

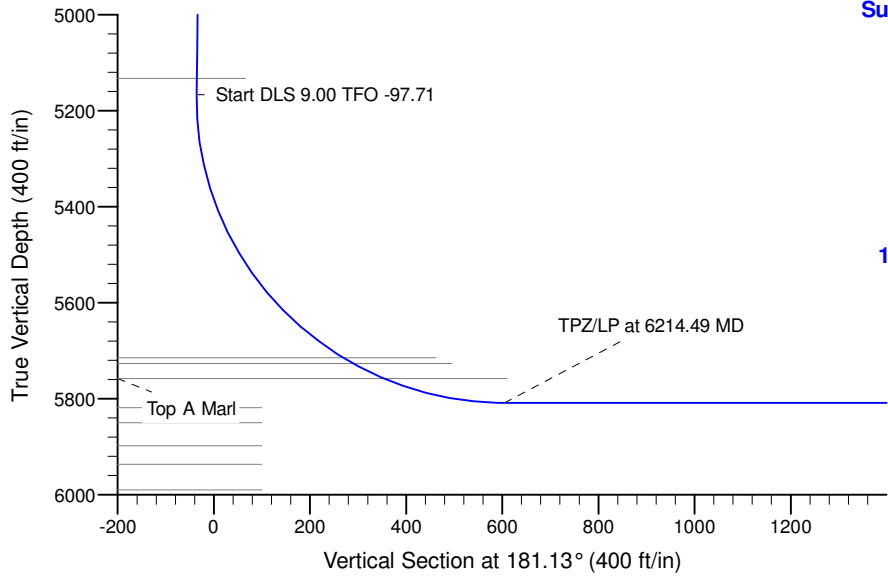
Project: East Pony
 Site: LD Section 05
 Well: Stars Federal LD17-740
 Wellbore: Wellbore #1
 Design: Plan #1

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	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	
3	3087.55	9.75	276.29	3085.20	4.54	-41.14	2.00	276.29	-3.73	
4	5199.81	9.75	276.29	5166.94	43.76	-396.73	0.00	0.00	-35.93	
5	6214.49	90.00	178.47	5809.00	-595.38	-489.03	9.00	-97.71	604.91	Stars Federal LD17-740 TPZ/LP
6	16503.83	90.00	178.47	5809.00	-10881.06	-214.66	0.00	0.00	10883.18	Stars Federal LD17-740 BHL



Surface: 380' FSL, 1470' FEL, Sec.05

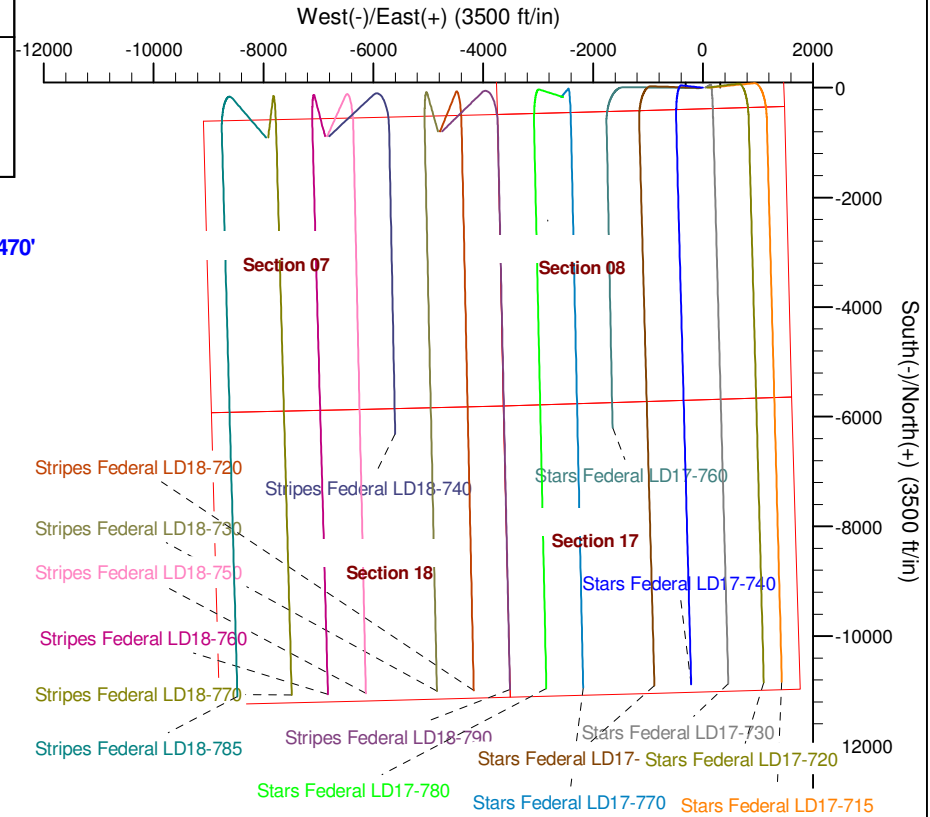
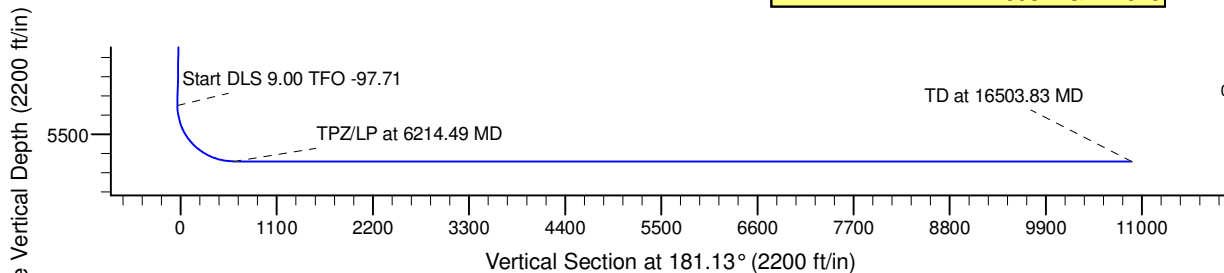
TPZ: 200' FNL, 1980' FEL, Sec.08

BHL: 140' FSL, 1980' FEL, Sec.17

T G M

Azimuths to Grid North
 True North: -1.04°
 Magnetic North: 6.62°

Magnetic Field
 Strength: 52576.2snT
 Dip Angle: 67.26°
 Date: 4/26/2018
 Model: IGRF2015



WELL DETAILS: Stars Federal LD17-740				
0.00	0.00	1528945.49	3447486.36	4797.00
				Latitude
				Longitude
				40.7741500
				-103.8842800
Plan: Plan #1 (Stars Federal LD17-740/Wellbore #1)				
Created By: Colby Baxter		Date: 10:52, May 02 2018		
Checked: _____		Date: _____		
Reviewed: _____		Date: _____		
Approved: _____		Date: _____		

Northern Region - DJ Basin

East Pony

LD Section 05

Stars Federal LD17-740

Wellbore #1

Plan: Plan #1

Standard Survey Report

02 May, 2018

Noble Energy, Inc.

Survey Report

Company: Northern Region - DJ Basin	Local Co-ordinate Reference: Well Stars Federal LD17-740
Project: East Pony	TVD Reference: KB @ 4827.00ft
Site: LD Section 05	MD Reference: KB @ 4827.00ft
Well: Stars Federal LD17-740	North Reference: Grid
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Plan #1	Database: EDMP

Project East Pony, 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 LD Section 05		
Site Position:	Northing: 1,528,825.19 usft	Latitude: 40.7739420
From: Map	Easting: 3,445,036.42 usft	Longitude: -103.8931318
Position Uncertainty: 0.00 ft	Slot Radius: 13.200 in	Grid Convergence: 1.04 °

Well Stars Federal LD17-740		
Well Position +N/-S 0.00 ft	Northing: 1,528,945.50 usft	Latitude: 40.7741500
+E/-W 0.00 ft	Easting: 3,447,486.35 usft	Longitude: -103.8842800
Position Uncertainty 0.00 ft	Wellhead Elevation: ft	Ground Level: 4,797.00 ft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/26/2018	7.67	67.26	52,576.22616170

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	181.13

Survey Tool Program		Date 5/2/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	16,503.83	Plan #1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Well:	Stars Federal LD17-740	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	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,700.00	2.00	276.29	2,699.98	0.19	-1.73	-0.16	2.00	2.00	0.00	
2,800.00	4.00	276.29	2,799.84	0.77	-6.94	-0.63	2.00	2.00	0.00	
2,900.00	6.00	276.29	2,899.45	1.72	-15.60	-1.41	2.00	2.00	0.00	
3,000.00	8.00	276.29	2,998.70	3.06	-27.71	-2.51	2.00	2.00	0.00	
3,087.56	9.75	276.29	3,085.20	4.54	-41.14	-3.73	2.00	2.00	0.00	
3,100.00	9.75	276.29	3,097.47	4.77	-43.23	-3.91	0.00	0.00	0.00	
3,200.00	9.75	276.29	3,196.03	6.63	-60.07	-5.44	0.00	0.00	0.00	
3,300.00	9.75	276.29	3,294.58	8.48	-76.90	-6.96	0.00	0.00	0.00	
3,400.00	9.75	276.29	3,393.14	10.34	-93.74	-8.49	0.00	0.00	0.00	
3,500.00	9.75	276.29	3,491.69	12.20	-110.57	-10.01	0.00	0.00	0.00	
3,600.00	9.75	276.29	3,590.25	14.05	-127.41	-11.54	0.00	0.00	0.00	
3,700.00	9.75	276.29	3,688.80	15.91	-144.24	-13.06	0.00	0.00	0.00	
3,800.00	9.75	276.29	3,787.36	17.77	-161.08	-14.59	0.00	0.00	0.00	
3,900.00	9.75	276.29	3,885.91	19.62	-177.91	-16.11	0.00	0.00	0.00	
4,000.00	9.75	276.29	3,984.47	21.48	-194.75	-17.63	0.00	0.00	0.00	
4,100.00	9.75	276.29	4,083.02	23.34	-211.58	-19.16	0.00	0.00	0.00	
4,200.00	9.75	276.29	4,181.58	25.19	-228.42	-20.68	0.00	0.00	0.00	
4,300.00	9.75	276.29	4,280.13	27.05	-245.25	-22.21	0.00	0.00	0.00	
4,400.00	9.75	276.29	4,378.69	28.91	-262.09	-23.73	0.00	0.00	0.00	
4,500.00	9.75	276.29	4,477.24	30.77	-278.92	-25.26	0.00	0.00	0.00	
4,600.00	9.75	276.29	4,575.80	32.62	-295.75	-26.78	0.00	0.00	0.00	
4,700.00	9.75	276.29	4,674.35	34.48	-312.59	-28.31	0.00	0.00	0.00	
4,800.00	9.75	276.29	4,772.91	36.34	-329.42	-29.83	0.00	0.00	0.00	
4,900.00	9.75	276.29	4,871.47	38.19	-346.26	-31.36	0.00	0.00	0.00	
5,000.00	9.75	276.29	4,970.02	40.05	-363.09	-32.88	0.00	0.00	0.00	
5,100.00	9.75	276.29	5,068.58	41.91	-379.93	-34.40	0.00	0.00	0.00	
5,199.81	9.75	276.29	5,166.94	43.76	-396.73	-35.93	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Well:	Stars Federal LD17-740	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)	
5,200.00	9.75	276.29	5,167.13	43.76	-396.76	-35.93	0.00	0.00	0.00	
5,300.00	12.33	229.63	5,265.46	37.75	-413.35	-29.59	9.02	2.58	-46.66	
5,400.00	19.22	207.70	5,361.72	16.22	-429.17	-7.75	9.00	6.89	-21.93	
5,500.00	27.34	197.70	5,453.53	-20.31	-443.83	29.06	9.00	8.12	-10.00	
5,600.00	35.85	192.10	5,538.65	-70.92	-456.98	79.92	9.00	8.52	-5.60	
5,700.00	44.54	188.43	5,614.97	-134.38	-468.28	143.59	9.00	8.69	-3.66	
5,800.00	53.31	185.76	5,680.62	-209.12	-477.47	218.49	9.00	8.77	-2.68	
5,900.00	62.13	183.64	5,733.97	-293.29	-484.31	302.79	9.00	8.82	-2.12	
6,000.00	70.98	181.84	5,773.72	-384.84	-488.64	394.41	9.00	8.85	-1.80	
6,100.00	79.84	180.22	5,798.88	-481.50	-490.35	491.08	9.00	8.86	-1.62	
6,200.00	88.71	178.69	5,808.84	-580.90	-489.39	590.44	9.00	8.87	-1.53	
6,214.49	90.00	178.47	5,809.00	-595.38	-489.03	604.91	9.00	8.87	-1.51	
6,300.00	90.00	178.47	5,809.00	-680.86	-486.75	690.33	0.00	0.00	0.00	
6,400.00	90.00	178.47	5,809.00	-780.83	-484.09	790.22	0.00	0.00	0.00	
6,500.00	90.00	178.47	5,809.00	-880.79	-481.42	890.12	0.00	0.00	0.00	
6,600.00	90.00	178.47	5,809.00	-980.76	-478.75	990.01	0.00	0.00	0.00	
6,700.00	90.00	178.47	5,809.00	-1,080.72	-476.09	1,089.90	0.00	0.00	0.00	
6,800.00	90.00	178.47	5,809.00	-1,180.68	-473.42	1,189.79	0.00	0.00	0.00	
6,900.00	90.00	178.47	5,809.00	-1,280.65	-470.75	1,289.69	0.00	0.00	0.00	
7,000.00	90.00	178.47	5,809.00	-1,380.61	-468.09	1,389.58	0.00	0.00	0.00	
7,100.00	90.00	178.47	5,809.00	-1,480.58	-465.42	1,489.47	0.00	0.00	0.00	
7,200.00	90.00	178.47	5,809.00	-1,580.54	-462.75	1,589.36	0.00	0.00	0.00	
7,300.00	90.00	178.47	5,809.00	-1,680.51	-460.09	1,689.26	0.00	0.00	0.00	
7,400.00	90.00	178.47	5,809.00	-1,780.47	-457.42	1,789.15	0.00	0.00	0.00	
7,500.00	90.00	178.47	5,809.00	-1,880.44	-454.75	1,889.04	0.00	0.00	0.00	
7,600.00	90.00	178.47	5,809.00	-1,980.40	-452.09	1,988.93	0.00	0.00	0.00	
7,700.00	90.00	178.47	5,809.00	-2,080.36	-449.42	2,088.82	0.00	0.00	0.00	
7,800.00	90.00	178.47	5,809.00	-2,180.33	-446.75	2,188.72	0.00	0.00	0.00	
7,900.00	90.00	178.47	5,809.00	-2,280.29	-444.09	2,288.61	0.00	0.00	0.00	
8,000.00	90.00	178.47	5,809.00	-2,380.26	-441.42	2,388.50	0.00	0.00	0.00	
8,100.00	90.00	178.47	5,809.00	-2,480.22	-438.75	2,488.39	0.00	0.00	0.00	
8,200.00	90.00	178.47	5,809.00	-2,580.19	-436.09	2,588.29	0.00	0.00	0.00	
8,300.00	90.00	178.47	5,809.00	-2,680.15	-433.42	2,688.18	0.00	0.00	0.00	
8,400.00	90.00	178.47	5,809.00	-2,780.12	-430.75	2,788.07	0.00	0.00	0.00	
8,500.00	90.00	178.47	5,809.00	-2,880.08	-428.09	2,887.96	0.00	0.00	0.00	
8,600.00	90.00	178.47	5,809.00	-2,980.04	-425.42	2,987.86	0.00	0.00	0.00	
8,700.00	90.00	178.47	5,809.00	-3,080.01	-422.75	3,087.75	0.00	0.00	0.00	
8,800.00	90.00	178.47	5,809.00	-3,179.97	-420.09	3,187.64	0.00	0.00	0.00	
8,900.00	90.00	178.47	5,809.00	-3,279.94	-417.42	3,287.53	0.00	0.00	0.00	
9,000.00	90.00	178.47	5,809.00	-3,379.90	-414.75	3,387.43	0.00	0.00	0.00	
9,100.00	90.00	178.47	5,809.00	-3,479.87	-412.09	3,487.32	0.00	0.00	0.00	
9,200.00	90.00	178.47	5,809.00	-3,579.83	-409.42	3,587.21	0.00	0.00	0.00	
9,300.00	90.00	178.47	5,809.00	-3,679.80	-406.75	3,687.10	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Well:	Stars Federal LD17-740	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	178.47	5,809.00	-3,779.76	-404.09	3,787.00	0.00	0.00	0.00
9,500.00	90.00	178.47	5,809.00	-3,879.72	-401.42	3,886.89	0.00	0.00	0.00
9,600.00	90.00	178.47	5,809.00	-3,979.69	-398.76	3,986.78	0.00	0.00	0.00
9,700.00	90.00	178.47	5,809.00	-4,079.65	-396.09	4,086.67	0.00	0.00	0.00
9,800.00	90.00	178.47	5,809.00	-4,179.62	-393.42	4,186.56	0.00	0.00	0.00
9,900.00	90.00	178.47	5,809.00	-4,279.58	-390.76	4,286.46	0.00	0.00	0.00
10,000.00	90.00	178.47	5,809.00	-4,379.55	-388.09	4,386.35	0.00	0.00	0.00
10,100.00	90.00	178.47	5,809.00	-4,479.51	-385.42	4,486.24	0.00	0.00	0.00
10,200.00	90.00	178.47	5,809.00	-4,579.48	-382.76	4,586.13	0.00	0.00	0.00
10,300.00	90.00	178.47	5,809.00	-4,679.44	-380.09	4,686.03	0.00	0.00	0.00
10,400.00	90.00	178.47	5,809.00	-4,779.40	-377.42	4,785.92	0.00	0.00	0.00
10,500.00	90.00	178.47	5,809.00	-4,879.37	-374.76	4,885.81	0.00	0.00	0.00
10,600.00	90.00	178.47	5,809.00	-4,979.33	-372.09	4,985.70	0.00	0.00	0.00
10,700.00	90.00	178.47	5,809.00	-5,079.30	-369.42	5,085.60	0.00	0.00	0.00
10,800.00	90.00	178.47	5,809.00	-5,179.26	-366.76	5,185.49	0.00	0.00	0.00
10,900.00	90.00	178.47	5,809.00	-5,279.23	-364.09	5,285.38	0.00	0.00	0.00
11,000.00	90.00	178.47	5,809.00	-5,379.19	-361.42	5,385.27	0.00	0.00	0.00
11,100.00	90.00	178.47	5,809.00	-5,479.15	-358.76	5,485.17	0.00	0.00	0.00
11,200.00	90.00	178.47	5,809.00	-5,579.12	-356.09	5,585.06	0.00	0.00	0.00
11,300.00	90.00	178.47	5,809.00	-5,679.08	-353.42	5,684.95	0.00	0.00	0.00
11,400.00	90.00	178.47	5,809.00	-5,779.05	-350.76	5,784.84	0.00	0.00	0.00
11,500.00	90.00	178.47	5,809.00	-5,879.01	-348.09	5,884.74	0.00	0.00	0.00
11,600.00	90.00	178.47	5,809.00	-5,978.98	-345.42	5,984.63	0.00	0.00	0.00
11,700.00	90.00	178.47	5,809.00	-6,078.94	-342.76	6,084.52	0.00	0.00	0.00
11,800.00	90.00	178.47	5,809.00	-6,178.91	-340.09	6,184.41	0.00	0.00	0.00
11,900.00	90.00	178.47	5,809.00	-6,278.87	-337.42	6,284.31	0.00	0.00	0.00
12,000.00	90.00	178.47	5,809.00	-6,378.83	-334.76	6,384.20	0.00	0.00	0.00
12,100.00	90.00	178.47	5,809.00	-6,478.80	-332.09	6,484.09	0.00	0.00	0.00
12,200.00	90.00	178.47	5,809.00	-6,578.76	-329.42	6,583.98	0.00	0.00	0.00
12,300.00	90.00	178.47	5,809.00	-6,678.73	-326.76	6,683.87	0.00	0.00	0.00
12,400.00	90.00	178.47	5,809.00	-6,778.69	-324.09	6,783.77	0.00	0.00	0.00
12,500.00	90.00	178.47	5,809.00	-6,878.66	-321.42	6,883.66	0.00	0.00	0.00
12,600.00	90.00	178.47	5,809.00	-6,978.62	-318.76	6,983.55	0.00	0.00	0.00
12,700.00	90.00	178.47	5,809.00	-7,078.59	-316.09	7,083.44	0.00	0.00	0.00
12,800.00	90.00	178.47	5,809.00	-7,178.55	-313.42	7,183.34	0.00	0.00	0.00
12,900.00	90.00	178.47	5,809.00	-7,278.51	-310.76	7,283.23	0.00	0.00	0.00
13,000.00	90.00	178.47	5,809.00	-7,378.48	-308.09	7,383.12	0.00	0.00	0.00
13,100.00	90.00	178.47	5,809.00	-7,478.44	-305.43	7,483.01	0.00	0.00	0.00
13,200.00	90.00	178.47	5,809.00	-7,578.41	-302.76	7,582.91	0.00	0.00	0.00
13,300.00	90.00	178.47	5,809.00	-7,678.37	-300.09	7,682.80	0.00	0.00	0.00
13,400.00	90.00	178.47	5,809.00	-7,778.34	-297.43	7,782.69	0.00	0.00	0.00
13,500.00	90.00	178.47	5,809.00	-7,878.30	-294.76	7,882.58	0.00	0.00	0.00
13,600.00	90.00	178.47	5,809.00	-7,978.27	-292.09	7,982.48	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Well:	Stars Federal LD17-740	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	178.47	5,809.00	-8,078.23	-289.43	8,082.37	0.00	0.00	0.00
13,800.00	90.00	178.47	5,809.00	-8,178.19	-286.76	8,182.26	0.00	0.00	0.00
13,900.00	90.00	178.47	5,809.00	-8,278.16	-284.09	8,282.15	0.00	0.00	0.00
14,000.00	90.00	178.47	5,809.00	-8,378.12	-281.43	8,382.05	0.00	0.00	0.00
14,100.00	90.00	178.47	5,809.00	-8,478.09	-278.76	8,481.94	0.00	0.00	0.00
14,200.00	90.00	178.47	5,809.00	-8,578.05	-276.09	8,581.83	0.00	0.00	0.00
14,300.00	90.00	178.47	5,809.00	-8,678.02	-273.43	8,681.72	0.00	0.00	0.00
14,400.00	90.00	178.47	5,809.00	-8,777.98	-270.76	8,781.61	0.00	0.00	0.00
14,500.00	90.00	178.47	5,809.00	-8,877.95	-268.09	8,881.51	0.00	0.00	0.00
14,600.00	90.00	178.47	5,809.00	-8,977.91	-265.43	8,981.40	0.00	0.00	0.00
14,700.00	90.00	178.47	5,809.00	-9,077.87	-262.76	9,081.29	0.00	0.00	0.00
14,800.00	90.00	178.47	5,809.00	-9,177.84	-260.09	9,181.18	0.00	0.00	0.00
14,900.00	90.00	178.47	5,809.00	-9,277.80	-257.43	9,281.08	0.00	0.00	0.00
15,000.00	90.00	178.47	5,809.00	-9,377.77	-254.76	9,380.97	0.00	0.00	0.00
15,100.00	90.00	178.47	5,809.00	-9,477.73	-252.09	9,480.86	0.00	0.00	0.00
15,200.00	90.00	178.47	5,809.00	-9,577.70	-249.43	9,580.75	0.00	0.00	0.00
15,300.00	90.00	178.47	5,809.00	-9,677.66	-246.76	9,680.65	0.00	0.00	0.00
15,400.00	90.00	178.47	5,809.00	-9,777.63	-244.09	9,780.54	0.00	0.00	0.00
15,500.00	90.00	178.47	5,809.00	-9,877.59	-241.43	9,880.43	0.00	0.00	0.00
15,600.00	90.00	178.47	5,809.00	-9,977.55	-238.76	9,980.32	0.00	0.00	0.00
15,700.00	90.00	178.47	5,809.00	-10,077.52	-236.09	10,080.22	0.00	0.00	0.00
15,800.00	90.00	178.47	5,809.00	-10,177.48	-233.43	10,180.11	0.00	0.00	0.00
15,900.00	90.00	178.47	5,809.00	-10,277.45	-230.76	10,280.00	0.00	0.00	0.00
16,000.00	90.00	178.47	5,809.00	-10,377.41	-228.09	10,379.89	0.00	0.00	0.00
16,100.00	90.00	178.47	5,809.00	-10,477.38	-225.43	10,479.79	0.00	0.00	0.00
16,200.00	90.00	178.47	5,809.00	-10,577.34	-222.76	10,579.68	0.00	0.00	0.00
16,300.00	90.00	178.47	5,809.00	-10,677.31	-220.09	10,679.57	0.00	0.00	0.00
16,400.00	90.00	178.47	5,809.00	-10,777.27	-217.43	10,779.46	0.00	0.00	0.00
16,500.00	90.00	178.47	5,809.00	-10,877.23	-214.76	10,879.35	0.00	0.00	0.00
16,503.83	90.00	178.47	5,809.00	-10,881.06	-214.66	10,883.18	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
Stars Federal LD17-740 - hit/miss target - Shape - Point	0.00	0.00	5,809.00	-595.38	-489.03	1,528,350.12	3,446,997.32	40.7725406	-103.8860844
Stars Federal LD17-740 - plan hits target center - Point	0.00	0.00	5,809.00	-10,881.06	-214.66	1,518,064.46	3,447,271.69	40.7443000	-103.8857700

Noble Energy, Inc.

Survey Report

Company: Northern Region - DJ Basin	Local Co-ordinate Reference: Well Stars Federal LD17-740
Project: East Pony	TVD Reference: KB @ 4827.00ft
Site: LD Section 05	MD Reference: KB @ 4827.00ft
Well: Stars Federal LD17-740	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 (°)	
460.00	460.00	Pierre				
854.00	854.00	Upper Pierre Aquifer Top				
1,478.00	1,478.00	Upper Pierre Aquifer Base				
3,314.63	3,309.00	Parkman				
3,891.97	3,878.00	Sussex				
4,429.74	4,408.00	Shannon				
5,165.37	5,133.00	Teepee Buttes				
5,861.55	5,715.00	Sharon Springs				
5,885.40	5,727.00	Top A Chalk				
5,956.07	5,758.00	Top A Marl				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2600	2600	0	0	Start Build 2.00	
5200	5167	5	-41	Start DLS 9.00 TFO -97.71	
6214	5809	44	-397	TPZ/LP at 6214.49 MD	
16,504	5809	-595	-489	TD at 16503.83 MD	

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

East Pony

LD Section 05

Stars Federal LD17-740

Wellbore #1

Plan #1

Anticollision Summary Report

02 May, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Reference Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Stars Federal LD17-740	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	5/2/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	16,503.83	Plan #1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
LD Section 04						
Alice Nay 1 (Exist) - Original Drilling - As Drilled	2,600.00	2,431.01	9,979.71	9,922.00	172.936	CC
Alice Nay 1 (Exist) - Original Drilling - As Drilled	2,700.00	2,530.99	9,981.43	9,921.38	166.198	ES
Alice Nay 1 (Exist) - Original Drilling - As Drilled	2,900.00	2,730.46	9,995.22	9,930.49	154.405	SF
Rohn PC LD04-03 - Wellbore #1 - Wellbore #1- As Drille	1,766.11	1,657.21	5,524.29	5,512.58	471.539	CC
Rohn PC LD04-03 - Wellbore #1 - Wellbore #1- As Drille	1,900.00	1,759.04	5,524.73	5,512.18	440.209	ES
Rohn PC LD04-03 - Wellbore #1 - Wellbore #1- As Drille	5,700.00	5,544.70	5,946.70	5,907.64	152.230	SF
Rohn State LD03-62-1HN - Original Drilling - Original Dri	1,303.66	1,212.67	6,386.56	6,379.46	898.490	CC
Rohn State LD03-62-1HN - Original Drilling - Original Dri	1,700.00	1,604.09	6,387.09	6,378.16	714.507	ES
Rohn State LD03-62-1HN - Original Drilling - Original Dri	10,800.00	5,048.00	8,721.71	8,667.83	161.884	SF
Rohn State LD03-62HN - Original Drilling - Original Drillin	1,020.76	923.84	6,381.75	6,375.87	1,085.467	CC
Rohn State LD03-62HN - Original Drilling - Original Drillin	1,911.04	1,814.28	6,381.77	6,370.92	588.118	ES
Rohn State LD03-62HN - Original Drilling - Original Drillin	10,900.00	4,953.00	8,995.43	8,943.65	173.715	SF
Rohn State LD03-63-1HN - Original Drilling - Original Dri	1,552.96	1,456.00	6,385.95	6,376.72	691.616	CC, ES
Rohn State LD03-63-1HN - Original Drilling - Original Dri	10,700.00	5,023.47	9,071.68	9,020.98	178.904	SF
Rohn State LD03-63HN - Original Drilling - Original Drillin	1,362.94	1,264.99	6,540.81	6,532.34	771.994	CC
Rohn State LD03-63HN - Original Drilling - Original Drillin	1,500.00	1,373.03	6,541.12	6,532.03	720.024	ES
Rohn State LD03-63HN - Original Drilling - Original Drillin	10,100.00	5,102.01	8,980.59	8,929.60	176.106	SF
Rohn State LD03-64-1HN - Original Drilling - Original Dri	1,641.18	1,541.28	6,549.88	6,540.23	678.826	CC
Rohn State LD03-64-1HN - Original Drilling - Original Dri	1,700.00	1,558.05	6,550.07	6,540.19	663.264	ES
Rohn State LD03-64-1HN - Original Drilling - Original Dri	10,300.00	5,102.01	9,249.33	9,199.14	184.275	SF
Rohn State LD03-64HN - Original Drilling - Original Drillin	571.89	469.89	6,565.30	6,562.42	2,277.392	CC
Rohn State LD03-64HN - Original Drilling - Original Drillin	1,700.00	1,576.99	6,569.73	6,559.95	671.878	ES
Rohn State LD03-64HN - Original Drilling - Original Drillin	10,200.00	5,007.00	9,331.27	9,284.33	198.792	SF
Rohn State LD03-65-1HN - Original Drilling - Original Dri	103.99	0.00	6,574.75	6,574.61	10,000.000	CC
Rohn State LD03-65-1HN - Original Drilling - Original Dri	1,200.00	1,064.26	6,575.36	6,568.10	906.064	ES
Rohn State LD03-65-1HN - Original Drilling - Original Dri	10,100.00	5,105.00	9,508.40	9,461.67	203.463	SF
Rohn State LD03-65HN - Original Drilling - Original Drillin	1,862.96	1,761.79	7,017.13	7,006.75	676.552	CC
Rohn State LD03-65HN - Original Drilling - Original Drillin	2,800.00	3,090.83	7,017.90	6,999.20	375.379	ES
Rohn State LD03-65HN - Original Drilling - Original Drillin	5,750.00	5,192.00	7,471.33	7,432.46	192.231	SF
Rohn State LD03-66-1HN - Original Drilling - Original Dri	1,814.61	1,716.67	7,035.98	7,025.67	682.256	CC
Rohn State LD03-66-1HN - Original Drilling - Original Dri	2,600.00	2,477.33	7,038.76	7,023.74	468.718	ES
Rohn State LD03-66-1HN - Original Drilling - Original Dri	5,850.00	5,098.00	7,598.71	7,562.42	209.413	SF
Rohn State LD03-66HN - Original Drilling - Original Drillin	1,381.32	1,285.35	7,050.67	7,042.24	835.664	CC
Rohn State LD03-66HN - Original Drilling - Original Drillin	1,800.00	1,670.91	7,052.18	7,041.87	683.753	ES
Rohn State LD03-66HN - Original Drilling - Original Drillin	5,750.00	5,051.00	7,665.55	7,631.03	222.067	SF
Rohn State LD04-62-1HN - Original Drilling - Original Dri	5,335.98	9,541.00	2,632.12	2,591.18	64.301	CC, ES
Rohn State LD04-62-1HN - Original Drilling - Original Dri	8,000.00	9,541.00	3,546.31	3,454.64	38.685	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 Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Reference Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Stars Federal LD17-740	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
LD Section 04						
Rohn State LD04-62HN - Original Drilling - Original Drillin	5,370.54	9,580.00	2,638.44	2,596.34	62.678	CC, ES
Rohn State LD04-62HN - Original Drilling - Original Drillin	7,700.00	9,580.00	3,553.81	3,460.64	38.141	SF
Rohn State LD04-63-1HN - Original Drilling - Original Dri	5,388.87	9,834.00	2,692.15	2,642.38	54.092	CC
Rohn State LD04-63-1HN - Original Drilling - Original Dri	5,400.00	9,834.00	2,692.19	2,642.30	53.964	ES
Rohn State LD04-63-1HN - Original Drilling - Original Dri	7,400.00	9,834.00	3,532.21	3,436.67	36.972	SF
Rohn State LD04-63HN - Original Drilling - Original Drillin	5,305.39	9,758.00	2,746.67	2,692.30	50.521	CC, ES
Rohn State LD04-63HN - Original Drilling - Original Drillin	7,100.00	9,758.00	3,551.25	3,460.14	38.976	SF
Rohn State LD04-64-1HN - Original Drilling - Original Dri	5,260.83	9,566.00	2,857.29	2,792.78	44.289	CC, ES
Rohn State LD04-64-1HN - Original Drilling - Original Dri	6,700.00	9,566.00	3,516.72	3,427.15	39.266	SF
Rohn State LD04-64HN - Original Drilling - Original Drillin	5,266.03	9,476.00	3,024.70	2,951.54	41.342	CC, ES
Rohn State LD04-64HN - Original Drilling - Original Drillin	6,300.00	9,476.00	3,476.88	3,388.57	39.369	SF
Rohn State LD04-65-1HN - Wellbore #1 - Wellbore #1- A	5,244.24	9,578.00	3,173.87	3,090.07	37.873	CC
Rohn State LD04-65-1HN - Wellbore #1 - Wellbore #1- A	5,250.00	9,578.00	3,173.89	3,090.06	37.860	ES
Rohn State LD04-65-1HN - Wellbore #1 - Wellbore #1- A	5,700.00	9,578.00	3,294.36	3,206.04	37.303	SF
Rohn State LD04-65HN - Wellbore #1 - Wellbore #1- As	5,258.72	9,648.02	3,401.51	3,318.92	41.186	CC, ES
Rohn State LD04-65HN - Wellbore #1 - Wellbore #1- As	5,600.00	9,648.02	3,475.14	3,389.80	40.719	SF
Rohn State LD04-66-1HN - Wellbore #1 - Wellbore #1- A	5,238.27	9,580.02	3,597.93	3,508.92	40.421	CC, ES
Rohn State LD04-66-1HN - Wellbore #1 - Wellbore #1- A	5,450.00	9,580.02	3,628.21	3,537.94	40.190	SF
Rohn State LD04-66HN - Original Drilling - Original Drilli	5,248.32	9,628.00	3,833.07	3,738.08	40.350	CC
Rohn State LD04-66HN - Original Drilling - Original Drilli	5,250.00	9,628.00	3,833.07	3,738.07	40.346	ES
Rohn State LD04-66HN - Original Drilling - Original Drilli	5,450.00	9,628.00	3,861.64	3,765.40	40.129	SF
Rohn State LD04-67-1HN - Original Drilling - Original Dri	5,232.39	9,583.02	4,077.19	3,975.78	40.208	CC, ES
Rohn State LD04-67-1HN - Original Drilling - Original Dri	5,400.00	9,583.02	4,097.61	3,995.34	40.065	SF
Rohn State LD04-67HN - Original Drilling - As Drilled	4,055.83	4,358.18	4,204.36	4,174.51	140.867	CC
Rohn State LD04-67HN - Original Drilling - As Drilled	4,100.00	4,398.01	4,204.63	4,174.48	139.420	ES
Rohn State LD04-67HN - Original Drilling - As Drilled	5,350.00	5,155.01	4,290.41	4,253.21	115.336	SF
Rohn State LD04-68-1HN - Original Drilling - As Drilled	3,307.68	3,544.01	4,401.30	4,378.40	192.206	CC, ES
Rohn State LD04-68-1HN - Original Drilling - As Drilled	5,350.00	5,060.01	4,524.18	4,488.99	128.559	SF
Rohn State LD04-68HN - Wellbore #1 - Wellbore #1- As	2,908.08	3,024.65	4,624.38	4,605.15	240.487	CC, ES
Rohn State LD04-68HN - Wellbore #1 - Wellbore #1- As	5,400.00	5,062.01	4,781.11	4,746.28	137.263	SF
Rohn State LD09-69HN - Original Drilling - Original Drillin	5,800.00	9,710.00	2,654.49	2,606.04	54.794	ES
Rohn State LD09-69HN - Original Drilling - Original Drillin	5,875.00	9,710.00	2,654.02	2,606.68	56.073	CC
Rohn State LD09-69HN - Original Drilling - Original Drillin	8,500.00	9,710.00	3,602.22	3,509.85	38.999	SF
Rohn State LD10-69HN - Original Drilling - Original Drillin	1,481.97	1,382.57	6,385.60	6,376.70	718.127	CC
Rohn State LD10-69HN - Original Drilling - Original Drillin	1,500.00	1,391.67	6,385.62	6,376.66	712.512	ES
Rohn State LD10-69HN - Original Drilling - Original Drillin	10,700.00	5,166.01	8,447.21	8,390.32	148.482	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 Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Reference Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Stars Federal LD17-740	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
LD Section 05						
Heston LD06-620 - Original Drilling - Original Drilling - As	5,824.07	7,968.60	282.47	243.44	7.238	CC
Heston LD06-620 - Original Drilling - Original Drilling - As	5,850.00	7,970.85	284.17	243.06	6.913	ES
Heston LD06-620 - Original Drilling - Original Drilling - As	5,900.00	7,974.83	296.72	252.10	6.651	SF
Heston LD06-620 - ST01 - Original Drilling - ST01 - As D	5,790.03	7,970.48	333.38	296.96	9.152	CC
Heston LD06-620 - ST01 - Original Drilling - ST01 - As D	5,800.00	7,971.40	333.61	296.49	8.989	ES
Heston LD06-620 - ST01 - Original Drilling - ST01 - As D	5,900.00	7,979.76	359.72	316.72	8.367	SF
Heston LD06-625 - Original Drilling - Original Drilling - As	5,571.89	7,851.46	724.66	665.66	12.283	CC
Heston LD06-625 - Original Drilling - Original Drilling - As	5,600.00	7,854.94	725.81	665.55	12.045	ES
Heston LD06-625 - Original Drilling - Original Drilling - As	5,700.00	7,865.95	748.20	684.15	11.682	SF
Heston LD06-630 - Original Drilling - Original Drilling - As	5,456.06	7,885.45	1,249.04	1,199.88	25.410	CC, ES
Heston LD06-630 - Original Drilling - Original Drilling - As	5,600.00	7,901.67	1,273.09	1,221.62	24.738	SF
Nugent LD06-655 - Original Drilling - Original Drilling - As	5,350.11	7,788.62	2,627.84	2,584.36	60.438	CC, ES
Nugent LD06-655 - Original Drilling - Original Drilling - As	5,550.00	7,815.15	2,666.07	2,621.24	59.470	SF
Nugent LD06-665 - Original Drilling - Original Drilling - As	1,801.61	1,765.65	2,815.79	2,803.58	230.652	CC
Nugent LD06-665 - Original Drilling - Original Drilling - As	2,000.00	1,948.83	2,816.25	2,802.73	208.427	ES
Nugent LD06-665 - Original Drilling - Original Drilling - As	5,550.00	7,748.40	3,283.11	3,240.14	76.407	SF
Reagan LD06-675 - Original Drilling - Original Drilling - A	5,309.78	7,555.00	3,905.76	3,860.28	85.894	CC, ES
Reagan LD06-675 - Original Drilling - Original Drilling - A	5,600.00	7,652.30	3,980.18	3,932.59	83.650	SF
Reagan LD06-685 - Original Drilling - Original Drilling - A	5,289.66	7,189.00	4,292.99	4,255.28	113.843	CC, ES
Reagan LD06-685 - Original Drilling - Original Drilling - A	5,550.00	7,210.98	4,351.74	4,312.80	111.768	SF
Stars Federal LD17-715 - Wellbore #1 - Plan #1	2,400.00	2,395.00	113.56	96.84	6.791	CC, ES
Stars Federal LD17-715 - Wellbore #1 - Plan #1	2,500.00	2,491.36	115.07	97.66	6.609	SF
Stars Federal LD17-720 - Wellbore #1 - Plan #1	2,600.00	2,597.00	74.78	56.62	4.117	CC, ES, SF
Stars Federal LD17-730 - Wellbore #1 - Plan #1	2,200.00	2,198.00	38.78	23.48	2.534	CC, ES
Stars Federal LD17-730 - Wellbore #1 - Plan #1	2,300.00	2,296.81	40.24	24.24	2.515	SF
Stars Federal LD17-750 - Wellbore #1 - Plan #1	2,400.00	2,401.00	36.19	19.45	2.161	CC, ES, SF
Stars Federal LD17-760 - Wellbore #1 - Plan #1	2,200.00	2,202.00	74.87	59.56	4.889	CC, ES
Stars Federal LD17-760 - Wellbore #1 - Plan #1	2,300.00	2,299.37	76.64	60.63	4.788	SF
Stars Federal LD17-770 - Wellbore #1 - Plan #1	6,200.27	6,270.15	1,918.04	1,876.10	45.729	CC
Stars Federal LD17-770 - Wellbore #1 - Plan #1	16,503.83	16,573.03	1,969.06	1,785.14	10.706	ES, SF
Stars Federal LD17-780 - Wellbore #1 - Plan #1	2,107.09	2,144.09	2,550.67	2,535.90	172.655	CC
Stars Federal LD17-780 - Wellbore #1 - Plan #1	16,503.83	16,555.96	2,638.19	2,454.23	14.341	ES, SF
LD Section 06						
Timbro LD06-64HN - Wellbore #1 - Wellbore #1- As Drille	5,399.49	14,202.48	1,646.59	1,407.26	6.880	CC
Timbro LD06-64HN - Wellbore #1 - Wellbore #1- As Drille	5,400.00	14,202.38	1,646.59	1,407.25	6.880	ES
Timbro LD06-64HN - Wellbore #1 - Wellbore #1- As Drille	5,500.00	14,181.89	1,657.41	1,414.65	6.828	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 Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Reference Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Stars Federal LD17-740	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
LD Section 07						
Stripes Federal LD18-720 - Wellbore #1 - Plan #1	6,206.03	6,444.29	3,909.07	3,866.70	92.253	CC
Stripes Federal LD18-720 - Wellbore #1 - Plan #1	16,503.83	16,731.07	3,961.42	3,779.59	21.785	ES, SF
Stripes Federal LD18-730 - Wellbore #1 - Plan #1	5,883.02	5,638.15	4,573.54	4,533.09	113.057	CC
Stripes Federal LD18-730 - Wellbore #1 - Plan #1	16,503.83	16,708.06	4,631.37	4,449.58	25.476	ES, SF
Stripes Federal LD18-740 - Wellbore #1 - Plan #1	6,213.98	6,591.38	5,228.39	5,185.27	121.258	CC
Stripes Federal LD18-740 - Wellbore #1 - Plan #1	11,800.00	12,142.25	5,266.52	5,159.21	49.081	ES
Stripes Federal LD18-770 - Wellbore #1 - Plan #1	12,800.00	12,169.72	5,362.29	5,249.07	47.363	SF
Stripes Federal LD18-750 - Wellbore #1 - Plan #1	6,210.46	6,450.00	5,879.20	5,836.84	138.820	CC
Stripes Federal LD18-750 - Wellbore #1 - Plan #1	16,503.83	16,723.78	5,925.23	5,743.54	32.611	ES, SF
Stripes Federal LD18-760 - Wellbore #1 - Plan #1	16,503.83	16,716.10	6,615.18	6,433.16	36.343	CC, ES, SF
Stripes Federal LD18-770 - Wellbore #1 - Plan #1	16,503.83	16,680.70	7,274.17	7,092.06	39.944	CC, ES, SF
Stripes Federal LD18-785 - Wellbore #1 - Plan #1	4,305.52	3,027.03	7,938.89	7,913.46	312.259	CC
Stripes Federal LD18-785 - Wellbore #1 - Plan #1	4,400.00	3,062.40	7,939.26	7,913.39	306.904	ES
Stripes Federal LD18-785 - Wellbore #1 - Plan #1	16,500.33	16,769.14	8,263.43	8,081.35	45.385	SF
Stripes Federal LD18-790 - Wellbore #1 - Plan #1	6,212.35	6,568.77	3,249.47	3,206.53	75.676	CC
Stripes Federal LD18-790 - Wellbore #1 - Plan #1	16,503.83	16,845.84	3,301.30	3,119.44	18.154	ES, SF
Timbro Federal LD07-78HN - Original Drilling - As Drilled	6,333.95	5,922.01	7,932.70	7,892.91	199.338	CC
Timbro Federal LD07-78HN - Original Drilling - As Drilled	10,400.00	10,400.00	7,945.80	7,817.42	61.894	ES
Timbro Federal LD07-78HN - Original Drilling - As Drilled	12,600.00	10,293.02	8,179.27	8,039.76	58.627	SF
LD Section 08						
Timbro Federal LD08-62HN - Original Drilling - As Drilled	10,600.00	7,485.59	32.92	-27.99	0.540	Level 1, ES
Timbro Federal LD08-62HN - Original Drilling - As Drilled	10,617.70	7,485.67	27.76	-25.81	0.518	Level 1, CC, SF
LD Section 17						
Timbro Federal LD17-76HN - Wellbore #1 - Wellbore #1-	12,000.00	10,183.00	1,333.91	1,203.10	10.198	SF
Timbro Federal LD17-76HN - Wellbore #1 - Wellbore #1-	13,400.00	8,826.51	1,295.46	1,176.66	10.904	ES
Timbro Federal LD17-76HN - Wellbore #1 - Wellbore #1-	13,500.44	8,738.93	1,295.00	1,176.84	10.960	CC
LD Section 18						
Timbro Federal LD18-74HN - Original Drilling - As Drilled	11,986.55	10,271.02	5,256.30	5,121.98	39.135	CC
Timbro Federal LD18-74HN - Original Drilling - As Drilled	14,400.00	14,400.00	5,297.51	5,090.70	25.615	ES, SF
LD Section 19						
Bennett LD19-758 - Original Drilling - Original Drilling - A	16,503.83	10,879.37	6,507.43	6,371.25	47.787	CC, ES, SF
Bennett LD19-765 - Original Drilling - Original Drilling - A	16,503.83	10,896.00	6,947.21	6,810.30	50.746	CC, ES, SF
Bennett LD19-771 - Original Drilling - Original Drilling - A	16,503.83	10,806.00	7,386.28	7,249.30	53.923	CC, ES, SF
Bennett LD19-777 - Original Drilling - Original Drilling - A	16,503.83	10,840.00	7,796.67	7,659.83	56.974	CC, ES, SF
Bennett LD19-781 - Original Drilling - Original Drilling - A	16,503.83	11,090.00	8,048.59	7,915.35	60.407	CC, ES, SF
Bennett LD19-785 - Original Drilling - Original Drilling - A	16,503.83	10,902.00	8,274.16	8,137.09	60.366	CC, ES, SF
Riley LD19-715 - Original Drilling - Original Drilling - As D	16,503.83	11,052.00	3,656.61	3,524.22	27.620	CC, ES, SF
Riley LD19-722 - Original Drilling - Original Drilling - As D	16,503.83	10,601.96	4,059.21	3,923.65	29.946	CC, ES, SF
Riley LD19-738 - Original Drilling - Original Drilling - As D	16,503.83	10,950.00	5,213.89	5,077.11	38.117	CC, ES, SF
Riley LD19-745 - Original Drilling - Original Drilling - As D	16,503.83	10,872.00	5,638.37	5,502.52	41.502	CC, ES, SF
Riley LD19-752 - Original Drilling - Original Drilling - As D	16,503.83	11,064.00	6,139.33	6,002.81	44.971	CC, ES, SF
Timbro Federal LD29-78HN - Original Drilling - Original D	16,503.83	5,298.00	6,374.91	6,305.50	91.852	CC, ES, SF
Timbro LD19-73HN - Wellbore #1 - Wellbore #1-As Drille	16,503.83	10,273.02	4,106.06	3,937.49	24.358	CC, ES, SF
LD Section 20						
Anni LD29-755 - Original Drilling - Original Drilling - As D	16,503.83	5,431.43	5,241.46	5,194.33	111.205	CC, ES, SF
Anni LD29-763 - Original Drilling - Original Drilling - As D	16,503.83	5,289.00	5,355.48	5,303.71	103.441	CC, ES, SF
Anni LD29-771 - Original Drilling - Original Drilling - As D	16,503.83	5,290.00	5,503.86	5,450.20	102.567	CC, ES, SF

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

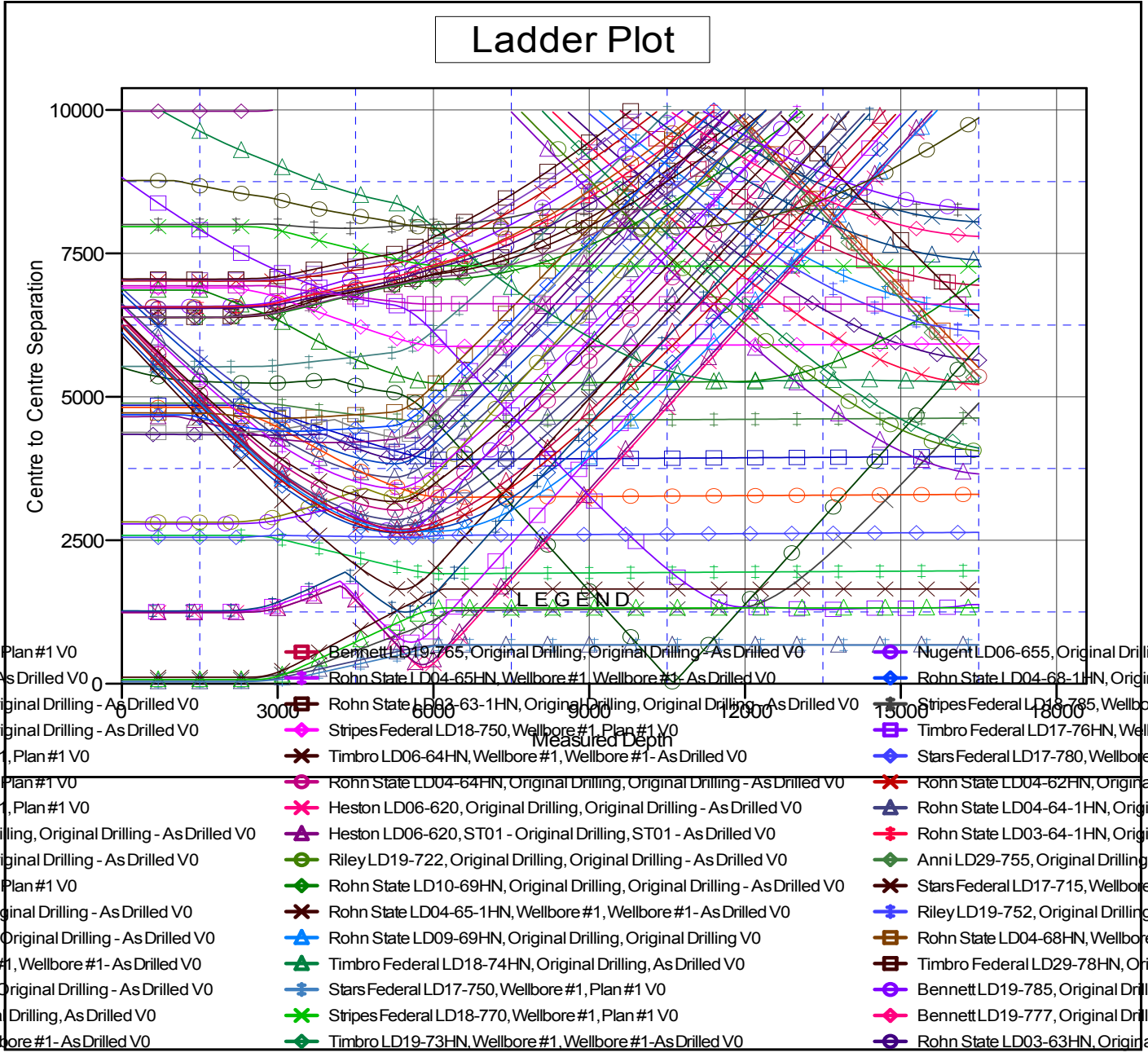
Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Stars Federal LD17-740
Project:	East Pony	TVD Reference:	KB @ 4827.00ft
Reference Site:	LD Section 05	MD Reference:	KB @ 4827.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Stars Federal LD17-740	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 @ 4827.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Stars Federal LD17-740
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.04°



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

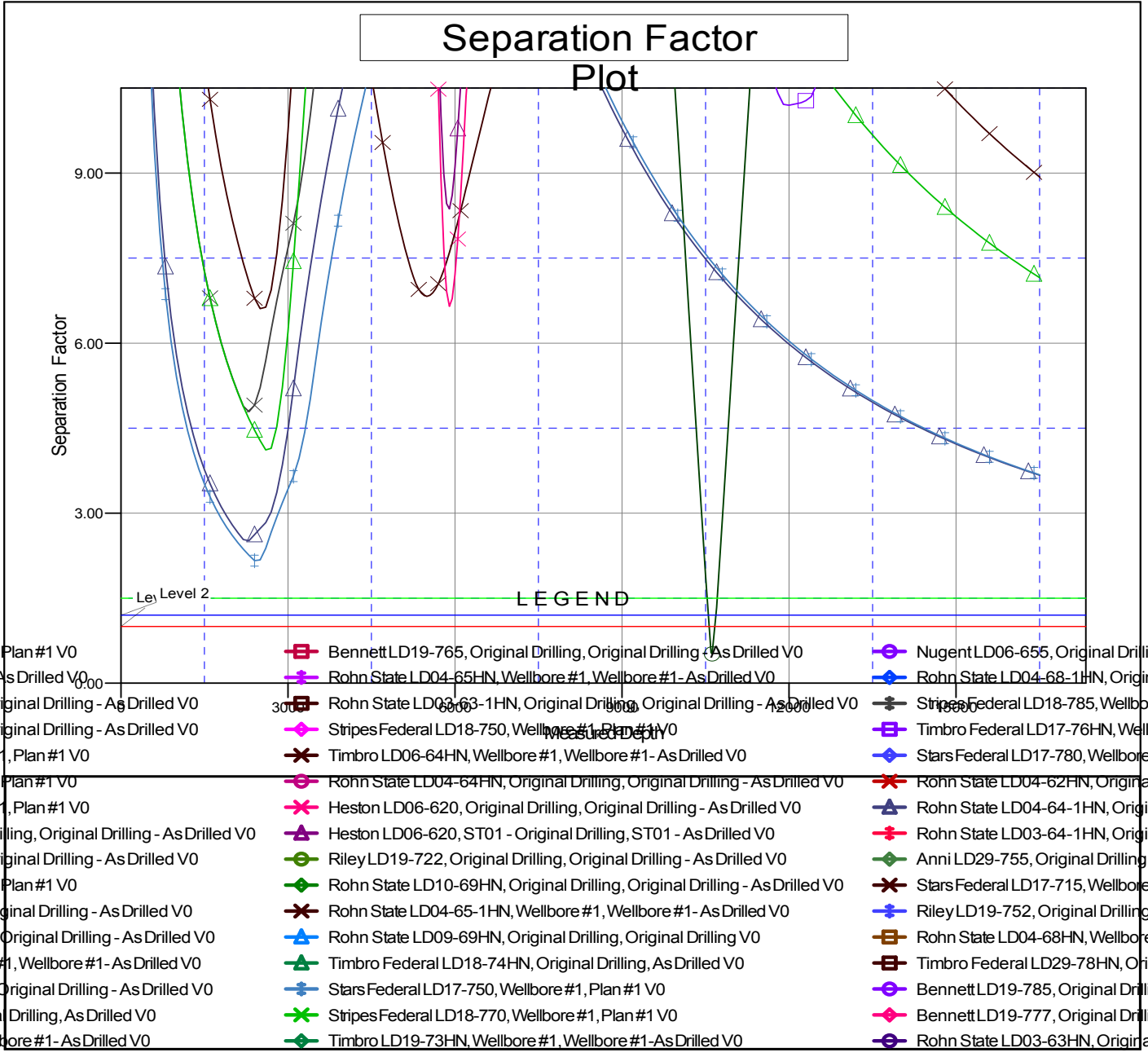
Noble Energy, Inc.

Anticollision Summary Report

Company: Northern Region - DJ Basin	Local Co-ordinate Reference: Well Stars Federal LD17-740
Project: East Pony	TVD Reference: KB @ 4827.00ft
Reference Site: LD Section 05	MD Reference: KB @ 4827.00ft
Site Error: 0.00 ft	North Reference: Grid
Reference Well: Stars Federal LD17-740	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 @ 4827.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Stars Federal LD17-740
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.04°



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