45.2	4,818.1	0.00	0.00	0.00
12,300.0	90.00	0.07	7,055.0	4,927.6	45.3	4,917.9	0.00	0.00	0.00
12,400.0	90.00	0.07	7,055.0	5,027.6	45.4	5,017.6	0.00	0.00	0.00
12,500.0	90.00	0.07	7,055.0	5,127.6	45.6	5,117.4	0.00	0.00	0.00
12,600.0	90.00	0.07	7,055.0	5,227.6	45.7	5,217.1	0.00	0.00	0.00
12,700.0	90.00	0.07	7,055.0	5,327.6	45.8	5,316.8	0.00	0.00	0.00
12,800.0	90.00	0.07	7,055.0	5,427.6	45.9	5,416.6	0.00	0.00	0.00
12,900.0	90.00	0.07	7,055.0	5,527.6	46.0	5,516.3	0.00	0.00	0.00
13,000.0	90.00	0.07	7,055.0	5,627.6	46.1	5,616.1	0.00	0.00	0.00
13,100.0	90.00	0.07	7,055.0	5,727.6	46.3	5,715.8	0.00	0.00	0.00
13,200.0	90.00	0.07	7,055.0	5,827.6	46.4	5,815.6	0.00	0.00	0.00
13,300.0	90.00	0.07	7,055.0	5,927.6	46.5	5,915.3	0.00	0.00	0.00
13,400.0	90.00	0.07	7,055.0	6,027.6	46.6	6,015.1	0.00	0.00	0.00
13,500.0	90.00	0.07	7,055.0	6,127.6	46.7	6,114.8	0.00	0.00	0.00
13,600.0	90.00	0.07	7,055.0	6,227.6	46.8	6,214.5	0.00	0.00	0.00
13,700.0	90.00	0.07	7,055.0	6,327.6	47.0	6,314.3	0.00	0.00	0.00
13,800.0	90.00	0.07	7,055.0	6,427.6	47.1	6,414.0	0.00	0.00	0.00
13,900.0	90.00	0.07	7,055.0	6,527.6	47.2	6,513.8	0.00	0.00	0.00
14,000.0	90.00	0.07	7,055.0	6,627.6	47.3	6,613.5	0.00	0.00	0.00
14,100.0	90.00	0.07	7,055.0	6,727.6	47.4	6,713.3	0.00	0.00	0.00
14,200.0	90.00	0.07	7,055.0	6,827.6	47.6	6,813.0	0.00	0.00	0.00
14,300.0	90.00	0.07	7,055.0	6,927.6	47.7	6,912.8	0.00	0.00	0.00
14,400.0	90.00	0.07	7,055.0	7,027.6	47.8	7,012.5	0.00	0.00	0.00
14,500.0	90.00	0.07	7,055.0	7,127.6	47.9	7,112.3	0.00	0.00	0.00
14,600.0	90.00	0.07	7,055.0	7,227.6	48.0	7,212.0	0.00	0.00	0.00
14,700.0	90.00	0.07	7,055.0	7,327.6	48.2	7,311.7	0.00	0.00	0.00
14,800.0	90.00	0.07	7,055.0	7,427.6	48.3	7,411.5	0.00	0.00	0.00
14,900.0	90.00	0.07	7,055.0	7,527.6	48.4	7,511.2	0.00	0.00	0.00
15,000.0	90.00	0.07	7,055.0	7,627.6	48.5	7,611.0	0.00	0.00	0.00
15,100.0	90.00	0.07	7,055.0	7,727.6	48.6	7,710.7	0.00	0.00	0.00
15,200.0	90.00	0.07	7,055.0	7,827.6	48.8	7,810.5	0.00	0.00	0.00
15,300.0	90.00	0.07	7,055.0	7,927.6	48.9	7,910.2	0.00	0.00	0.00
15,400.0	90.00	0.07	7,055.0	8,027.6	49.0	8,010.0	0.00	0.00	0.00
15,500.0	90.00	0.07	7,055.0	8,127.6	49.1	8,109.7	0.00	0.00	0.00
15,600.0	90.00	0.07	7,055.0	8,227.6	49.2	8,209.5	0.00	0.00	0.00
15,700.0	90.00	0.07	7,055.0	8,327.6	49.4	8,309.2	0.00	0.00	0.00
15,800.0	90.00	0.07	7,055.0	8,427.6	49.5	8,408.9	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Hurley H26-724
Company:	Northern Region Drilling - Sandbox	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Project:	Conceptual Wells	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site:	DP 408	North Reference:	Grid
Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,900.0	90.00	0.07	7,055.0	8,527.6	49.6	8,508.7	0.00	0.00	0.00
16,000.0	90.00	0.07	7,055.0	8,627.6	49.7	8,608.4	0.00	0.00	0.00
16,100.0	90.00	0.07	7,055.0	8,727.6	49.9	8,708.2	0.00	0.00	0.00
16,174.9	90.00	0.07	7,055.0	8,802.4	50.0	8,782.9	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									
Hurley H26-724 BHL	0.00	0.00	7,055.0	8,802.4	50.0	1,324,763.93	3,244,537.86	40.221560	-104.624270
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
636.0	636.0	Pierre				
788.0	788.0	Upper Pierre Aquifer Top				
1,676.0	1,676.0	Upper Pierre Aquifer Base				
3,957.5	3,943.0	Parkman				
4,554.3	4,534.0	Sussex				
5,243.0	5,216.0	Shannon				
6,223.6	6,187.0	Teepee Buttes				
6,909.6	6,833.0	Sharon Springs				
6,997.1	6,895.0	Top A Chalk				
7,007.8	6,902.0	Top A Marl				
7,010.9	6,904.0	Top B Chalk				
7,091.9	6,952.0	Top B Marl				
7,254.2	7,022.0	Top C Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,200.0	2,200.0	0.0	0.0	KOP - Start Build 2.00	
6,337.7	6,300.0	-27.8	1.8	Start DLS 8.88 TFO 20.66	
6,348.1	6,310.4	-546.9	35.8	Start DLS 8.88 TFO -178.30	
7,461.4	7,055.0	-548.4	35.9	TPZ/Landing Pt. at 7461.4 MD	
16,174.9	7,055.0	89.0	40.0	TD at 16174.9	

Northern Region Drilling - Sandbox

Conceptual Wells

DP 408

Hurley H26-724

Wellbore #1

Design #1

Anticollision Summary Report

01 November, 2017

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #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 10,000.0 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/1/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	16,174.9	Design #1 (Wellbore #1)	MWD+IFR1+MS_WY	Fixed:v2:Rockies, crustal dec + 3-axis correction	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 19						
Butterball H24-69HN - Original Drilling - Original Drilling -	14,977.4	11,992.0	3,914.5	3,810.7	37.725	CC
Butterball H24-69HN - Original Drilling - Original Drilling -	15,000.0	11,992.0	3,914.6	3,810.6	37.652	ES
Butterball H24-69HN - Original Drilling - Original Drilling -	16,174.9	11,992.0	4,093.6	3,963.2	31.408	SF
DP 408						
Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2	7,316.8	9,955.7	5,079.7	5,034.5	112.419	CC
Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2	14,900.0	17,460.5	5,093.3	4,918.9	29.202	ES
Emmy State H25-724 - Wellbore #1 - Prelim - Rev 2	15,600.0	17,460.5	5,152.8	4,972.8	28.633	SF
Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2	14,834.3	17,387.3	4,653.9	4,479.6	26.699	CC
Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2	14,900.0	17,379.3	4,654.4	4,479.5	26.614	ES
Emmy State H25-731 - Wellbore #1 - Prelim - Rev 2	15,500.0	17,379.3	4,701.2	4,522.0	26.230	SF
Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2	14,830.2	17,299.8	4,212.6	4,036.9	23.969	CC
Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2	14,900.0	17,299.8	4,213.2	4,036.8	23.887	ES
Emmy State H25-738 - Wellbore #1 - Prelim - Rev 2	15,300.0	17,299.8	4,238.7	4,059.7	23.668	SF
Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2	14,772.3	17,300.0	3,774.5	3,599.4	21.562	CC
Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2	14,800.0	17,309.4	3,774.6	3,599.2	21.521	ES
Emmy State H25-744 - Wellbore #1 - Prelim - Rev 2	15,200.0	17,327.4	3,795.8	3,617.7	21.313	SF
Emmy State H25-751 - Wellbore #1 - Design #1	7,171.1	9,926.7	3,399.0	3,352.8	73.516	CC
Emmy State H25-751 - Wellbore #1 - Design #1	14,800.0	17,547.4	3,483.9	3,308.3	19.839	ES
Emmy State H25-751 - Wellbore #1 - Design #1	15,200.0	17,580.8	3,507.4	3,327.8	19.538	SF
Emmy State H25-757 - Wellbore #1 - Design #1	14,791.6	17,501.0	3,045.8	2,869.5	17.280	CC
Emmy State H25-757 - Wellbore #1 - Design #1	14,800.0	17,501.0	3,045.8	2,869.4	17.271	ES
Emmy State H25-757 - Wellbore #1 - Design #1	15,100.0	17,501.0	3,061.4	2,882.5	17.120	SF
Emmy State H25-764 - Wellbore #1 - Design #1	14,790.3	17,466.3	2,607.2	2,533.4	35.332	CC
Emmy State H25-764 - Wellbore #1 - Design #1	14,800.0	17,466.3	2,607.2	2,533.3	35.288	ES
Emmy State H25-764 - Wellbore #1 - Design #1	15,200.0	17,466.3	2,639.2	2,562.3	34.348	SF
Emmy State H25-771 - Wellbore #1 - Design #1	14,785.4	17,391.2	2,166.2	1,990.0	12.297	CC
Emmy State H25-771 - Wellbore #1 - Design #1	14,800.0	17,391.2	2,166.2	1,989.9	12.288	ES
Emmy State H25-771 - Wellbore #1 - Design #1	14,900.0	17,391.2	2,169.2	1,992.2	12.255	SF
Emmy State H25-777 - Wellbore #1 - Design #1	14,780.5	17,434.0	1,727.5	1,551.3	9.806	CC
Emmy State H25-777 - Wellbore #1 - Design #1	14,800.0	17,434.0	1,727.6	1,551.3	9.798	ES, SF
Emmy State H25-785 - Wellbore #1 - Prelim - Rev 2	14,781.3	17,489.0	1,286.6	1,111.1	7.330	CC, ES, SF
Emmy State H36-760 - Wellbore #1 - Design #1	6,232.5	5,939.9	3,250.6	3,222.5	115.927	CC
Emmy State H36-760 - Wellbore #1 - Design #1	6,350.0	6,051.1	3,250.8	3,222.1	113.492	ES
Emmy State H36-760 - Wellbore #1 - Design #1	6,700.0	6,391.6	3,299.1	3,269.0	109.427	SF
Emmy State H36-766 - Wellbore #1 - Design #1	6,424.9	6,334.0	2,954.8	2,925.6	101.311	CC, ES
Emmy State H36-766 - Wellbore #1 - Design #1	6,600.0	6,400.0	2,970.9	2,941.3	100.465	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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #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						
DP 408						
Emmy State H36-773 - Wellbore #1 - Design #1	6,468.7	6,479.0	2,604.5	2,575.3	89.237	CC, ES
Emmy State H36-773 - Wellbore #1 - Design #1	6,550.0	6,500.0	2,608.4	2,579.0	88.866	SF
Emmy State H36-780 - Wellbore #1 - Design #1	6,471.0	6,500.0	2,334.4	2,305.3	80.006	CC, ES
Emmy State H36-780 - Wellbore #1 - Design #1	6,600.0	6,550.0	2,345.9	2,316.4	79.691	SF
Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2	6,490.5	6,632.9	1,938.1	1,907.7	63.758	CC, ES
Emmy State H36-787 - Wellbore #1 - Prelim - Rev 2	6,550.0	6,650.0	1,940.7	1,910.2	63.611	SF
Hurley H26-712 - Wellbore #1 - Design #1	1,900.0	1,899.0	44.7	36.5	5.420	CC, ES
Hurley H26-712 - Wellbore #1 - Design #1	16,174.9	16,237.5	840.6	664.6	4.775	SF
Hurley H26-717 - Wellbore #1 - Design #1	2,000.0	1,999.0	22.3	13.7	2.570	CC, ES
Hurley H26-717 - Wellbore #1 - Design #1	16,174.9	16,166.7	420.0	246.3	2.418	SF
Hurley H26-730 - Wellbore #1 - Design #1	2,200.0	2,201.0	22.3	12.7	2.328	CC
Hurley H26-730 - Wellbore #1 - Design #1	2,300.0	2,301.0	22.5	12.5	2.247	ES, SF
Hurley H26-736 - Wellbore #1 - Design #1	2,200.0	2,200.0	44.7	35.1	4.657	CC
Hurley H26-736 - Wellbore #1 - Design #1	2,300.0	2,300.0	44.8	34.8	4.475	ES
Hurley H26-736 - Wellbore #1 - Design #1	2,400.0	2,400.2	45.6	35.2	4.383	SF
Hurley H26-743 - Wellbore #1 - Prelim - Rev 2	2,200.0	2,201.0	67.0	57.4	6.984	CC
Hurley H26-743 - Wellbore #1 - Prelim - Rev 2	2,300.0	2,301.0	67.2	57.1	6.704	ES
Hurley H26-743 - Wellbore #1 - Prelim - Rev 2	2,500.0	2,501.5	69.7	58.9	6.449	SF
Hurley H26-750 - Wellbore #1 - Prelim - Rev 2	16,024.5	16,309.5	1,679.7	1,505.3	9.632	CC, ES
Hurley H26-750 - Wellbore #1 - Prelim - Rev 2	16,100.0	16,325.6	1,680.7	1,505.9	9.611	SF
Hurley H26-756 - Wellbore #1 - Prelim - Rev 2	7,267.5	7,428.4	2,041.0	2,009.1	63.821	CC
Hurley H26-756 - Wellbore #1 - Prelim - Rev 2	16,000.0	16,123.4	2,170.6	1,999.6	12.692	ES
Hurley H26-756 - Wellbore #1 - Prelim - Rev 2	16,100.0	16,197.3	2,172.3	1,999.7	12.587	SF
Hurley H26-762 - Wellbore #1 - Prelim - Rev 2	7,252.8	7,369.1	2,463.3	2,432.2	79.206	CC
Hurley H26-762 - Wellbore #1 - Prelim - Rev 2	16,100.0	16,164.7	2,593.6	2,420.7	14.998	ES
Hurley H26-762 - Wellbore #1 - Prelim - Rev 2	16,174.9	16,164.7	2,596.3	2,422.9	14.975	SF
Hurley H26-768 - Wellbore #1 - Prelim - Rev 2	7,060.2	7,163.4	2,884.4	2,854.1	95.282	CC
Hurley H26-768 - Wellbore #1 - Prelim - Rev 2	16,100.0	16,156.8	3,012.6	2,839.1	17.368	ES
Hurley H26-768 - Wellbore #1 - Prelim - Rev 2	16,174.9	16,156.8	3,014.9	2,840.9	17.322	SF
Hurley H26-776 - Wellbore #1 - Prelim - Rev 2	2,200.0	2,166.0	3,021.8	3,012.3	317.381	CC
Hurley H26-776 - Wellbore #1 - Prelim - Rev 2	2,300.0	2,243.8	3,022.1	3,012.2	305.940	ES
Hurley H26-776 - Wellbore #1 - Prelim - Rev 2	16,174.9	16,158.9	3,433.4	3,257.1	19.472	SF
Hurley H26-783 - Wellbore #1 - Prelim - Rev 2	2,002.0	1,968.0	3,044.1	3,035.5	352.705	CC
Hurley H26-783 - Wellbore #1 - Prelim - Rev 2	2,100.0	2,037.2	3,044.5	3,035.5	338.377	ES
Hurley H26-783 - Wellbore #1 - Prelim - Rev 2	16,174.9	16,138.4	3,854.9	3,679.1	21.930	SF
Hurley H35-720 - Wellbore #1 - Design #1	2,200.0	2,200.0	151.0	141.4	15.735	CC, ES
Hurley H35-720 - Wellbore #1 - Design #1	7,700.0	7,314.2	280.3	248.8	8.904	SF
Hurley H35-727 - Wellbore #1 - Design #1	7,277.8	7,523.0	106.0	75.4	3.465	CC, ES, SF
Hurley H35-733 - Wellbore #1 - Design #1	2,200.0	2,201.0	151.0	141.4	15.731	CC, ES
Hurley H35-733 - Wellbore #1 - Design #1	2,400.0	2,401.2	158.0	147.5	15.164	SF
Hurley H35-740 - Wellbore #1 - Design #1	2,200.0	2,200.0	155.9	146.3	16.244	CC, ES
Hurley H35-740 - Wellbore #1 - Design #1	2,400.0	2,400.2	162.7	152.3	15.622	SF
Hurley H35-746 - Wellbore #1 - Prelim - Rev 2	2,000.0	1,999.0	163.7	155.0	18.826	CC, ES
Hurley H35-746 - Wellbore #1 - Prelim - Rev 2	2,200.0	2,191.3	168.3	158.7	17.625	SF
Hurley H35-755 - Wellbore #1 - Prelim - Rev 2	6,800.0	7,830.9	1,966.7	1,934.0	60.114	SF
Hurley H35-755 - Wellbore #1 - Prelim - Rev 2	7,122.3	7,603.1	1,951.7	1,919.7	60.946	CC, ES
Hurley H35-761 - Wellbore #1 - Prelim - Rev 2	6,850.0	7,615.1	2,372.3	2,340.8	75.354	SF
Hurley H35-761 - Wellbore #1 - Prelim - Rev 2	7,130.4	7,423.9	2,361.7	2,330.5	75.895	CC, ES
Hurley H35-768 - Wellbore #1 - Prelim - Rev 2	7,115.7	7,462.4	2,796.6	2,766.0	91.361	CC, ES
Hurley H35-768 - Wellbore #1 - Prelim - Rev 2	9,000.0	6,700.0	3,115.4	3,079.6	86.894	SF
Hurley H35-774 - Wellbore #1 - Prelim - Rev 2	2,200.0	2,167.0	2,995.0	2,985.4	314.486	CC
Hurley H35-774 - Wellbore #1 - Prelim - Rev 2	2,400.0	2,366.8	2,995.4	2,985.1	289.852	ES
Hurley H35-774 - Wellbore #1 - Prelim - Rev 2	9,400.0	6,572.3	3,601.2	3,563.0	94.182	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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #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						
DP 408						
Hurley H35-779 - Wellbore #1 - Prelim - Rev 2	2,200.0	2,166.0	3,017.3	3,007.8	316.912	CC, ES
Hurley H35-779 - Wellbore #1 - Prelim - Rev 2	9,800.0	6,500.0	4,056.5	4,015.8	99.614	SF
Hurley H35-787 - Wellbore #1 - Prelim - Rev 2	2,002.0	1,968.0	3,039.7	3,031.1	352.190	CC
Hurley H35-787 - Wellbore #1 - Prelim - Rev 2	2,100.0	2,034.0	3,040.0	3,031.0	337.901	ES
Hurley H35-787 - Wellbore #1 - Prelim - Rev 2	10,300.0	6,471.0	4,687.9	4,642.9	104.050	SF
Hurley State H35-713 - Wellbore #1 - Design #1	2,000.0	1,999.0	155.9	147.2	17.928	CC, ES
Hurley State H35-713 - Wellbore #1 - Design #1	2,200.0	2,191.0	160.9	151.3	16.840	SF
H Section 13						
Karakakes H13-25 - Original Drilling - Original Drilling - A	16,174.9	7,138.4	2,340.8	2,227.7	20.700	CC, ES, SF
Karakakes H13-33 - Original Drilling - Original Drilling - A	16,174.9	7,022.7	1,031.8	921.8	9.375	CC, ES, SF
Karakakes H14-63HN - Original Drilling - Original Drilling	16,174.9	7,713.8	139.1	84.1	2.531	CC, ES, SF
Sarchet H13-75HN - Original Drilling - Original Drilling	15,000.0	15,000.0	3,671.4	3,499.0	21.291	SF
Sarchet H13-75HN - Original Drilling - Original Drilling	16,174.9	8,398.8	3,574.4	3,450.9	28.960	CC, ES
UPRC 13-13J - Original Drilling - Original Drilling - As Dri	15,686.8	7,062.6	1,706.3	1,599.4	15.965	CC
UPRC 13-13J - Original Drilling - Original Drilling - As Dri	15,700.0	7,062.4	1,706.3	1,599.3	15.947	ES
UPRC 13-13J - Original Drilling - Original Drilling - As Dri	15,800.0	7,060.9	1,710.0	1,602.2	15.866	SF
UPRC 13-14J - Original Drilling - Original Drilling - As Dri	15,880.8	6,960.2	2,761.7	2,651.5	25.055	CC
UPRC 13-14J - Original Drilling - Original Drilling - As Dri	15,900.0	6,960.5	2,761.7	2,651.3	25.014	ES
UPRC 13-14J - Original Drilling - Original Drilling - As Dri	16,174.9	6,963.9	2,777.3	2,664.7	24.658	SF
UPRC 13-15J - Original Drilling - Original Drilling - As Dri	15,628.0	6,996.1	4,121.7	4,014.8	38.579	CC
UPRC 13-15J - Original Drilling - Original Drilling - As Dri	15,700.0	6,996.4	4,122.3	4,014.8	38.340	ES
UPRC 13-15J - Original Drilling - Original Drilling - As Dri	16,174.9	6,998.5	4,157.8	4,046.4	37.324	SF
UPRC 13-16J - Wellbore #1 - Wellbore #1- As Drilled	15,690.6	6,978.9	5,130.1	5,023.5	48.117	CC
UPRC 13-16J - Wellbore #1 - Wellbore #1- As Drilled	15,700.0	6,978.8	5,130.1	5,023.4	48.077	ES
UPRC 13-16J - Wellbore #1 - Wellbore #1- As Drilled	16,174.9	6,975.3	5,152.9	5,042.0	46.464	SF
UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr	15,450.8	7,017.0	1,398.9	1,178.4	6.346	CC, ES
UPRR 39 Pan Am B1 (PA) - Original Drilling - Original Dr	15,500.0	7,017.0	1,399.7	1,178.9	6.337	SF
H Section 14						
Bohlender H14-09 - Original Drilling - Original Drilling - A	16,174.9	7,017.1	913.3	852.0	14.913	CC, ES, SF
Bohlender H14-15 - Original Drilling - Original Drilling - A	15,228.1	6,963.7	1,023.4	921.3	10.025	CC, ES
Bohlender H14-15 - Original Drilling - Original Drilling - A	15,300.0	6,965.1	1,025.9	923.3	10.000	SF
Bohlender H14-16 - Original Drilling - Original Drilling - A	15,857.5	6,997.3	162.1	53.9	1.498	Level 3, CC, ES, SF
Wilcox H14-03J - Original Drilling - Original Drilling - As D	16,068.2	7,296.7	2,254.3	2,124.0	17.300	CC
Wilcox H14-03J - Original Drilling - Original Drilling - As D	16,174.9	7,295.9	2,256.8	2,122.7	16.826	ES, SF
Wilcox H14-10 - Original Drilling - Original Drilling - As Dr	16,174.9	7,399.9	1,259.3	1,157.4	12.352	CC, ES, SF
Wilcox H14-11 - Original Drilling - Original Drilling - As Dr	16,174.9	7,526.2	2,212.7	2,078.5	16.492	CC, ES, SF
Wilcox H14-13 - Original Drilling - Original Drilling - As Dr	15,624.9	7,641.1	3,118.9	3,005.6	27.530	CC
Wilcox H14-13 - Original Drilling - Original Drilling - As Dr	15,800.0	7,635.5	3,123.8	3,003.6	25.974	ES
Wilcox H14-13 - Original Drilling - Original Drilling - As Dr	16,174.9	7,623.4	3,167.0	3,030.0	23.126	SF
H Section 19						
Butterball 13-19 - Original Drilling - Original Drilling - As D	11,680.9	6,852.5	6,780.5	6,712.1	99.168	CC
Butterball 13-19 - Original Drilling - Original Drilling - As D	11,700.0	6,853.4	6,780.5	6,712.0	98.912	ES
Butterball 13-19 - Original Drilling - Original Drilling - As D	13,300.0	13,300.0	6,970.9	6,866.7	66.891	SF
H Section 21						
Moser 24-21 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range

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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 22						
HSR Demeules 09-22 - Original Drilling - Original Drilling	11,444.7	6,936.1	4,952.8	4,886.3	74.446	CC
HSR Demeules 09-22 - Original Drilling - Original Drilling	11,500.0	6,935.8	4,953.1	4,886.1	73.898	ES
HSR Demeules 09-22 - Original Drilling - Original Drilling	13,300.0	6,924.8	5,288.9	5,208.7	65.948	SF
HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled	10,579.9	6,980.2	5,478.3	5,419.3	92.890	CC
HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled	10,600.0	6,980.8	5,478.3	5,419.1	92.613	ES
HSR Duryea - Wellbore #1 - Wellbore #1 - As Drilled	13,100.0	7,050.9	6,029.7	5,952.3	77.914	SF
Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled	10,026.6	7,000.0	5,070.3	5,016.0	93.287	CC
Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled	10,100.0	7,000.0	5,070.9	5,015.9	92.267	ES
Sarchet 16-22 - Wellbore #1 - Wellbore #1 - As Drilled	12,400.0	7,000.0	5,598.4	5,527.2	78.658	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 23						
Eachus 32-23 - Original Drilling - Original Drilling - As Dri	12,878.3	7,009.1	952.1	872.1	11.901	CC, ES
Eachus 32-23 - Original Drilling - Original Drilling - As Dri	12,900.0	7,008.9	952.4	872.2	11.877	SF
Eachus 41-23 (PA) - Original Drilling - Original Drilling - A	14,103.3	7,009.0	228.3	20.8	1.100	Level 2, CC, ES, SF
Eachus UPRR 31-23 - Original Drilling - Original Drilling -	14,209.4	7,003.1	1,021.0	869.4	6.735	CC, ES
Eachus UPRR 31-23 - Original Drilling - Original Drilling -	14,300.0	7,003.3	1,025.1	872.8	6.735	SF
Eachus UPRR 42-23 (PA) - Original Drilling - Original Dri	12,784.9	7,019.0	268.0	72.8	1.373	Level 3, CC, ES, SF
HSR Alberstein 16-23 - Original Drilling - Original Drilling	10,481.7	7,035.3	145.3	87.0	2.494	CC, ES, SF
HSR Ashley 15-23A - Original Drilling - Original Drilling -	10,541.7	6,962.8	1,183.9	1,125.4	20.215	CC, ES
HSR Ashley 15-23A - Original Drilling - Original Drilling -	10,700.0	6,968.4	1,194.5	1,134.7	20.002	SF
HSR Benirschke 10-23 - Original Drilling - Original Drillin	11,535.9	6,993.1	881.3	813.8	13.041	CC, ES
HSR Benirschke 10-23 - Original Drilling - Original Drillin	11,600.0	6,997.5	883.7	815.6	12.980	SF
HSR Eachus 03-23 - Original Drilling - Original Drilling - A	14,217.4	7,228.8	2,334.6	2,233.0	22.987	CC, ES
HSR Eachus 03-23 - Original Drilling - Original Drilling - A	14,600.0	7,229.9	2,365.7	2,260.3	22.433	SF
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	14,227.2	7,401.8	3,752.8	3,629.8	30.520	CC
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	14,300.0	7,402.7	3,753.5	3,628.3	29.980	ES
HSR Eachus 04-23 - Original Drilling - Original Drilling - A	15,900.0	7,422.4	4,108.7	3,945.2	25.129	SF
HSR Eachus 05-23 - Original Drilling - Original Drilling - A	12,300.0	7,341.6	3,809.7	3,688.5	31.423	SF
HSR Eachus 05-23 - Original Drilling - Original Drilling - A	12,893.5	7,352.8	3,763.2	3,644.7	31.763	CC, ES
HSR Fruman 06-23 - Original Drilling - Original Drilling - A	13,276.5	7,032.0	2,707.1	2,623.1	32.225	CC
HSR Fruman 06-23 - Original Drilling - Original Drilling - A	13,300.0	7,032.1	2,707.2	2,623.0	32.139	ES
HSR Fruman 06-23 - Original Drilling - Original Drilling - A	13,800.0	7,035.5	2,757.2	2,668.9	31.220	SF
HSR Grasshopper 09-23 - Original Drilling - Original Drill	11,289.9	7,025.7	31.2	-34.2	0.477	Level 1, CC, ES, SF
Ritchey 21-23 - Original Drilling - Original Drilling - As Dri	13,612.5	7,037.3	1,560.3	1,473.2	17.924	CC, ES
Ritchey 21-23 - Original Drilling - Original Drilling - As Dri	13,800.0	7,035.4	1,571.5	1,483.1	17.783	SF
Ritchey 24-23 - Original Drilling - Original Drilling - As Dri	12,182.3	7,088.1	516.3	439.9	6.759	CC, ES
Ritchey 24-23 - Original Drilling - Original Drilling - As Dri	12,200.0	7,088.1	516.6	440.1	6.758	SF
Ritchey 31-24 - Original Drilling - Original Drilling - As Dri	13,544.3	7,163.3	861.4	772.9	9.735	CC, ES
Ritchey 31-24 - Original Drilling - Original Drilling - As Dri	13,700.0	7,165.0	875.3	784.2	9.608	SF
UPRC 23-11J - Original Drilling - Original Drilling - As Dri	11,519.0	6,943.6	2,610.7	2,543.4	38.833	CC, ES
UPRC 23-11J - Original Drilling - Original Drilling - As Dri	12,100.0	6,941.0	2,674.5	2,603.0	37.407	SF
UPRC 23-12J - Original Drilling - Original Drilling - As Dri	11,506.0	6,951.3	3,910.8	3,843.6	58.235	CC, ES
UPRC 23-12J - Original Drilling - Original Drilling - As Dri	12,700.0	6,961.1	4,089.0	4,013.0	53.761	SF
UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled	10,355.8	6,979.4	3,896.6	3,839.5	68.230	CC
UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled	10,400.0	6,981.0	3,896.9	3,839.4	67.782	ES
UPRC H23-13 - Wellbore #1 - Wellbore #1 - As Drilled	11,800.0	7,033.2	4,155.4	4,087.7	61.437	SF
UPRC H23-14J - Original Drilling - Original Drilling - As D	10,235.7	7,019.3	2,186.0	2,129.8	38.886	CC, ES
UPRC H23-14J - Original Drilling - Original Drilling - As D	10,700.0	7,052.1	2,234.5	2,174.9	37.453	SF
UPRC H23-24 - Original Drilling - Original Drilling - As Dr	11,144.7	6,951.9	1,957.1	1,893.2	30.627	CC, ES
UPRC H23-24 - Original Drilling - Original Drilling - As Dr	11,500.0	6,962.4	1,989.1	1,922.5	29.893	SF
UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D	10,574.1	6,976.0	3,339.3	3,165.1	19.167	CC
UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D	10,600.0	6,976.0	3,339.4	3,164.9	19.143	ES
UPRR 53 Pan Am B#1 (PA) - Original Drilling - Original D	11,100.0	6,976.0	3,380.4	3,202.0	18.943	SF
UPRR 53 Pan Am UT V#1 - Original Drilling - Original Dr	13,303.9	7,014.3	253.2	169.0	3.007	CC, ES, SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 24						
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	11,620.4	6,833.2	5,453.3	5,385.5	80.450	CC
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	11,700.0	6,833.1	5,453.9	5,385.3	79.607	ES
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	13,800.0	6,831.2	5,872.7	5,788.7	69.973	SF
Gurtler 24-10J - Original Drilling - Original Drilling - As Dr	11,630.7	6,997.2	4,260.2	4,191.8	62.270	CC
Gurtler 24-10J - Original Drilling - Original Drilling - As Dr	11,700.0	6,997.6	4,260.8	4,191.7	61.709	ES
Gurtler 24-10J - Original Drilling - Original Drilling - As Dr	13,000.0	7,007.5	4,474.9	4,396.1	56.851	SF
Gurtler 24-11J - Original Drilling - Original Drilling - As Dr	11,552.0	6,844.0	2,799.9	2,732.8	41.694	CC
Gurtler 24-11J - Original Drilling - Original Drilling - As Dr	11,600.0	6,844.8	2,800.3	2,732.7	41.429	ES
Gurtler 24-11J - Original Drilling - Original Drilling - As Dr	12,200.0	6,856.2	2,873.9	2,801.8	39.861	SF
Gurtler 24-12J - Original Drilling - Original Drilling - As Dr	11,552.9	6,500.0	1,672.3	1,607.8	25.918	CC, ES
Gurtler 24-12J - Original Drilling - Original Drilling - As Dr	11,800.0	6,500.0	1,690.5	1,624.0	25.422	SF
Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D	11,522.5	6,757.0	1,639.2	1,573.9	25.113	CC, ES
Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D	11,800.0	6,734.6	1,662.1	1,594.9	24.729	SF
Gurtler 24-13J - Original Drilling - Original Drilling - As Dr	10,054.7	6,977.4	1,672.4	1,616.9	30.171	CC, ES
Gurtler 24-13J - Original Drilling - Original Drilling - As Dr	10,500.0	10,500.0	1,724.1	1,647.9	22.634	SF
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	10,278.1	7,020.5	4,187.7	4,131.2	74.127	CC
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	10,300.0	7,020.4	4,187.8	4,131.1	73.884	ES
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	11,900.0	7,012.4	4,490.8	4,422.6	65.836	SF
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	10,311.7	6,960.6	5,174.1	5,117.5	91.454	CC
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	10,400.0	6,960.6	5,174.9	5,117.5	90.264	ES
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	12,600.0	6,960.1	5,657.5	5,584.3	77.269	SF
Gurtler H24-14 - Original Drilling - Original Drilling - As D	10,149.8	6,951.4	3,028.0	2,972.8	54.868	CC
Gurtler H24-14 - Original Drilling - Original Drilling - As D	10,200.0	6,951.9	3,028.4	2,972.8	54.457	ES
Gurtler H24-14 - Original Drilling - Original Drilling - As D	11,100.0	6,960.1	3,173.5	3,111.5	51.155	SF
Gurtler H24-21 (PA) - Original Drilling - Original Drilling -	12,104.6	7,045.1	3,547.9	3,474.9	48.635	CC, ES
Gurtler H24-21 (PA) - Original Drilling - Original Drilling -	13,100.0	7,113.6	3,684.2	3,603.7	45.757	SF
Gurtler H24-23 - Original Drilling - Original Drilling - As D	10,961.4	6,924.7	4,819.0	4,756.9	77.572	CC
Gurtler H24-23 - Original Drilling - Original Drilling - As D	11,000.0	6,924.7	4,819.2	4,756.7	77.149	ES
Gurtler H24-23 - Original Drilling - Original Drilling - As D	12,900.0	6,924.9	5,194.3	5,118.0	68.065	SF
Gurtler H24-24 - Original Drilling - Original Drilling - As D	10,949.8	6,655.7	3,713.8	3,652.7	60.817	CC
Gurtler H24-24 - Original Drilling - Original Drilling - As D	11,000.0	6,654.7	3,714.1	3,652.6	60.382	ES
Gurtler H24-24 - Original Drilling - Original Drilling - As D	12,200.0	6,632.2	3,918.5	3,848.2	55.807	SF
Gurtler H24-99HZ - Wellbore #1 - Original Drilling	10,887.8	11,118.0	1,341.2	1,276.1	20.608	CC
Gurtler H24-99HZ - Wellbore #1 - Original Drilling	11,000.0	11,118.0	1,345.9	1,273.6	18.622	ES
Gurtler H24-99HZ - Wellbore #1 - Original Drilling	11,800.0	11,118.0	1,622.0	1,501.1	13.421	SF
Gurtler H25-27 - Original Drilling - Original Drilling - As D	9,735.3	6,980.5	4,777.8	4,724.1	88.916	CC
Gurtler H25-27 - Original Drilling - Original Drilling - As D	9,800.0	6,980.1	4,778.3	4,724.0	88.008	ES
Gurtler H25-27 - Original Drilling - Original Drilling - As D	11,900.0	6,968.6	5,245.3	5,175.2	74.783	SF
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	10,668.0	7,037.0	2,398.6	2,328.8	34.358	CC
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	10,700.0	7,037.2	2,398.8	2,328.7	34.222	ES
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	11,200.0	7,040.5	2,456.9	2,383.1	33.276	SF
HSR Brutschy 04-24 - Original Drilling - Original Drilling -	14,060.7	7,091.7	1,651.7	1,560.3	18.069	CC, ES
HSR Brutschy 04-24 - Original Drilling - Original Drilling -	14,200.0	7,097.4	1,657.6	1,565.1	17.916	SF
HSR Epstein 05-24 - Original Drilling - Original Drilling - A	13,247.5	7,019.8	2,186.4	2,102.8	26.150	CC, ES
HSR Epstein 05-24 - Original Drilling - Original Drilling - A	13,600.0	7,026.7	2,214.6	2,128.3	25.670	SF
HSR Hoffman 03-24 - Original Drilling - Original Drilling -	14,126.8	7,021.9	2,962.9	2,864.6	30.167	CC, ES
HSR Hoffman 03-24 - Original Drilling - Original Drilling -	14,600.0	7,013.9	3,000.4	2,898.6	29.469	SF
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	14,139.1	6,964.2	4,315.3	4,223.5	47.035	CC
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	14,200.0	6,964.4	4,315.7	4,223.4	46.747	ES
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	15,200.0	6,966.9	4,443.8	4,344.0	44.532	SF
HSR Sarchet 06-24 - Original Drilling - Original Drilling - A	12,769.7	6,965.5	3,113.2	3,034.3	39.477	CC
HSR Sarchet 06-24 - Original Drilling - Original Drilling - A	12,800.0	6,966.1	3,113.3	3,034.2	39.337	ES
HSR Sarchet 06-24 - Original Drilling - Original Drilling - A	13,500.0	6,980.7	3,197.6	3,113.3	37.924	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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 24						
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	14,391.8	7,022.3	5,192.2	5,097.9	55.030	CC
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	14,400.0	7,022.3	5,192.2	5,097.8	54.984	ES
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	15,900.0	7,029.6	5,406.8	5,301.2	51.177	SF
Nopens D19-31 - Original Drilling - Original Drilling - As D	13,551.5	6,961.2	5,914.6	5,828.4	68.599	CC
Nopens D19-31 - Original Drilling - Original Drilling - As D	13,600.0	6,962.2	5,914.8	5,828.1	68.237	ES
Nopens D19-31 - Original Drilling - Original Drilling - As D	15,600.0	7,002.7	6,259.0	6,157.4	61.555	SF
Nopens H24-08 - Original Drilling - Original Drilling - As D	12,953.8	6,897.7	5,425.6	5,345.2	67.507	CC
Nopens H24-08 - Original Drilling - Original Drilling - As D	13,000.0	6,899.2	5,425.8	5,345.0	67.144	ES
Nopens H24-08 - Original Drilling - Original Drilling - As D	14,800.0	6,949.5	5,730.8	5,636.4	60.709	SF
Sarchet H24-22 - Original Drilling - Original Drilling - As D	12,620.6	7,027.0	4,591.2	4,513.5	59.072	CC
Sarchet H24-22 - Original Drilling - Original Drilling - As D	12,700.0	7,020.2	4,591.9	4,513.5	58.546	ES
Sarchet H24-22 - Original Drilling - Original Drilling - As D	14,100.0	7,099.4	4,822.4	4,733.4	54.210	SF
Weld County Lumber 01 - Original Drilling - Original Drilling	13,361.2	6,969.5	4,401.8	4,317.4	52.140	CC
Weld County Lumber 01 - Original Drilling - Original Drilling	13,400.0	6,969.9	4,402.0	4,317.2	51.918	ES
Weld County Lumber 01 - Original Drilling - Original Drilling	14,600.0	6,982.1	4,572.8	4,479.1	48.792	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 25						
Dechant 21-25 - Original Drilling - Original Drilling - As D	609.2	554.2	2,825.3	2,822.3	946.219	CC
Dechant 21-25 - Original Drilling - Original Drilling - As D	1,400.0	1,336.9	2,826.2	2,818.7	377.118	ES
Dechant 21-25 - Original Drilling - Original Drilling - As D	10,100.0	7,135.5	4,094.0	4,031.7	65.740	SF
Dechant D30-33D - Original Drilling - Original Drilling - As	100.0	17.8	5,524.8	5,524.7	10,000.000	CC, ES
Dechant D30-33D - Original Drilling - Original Drilling - As	11,000.0	6,982.2	8,055.7	7,997.4	138.169	SF
Dechant D31-30D - Original Drilling - Original Drilling - As	100.0	18.7	5,531.4	5,531.3	10,000.000	CC, ES
Dechant D31-30D - Original Drilling - Original Drilling - As	7,000.0	6,873.9	6,382.3	6,341.1	154.915	SF
Dechant H25-64-1HN - Original Drilling - Original Drilling	6,417.2	6,353.2	1,339.9	1,303.7	36.965	CC, ES
Dechant H25-64-1HN - Original Drilling - Original Drilling	6,450.0	6,366.0	1,341.1	1,304.8	36.910	SF
Dechant H25-65HN - Original Drilling - Original Drilling	6,263.4	6,256.7	975.6	940.8	28.083	CC, ES
Dechant H25-65HN - Original Drilling - Original Drilling	6,400.0	6,342.8	979.2	943.9	27.746	SF
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	8,922.4	6,961.6	2,710.7	2,664.9	59.282	CC, ES
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	9,800.0	6,978.5	2,849.1	2,797.7	55.392	SF
HSR Crowe 06-25 - Original Drilling - Original Drilling - A	7,571.5	7,006.0	2,777.1	2,737.0	69.333	CC, ES
HSR Crowe 06-25 - Original Drilling - Original Drilling - A	8,400.0	7,013.4	2,898.0	2,855.5	68.150	SF
HSR Dechant 04-25 - Original Drilling - Original Drilling -	8,991.4	7,462.4	1,640.9	1,571.8	23.744	CC
HSR Dechant 04-25 - Original Drilling - Original Drilling -	9,000.0	7,462.5	1,641.0	1,571.8	23.736	ES
HSR Dechant 04-25 - Original Drilling - Original Drilling -	9,100.0	7,463.9	1,644.5	1,575.2	23.716	SF
HSR Dechant 05-25 - Original Drilling - Original Drilling -	7,472.0	7,045.5	1,770.7	1,730.7	44.248	CC, ES
HSR Dechant 05-25 - Original Drilling - Original Drilling -	7,600.0	7,047.4	1,775.3	1,735.1	44.127	SF
KY Blue D30-32 - Original Drilling - Original Drilling - As D	4,421.9	4,220.1	5,940.2	5,916.1	246.912	CC
KY Blue D30-32 - Original Drilling - Original Drilling - As D	6,850.0	6,672.4	5,945.9	5,907.8	155.953	ES
KY Blue D30-32 - Original Drilling - Original Drilling - As D	11,400.0	6,959.7	7,466.2	7,407.2	126.416	SF
KY Blue H25-04J - Original Drilling - Original Drilling - As	6,458.6	6,335.4	5,333.7	5,308.2	208.840	CC, ES
KY Blue H25-04J - Original Drilling - Original Drilling - As	10,800.0	6,970.0	7,470.1	7,430.2	187.221	SF
KY Blue H25-09 - Original Drilling - Original Drilling - As D	6,576.3	6,515.2	5,450.4	5,413.1	146.179	CC, ES
KY Blue H25-09 - Original Drilling - Original Drilling - As D	10,600.0	6,936.7	6,886.6	6,833.3	129.244	SF
KY Blue H25-10 - Original Drilling - Original Drilling - As D	5,969.2	5,767.3	4,004.9	3,971.6	120.145	CC
KY Blue H25-10 - Original Drilling - Original Drilling - As D	6,500.0	6,365.3	4,005.8	3,969.2	109.200	ES
KY Blue H25-10 - Original Drilling - Original Drilling - As D	7,350.0	7,008.5	4,075.5	4,035.8	102.729	SF
KY Blue H25-11 - Original Drilling - Original Drilling - As D	6,528.1	6,471.2	2,870.1	2,809.1	47.023	CC
KY Blue H25-11 - Original Drilling - Original Drilling - As D	6,600.0	6,542.1	2,870.8	2,808.6	46.121	ES
KY Blue H25-11 - Original Drilling - Original Drilling - As D	7,250.0	7,008.8	2,962.7	2,892.7	42.313	SF
KY Blue H25-12 - Original Drilling - Original Drilling - As D	6,416.1	6,315.2	1,433.0	1,396.6	39.382	CC, ES
KY Blue H25-12 - Original Drilling - Original Drilling - As D	6,700.0	6,572.5	1,455.6	1,417.9	38.644	SF
KY Blue H25-14 - Original Drilling - Original Drilling - As D	6,460.4	6,374.7	3,500.9	3,464.5	96.120	CC, ES
KY Blue H25-14 - Original Drilling - Original Drilling - As D	6,800.0	6,650.8	3,552.6	3,514.8	93.986	SF
KY Blue H25-15 - Original Drilling - Original Drilling - As D	6,418.2	6,418.2	4,338.2	4,301.6	118.584	CC, ES
KY Blue H25-15 - Original Drilling - Original Drilling - As D	7,200.0	7,200.0	4,515.8	4,475.8	112.804	SF
KY H25-24 - Original Drilling - Original Drilling - As Drilled	6,388.9	6,155.3	3,724.6	3,689.0	104.416	CC
KY H25-24 - Original Drilling - Original Drilling - As Drilled	6,400.0	6,164.3	3,724.7	3,689.0	104.261	ES
KY H25-24 - Original Drilling - Original Drilling - As Drilled	7,000.0	6,827.7	3,804.2	3,765.5	98.387	SF
Moore UPRC H25-01 - Original Drilling - Original Drilling	9,057.0	6,942.4	5,567.6	5,521.0	119.471	CC
Moore UPRC H25-01 - Original Drilling - Original Drilling	9,100.0	6,942.5	5,567.8	5,520.9	118.708	ES
Moore UPRC H25-01 - Original Drilling - Original Drilling	12,200.0	6,948.8	6,393.4	6,325.5	94.110	SF
Moore UPRC H25-02 - Original Drilling - Original Drilling	8,931.2	6,953.9	4,184.4	4,138.6	91.445	CC, ES
Moore UPRC H25-02 - Original Drilling - Original Drilling	10,900.0	6,969.4	4,624.4	4,565.5	78.572	SF
Moser 25-32 - Original Drilling - Original Drilling - As Drill	4,009.4	3,926.8	3,874.2	3,852.1	175.682	CC
Moser 25-32 - Original Drilling - Original Drilling - As Drill	4,200.0	4,116.4	3,874.7	3,851.5	167.253	ES
Moser 25-32 - Original Drilling - Original Drilling - As Drill	9,500.0	6,970.7	4,380.0	4,331.9	90.959	SF
Moser 25-42 - Original Drilling - Original Drilling - As Drill	806.8	713.8	5,550.6	5,546.6	1,392.252	CC
Moser 25-42 - Original Drilling - Original Drilling - As Drill	7,736.2	6,949.6	5,564.2	5,524.1	138.556	ES
Moser 25-42 - Original Drilling - Original Drilling - As Drill	11,400.0	6,945.6	6,662.0	6,601.6	110.341	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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 25						
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	8,227.5	6,889.9	2,480.7	2,439.1	59.767	CC, ES
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	9,000.0	6,913.4	2,598.0	2,552.4	56.984	SF
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr	8,085.9	6,963.0	4,869.1	4,712.8	31.149	CC
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr	8,100.0	6,963.0	4,869.1	4,712.8	31.139	ES
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr	9,100.0	6,963.0	4,973.6	4,811.8	30.735	SF
Von Feldt 1-25B - Original Drilling - Original Drilling - As D	6,437.3	6,305.4	2,458.7	2,422.6	68.109	CC, ES
Von Feldt 1-25B - Original Drilling - Original Drilling - As D	6,700.0	6,527.5	2,493.6	2,456.4	66.959	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 26						
Bullard 31-26 - Original Drilling - Original Drilling - As Dril	9,182.7	6,989.6	1,151.5	1,103.8	24.156	CC, ES
Bullard 31-26 - Original Drilling - Original Drilling - As Dril	9,300.0	6,995.3	1,157.4	1,109.0	23.880	SF
Bullard 32-26 - Original Drilling - Original Drilling - As Dril	576.9	543.9	978.0	975.1	339.167	CC
Bullard 32-26 - Original Drilling - Original Drilling - As Dril	7,500.0	7,023.0	984.8	944.8	24.612	ES, SF
Bullard 41-26 - Original Drilling - Original Drilling - As Dril	8,669.4	7,021.6	190.5	146.1	4.292	CC, ES, SF
Dechant H25-29D - Original Drilling - Original Drilling - As	0.0	0.0	1,559.6			
Dechant H25-29D - Original Drilling - Original Drilling - As	10,700.0	7,473.2	2,643.5	2,570.9	36.409	SF
Dechant H25-33D - Original Drilling - Original Drilling - As	3,894.3	4,255.2	764.2	725.5	19.735	CC
Dechant H25-33D - Original Drilling - Original Drilling - As	3,900.0	4,260.0	764.2	725.4	19.704	ES
Dechant H25-33D - Original Drilling - Original Drilling - As	4,500.0	4,837.1	796.0	751.0	17.703	SF
Harsh H26-09D - Original Drilling - Original Drilling - As D	6,433.0	6,357.0	561.5	525.3	15.495	CC, ES
Harsh H26-09D - Original Drilling - Original Drilling - As D	6,500.0	6,422.3	564.2	527.6	15.420	SF
Harsh H26-10 - Original Drilling - Original Drilling - As Dr	6,427.4	6,357.8	942.6	906.1	25.837	CC, ES
Harsh H26-10 - Original Drilling - Original Drilling - As Dr	6,650.0	6,574.9	955.6	918.1	25.440	SF
Harsh H26-15 - Original Drilling - Original Drilling - As Dr	6,445.5	6,382.4	1,984.9	1,948.7	54.793	CC
Harsh H26-15 - Original Drilling - Original Drilling - As Dr	6,450.0	6,387.4	1,984.9	1,948.7	54.754	ES
Harsh H26-15 - Original Drilling - Original Drilling - As Dr	6,650.0	6,579.1	2,013.4	1,976.2	54.082	SF
Harsh H26-16 - Original Drilling - Original Drilling - As Dr	6,449.3	6,381.4	1,809.5	1,773.4	50.099	CC
Harsh H26-16 - Original Drilling - Original Drilling - As Dr	6,450.0	6,382.1	1,809.5	1,773.4	50.094	ES
Harsh H26-16 - Original Drilling - Original Drilling - As Dr	6,600.0	6,519.8	1,827.4	1,790.6	49.586	SF
Harsh H26-23D - Original Drilling - Original Drilling - As D	6,449.7	6,514.0	1,163.1	1,123.5	29.374	CC
Harsh H26-23D - Original Drilling - Original Drilling - As D	6,450.0	6,514.4	1,163.1	1,123.5	29.372	ES
Harsh H26-23D - Original Drilling - Original Drilling - As D	6,550.0	6,615.6	1,170.7	1,130.6	29.227	SF
HSR Moser 04-26 - Original Drilling - Original Drilling - As	9,254.2	6,771.7	3,799.0	3,751.6	80.103	CC
HSR Moser 04-26 - Original Drilling - Original Drilling - As	9,300.0	6,773.2	3,799.3	3,751.5	79.537	ES
HSR Moser 04-26 - Original Drilling - Original Drilling - As	11,000.0	11,000.0	4,179.9	4,105.8	56.440	SF
HSR Moser 06-26 - Original Drilling - Original Drilling - As	7,553.4	7,016.6	2,128.4	2,088.3	53.094	CC, ES
HSR Moser 06-26 - Original Drilling - Original Drilling - As	7,800.0	7,019.0	2,142.7	2,102.2	52.909	SF
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	8,093.9	7,025.2	3,220.0	3,178.6	77.647	CC
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	8,100.0	7,025.2	3,220.1	3,178.6	77.606	ES
HSR Regalia 05-26 - Original Drilling - Original Drilling - A	9,400.0	7,021.4	3,474.9	3,426.7	72.157	SF
HSR-Moser 03-26A - Original Drilling - Original Drilling - A	9,146.5	6,874.9	2,115.7	2,068.7	45.050	CC, ES
HSR-Moser 03-26A - Original Drilling - Original Drilling - A	9,700.0	6,895.9	2,186.8	2,136.1	43.157	SF
John 03-26 - Original Drilling - Original Drilling - As Drille	8,892.4	6,869.7	2,257.3	2,212.1	49.976	CC
John 03-26 - Original Drilling - Original Drilling - As Drille	8,900.0	6,869.9	2,257.3	2,212.1	49.921	ES
John 03-26 - Original Drilling - Original Drilling - As Drille	9,500.0	6,885.5	2,337.6	2,288.5	47.655	SF
Lamp H25-31 - Original Drilling - Original Drilling - As Dri	8,274.1	7,047.6	807.6	765.3	19.101	CC, ES
Lamp H25-31 - Original Drilling - Original Drilling - As Dri	8,300.0	7,047.4	808.0	765.6	19.059	SF
Lamp H26-01 - Original Drilling - Original Drilling - As Dri	9,064.6	7,123.1	433.5	382.8	8.551	CC, ES, SF
Lamp H26-08 - Original Drilling - Original Drilling - As Dri	7,731.7	7,017.6	347.9	307.3	8.573	CC, ES, SF
Lamp H26-22 - Original Drilling - Original Drilling - As Dri	3,962.9	4,011.1	147.1	119.7	5.376	CC
Lamp H26-22 - Original Drilling - Original Drilling - As Dri	4,000.0	4,046.2	147.4	119.5	5.274	ES
Lamp H26-22 - Original Drilling - Original Drilling - As Dri	4,100.0	4,142.5	151.3	121.9	5.151	SF
Moser 05-26 - Original Drilling - Original Drilling - As Drill	7,458.9	7,039.6	3,757.3	3,717.1	93.545	CC
Moser 05-26 - Original Drilling - Original Drilling - As Drill	7,461.4	7,039.6	3,757.3	3,717.1	93.535	ES
Moser 05-26 - Original Drilling - Original Drilling - As Drill	9,300.0	7,059.0	4,184.1	4,136.7	88.212	SF
Moser 41-27 - Original Drilling - Original Drilling - As Drill	965.0	900.0	3,814.0	3,809.0	762.691	CC, ES
Moser 41-27 - Original Drilling - Original Drilling - As Drill	10,500.0	10,500.0	4,963.0	4,895.6	73.625	SF
Moser H26-11 - Original Drilling - Original Drilling - As Dr	6,486.1	6,423.7	2,556.1	2,519.2	69.394	CC
Moser H26-11 - Original Drilling - Original Drilling - As Dr	6,500.0	6,435.8	2,556.1	2,519.2	69.271	ES
Moser H26-11 - Original Drilling - Original Drilling - As Dr	7,100.0	6,927.5	2,610.2	2,571.1	66.709	SF
Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,594.9	6,636.8	3,726.1	3,688.4	98.771	CC
Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,600.0	6,640.1	3,726.1	3,688.3	98.721	ES

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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 26						
Moser H26-12 - Wellbore #1 - Wellbore #1 - As Drilled	7,100.0	6,923.3	3,771.3	3,732.2	96.387	SF
Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,441.8	6,348.5	4,136.8	4,100.4	113.561	CC
Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,450.0	6,355.6	4,136.9	4,100.4	113.435	ES
Moser H26-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,850.0	6,679.2	4,195.7	4,157.6	110.245	SF
Moser H26-14 - Original Drilling - Original Drilling - As Dr	6,456.4	6,410.4	2,977.0	2,940.5	81.570	CC, ES
Moser H26-14 - Original Drilling - Original Drilling - As Dr	6,750.0	6,664.5	3,023.7	2,985.9	80.046	SF
Moser H26-18D - Original Drilling - Original Drilling - As D	2,395.0	2,589.0	1,361.1	1,340.8	66.992	CC
Moser H26-18D - Original Drilling - Original Drilling - As D	2,400.0	2,590.7	1,361.1	1,340.7	66.910	ES
Moser H26-18D - Original Drilling - Original Drilling - As D	7,900.0	7,440.5	1,646.0	1,596.7	33.399	SF
Moser H26-24 - Original Drilling - Original Drilling - As Dr	6,437.9	6,361.8	2,126.2	2,089.7	58.296	CC, ES
Moser H26-24 - Original Drilling - Original Drilling - As Dr	6,800.0	6,716.2	2,176.2	2,138.0	57.049	SF
Moser H26-25 - Original Drilling - Original Drilling - As Dr	6,480.0	6,471.8	2,950.7	2,913.8	79.913	CC, ES
Moser H26-25 - Original Drilling - Original Drilling - As Dr	6,850.0	6,822.6	2,994.8	2,956.2	77.699	SF
Moser H26-27D - Original Drilling - Original Drilling - As D	9,520.8	7,163.2	320.3	266.6	5.963	CC, ES, SF
Moser H26-28D - Original Drilling - Original Drilling - As D	0.0	0.0	1,502.6			
Moser H26-28D - Original Drilling - Original Drilling - As D	300.0	275.8	1,503.4	1,502.1	1,155.279	ES
Moser H26-28D - Original Drilling - Original Drilling - As D	10,500.0	7,603.1	1,981.5	1,906.8	26.531	SF
Moser H26-29D - Original Drilling - Original Drilling - As D	0.0	0.0	1,483.7			
Moser H26-29D - Original Drilling - Original Drilling - As D	300.0	275.0	1,484.3	1,483.0	1,149.999	ES
Moser H26-29D - Original Drilling - Original Drilling - As D	11,900.0	11,900.0	3,729.9	3,598.6	28.408	SF
Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin	6,441.6	6,350.4	3,647.2	3,505.8	25.787	CC
Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin	6,500.0	6,408.8	3,648.3	3,505.6	25.565	ES
Moser, Wesley E. G. U. B1 (PA) - Original Drilling - Origin	7,000.0	6,843.9	3,747.4	3,595.5	24.677	SF
H Section 27						
HSR Moser 1-27 - Original Drilling - Original Drilling - As	9,145.9	6,945.4	4,879.2	4,831.9	103.199	CC
HSR Moser 1-27 - Original Drilling - Original Drilling - As	9,200.0	6,945.6	4,879.5	4,831.8	102.368	ES
HSR Moser 1-27 - Original Drilling - Original Drilling - As	11,600.0	6,951.9	5,461.7	5,397.7	85.425	SF
HSR Moser 16-27 - Original Drilling - Original Drilling - As	6,448.2	6,370.7	5,216.8	5,180.2	142.772	CC
HSR Moser 16-27 - Original Drilling - Original Drilling - As	6,450.0	6,372.0	5,216.8	5,180.2	142.741	ES
HSR Moser 16-27 - Original Drilling - Original Drilling - As	7,000.0	6,907.8	5,304.3	5,265.3	136.188	SF
Moser 09-27X (PA) - Original Drilling - Original Drilling - A	6,417.7	6,331.8	4,893.8	4,856.9	132.499	CC, ES
Moser 09-27X (PA) - Original Drilling - Original Drilling - A	9,700.0	7,065.4	5,983.1	5,931.3	115.519	SF
Moser 24-27 - Original Drilling - Original Drilling - As Drill	865.0	800.0	4,900.7	4,896.3	1,109.685	CC
Moser 24-27 - Original Drilling - Original Drilling - As Drill	900.0	823.1	4,900.7	4,896.1	1,070.941	ES
Moser 24-27 - Original Drilling - Original Drilling - As Drill	11,000.0	6,943.7	6,951.4	6,889.9	112.934	SF
H Section 34						
Moser H34-06 - Wellbore #1 - Wellbore #1 - As Drilled	6,439.3	6,324.8	9,026.6	8,990.3	248.487	CC, ES
Moser H34-06 - Wellbore #1 - Wellbore #1 - As Drilled	7,000.0	6,937.4	9,133.4	9,094.4	234.065	SF
Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled	6,447.7	6,378.6	8,579.6	8,543.3	236.442	CC
Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled	6,450.0	6,380.5	8,579.6	8,543.3	236.369	ES
Moser H34-16 - Wellbore #1 - Wellbore #1 - As Drilled	6,850.0	6,679.4	8,681.0	8,643.2	229.452	SF
Moser H34-31 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 35						
Cannon Farms 01-35C - Original Drilling - Original Drilling	6,454.4	6,438.0	6,720.1	6,683.8	185.169	CC, ES
Cannon Farms 01-35C - Original Drilling - Original Drilling	7,050.0	7,053.6	6,974.0	6,934.8	177.915	SF
Cannon H35-03D - Original Drilling - Original Drilling - As	6,440.9	6,309.6	6,727.5	6,691.6	187.308	CC, ES
Cannon H35-03D - Original Drilling - Original Drilling - As	6,800.0	6,595.3	6,818.4	6,781.0	182.291	SF
Cannon H35-09 - Original Drilling - Original Drilling - As D	6,459.7	6,469.1	5,792.1	5,755.7	159.034	CC, ES
Cannon H35-09 - Original Drilling - Original Drilling - As D	7,250.0	7,100.2	6,216.0	6,170.7	137.071	SF
Cannon H35-10 - Original Drilling - Original Drilling - As D	6,436.1	6,253.2	5,979.9	5,944.3	167.820	CC, ES
Cannon H35-10 - Original Drilling - Original Drilling - As D	7,200.0	7,200.0	6,375.9	6,336.3	160.993	SF
Cannon H35-11 - Original Drilling - Original Drilling - As D	6,455.3	6,459.8	6,164.3	6,127.9	168.977	CC, ES
Cannon H35-11 - Original Drilling - Original Drilling - As D	6,800.0	6,675.7	6,251.4	6,213.7	165.801	SF
Cannon H35-12 - Original Drilling - Original Drilling - As D	6,443.6	6,333.6	6,911.3	6,875.2	191.447	CC
Cannon H35-12 - Original Drilling - Original Drilling - As D	6,450.0	6,340.2	6,911.3	6,875.2	191.261	ES
Cannon H35-12 - Original Drilling - Original Drilling - As D	6,900.0	6,779.3	7,042.6	7,004.4	184.419	SF
Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,453.9	6,453.4	7,985.6	7,949.2	218.960	CC, ES
Cannon H35-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,950.0	7,073.1	8,146.6	8,107.4	208.027	SF
Cannon H35-14 - Original Drilling - Original Drilling - As D	6,453.1	6,447.7	7,469.8	7,433.5	205.355	CC, ES
Cannon H35-14 - Original Drilling - Original Drilling - As D	7,350.0	7,062.0	7,977.3	7,930.2	169.691	SF
Cannon H35-15 (PA) - Original Drilling - Original Drilling -	6,447.6	6,368.4	7,218.4	7,077.1	51.072	CC
Cannon H35-15 (PA) - Original Drilling - Original Drilling -	6,450.0	6,370.8	7,218.4	7,077.0	51.053	ES
Cannon H35-15 (PA) - Original Drilling - Original Drilling -	6,950.0	6,821.7	7,402.4	7,251.4	49.030	SF
Cannon H35-20 - Original Drilling - Original Drilling - As D	6,439.6	6,308.1	6,077.6	6,041.7	169.076	CC, ES
Cannon H35-20 - Original Drilling - Original Drilling - As D	6,850.0	6,683.7	6,187.8	6,150.0	163.818	SF
Cannon H35-21 - Original Drilling - Original Drilling - As D	6,432.3	6,237.5	5,595.5	5,559.8	157.048	CC, ES
Cannon H35-21 - Original Drilling - Original Drilling - As D	6,850.0	6,815.9	5,713.7	5,675.5	149.697	SF
Cannon H35-22 - Original Drilling - Original Drilling - As D	6,446.3	6,263.7	5,319.8	5,283.9	147.779	CC
Cannon H35-22 - Original Drilling - Original Drilling - As D	6,450.0	6,267.4	5,319.9	5,283.8	147.698	ES
Cannon H35-22 - Original Drilling - Original Drilling - As D	7,200.0	7,200.0	5,706.3	5,666.5	143.175	SF
Cannon H35-24 - Original Drilling - Original Drilling - As D	6,437.3	6,262.3	6,776.4	6,740.7	189.880	CC, ES
Cannon H35-24 - Original Drilling - Original Drilling - As D	6,850.0	6,589.7	6,901.0	6,863.7	184.681	SF
Cannon X02-27 - Original Drilling - Original Drilling - As D	6,449.7	6,389.1	7,648.5	7,612.3	211.559	CC
Cannon X02-27 - Original Drilling - Original Drilling - As D	6,450.0	6,389.5	7,648.5	7,612.3	211.546	ES
Cannon X02-27 - Original Drilling - Original Drilling - As D	7,000.0	6,897.4	7,869.9	7,831.4	204.340	SF
Cannon X02-28 - Original Drilling - Original Drilling - As D	6,446.2	6,362.0	7,615.3	7,579.2	211.087	CC
Cannon X02-28 - Original Drilling - Original Drilling - As D	6,450.0	6,365.7	7,615.3	7,579.2	210.968	ES
Cannon X02-28 - Original Drilling - Original Drilling - As D	6,900.0	6,780.3	7,763.8	7,725.7	203.877	SF
Cannon X02-29 - Original Drilling - Original Drilling - As D	6,407.8	5,900.0	8,055.0	8,020.2	231.585	CC, ES
Cannon X02-29 - Original Drilling - Original Drilling - As D	6,850.0	6,162.8	8,193.2	8,157.0	225.986	SF
Foster 18-35 - Original Drilling - Original Drilling - As Drill	6,435.0	6,290.2	4,798.3	4,762.3	133.246	CC, ES
Foster 18-35 - Original Drilling - Original Drilling - As Drill	6,800.0	6,718.6	4,872.7	4,834.7	128.325	SF
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	6,447.1	6,379.9	3,205.3	3,063.9	22.667	CC
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	6,450.0	6,382.8	3,205.3	3,063.8	22.656	ES
Foster UPRR 31-35 #1 (PA) - Original Drilling - Original D	6,750.0	6,671.9	3,271.6	3,123.9	22.155	SF
Foster UPRR 32-35 - Original Drilling - Original Drilling -	6,453.9	6,415.3	4,522.5	4,486.2	124.717	CC, ES
Foster UPRR 32-35 - Original Drilling - Original Drilling -	6,800.0	6,770.6	4,613.1	4,575.1	121.535	SF
Foster UPRR 41-35 - Original Drilling - Original Drilling -	6,443.9	6,341.4	3,261.5	3,225.5	90.736	CC
Foster UPRR 41-35 - Original Drilling - Original Drilling -	6,450.0	6,346.9	3,261.5	3,225.5	90.658	ES
Foster UPRR 41-35 - Original Drilling - Original Drilling -	7,150.0	6,918.9	3,609.0	3,562.5	77.593	SF
Foster UPRR 42-35 #2 - Original Drilling - Original Drilling	6,468.6	6,527.5	4,355.3	4,318.6	118.904	CC, ES
Foster UPRR 42-35 #2 - Original Drilling - Original Drilling	6,700.0	6,677.7	4,398.1	4,360.5	117.233	SF
HSR Foster 03-35 - Original Drilling - Original Drilling - A	6,446.7	6,372.2	3,982.6	3,946.4	109.861	CC
HSR Foster 03-35 - Original Drilling - Original Drilling - A	6,450.0	6,375.2	3,982.6	3,946.4	109.810	ES
HSR Foster 03-35 - Original Drilling - Original Drilling - A	6,750.0	6,837.8	4,036.2	3,998.0	105.517	SF
HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille	6,443.8	6,345.6	4,916.0	4,879.6	135.354	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 Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 35						
HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille	6,450.0	6,351.3	4,916.0	4,879.6	135.237	ES
HSR Foster 04-35 - Wellbore #1 - Wellbore #1 - As Drille	6,750.0	6,600.0	4,960.4	4,922.8	131.859	SF
HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drille	6,408.8	6,062.0	5,846.3	5,811.2	166.340	CC, ES
HSR Foster 05-35 - Wellbore #1 - Wellbore #1 - As Drille	6,900.0	6,596.5	5,990.0	5,952.4	159.218	SF
HSR Foster 06-35 - Original Drilling - Original Drilling - A	6,450.3	6,409.2	5,023.5	4,987.2	138.320	CC, ES
HSR Foster 06-35 - Original Drilling - Original Drilling - A	6,800.0	6,726.8	5,105.7	5,067.8	134.757	SF
UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri	6,457.4	6,437.0	3,848.6	3,812.3	106.052	CC, ES
UPRR 53 Pan Am Unit P1 - Original Drilling - Original Dri	6,750.0	6,654.1	3,916.6	3,879.1	104.509	SF
UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill	6,451.3	6,400.0	4,413.0	4,376.6	121.309	CC, ES
UPRR 53 Pan Am UT P2 - Original Drilling - Original Drill	6,700.0	6,545.0	4,453.0	4,415.8	119.550	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 36						
Dechant 07-36 - Original Drilling - Original Drilling - As D	6,440.6	6,260.9	6,143.5	6,107.6	171.420	CC
Dechant 07-36 - Original Drilling - Original Drilling - As D	6,450.0	6,272.9	6,143.5	6,107.6	171.135	ES
Dechant 07-36 - Original Drilling - Original Drilling - As D	6,950.0	6,718.7	6,291.2	6,253.2	165.560	SF
Dechant 13N-1HZ - Original Drilling - Original Drilling - A	6,440.4	6,300.0	7,733.8	7,694.3	195.560	CC, ES
Dechant 13N-1HZ - Original Drilling - Original Drilling - A	6,600.0	6,350.0	7,754.4	7,714.3	193.714	SF
Dechant 14C-1HZ - Original Drilling - Original Drilling - A	6,425.2	6,075.4	8,085.0	8,048.2	220.042	CC, ES
Dechant 14C-1HZ - Original Drilling - Original Drilling - A	6,800.0	6,405.5	8,184.3	8,145.7	212.294	SF
Dechant 15-36 - Original Drilling - Original Drilling - As D	6,445.0	6,295.0	8,184.6	8,146.6	215.363	CC
Dechant 15-36 - Original Drilling - Original Drilling - As D	6,450.0	6,300.0	8,184.6	8,146.5	214.559	ES
Dechant 15-36 - Original Drilling - Original Drilling - As D	7,350.0	6,931.3	8,658.7	8,603.3	156.090	SF
Dechant 15C-1HZ - Original Drilling - Original Drilling - A	6,415.5	6,150.2	4,885.2	4,849.1	135.488	CC, ES
Dechant 15C-1HZ - Original Drilling - Original Drilling - A	6,800.0	6,500.0	4,946.7	4,908.8	130.812	SF
Dechant 24-36 - Original Drilling - Original Drilling - As D	971.9	900.0	6,605.5	6,600.5	1,316.379	CC
Dechant 24-36 - Original Drilling - Original Drilling - As D	1,000.0	900.0	6,605.6	6,600.5	1,300.050	ES
Dechant 24-36 - Original Drilling - Original Drilling - As D	7,000.0	7,001.2	7,021.0	6,980.5	173.080	SF
Dechant 35N-E1HZ - Original Drilling - Original Drilling -	6,434.1	6,171.4	7,987.1	7,951.0	221.212	CC, ES
Dechant 35N-E1HZ - Original Drilling - Original Drilling -	6,600.0	6,200.0	8,008.7	7,972.2	219.463	SF
Dechant 35N-W1HZ - Original Drilling - Original Drilling -	6,440.2	6,250.0	7,835.3	7,798.8	214.666	CC, ES
Dechant 35N-W1HZ - Original Drilling - Original Drilling -	6,650.0	6,300.0	7,870.2	7,833.2	212.610	SF
Dechant 36N-W1HZ - Original Drilling - Original Drilling -	6,413.8	5,951.8	8,161.9	8,124.4	217.754	CC, ES
Dechant 36N-W1HZ - Original Drilling - Original Drilling -	6,800.0	6,294.0	8,266.2	8,226.7	209.499	SF
Dechant 37N-E1HZ - Original Drilling - Original Drilling -	902.5	844.5	8,879.8	8,875.1	1,877.085	CC
Dechant 37N-E1HZ - Original Drilling - Original Drilling -	1,000.0	900.0	8,879.9	8,874.8	1,724.735	ES
Dechant 37N-E1HZ - Original Drilling - Original Drilling -	7,050.0	5,706.2	9,251.7	9,210.3	223.354	SF
Dechant 37N-W1HZ - Original Drilling - Original Drilling -	6,393.1	5,682.3	8,717.4	8,681.2	240.636	CC
Dechant 37N-W1HZ - Original Drilling - Original Drilling -	6,400.0	5,689.0	8,717.4	8,681.2	240.354	ES
Dechant 37N-W1HZ - Original Drilling - Original Drilling -	7,050.0	6,249.1	8,984.3	8,944.9	228.183	SF
Dechant State 16C-1HZ - Original Drilling - Original Drilling	6,429.9	6,244.2	5,902.2	5,865.9	162.219	CC, ES
Dechant State 16C-1HZ - Original Drilling - Original Drilling	6,800.0	6,526.0	5,948.4	5,910.7	157.522	SF
Dechant State 36N-E1HZ - Original Drilling - Original Drilling	6,452.3	6,337.4	4,690.2	4,653.5	127.785	CC, ES
Dechant State 36N-E1HZ - Original Drilling - Original Drilling	6,700.0	6,400.0	4,722.5	4,685.2	126.745	SF
Dechant State 37N-E36HZ - Original Drilling - Original Drilling	6,460.9	6,400.0	5,713.4	5,676.0	152.918	CC, ES
Dechant State 37N-E36HZ - Original Drilling - Original Drilling	6,650.0	6,450.0	5,728.4	5,690.7	151.655	SF
Dechant State 37N-W36HZ - Original Drilling - Original Drilling	6,362.5	5,905.9	5,085.2	5,049.4	142.384	CC, ES
Dechant State 37N-W36HZ - Original Drilling - Original Drilling	6,850.0	6,367.9	5,175.1	5,137.0	135.817	SF
Dechant State 38N-1HZ - Original Drilling - Original Drilling	6,435.1	6,234.0	6,397.3	6,360.9	175.771	CC
Dechant State 38N-1HZ - Original Drilling - Original Drilling	6,450.0	6,249.0	6,397.4	6,360.9	175.381	ES
Dechant State 38N-1HZ - Original Drilling - Original Drilling	6,800.0	6,400.0	6,445.2	6,407.8	172.165	SF
Dechant State H36-11D - Original Drilling - Original Drilling	6,454.4	6,398.2	6,545.7	6,509.5	180.796	CC, ES
Dechant State H36-11D - Original Drilling - Original Drilling	6,900.0	6,895.1	6,678.1	6,639.6	173.698	SF
Dechant State H36-18D - Original Drilling - Original Drilling	100.0	42.9	4,648.9	4,648.8	10,000.000	CC
Dechant State H36-18D - Original Drilling - Original Drilling	900.0	823.8	4,650.8	4,647.4	1,365.183	ES
Dechant State H36-18D - Original Drilling - Original Drilling	6,800.0	6,786.5	5,167.1	5,124.7	122.009	SF
Dechant State H36-19 - Original Drilling - Original Drilling	6,471.8	6,486.9	4,033.0	3,996.4	110.228	CC, ES
Dechant State H36-19 - Original Drilling - Original Drilling	6,750.0	6,679.5	4,087.5	4,049.8	108.545	SF
Dechant State H36-20D - Original Drilling - Original Drilling	6,453.8	6,511.6	5,728.6	5,687.7	140.107	CC, ES
Dechant State H36-20D - Original Drilling - Original Drilling	6,750.0	6,793.5	5,790.0	5,747.9	137.793	SF
Dechant State H36-21D - Original Drilling - Original Drilling	6,449.6	6,431.7	6,253.6	6,214.3	159.057	CC
Dechant State H36-21D - Original Drilling - Original Drilling	6,450.0	6,432.2	6,253.6	6,214.3	159.049	ES
Dechant State H36-21D - Original Drilling - Original Drilling	6,800.0	6,745.1	6,332.6	6,292.0	155.902	SF
Dechant State H36-24 - Original Drilling - Original Drilling	6,458.8	6,612.3	7,341.8	7,298.6	170.227	CC, ES
Dechant State H36-24 - Original Drilling - Original Drilling	6,950.0	7,056.9	7,503.0	7,457.9	166.554	SF
Dechant State H36-31D - Original Drilling - Original Drilling	6,450.6	6,516.0	3,984.7	3,941.4	92.143	CC, ES

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region Drilling - Sandbox	Local Co-ordinate Reference:	Well Hurley H26-724
Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
H Section 36						
Dechant State H36-31D - Original Drilling - Original Drilling	6,650.0	6,682.0	4,015.1	3,971.1	91.372	SF
Dechant State H36-32D - Original Drilling - Original Drilling	6,445.3	6,395.6	5,208.2	5,172.5	145.714	CC
Dechant State H36-32D - Original Drilling - Original Drilling	6,450.0	6,401.2	5,208.3	5,172.5	145.601	ES
Dechant State H36-32D - Original Drilling - Original Drilling	6,700.0	6,653.2	5,255.2	5,218.2	142.025	SF
Dechant State H36-33 - Original Drilling - Original Drilling	6,453.3	6,596.1	6,426.8	6,380.6	139.104	CC, ES
Dechant State H36-33 - Original Drilling - Original Drilling	6,800.0	6,954.2	6,516.8	6,469.2	136.880	SF
HSR Dechant State 02-36 - Original Drilling - Original Drilling	6,418.4	6,152.9	4,872.4	4,836.9	137.138	CC, ES
HSR Dechant State 02-36 - Original Drilling - Original Drilling	6,850.0	6,619.4	4,956.6	4,918.9	131.521	SF
HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling	6,451.2	6,337.1	6,112.1	5,971.1	43.356	CC, ES
HSR Dechant/State 07-36 (PA) - Original Drilling - Original Drilling	7,000.0	6,820.9	6,263.3	6,112.1	41.422	SF
Spike State GWS H36-03 - Original Drilling - Original Drilling	6,440.0	6,274.5	4,284.1	4,248.2	119.283	CC, ES
Spike State GWS H36-03 - Original Drilling - Original Drilling	6,850.0	6,553.6	4,381.2	4,343.8	117.164	SF
Spike State GWS H36-04 - Original Drilling - Original Drilling	6,460.7	6,409.8	3,319.9	3,279.7	82.689	CC, ES
Spike State GWS H36-04 - Original Drilling - Original Drilling	6,950.0	6,851.1	3,479.2	3,433.7	76.318	SF
Spike State GWS H36-13 - Original Drilling - Original Drilling	6,535.3	7,444.0	7,334.3	7,292.5	175.458	CC, ES
Spike State GWS H36-13 - Original Drilling - Original Drilling	6,700.0	7,444.0	7,356.6	7,314.4	174.737	SF
Spike State GWS H36-14 - Original Drilling - Original Drilling	6,478.8	6,720.4	7,904.0	7,866.7	211.740	CC, ES
Spike State GWS H36-14 - Original Drilling - Original Drilling	6,950.0	7,145.6	8,055.4	8,016.1	204.808	SF
Spike State H36-02J - Original Drilling - Original Drilling	6,434.7	6,229.8	4,822.4	4,774.4	100.558	CC
Spike State H36-02J - Original Drilling - Original Drilling	6,450.0	6,245.1	4,822.5	4,774.0	99.491	ES
Spike State H36-02J - Original Drilling - Original Drilling	7,250.0	6,846.3	5,216.4	5,148.2	76.501	SF
Spike State H36-05 - Original Drilling - Original Drilling - A	6,435.8	6,252.0	4,586.8	4,551.1	128.530	CC
Spike State H36-05 - Original Drilling - Original Drilling - A	6,450.0	6,283.9	4,586.9	4,551.1	128.038	ES
Spike State H36-05 - Original Drilling - Original Drilling - A	6,800.0	6,606.2	4,680.6	4,643.2	125.101	SF
Spike State H36-11J - Original Drilling - Original Drilling - A	6,458.2	6,453.8	6,892.5	6,856.1	189.584	CC, ES
Spike State H36-11J - Original Drilling - Original Drilling - A	6,850.0	6,839.1	7,001.5	6,963.3	183.337	SF
Spike State H36-12 - Original Drilling - Original Drilling - A	6,447.2	6,341.4	5,793.7	5,757.7	161.245	CC
Spike State H36-12 - Original Drilling - Original Drilling - A	6,450.0	6,343.4	5,793.7	5,757.7	161.190	ES
Spike State H36-12 - Original Drilling - Original Drilling - A	6,900.0	6,873.3	5,939.5	5,901.2	155.003	SF

Noble Energy, Inc.
Anticollision Summary Report

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Project:	Conceptual Wells	TVD Reference:	WELL @ 4885.0ft (Original Well Elev)
Reference Site:	DP 408	MD Reference:	WELL @ 4885.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hurley H26-724	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4885.0ft (Original Well Elev)

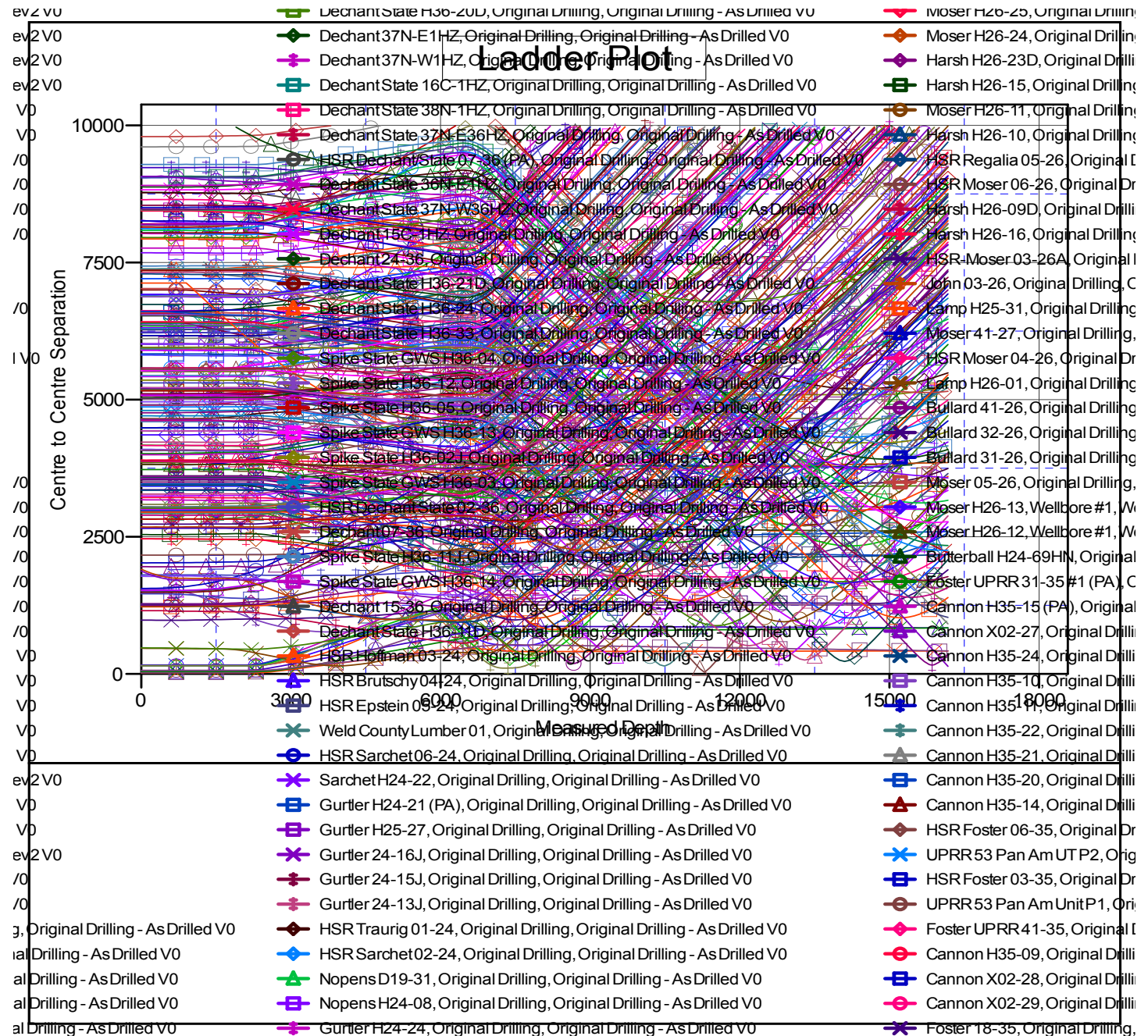
Coordinates are relative to: Hurley H26-724

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.57°

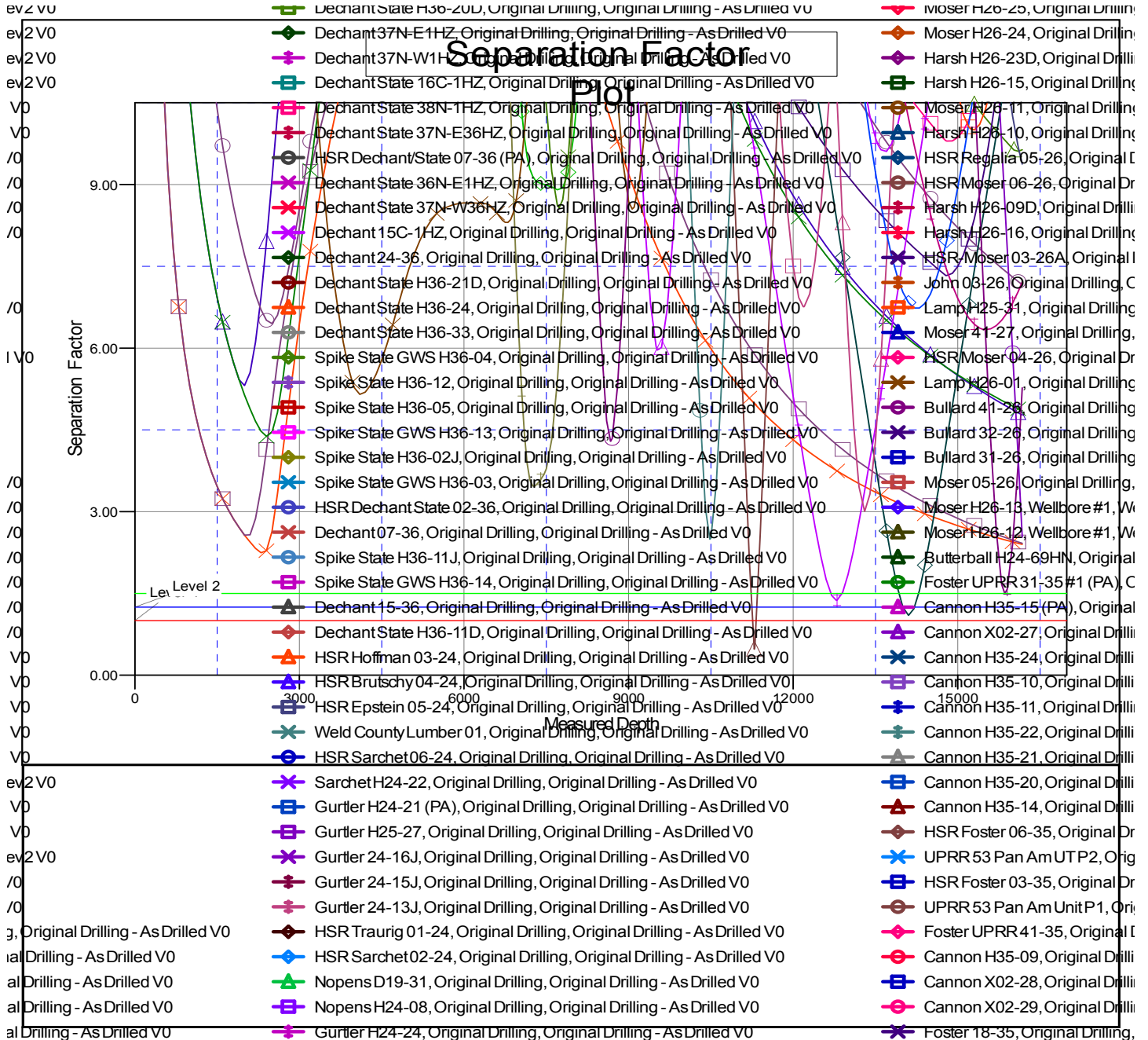


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Anticollision Summary Report

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: Hurley H26-724
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



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