

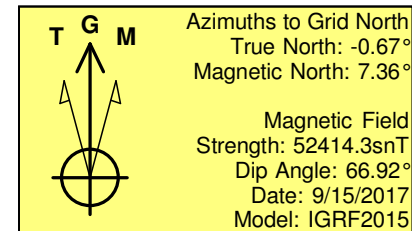
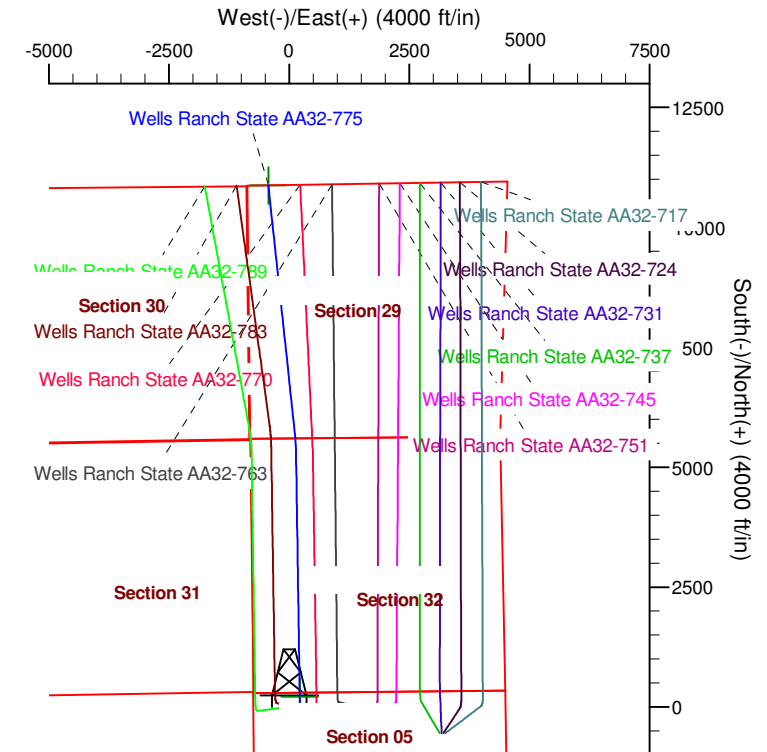
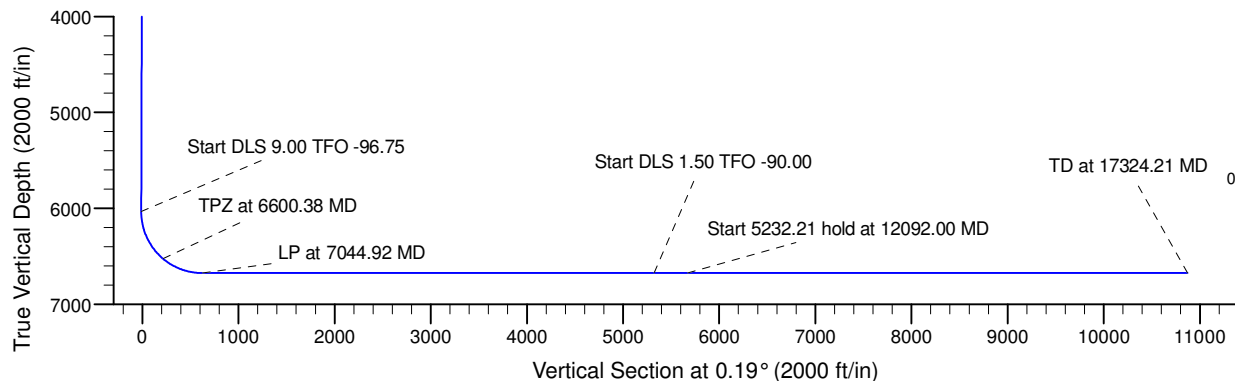
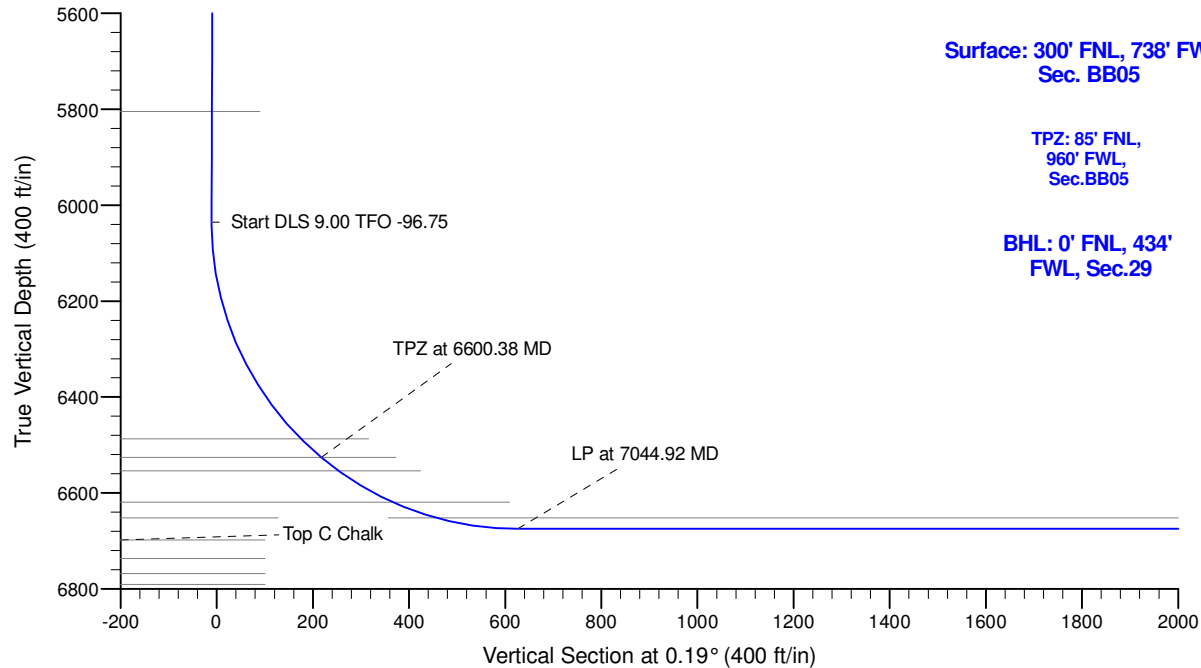
Project: Wells Ranch
Site: BB Section 05
Well: Wells Ranch State AA32-775
Wellbore: Wellbore #1
Design: Plan #2

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	2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	
3	2567.51	3.35	93.09	2567.41	-0.26	4.89	2.00	93.09	-0.25	
4	6041.44	3.35	93.09	6035.41	-11.22	207.60	0.00	0.00	-10.55	
5	6600.38	49.99	359.13	6526.00	216.77	221.57	9.00	-96.75	217.49	Wells Ranch State AA32-775 TPZ
6	7044.92	90.00	359.13	6675.00	626.01	215.35	9.00	0.00	626.70	
7	11744.92	90.00	359.13	6675.00	5325.46	143.99	0.00	0.00	5325.90	
8	12092.00	90.00	353.92	6675.00	5671.79	122.97	1.50	-90.00	5672.16	
9	17324.21	90.00	353.92	6675.00	10874.61	-430.87	0.00	0.00	10873.16	Wells Ranch State AA32-775 BHL P2



WELL DETAILS: Wells Ranch State AA32-775

Northing	Easting	Latitude	Longitude
0.00	1402945.10	4674.00 40.4348935	-104.4675573

Plan: Plan #2 (Wells Ranch State AA32-775/Wellbore #1)

Created By: Colby Baxter Date: 12:38, April 19 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Wells Ranch

BB Section 05

Wells Ranch State AA32-775

Wellbore #1

Plan: Plan #2

Standard Survey Report

19 April, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDMP

Project	Wells Ranch, 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		BB Section 05			
Site Position:		Northing:	1,398,574.18 usft	Latitude:	40.4229000
From:	Map	Easting:	3,287,271.79 usft	Longitude:	-104.4681700
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.67 °

Well	Wells Ranch State AA32-775					
Well Position	+N/-S	0.00 ft	Northing:	1,402,945.10 usft	Latitude:	40.4348935
	+E/-W	0.00 ft	Easting:	3,287,391.49 usft	Longitude:	-104.4675573
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,674.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/15/2017	8.03	66.92	52,414.25517608

Design	Plan #2				
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		0.19

Survey Tool Program	Date	4/19/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	17,324.21	Plan #2 (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 Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	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	2.00	93.09	2,499.98	-0.09	1.74	-0.09	2.00	2.00	0.00	
2,567.51	3.35	93.09	2,567.41	-0.26	4.89	-0.25	2.00	2.00	0.00	
2,600.00	3.35	93.09	2,599.85	-0.37	6.78	-0.34	0.00	0.00	0.00	
2,700.00	3.35	93.09	2,699.68	-0.68	12.62	-0.64	0.00	0.00	0.00	
2,800.00	3.35	93.09	2,799.51	-1.00	18.46	-0.94	0.00	0.00	0.00	
2,900.00	3.35	93.09	2,899.34	-1.31	24.29	-1.23	0.00	0.00	0.00	
3,000.00	3.35	93.09	2,999.17	-1.63	30.13	-1.53	0.00	0.00	0.00	
3,100.00	3.35	93.09	3,098.99	-1.94	35.96	-1.83	0.00	0.00	0.00	
3,200.00	3.35	93.09	3,198.82	-2.26	41.80	-2.12	0.00	0.00	0.00	
3,300.00	3.35	93.09	3,298.65	-2.57	47.63	-2.42	0.00	0.00	0.00	
3,400.00	3.35	93.09	3,398.48	-2.89	53.47	-2.72	0.00	0.00	0.00	
3,500.00	3.35	93.09	3,498.31	-3.21	59.30	-3.01	0.00	0.00	0.00	
3,600.00	3.35	93.09	3,598.14	-3.52	65.14	-3.31	0.00	0.00	0.00	
3,700.00	3.35	93.09	3,697.97	-3.84	70.97	-3.61	0.00	0.00	0.00	
3,800.00	3.35	93.09	3,797.80	-4.15	76.81	-3.90	0.00	0.00	0.00	
3,900.00	3.35	93.09	3,897.63	-4.47	82.64	-4.20	0.00	0.00	0.00	
4,000.00	3.35	93.09	3,997.46	-4.78	88.48	-4.50	0.00	0.00	0.00	
4,100.00	3.35	93.09	4,097.29	-5.10	94.31	-4.79	0.00	0.00	0.00	
4,200.00	3.35	93.09	4,197.11	-5.41	100.15	-5.09	0.00	0.00	0.00	
4,300.00	3.35	93.09	4,296.94	-5.73	105.98	-5.39	0.00	0.00	0.00	
4,400.00	3.35	93.09	4,396.77	-6.04	111.82	-5.68	0.00	0.00	0.00	
4,500.00	3.35	93.09	4,496.60	-6.36	117.65	-5.98	0.00	0.00	0.00	
4,600.00	3.35	93.09	4,596.43	-6.67	123.49	-6.27	0.00	0.00	0.00	
4,700.00	3.35	93.09	4,696.26	-6.99	129.32	-6.57	0.00	0.00	0.00	
4,800.00	3.35	93.09	4,796.09	-7.30	135.16	-6.87	0.00	0.00	0.00	
4,900.00	3.35	93.09	4,895.92	-7.62	140.99	-7.16	0.00	0.00	0.00	
5,000.00	3.35	93.09	4,995.75	-7.94	146.83	-7.46	0.00	0.00	0.00	
5,100.00	3.35	93.09	5,095.58	-8.25	152.67	-7.76	0.00	0.00	0.00	
5,200.00	3.35	93.09	5,195.41	-8.57	158.50	-8.05	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	3.35	93.09	5,295.24	-8.88	164.34	-8.35	0.00	0.00	0.00
5,400.00	3.35	93.09	5,395.06	-9.20	170.17	-8.65	0.00	0.00	0.00
5,500.00	3.35	93.09	5,494.89	-9.51	176.01	-8.94	0.00	0.00	0.00
5,600.00	3.35	93.09	5,594.72	-9.83	181.84	-9.24	0.00	0.00	0.00
5,700.00	3.35	93.09	5,694.55	-10.14	187.68	-9.54	0.00	0.00	0.00
5,800.00	3.35	93.09	5,794.38	-10.46	193.51	-9.83	0.00	0.00	0.00
5,900.00	3.35	93.09	5,894.21	-10.77	199.35	-10.13	0.00	0.00	0.00
6,000.00	3.35	93.09	5,994.04	-11.09	205.18	-10.43	0.00	0.00	0.00
6,041.44	3.35	93.09	6,035.41	-11.22	207.60	-10.55	0.00	0.00	0.00
6,100.00	5.90	30.56	6,093.80	-8.72	210.84	-8.04	9.00	4.36	-106.79
6,200.00	14.26	9.55	6,192.20	7.89	215.51	8.59	9.00	8.36	-21.00
6,300.00	23.10	4.16	6,286.84	39.67	218.99	40.38	9.00	8.84	-5.39
6,400.00	32.03	1.66	6,375.40	85.84	221.19	86.56	9.00	8.93	-2.50
6,500.00	40.99	0.17	6,455.70	145.27	222.05	145.98	9.00	8.96	-1.50
6,600.00	49.96	359.13	6,525.75	216.48	221.57	217.20	9.00	8.97	-1.04
6,600.38	49.99	359.13	6,526.00	216.77	221.57	217.49	9.00	8.97	-0.89
6,700.00	58.96	359.13	6,583.82	297.76	220.34	298.47	9.00	9.00	0.00
6,800.00	67.96	359.13	6,628.46	387.11	218.98	387.82	9.00	9.00	0.00
6,900.00	76.96	359.13	6,658.58	482.35	217.53	483.06	9.00	9.00	0.00
7,000.00	85.96	359.13	6,673.41	581.13	216.03	581.83	9.00	9.00	0.00
7,044.92	90.00	359.13	6,675.00	626.01	215.35	626.70	9.00	9.00	0.00
7,100.00	90.00	359.13	6,675.00	681.08	214.52	681.77	0.00	0.00	0.00
7,200.00	90.00	359.13	6,675.00	781.07	213.00	781.76	0.00	0.00	0.00
7,300.00	90.00	359.13	6,675.00	881.06	211.48	881.74	0.00	0.00	0.00
7,400.00	90.00	359.13	6,675.00	981.05	209.96	981.72	0.00	0.00	0.00
7,500.00	90.00	359.13	6,675.00	1,081.04	208.44	1,081.71	0.00	0.00	0.00
7,600.00	90.00	359.13	6,675.00	1,181.03	206.92	1,181.69	0.00	0.00	0.00
7,700.00	90.00	359.13	6,675.00	1,281.01	205.41	1,281.67	0.00	0.00	0.00
7,800.00	90.00	359.13	6,675.00	1,381.00	203.89	1,381.65	0.00	0.00	0.00
7,900.00	90.00	359.13	6,675.00	1,480.99	202.37	1,481.64	0.00	0.00	0.00
8,000.00	90.00	359.13	6,675.00	1,580.98	200.85	1,581.62	0.00	0.00	0.00
8,100.00	90.00	359.13	6,675.00	1,680.97	199.33	1,681.60	0.00	0.00	0.00
8,200.00	90.00	359.13	6,675.00	1,780.96	197.81	1,781.59	0.00	0.00	0.00
8,300.00	90.00	359.13	6,675.00	1,880.95	196.30	1,881.57	0.00	0.00	0.00
8,400.00	90.00	359.13	6,675.00	1,980.93	194.78	1,981.55	0.00	0.00	0.00
8,500.00	90.00	359.13	6,675.00	2,080.92	193.26	2,081.54	0.00	0.00	0.00
8,600.00	90.00	359.13	6,675.00	2,180.91	191.74	2,181.52	0.00	0.00	0.00
8,700.00	90.00	359.13	6,675.00	2,280.90	190.22	2,281.50	0.00	0.00	0.00
8,800.00	90.00	359.13	6,675.00	2,380.89	188.70	2,381.49	0.00	0.00	0.00
8,900.00	90.00	359.13	6,675.00	2,480.88	187.19	2,481.47	0.00	0.00	0.00
9,000.00	90.00	359.13	6,675.00	2,580.86	185.67	2,581.45	0.00	0.00	0.00
9,100.00	90.00	359.13	6,675.00	2,680.85	184.15	2,681.43	0.00	0.00	0.00
9,200.00	90.00	359.13	6,675.00	2,780.84	182.63	2,781.42	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	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)
9,300.00	90.00	359.13	6,675.00	2,880.83	181.11	2,881.40	0.00	0.00	0.00
9,400.00	90.00	359.13	6,675.00	2,980.82	179.59	2,981.38	0.00	0.00	0.00
9,500.00	90.00	359.13	6,675.00	3,080.81	178.08	3,081.37	0.00	0.00	0.00
9,600.00	90.00	359.13	6,675.00	3,180.80	176.56	3,181.35	0.00	0.00	0.00
9,700.00	90.00	359.13	6,675.00	3,280.78	175.04	3,281.33	0.00	0.00	0.00
9,800.00	90.00	359.13	6,675.00	3,380.77	173.52	3,381.32	0.00	0.00	0.00
9,900.00	90.00	359.13	6,675.00	3,480.76	172.00	3,481.30	0.00	0.00	0.00
10,000.00	90.00	359.13	6,675.00	3,580.75	170.48	3,581.28	0.00	0.00	0.00
10,100.00	90.00	359.13	6,675.00	3,680.74	168.96	3,681.26	0.00	0.00	0.00
10,200.00	90.00	359.13	6,675.00	3,780.73	167.45	3,781.25	0.00	0.00	0.00
10,300.00	90.00	359.13	6,675.00	3,880.71	165.93	3,881.23	0.00	0.00	0.00
10,400.00	90.00	359.13	6,675.00	3,980.70	164.41	3,981.21	0.00	0.00	0.00
10,500.00	90.00	359.13	6,675.00	4,080.69	162.89	4,081.20	0.00	0.00	0.00
10,600.00	90.00	359.13	6,675.00	4,180.68	161.37	4,181.18	0.00	0.00	0.00
10,700.00	90.00	359.13	6,675.00	4,280.67	159.85	4,281.16	0.00	0.00	0.00
10,800.00	90.00	359.13	6,675.00	4,380.66	158.34	4,381.15	0.00	0.00	0.00
10,900.00	90.00	359.13	6,675.00	4,480.65	156.82	4,481.13	0.00	0.00	0.00
11,000.00	90.00	359.13	6,675.00	4,580.63	155.30	4,581.11	0.00	0.00	0.00
11,100.00	90.00	359.13	6,675.00	4,680.62	153.78	4,681.10	0.00	0.00	0.00
11,200.00	90.00	359.13	6,675.00	4,780.61	152.26	4,781.08	0.00	0.00	0.00
11,300.00	90.00	359.13	6,675.00	4,880.60	150.74	4,881.06	0.00	0.00	0.00
11,400.00	90.00	359.13	6,675.00	4,980.59	149.23	4,981.04	0.00	0.00	0.00
11,500.00	90.00	359.13	6,675.00	5,080.58	147.71	5,081.03	0.00	0.00	0.00
11,600.00	90.00	359.13	6,675.00	5,180.56	146.19	5,181.01	0.00	0.00	0.00
11,700.00	90.00	359.13	6,675.00	5,280.55	144.67	5,280.99	0.00	0.00	0.00
11,744.92	90.00	359.13	6,675.00	5,325.46	143.99	5,325.90	0.00	0.00	0.00
11,800.00	90.00	358.30	6,675.00	5,380.53	142.76	5,380.97	1.50	0.00	-1.50
11,900.00	90.00	356.80	6,675.00	5,480.44	138.49	5,480.86	1.50	0.00	-1.50
12,000.00	90.00	355.30	6,675.00	5,580.20	131.61	5,580.60	1.50	0.00	-1.50
12,092.00	90.00	353.92	6,675.00	5,671.79	122.97	5,672.16	1.50	0.00	-1.50
12,100.00	90.00	353.92	6,675.00	5,679.75	122.12	5,680.11	0.00	0.00	0.00
12,200.00	90.00	353.92	6,675.00	5,779.18	111.54	5,779.52	0.00	0.00	0.00
12,300.00	90.00	353.92	6,675.00	5,878.62	100.95	5,878.92	0.00	0.00	0.00
12,400.00	90.00	353.92	6,675.00	5,978.06	90.37	5,978.32	0.00	0.00	0.00
12,500.00	90.00	353.92	6,675.00	6,077.50	79.78	6,077.73	0.00	0.00	0.00
12,600.00	90.00	353.92	6,675.00	6,176.94	69.20	6,177.13	0.00	0.00	0.00
12,700.00	90.00	353.92	6,675.00	6,276.38	58.61	6,276.53	0.00	0.00	0.00
12,800.00	90.00	353.92	6,675.00	6,375.81	48.03	6,375.94	0.00	0.00	0.00
12,900.00	90.00	353.92	6,675.00	6,475.25	37.44	6,475.34	0.00	0.00	0.00
13,000.00	90.00	353.92	6,675.00	6,574.69	26.86	6,574.74	0.00	0.00	0.00
13,100.00	90.00	353.92	6,675.00	6,674.13	16.27	6,674.15	0.00	0.00	0.00
13,200.00	90.00	353.92	6,675.00	6,773.57	5.69	6,773.55	0.00	0.00	0.00
13,300.00	90.00	353.92	6,675.00	6,873.00	-4.90	6,872.95	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	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)
13,400.00	90.00	353.92	6,675.00	6,972.44	-15.48	6,972.36	0.00	0.00	0.00
13,500.00	90.00	353.92	6,675.00	7,071.88	-26.07	7,071.76	0.00	0.00	0.00
13,600.00	90.00	353.92	6,675.00	7,171.32	-36.65	7,171.16	0.00	0.00	0.00
13,700.00	90.00	353.92	6,675.00	7,270.76	-47.24	7,270.57	0.00	0.00	0.00
13,800.00	90.00	353.92	6,675.00	7,370.20	-57.82	7,369.97	0.00	0.00	0.00
13,900.00	90.00	353.92	6,675.00	7,469.63	-68.41	7,469.37	0.00	0.00	0.00
14,000.00	90.00	353.92	6,675.00	7,569.07	-78.99	7,568.78	0.00	0.00	0.00
14,100.00	90.00	353.92	6,675.00	7,668.51	-89.58	7,668.18	0.00	0.00	0.00
14,200.00	90.00	353.92	6,675.00	7,767.95	-100.16	7,767.58	0.00	0.00	0.00
14,300.00	90.00	353.92	6,675.00	7,867.39	-110.75	7,866.99	0.00	0.00	0.00
14,400.00	90.00	353.92	6,675.00	7,966.83	-121.33	7,966.39	0.00	0.00	0.00
14,500.00	90.00	353.92	6,675.00	8,066.26	-131.92	8,065.79	0.00	0.00	0.00
14,600.00	90.00	353.92	6,675.00	8,165.70	-142.50	8,165.20	0.00	0.00	0.00
14,700.00	90.00	353.92	6,675.00	8,265.14	-153.09	8,264.60	0.00	0.00	0.00
14,800.00	90.00	353.92	6,675.00	8,364.58	-163.68	8,364.01	0.00	0.00	0.00
14,900.00	90.00	353.92	6,675.00	8,464.02	-174.26	8,463.41	0.00	0.00	0.00
15,000.00	90.00	353.92	6,675.00	8,563.45	-184.85	8,562.81	0.00	0.00	0.00
15,100.00	90.00	353.92	6,675.00	8,662.89	-195.43	8,662.22	0.00	0.00	0.00
15,200.00	90.00	353.92	6,675.00	8,762.33	-206.02	8,761.62	0.00	0.00	0.00
15,300.00	90.00	353.92	6,675.00	8,861.77	-216.60	8,861.02	0.00	0.00	0.00
15,400.00	90.00	353.92	6,675.00	8,961.21	-227.19	8,960.43	0.00	0.00	0.00
15,500.00	90.00	353.92	6,675.00	9,060.65	-237.77	9,059.83	0.00	0.00	0.00
15,600.00	90.00	353.92	6,675.00	9,160.08	-248.36	9,159.23	0.00	0.00	0.00
15,700.00	90.00	353.92	6,675.00	9,259.52	-258.94	9,258.64	0.00	0.00	0.00
15,800.00	90.00	353.92	6,675.00	9,358.96	-269.53	9,358.04	0.00	0.00	0.00
15,900.00	90.00	353.92	6,675.00	9,458.40	-280.11	9,457.44	0.00	0.00	0.00
16,000.00	90.00	353.92	6,675.00	9,557.84	-290.70	9,556.85	0.00	0.00	0.00
16,100.00	90.00	353.92	6,675.00	9,657.27	-301.28	9,656.25	0.00	0.00	0.00
16,200.00	90.00	353.92	6,675.00	9,756.71	-311.87	9,755.65	0.00	0.00	0.00
16,300.00	90.00	353.92	6,675.00	9,856.15	-322.45	9,855.06	0.00	0.00	0.00
16,400.00	90.00	353.92	6,675.00	9,955.59	-333.04	9,954.46	0.00	0.00	0.00
16,500.00	90.00	353.92	6,675.00	10,055.03	-343.62	10,053.86	0.00	0.00	0.00
16,600.00	90.00	353.92	6,675.00	10,154.47	-354.21	10,153.27	0.00	0.00	0.00
16,700.00	90.00	353.92	6,675.00	10,253.90	-364.79	10,252.67	0.00	0.00	0.00
16,800.00	90.00	353.92	6,675.00	10,353.34	-375.38	10,352.07	0.00	0.00	0.00
16,900.00	90.00	353.92	6,675.00	10,452.78	-385.96	10,451.48	0.00	0.00	0.00
17,000.00	90.00	353.92	6,675.00	10,552.22	-396.55	10,550.88	0.00	0.00	0.00
17,100.00	90.00	353.92	6,675.00	10,651.66	-407.13	10,650.28	0.00	0.00	0.00
17,200.00	90.00	353.92	6,675.00	10,751.09	-417.72	10,749.69	0.00	0.00	0.00
17,300.00	90.00	353.92	6,675.00	10,850.53	-428.30	10,849.09	0.00	0.00	0.00
17,324.21	90.00	353.92	6,675.00	10,874.61	-430.87	10,873.16	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Well:	Wells Ranch State AA32-775	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	EDMP

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Wells Ranch State AA32 - plan hits target center - Point	0.00	0.01	6,526.00	216.77	221.57	1,403,161.88	3,287,613.06	40.4354814	-104.4667523
Wells Ranch State AA32 - plan hits target center - Point	0.00	0.01	6,675.00	10,874.61	-430.87	1,413,819.69	3,286,960.63	40.4647558	-104.4686507

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
227.00	227.00	Pierre		0.00	
475.00	475.00	Upper Pierre Aquifer Top			
1,536.00	1,536.00	Upper Pierre Aquifer Base			
4,331.11	4,328.00	Sussex			
4,753.83	4,750.00	Parkman			
4,788.89	4,785.00	Shannon			
5,810.64	5,805.00	Teepee Buttes			
6,542.74	6,487.00	Sharon Springs			
6,600.38	6,526.00	Top A Chalk			
6,645.91	6,554.00	Top A Marl			
6,775.90	6,619.00	Top B Chalk			
6,873.28	6,652.00	Top B Marl			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2400	2400	0	0	Start Build 2.00
6041	6035	0	5	Start DLS 9.00 TFO -96.75
6600	6526	-11	208	TPZ at 6600.38 MD
7045	6675	217	222	LP at 7044.92 MD
11,745	6675	626	215	Start DLS 1.50 TFO -90.00
12,092	6675	5325	144	Start 5232.21 hold at 12092.00 MD
17,324	6675	5672	123	TD at 17324.21 MD

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Wells Ranch

BB Section 05

Wells Ranch State AA32-775

Wellbore #1

Plan #2

Anticollision Summary Report

19 April, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
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 4/19/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,324.21	Plan #2 (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
Offset Well - Wellbore - Design						
AA Section 28						
State 6524 11-28 - Original Drilling - Original Drilling - As	15,970.48	6,581.04	5,404.36	5,244.66	33.841	CC
State 6524 11-28 - Original Drilling - Original Drilling - As	16,000.00	6,579.96	5,404.44	5,244.52	33.794	ES
State 6524 11-28 - Original Drilling - Original Drilling - As	16,900.00	6,547.02	5,483.61	5,318.03	33.118	SF
State 6524 12-28 - Original Drilling - Original Drilling - As	14,600.00	14,600.00	5,179.50	5,057.71	42.527	ES, SF
State 6524 12-28 - Original Drilling - Original Drilling - As	14,947.31	6,614.67	5,167.90	5,070.92	53.287	CC
State 6524 13-28 (SI) - Original Drilling - Original Drilling	13,559.20	6,680.22	5,144.27	5,058.08	59.685	CC
State 6524 13-28 (SI) - Original Drilling - Original Drilling	13,600.00	6,682.00	5,144.43	5,057.88	59.442	ES
State 6524 13-28 (SI) - Original Drilling - Original Drilling	15,100.00	6,757.05	5,369.71	5,272.63	55.314	SF
State 6524 21-28 - Original Drilling - Original Drilling - As	16,168.30	6,703.23	6,939.95	6,832.83	64.785	CC
State 6524 21-28 - Original Drilling - Original Drilling - As	16,200.00	6,703.01	6,940.03	6,832.63	64.620	ES
State 6524 21-28 - Original Drilling - Original Drilling - As	17,324.21	6,704.70	7,035.55	6,919.48	60.611	SF
State 6524 22-28 (SI) - Original Drilling - Original Drilling	14,704.82	6,614.24	6,688.11	6,593.10	70.395	CC
State 6524 22-28 (SI) - Original Drilling - Original Drilling	14,800.00	6,611.93	6,688.78	6,592.97	69.811	ES
State 6524 22-28 (SI) - Original Drilling - Original Drilling	16,900.00	6,562.23	7,038.99	6,929.15	64.087	SF
State 6524 24-28 - Original Drilling - Original Drilling - As	12,163.30	6,484.79	6,384.27	6,286.85	65.534	CC
State 6524 24-28 - Original Drilling - Original Drilling - As	12,200.00	6,485.70	6,384.38	6,286.65	65.325	ES
State 6524 24-28 - Original Drilling - Original Drilling - As	14,400.00	6,540.42	6,764.51	6,650.80	59.488	SF
State Lease 14-28 (SI) - Original Drilling - Original Drilling	12,223.90	6,656.43	5,058.12	4,980.77	65.397	CC
State Lease 14-28 (SI) - Original Drilling - Original Drilling	12,300.00	6,656.26	5,058.69	4,980.72	64.879	ES
State Lease 14-28 (SI) - Original Drilling - Original Drilling	13,900.00	6,652.67	5,328.59	5,239.86	60.057	SF
State Lease 23-28 - Original Drilling - Original Drilling - A	13,370.85	6,642.78	6,623.39	6,538.79	78.285	CC
State Lease 23-28 - Original Drilling - Original Drilling - A	13,400.00	6,642.79	6,623.46	6,538.61	78.060	ES
State Lease 23-28 - Original Drilling - Original Drilling - A	15,800.00	6,644.02	7,054.79	6,953.82	69.870	SF
State Lease 32-28 (PA) - Original Drilling - Original Drilling	14,569.23	6,727.00	7,811.05	7,605.52	38.004	CC
State Lease 32-28 (PA) - Original Drilling - Original Drilling	14,600.00	6,727.00	7,811.11	7,605.32	37.957	ES
State Lease 32-28 (PA) - Original Drilling - Original Drilling	16,400.00	6,727.00	8,022.73	7,803.55	36.602	SF
State Lease 6524 41-28 (PA) - Original Drilling - Original	15,752.44	6,749.00	9,368.23	9,152.78	43.482	CC
State Lease 6524 41-28 (PA) - Original Drilling - Original	15,800.00	6,749.00	9,368.35	9,152.50	43.402	ES
State Lease 6524 41-28 (PA) - Original Drilling - Original	17,324.21	6,749.00	9,499.17	9,271.42	41.709	SF
Wells Ranch State 28C - Original Drilling - Original Drilling	15,312.19	6,745.43	8,649.71	8,550.10	86.836	CC
Wells Ranch State 28C - Original Drilling - Original Drilling	15,400.00	6,746.52	8,650.16	8,549.80	86.193	ES
Wells Ranch State 28C - Original Drilling - Original Drilling	17,324.21	6,771.88	8,880.59	8,765.81	77.373	SF
Wells Ranch State 28D - Original Drilling - Original Drilling	12,636.57	6,957.00	8,208.83	8,129.59	103.591	CC
Wells Ranch State 28D - Original Drilling - Original Drilling	12,700.00	6,957.00	8,209.07	8,129.32	102.928	ES
Wells Ranch State 28D - Original Drilling - Original Drilling	16,300.00	6,957.00	8,989.19	8,885.86	86.995	SF
Wells Ranch State 28R - Original Drilling - Original Drilling	16,461.89	6,704.39	8,963.23	8,853.72	81.848	CC
Wells Ranch State 28R - Original Drilling - Original Drilling	16,500.00	6,704.72	8,963.31	8,853.48	81.605	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 - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
AA Section 28						
Wells Ranch State 28R - Original Drilling - Original Drillin	17,324.21	6,711.84	9,004.62	8,888.04	77.244	SF
Wells Ranch State 28S - Original Drilling - Original Drillin	13,833.25	6,961.00	8,420.71	8,332.28	95.228	CC
Wells Ranch State 28S - Original Drilling - Original Drillin	13,900.00	6,961.00	8,420.97	8,331.99	94.637	ES
Wells Ranch State 28S - Original Drilling - Original Drillin	17,324.21	6,961.00	9,115.65	9,003.95	81.604	SF
Wells Ranch State 31-28 - Original Drilling - Original Drill	15,983.53	6,786.17	8,160.85	8,055.80	77.690	CC
Wells Ranch State 31-28 - Original Drilling - Original Drill	16,100.00	6,785.18	8,161.68	8,055.64	76.972	ES
Wells Ranch State 31-28 - Original Drilling - Original Drill	17,324.21	6,774.98	8,270.23	8,154.75	71.618	SF
Wells Ranch State 32-28 - Original Drilling - Original Drill	14,752.82	6,825.32	7,759.54	7,664.20	81.388	CC
Wells Ranch State 32-28 - Original Drilling - Original Drill	14,800.00	6,825.71	7,759.68	7,663.94	81.049	ES
Wells Ranch State 32-28 - Original Drilling - Original Drill	17,324.21	6,844.72	8,174.47	8,061.29	72.220	SF
Wells Ranch State 33-28 - Original Drilling - Original Drill	13,277.85	6,710.05	7,639.89	7,556.53	91.644	CC
Wells Ranch State 33-28 - Original Drilling - Original Drill	13,300.00	6,709.68	7,639.93	7,556.38	91.444	ES
Wells Ranch State 33-28 - Original Drilling - Original Drill	16,400.00	6,656.25	8,252.99	8,148.94	79.318	SF
Wells Ranch State 34-28 - Original Drilling - Original Drill	12,070.10	6,947.00	7,631.56	7,556.47	101.631	CC
Wells Ranch State 34-28 - Original Drilling - Original Drill	12,092.00	6,947.00	7,631.66	7,556.39	101.398	ES
Wells Ranch State 34-28 - Original Drilling - Original Drill	15,400.00	6,947.00	8,343.81	8,246.91	86.106	SF
Wells Ranch State 41-28 - Original Drilling - Original Drill	15,765.70	6,814.33	9,335.94	9,232.54	90.289	CC
Wells Ranch State 41-28 - Original Drilling - Original Drill	15,800.00	6,813.91	9,336.00	9,232.31	90.037	ES
Wells Ranch State 41-28 - Original Drilling - Original Drill	17,324.21	6,793.72	9,465.08	9,349.53	81.912	SF
Wells Ranch State 42-28 - Original Drilling - Original Drill	14,559.54	6,637.77	9,021.16	8,927.96	96.790	CC
Wells Ranch State 42-28 - Original Drilling - Original Drill	14,600.00	6,638.93	9,021.25	8,927.70	96.436	ES
Wells Ranch State 42-28 - Original Drilling - Original Drill	17,324.21	6,702.06	9,434.98	9,321.70	83.286	SF
Wells Ranch State 43-28 - Original Drilling - Original Drill	13,248.83	6,744.64	8,955.51	8,872.22	107.513	CC
Wells Ranch State 43-28 - Original Drilling - Original Drill	13,300.00	6,747.90	8,955.66	8,871.93	106.962	ES
Wells Ranch State 43-28 - Original Drilling - Original Drill	17,300.00	6,990.00	9,825.65	9,714.71	88.573	SF
Wells Ranch State 44-28 - Original Drilling - Original Drill	12,056.02	6,947.00	8,842.27	8,767.45	118.171	CC
Wells Ranch State 44-28 - Original Drilling - Original Drill	12,092.00	6,947.00	8,842.51	8,767.41	117.731	ES
Wells Ranch State 44-28 - Original Drilling - Original Drill	16,300.00	6,947.00	9,843.82	9,741.54	96.247	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
AA Section 29						
J&L Farms 29B PR - Wellbore #1 - Gyro Surveys	13,106.86	6,631.54	517.30	434.80	6.270	CC, ES, SF
J&L Farms 11-29 PA - Wellbore #1 - Gyro Surveys	16,637.83	6,632.53	226.83	116.26	2.051	CC, ES, SF
J&L Farms 12-29 PR - Wellbore #1 - Gyro Surveys	15,347.48	6,632.39	21.66	-78.58	0.216	Level 1, CC, ES, SF
J&L Farms 13-29 SI - Wellbore #1 - Gyro Surveys	13,897.74	6,632.40	98.62	9.94	1.112	Level 2, CC, ES, SF
J&L Farms 14-29 SI - Wellbore #1 - Gyro Surveys	12,708.91	6,638.27	219.31	139.85	2.760	CC, ES, SF
J&L Farms 21-29 PA - Wellbore #1 - Gyro Surveys	16,540.12	5,825.00	1,420.14	1,317.33	13.814	CC, ES
J&L Farms 23-29 PR - Wellbore #1 - Gyro Surveys	16,700.00	5,825.00	1,429.11	1,325.10	13.741	SF
J&L Farms 22-29 PR - Wellbore #1 - Gyro Surveys	15,057.54	6,569.63	1,601.52	1,503.76	16.383	CC, ES
J&L Farms 22-29 PR - Wellbore #1 - Gyro Surveys	15,200.00	6,569.82	1,607.84	1,508.84	16.240	SF
J&L Farms 23-29 PR - Wellbore #1 - Gyro Surveys	13,888.67	6,635.14	1,653.90	1,565.20	18.646	CC
J&L Farms 23-29 PR - Wellbore #1 - Gyro Surveys	13,900.00	6,634.86	1,653.94	1,565.12	18.622	ES
J&L Farms 23-29 PR - Wellbore #1 - Gyro Surveys	14,100.00	6,629.99	1,667.34	1,576.92	18.441	SF
J&L Farms 24-29 SI - Wellbore #1 - No Surveys	12,578.83	6,647.00	1,051.94	984.88	15.687	CC
J&L Farms 24-29 SI - Wellbore #1 - No Surveys	12,600.00	6,647.00	1,052.15	984.86	15.636	ES
J&L Farms 24-29 SI - Wellbore #1 - No Surveys	12,700.00	6,647.00	1,058.90	990.75	15.539	SF
J&L Farms 29-34 SI - Wellbore #1 - Gyro Surveys	12,467.71	6,670.95	2,652.08	2,574.28	34.089	CC
J&L Farms 29-34 SI - Wellbore #1 - Gyro Surveys	12,500.00	6,671.86	2,652.28	2,574.19	33.964	ES
J&L Farms 29-34 SI - Wellbore #1 - Gyro Surveys	13,000.00	6,686.23	2,704.93	2,623.17	33.084	SF
J&L Farms 31-29 SI - Wellbore #1 - Gyro Surveys	16,183.80	6,646.68	2,913.07	2,806.07	27.225	CC
J&L Farms 31-29 SI - Wellbore #1 - Gyro Surveys	16,200.00	6,646.84	2,913.12	2,805.96	27.187	ES
J&L Farms 31-29 SI - Wellbore #1 - Gyro Surveys	16,600.00	6,650.68	2,942.65	2,832.46	26.704	SF
J&L Farms 32-29D PR - Wellbore #1 - No Surveys	15,044.27	6,661.00	3,227.87	3,094.96	24.286	CC
J&L Farms 32-29D PR - Wellbore #1 - No Surveys	15,100.00	6,661.00	3,228.35	3,094.93	24.198	ES
J&L Farms 32-29D PR - Wellbore #1 - No Surveys	15,500.00	6,661.00	3,259.88	3,123.41	23.887	SF
J&L Farms 33-29 SI - Wellbore #1 - Gyro Surveys	13,933.56	6,669.88	2,801.91	2,712.83	31.452	CC, ES
J&L Farms 33-29 SI - Wellbore #1 - Gyro Surveys	14,400.00	6,670.13	2,840.47	2,747.83	30.661	SF
J&L Farms 41-29 SI - Wellbore #1 - No Surveys	16,294.66	6,661.00	4,206.94	4,063.96	29.423	CC
J&L Farms 41-29 SI - Wellbore #1 - No Surveys	16,300.00	6,661.00	4,206.94	4,063.92	29.413	ES
J&L Farms 41-29 SI - Wellbore #1 - No Surveys	17,000.00	6,661.00	4,265.66	4,117.37	28.766	SF
J&L Farms 42-29 PA - Wellbore #1 - Gyro Surveys	14,765.38	6,550.00	4,144.43	4,049.04	43.448	CC
J&L Farms 42-29 PA - Wellbore #1 - Gyro Surveys	14,800.00	6,550.00	4,144.58	4,048.88	43.310	ES
J&L Farms 42-29 PA - Wellbore #1 - Gyro Surveys	15,700.00	6,550.00	4,248.51	4,146.44	41.625	SF
J&L Farms 43-29 PA - Wellbore #1 - Gyro Surveys	13,588.36	6,570.03	4,062.75	3,976.67	47.193	CC
J&L Farms 43-29 PA - Wellbore #1 - Gyro Surveys	13,600.00	6,570.35	4,062.77	3,976.58	47.137	ES
J&L Farms 43-29 PA - Wellbore #1 - Gyro Surveys	14,600.00	6,596.02	4,186.75	4,093.41	44.859	SF
J&L Farms 44-29 SI - Wellbore #1 - No Surveys	12,299.35	6,685.00	3,890.78	3,779.11	34.840	CC
J&L Farms 44-29 SI - Wellbore #1 - No Surveys	12,300.00	6,685.00	3,890.78	3,779.10	34.838	ES
J&L Farms 44-29 SI - Wellbore #1 - No Surveys	13,100.00	6,685.00	3,972.31	3,854.70	33.775	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 Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
AA Section 30						
Fairmeadows 01-30 - Original Drilling - Original Drilling -	13,158.32	6,995.09	5,291.31	5,205.39	61.586	CC
Fairmeadows 01-30 - Original Drilling - Original Drilling -	13,200.00	6,993.33	5,291.47	5,205.28	61.389	ES
Fairmeadows 01-30 - Original Drilling - Original Drilling -	14,500.00	6,938.24	5,458.46	5,365.24	58.556	SF
Fairmeadows 03-30 - Original Drilling - Original Drilling -	14,499.20	6,641.22	5,230.83	5,137.38	55.972	CC
Fairmeadows 03-30 - Original Drilling - Original Drilling -	14,500.00	6,641.23	5,230.83	5,137.37	55.969	ES
Fairmeadows 03-30 - Original Drilling - Original Drilling -	15,700.00	6,658.89	5,366.87	5,266.46	53.451	SF
Fairmeadows 04-30 - Original Drilling - Original Drilling -	14,249.67	6,666.01	2,714.29	2,605.63	24.980	CC, ES
Fairmeadows 04-30 - Original Drilling - Original Drilling -	14,500.00	6,664.30	2,725.81	2,615.82	24.783	SF
J&L Farms 31-30 - Original Drilling - Original Drilling - As	16,847.08	6,710.44	2,327.29	2,214.54	20.641	CC, ES
J&L Farms 31-30 - Original Drilling - Original Drilling - As	17,000.00	6,711.23	2,332.31	2,218.76	20.540	SF
J&L Farms 32-30 - Original Drilling - Original Drilling - As	15,544.63	6,623.12	2,516.80	2,415.01	24.725	CC, ES
J&L Farms 32-30 - Original Drilling - Original Drilling - As	15,800.00	6,615.78	2,529.71	2,426.68	24.555	SF
Larsen Fairmeadows 02-30 - Original Drilling - Original D	12,966.91	6,607.92	2,854.97	2,773.64	35.104	CC
Larsen Fairmeadows 02-30 - Original Drilling - Original D	13,000.00	6,608.19	2,855.16	2,773.62	35.017	ES
Larsen Fairmeadows 02-30 - Original Drilling - Original D	13,400.00	6,611.44	2,887.63	2,804.11	34.577	SF
Larsen Fairmeadows 05-30 - Original Drilling - Original D	13,006.20	6,600.00	4,084.71	4,003.10	50.054	CC, ES
Larsen Fairmeadows 05-30 - Original Drilling - Original D	13,800.00	6,600.00	4,161.13	4,075.12	48.382	SF
Larson Fairmeadows 06-30 - Original Drilling - Original D	14,383.20	6,482.73	4,012.92	3,921.00	43.657	CC
Larson Fairmeadows 06-30 - Original Drilling - Original D	14,400.00	6,482.29	4,012.95	3,920.92	43.603	ES
Larson Fairmeadows 06-30 - Original Drilling - Original D	15,100.00	6,463.58	4,076.39	3,980.60	42.555	SF
Shadow A26-622 - Original Drilling - Original Drilling - As	13,021.48	6,179.58	2,272.20	2,197.99	30.620	CC, ES
Shadow A26-622 - Original Drilling - Original Drilling - As	13,300.00	6,185.64	2,289.17	2,213.65	30.311	SF
Shadow A26-627 - Original Drilling - Original Drilling - As	13,314.86	6,146.00	2,265.23	2,188.71	29.603	CC, ES
Shadow A26-627 - Original Drilling - Original Drilling - As	13,600.00	6,146.00	2,283.11	2,205.32	29.349	SF
Shadow A26-632 - Original Drilling - Original Drilling - As	13,757.02	6,275.72	2,188.16	2,107.11	26.997	CC, ES
Shadow A26-632 - Original Drilling - Original Drilling - As	14,000.00	6,267.46	2,201.55	2,119.37	26.788	SF
Shadow A26-637 - Original Drilling - Original Drilling - As	13,981.76	6,142.00	2,194.03	2,114.45	27.572	CC
Shadow A26-637 - Original Drilling - Original Drilling - As	14,000.00	6,142.00	2,194.10	2,114.42	27.535	ES
Shadow A26-637 - Original Drilling - Original Drilling - As	14,200.00	6,142.00	2,204.86	2,124.22	27.344	SF
Shadow A26-646 - Original Drilling - Original Drilling - As	14,587.80	6,142.00	2,120.29	2,034.21	24.633	CC
Shadow A26-646 - Original Drilling - Original Drilling - As	14,600.00	6,142.00	2,120.32	2,034.17	24.612	ES
Shadow A26-646 - Original Drilling - Original Drilling - As	14,800.00	6,175.21	2,129.90	2,042.61	24.398	SF
Shadow A26-656 - Original Drilling - Original Drilling - As	15,362.08	6,286.00	2,087.27	1,994.45	22.487	CC, ES
Shadow A26-656 - Original Drilling - Original Drilling - As	15,600.00	6,286.00	2,100.79	2,006.67	22.321	SF
Shadow A26-663 - Original Drilling - Original Drilling - As	15,697.65	6,273.19	2,052.74	1,957.33	21.515	CC
Shadow A26-663 - Original Drilling - Original Drilling - As	15,700.00	6,273.28	2,052.75	1,957.33	21.512	ES
Shadow A26-663 - Original Drilling - Original Drilling - As	15,800.00	6,276.68	2,055.81	1,959.88	21.430	SF
Shadow A26-672 - Original Drilling - Original Drilling - As	16,288.88	6,276.44	2,013.81	1,913.43	20.063	CC
Shadow A26-672 - Original Drilling - Original Drilling - As	16,300.00	6,276.56	2,013.84	1,913.39	20.048	ES
Shadow A26-672 - Original Drilling - Original Drilling - As	16,400.00	6,277.65	2,016.87	1,915.86	19.968	SF
Shadow A26-676 - Original Drilling - Original Drilling - As	16,692.09	6,264.72	1,975.33	1,872.17	19.148	CC
Shadow A26-676 - Original Drilling - Original Drilling - As	16,700.00	6,264.88	1,975.35	1,872.14	19.139	ES
Shadow A26-676 - Original Drilling - Original Drilling - As	16,800.00	6,266.86	1,978.27	1,874.54	19.071	SF
Shadow A26-685 - Original Drilling - Original Drilling - As	17,184.31	6,350.00	1,906.74	1,799.39	17.761	CC
Shadow A26-685 - Original Drilling - Original Drilling - As	17,200.00	6,350.00	1,906.81	1,799.36	17.748	ES
Shadow A26-685 - Original Drilling - Original Drilling - As	17,300.00	6,357.73	1,910.20	1,802.28	17.701	SF
Shadow A26-690 - Original Drilling - Original Drilling - As	17,324.21	6,330.00	1,915.46	1,806.83	17.633	CC, ES, SF
Shadow State A26-614 - Original Drilling - Original Drillin	12,478.75	6,202.64	2,309.84	2,239.33	32.755	CC
Shadow State A26-614 - Original Drilling - Original Drillin	12,500.00	6,202.39	2,309.94	2,239.30	32.698	ES
Shadow State A26-614 - Original Drilling - Original Drillin	12,800.00	6,198.66	2,332.07	2,260.02	32.370	SF
Shadow State A26-618 - Original Drilling - Original Drillin	12,702.02	6,091.00	2,311.59	2,240.54	32.535	CC, ES
Shadow State A26-618 - Original Drilling - Original Drillin	13,000.00	6,091.00	2,330.71	2,258.26	32.170	SF
Wells Ranch 41-30 - Original Drilling - Original Drilling - A	16,768.74	6,626.00	1,150.84	929.62	5.202	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 - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)		Separation Factor	Warning
Offset Well - Wellbore - Design						
AA Section 30						
Wells Ranch 41-30 - Original Drilling - Original Drilling - A	16,800.00	6,626.00	1,151.26	929.93	5.202	SF
Wells Ranch 42-30 - Original Drilling - Original Drilling - A	15,460.50	6,621.00	1,478.83	1,268.30	7.024	CC, ES
Wells Ranch 42-30 - Original Drilling - Original Drilling - A	15,500.00	6,621.00	1,479.36	1,268.64	7.021	SF
Wells Ranch 43-30 - Original Drilling - Original Drilling - A	14,232.36	6,621.00	1,416.31	1,215.57	7.055	CC, ES
Wells Ranch 43-30 - Original Drilling - Original Drilling - A	14,300.00	6,621.00	1,417.92	1,216.91	7.054	SF
Wells Ranch 44-30 - Original Drilling - Original Drilling - A	12,793.17	6,641.00	1,443.64	1,253.73	7.602	CC
Wells Ranch 44-30 - Original Drilling - Original Drilling - A	12,800.00	6,641.00	1,443.66	1,253.71	7.600	ES, SF
Wolfe 02-30G - Original Drilling - Original Drilling - As Dri	15,801.69	6,638.88	5,141.88	5,037.98	49.487	CC, ES
Wolfe 02-30G - Original Drilling - Original Drilling - As Dri	16,800.00	6,633.66	5,237.90	5,128.19	47.745	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
AA Section 31						
Devries USX AA31-11 - Wellbore #1 - Wellbore #1 - As D	8,846.86	6,805.41	4,185.05	4,130.09	76.149	CC, ES
Devries USX AA31-11 - Wellbore #1 - Wellbore #1 - As D	10,300.00	6,836.93	4,430.04	4,367.49	70.818	SF
Devries USX AA31-19 - Wellbore #1 - Wellbore #1 - As	10,737.16	6,755.92	4,841.92	4,770.56	67.852	CC, ES
Devries USX AA31-19 - Wellbore #1 - Wellbore #1 - As	12,300.00	6,808.86	5,054.38	4,976.14	64.606	SF
UPV 31-10G3 - Wellbore #1 - Wellbore #1 - As Drilled	8,980.83	6,638.59	2,874.93	2,820.68	52.989	CC
UPV 31-10G3 - Wellbore #1 - Wellbore #1 - As Drilled	9,000.00	6,638.39	2,875.00	2,820.64	52.891	ES
UPV 31-10G3 - Wellbore #1 - Wellbore #1 - As Drilled	9,600.00	6,632.22	2,940.85	2,883.48	51.266	SF
UPV 31-12G3 - Wellbore #1 - Wellbore #1 - As Drilled	8,533.58	6,534.28	5,585.29	5,533.75	108.366	CC, ES
UPV 31-12G3 - Wellbore #1 - Wellbore #1 - As Drilled	13,800.00	13,800.00	7,547.65	7,448.98	76.495	SF
UPV 31-13G3 - Wellbore #1 - Wellbore #1 - As Drilled	421.38	349.38	5,359.56	5,357.23	2,306.917	CC
UPV 31-13G3 - Wellbore #1 - Wellbore #1 - As Drilled	1,200.00	1,093.97	5,362.28	5,354.56	694.836	ES
UPV 31-13G3 - Wellbore #1 - Wellbore #1 - As Drilled	9,900.00	6,684.92	6,297.98	6,240.34	109.262	SF
UPV 31-14G3 - Wellbore #1 - Wellbore #1 - As Drilled	100.00	11.80	3,836.20	3,836.05	10,000.000	CC
UPV 31-14G3 - Wellbore #1 - Wellbore #1 - As Drilled	2,400.00	2,279.47	3,840.06	3,823.90	237.635	ES
UPV 31-14G3 - Wellbore #1 - Wellbore #1 - As Drilled	10,200.00	10,200.00	5,039.96	4,966.08	68.216	SF
UPV 31-15G3 - Wellbore #1 - Wellbore #1 - As Drilled	0.00	0.00	2,821.79			
UPV 31-15G3 - Wellbore #1 - Wellbore #1 - As Drilled	2,400.00	2,380.03	2,828.45	2,811.93	171.229	ES
UPV 31-15G3 - Wellbore #1 - Wellbore #1 - As Drilled	8,000.00	6,742.79	2,928.95	2,879.08	58.730	SF
UPV 31-16G3 - Wellbore #1 - Wellbore #1 - As Drilled	7,495.50	6,553.39	1,688.38	1,640.83	35.509	CC
UPV 31-16G3 - Wellbore #1 - Wellbore #1 - As Drilled	7,500.00	6,553.73	1,688.38	1,640.82	35.499	ES
UPV 31-16G3 - Wellbore #1 - Wellbore #1 - As Drilled	7,700.00	6,568.93	1,700.65	1,652.44	35.276	SF
UPV 31-9G3 - Wellbore #1 - Wellbore #1 - As Drilled	8,928.23	6,640.59	1,761.03	1,706.60	32.353	CC, ES
UPV 31-9G3 - Wellbore #1 - Wellbore #1 - As Drilled	9,200.00	6,642.42	1,781.87	1,726.12	31.962	SF
Wells Ranch AA30-717 - Wellbore #1 - Rev 2	17,324.21	11,777.66	875.71	715.44	5.464	CC, ES, SF
Wells Ranch AA30-725 - Wellbore #1 - Rev 4	17,324.21	12,202.11	1,324.94	1,164.28	8.247	CC, ES, SF
Wells Ranch State A36-625 - Original Drilling - Original D	7,886.88	6,363.00	1,057.67	1,013.74	24.077	CC, ES
Wells Ranch State A36-625 - Original Drilling - Original D	8,000.00	6,363.00	1,063.70	1,019.33	23.971	SF
Wells Ranch State A36-635 - Original Drilling - Original D	8,391.41	6,270.00	1,144.06	1,098.59	25.162	CC
Wells Ranch State A36-635 - Original Drilling - Original D	8,400.00	6,270.00	1,144.09	1,098.59	25.143	ES
Wells Ranch State A36-635 - Original Drilling - Original D	8,500.00	6,270.00	1,149.20	1,103.28	25.025	SF
Wells Ranch State A36-649 - Original Drilling - Original D	9,364.55	6,257.00	1,136.81	1,086.61	22.644	CC, ES
Wells Ranch State A36-649 - Original Drilling - Original D	9,400.00	6,257.00	1,137.36	1,087.02	22.593	SF
Wells Ranch State A36-655 - Original Drilling - Original D	9,693.06	6,256.00	1,174.55	1,120.89	21.889	CC
Wells Ranch State A36-655 - Original Drilling - Original D	9,700.00	6,256.00	1,174.57	1,120.88	21.880	ES
Wells Ranch State A36-655 - Original Drilling - Original D	9,800.00	6,256.00	1,179.40	1,125.45	21.858	SF
Wells Ranch State A36-665 - Original Drilling - Original D	10,748.44	6,320.46	1,169.68	1,108.16	19.011	CC, ES
Wells Ranch State A36-665 - Original Drilling - Original D	10,900.00	6,322.15	1,179.46	1,116.93	18.863	SF
Wells Ranch State A36-675 - Original Drilling - Original D	10,932.63	6,262.00	1,147.77	1,086.46	18.721	CC, ES
Wells Ranch State A36-675 - Original Drilling - Original D	11,000.00	6,262.00	1,149.74	1,087.97	18.610	SF
Wells Ranch State A36-686 - Original Drilling - Original D	11,796.77	6,354.00	1,116.13	1,046.23	15.967	CC
Wells Ranch State A36-686 - Original Drilling - Original D	11,800.00	6,354.00	1,116.13	1,046.22	15.964	ES
Wells Ranch State A36-686 - Original Drilling - Original D	11,900.00	6,354.00	1,119.58	1,049.36	15.946	SF
Wells Ranch USX AA31-01 - Wellbore #1 - Wellbore #1 -	11,358.91	6,691.55	1,826.26	1,756.40	26.142	CC, ES
Wells Ranch USX AA31-01 - Wellbore #1 - Wellbore #1 -	11,600.00	6,688.87	1,842.11	1,770.89	25.866	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 Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
BB Section 03						
UPRR Pan Am 1 (PA) - Original Drilling - Original Drilling						Out of range
Wells 43-3 PA - Wellbore #1 - No Surveys						Out of range
Wells 34-3 - Wellbore #1 - Gyro Surveys						Out of range
Wells Rach USX BB 3-14 - Wellbore #1 - Gyro Surveys						Out of range
Wells Ranch 12-03 - Original Drilling - Original Drilling - A						Out of range
Wells Ranch 21-3 TA - Wellbore #1 - No Surveys						Out of range
Wells Ranch 32-3 SI - Wellbore #1 - No Surveys						Out of range
Wells Ranch 41-3 - Wellbore #1 - No Surveys						Out of range
WELLS RANCH BB03-627 - Wellbore #1 - Plan 1						Out of range
WELLS RANCH BB03-651 - Wellbore #1 - Plan 3						Out of range
WELLS RANCH STATE BB03-612 - Wellbore #1 - Plan #						Out of range
WELLS RANCH STATE BB03-620 - Wellbore #1 - Plan 1						Out of range
WELLS RANCH STATE BB03-636 - Wellbore #1 - Plan 1						Out of range
WELLS RANCH STATE BB03-643 - Wellbore #1 - Plan 1						Out of range
WELLS RANCH STATE BB03-659 - Wellbore #1 - Plan 1	6,130.89	6,100.00	9,856.11	9,812.63	226.700	CC, ES
WELLS RANCH STATE BB03-659 - Wellbore #1 - Plan 1	7,000.00	6,150.00	9,991.87	9,946.07	218.160	SF
WELLS RANCH STATE BB03-668 - Wellbore #1 - Plan 1	6,187.75	6,150.00	9,761.81	9,718.27	224.210	CC
WELLS RANCH STATE BB03-668 - Wellbore #1 - Plan 1	6,200.00	6,150.00	9,761.84	9,718.26	224.011	ES
WELLS RANCH STATE BB03-668 - Wellbore #1 - Plan 1	7,600.00	6,150.00	9,977.10	9,930.25	212.993	SF
WELLS RANCH STATE BB03-676 - Wellbore #1 - Plan 1	6,201.48	6,100.00	9,715.05	9,671.51	223.108	CC, ES
WELLS RANCH STATE BB03-676 - Wellbore #1 - Plan 1	8,200.00	6,150.00	9,991.71	9,942.69	203.832	SF
WELLS RANCH STATE BB03-684 - Wellbore #1 - Plan 1	6,275.28	6,300.00	9,540.92	9,496.13	212.989	CC, ES
WELLS RANCH STATE BB03-684 - Wellbore #1 - Plan 1	9,000.00	6,400.00	9,989.56	9,935.80	185.824	SF
Wells Ranch State BB05-613 - Original Drilling - Original	6,118.41	16,693.42	4,768.25	4,622.29	32.670	CC, ES
Wells Ranch State BB05-613 - Original Drilling - Original	6,200.00	16,691.97	4,774.14	4,627.73	32.607	SF
Wells Ranch State BB05-617 - Original Drilling - Original	6,115.23	16,541.00	4,463.22	4,317.74	30.681	CC, ES
Wells Ranch State BB05-617 - Original Drilling - Original	6,200.00	16,541.00	4,469.64	4,323.69	30.625	SF
Wells Ranch State BB05-625 - Original Drilling - Original	6,126.48	16,414.89	3,943.67	3,798.94	27.249	CC, ES
Wells Ranch State BB05-625 - Original Drilling - Original	6,200.00	16,412.61	3,948.58	3,803.46	27.209	SF
Wells Ranch State BB05-630 - Original Drilling - Original	6,127.25	16,651.07	3,710.32	3,564.54	25.453	CC, ES
Wells Ranch State BB05-630 - Original Drilling - Original	6,200.00	16,646.44	3,715.17	3,568.96	25.409	SF
Wells Ranch State BB05-635 - Original Drilling - Original	6,146.89	16,639.94	3,342.77	3,197.92	23.076	CC
Wells Ranch State BB05-635 - Original Drilling - Original	6,150.00	16,639.82	3,342.78	3,197.90	23.073	ES
Wells Ranch State BB05-635 - Original Drilling - Original	6,250.00	16,636.60	3,352.65	3,207.09	23.033	SF
Wells Ranch State BB05-644 - Original Drilling - Original	6,153.40	16,526.79	2,692.26	2,546.98	18.532	CC, ES
Wells Ranch State BB05-644 - Original Drilling - Original	6,200.00	16,524.66	2,694.36	2,548.75	18.504	SF
Wells Ranch State BB05-650 - Original Drilling - Original	6,184.39	16,500.61	2,374.21	2,233.13	16.829	CC, ES
Wells Ranch State BB05-650 - Original Drilling - Original	6,250.00	16,497.91	2,378.49	2,236.82	16.790	SF
Wells Ranch State BB05-656 - Original Drilling - Original	6,177.59	16,184.19	2,056.40	1,915.73	14.619	CC, ES
Wells Ranch State BB05-656 - Original Drilling - Original	6,250.00	16,182.96	2,061.77	1,920.24	14.568	SF
Wells Ranch State BB05-665 - Original Drilling - Original	6,226.28	16,621.92	1,351.04	1,207.56	9.417	CC, ES
Wells Ranch State BB05-665 - Original Drilling - Original	6,300.00	16,621.09	1,357.27	1,212.43	9.371	SF
Wells Ranch State BB05-669 - Original Drilling - Original	6,324.70	16,636.00	1,098.62	959.35	7.888	CC
Wells Ranch State BB05-669 - Original Drilling - Original	6,350.00	16,636.00	1,099.41	959.28	7.846	ES
Wells Ranch State BB05-669 - Original Drilling - Original	6,400.00	16,636.00	1,105.61	963.92	7.803	SF
Wells Ranch State BB05-678 - Original Drilling - Original	6,341.98	16,677.88	782.90	654.59	6.102	CC
Wells Ranch State BB05-678 - Original Drilling - Original	6,350.00	16,677.40	782.99	654.28	6.083	ES
Wells Ranch State BB05-678 - Original Drilling - Original	6,450.00	16,671.72	799.28	666.27	6.009	SF
Wells Ranch State BB05-685 - Original Drilling - Original	6,502.66	16,297.92	231.84	106.41	1.848	CC
Wells Ranch State BB05-685 - Original Drilling - Original	6,550.00	16,298.47	238.33	103.48	1.767	ES, SF
Wells Ranch State BB05-690 - Original Drilling - Original	6,772.71	16,649.17	179.95	84.60	1.887	CC
Wells Ranch State BB05-690 - Original Drilling - Original	6,800.00	16,647.71	182.58	79.00	1.763	ES
Wells Ranch State BB05-690 - Original Drilling - Original	6,850.00	16,644.90	200.04	83.16	1.712	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 Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
BB Section 03						
Wells Ranch USX BB 3-10 - Wellbore #1 - Gyro Surveys						Out of range
Wells Ranch USX BB 3-11 SI - Wellbore #1 - Gyro Surve						Out of range
Wells Ranch USX BB 3-16 SI - Wellbore #1 - Gyro Surve						Out of range
Wells Ranch USX BB 3-2 SI - Wellbore #1 - No Surveys						Out of range
Wells Ranch USX BB 3-4 - Wellbore #1 - No Surveys						Out of range
Wells Ranch USX BB 3-6 SI - Wellbore #1 - Gyro Survey						Out of range
Wells Ranch USX BB 3-8 - Wellbore #1 - Gyro Surveys						Out of range
Wells Ranch USX BB03-04 - Original Drilling - Original D						Out of range
Wells Ranch USX BB03-12 - Original Drilling - Original D						Out of range
Wells Ranch USX BB03-13 - Original Drilling - Original D						Out of range
Wells Ranch USX BB03-25 PA - Original Drilling - Gyro S						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
BB Section 05						
UPV 05-03H3 - Original Drilling - Original Drilling - As Dri	6,203.94	6,204.51	1,056.02	1,012.84	24.455	CC, ES
UPV 05-03H3 - Original Drilling - Original Drilling - As Dri	6,400.00	6,398.29	1,068.35	1,023.90	24.030	SF
UPV 05-04H3 - Original Drilling - Original Drilling - As Dri	100.00	62.85	405.54	405.30	1,718.945	CC
UPV 05-04H3 - Original Drilling - Original Drilling - As Dri	2,500.00	2,464.24	414.75	397.59	24.164	ES
UPV 05-04H3 - Original Drilling - Original Drilling - As Dri	6,050.00	5,986.98	559.23	516.88	13.205	SF
UPV 05-05H3 - Original Drilling - Original Drilling - As Dri	455.10	427.11	1,868.20	1,865.48	687.336	CC
UPV 05-05H3 - Original Drilling - Original Drilling - As Dri	2,200.00	2,159.62	1,873.05	1,858.03	124.715	ES
UPV 05-05H3 - Original Drilling - Original Drilling - As Dri	6,250.00	6,217.29	1,951.56	1,908.04	44.843	SF
UPV 05-06H3 - Original Drilling - Original Drilling - As Dri	6,053.18	5,998.34	2,011.35	1,969.36	47.900	CC, ES
UPV 05-06H3 - Original Drilling - Original Drilling - As Dri	6,400.00	6,427.45	2,090.18	2,045.57	46.863	SF
Wells Ranch 31-05 - Original Drilling - Original Drilling - A	6,043.62	5,900.01	2,522.17	2,480.54	60.593	CC
Wells Ranch 31-05 - Original Drilling - Original Drilling - A	6,050.00	5,900.01	2,522.18	2,480.53	60.565	ES
Wells Ranch 31-05 - Original Drilling - Original Drilling - A	6,700.00	6,594.69	2,576.94	2,530.88	55.952	SF
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,087.34	6,066.20	2,883.15	2,840.81	68.088	CC
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,100.00	6,078.62	2,883.23	2,840.79	67.949	ES
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,450.00	6,411.72	2,944.27	2,899.56	65.849	SF
Wells Ranch 41-05 - Original Drilling - Original Drilling - A	6,243.68	6,244.25	3,722.33	3,678.83	85.579	CC
Wells Ranch 41-05 - Original Drilling - Original Drilling - A	6,250.00	6,250.14	3,722.33	3,678.79	85.497	ES
Wells Ranch 41-05 - Original Drilling - Original Drilling - A	6,900.00	6,621.76	3,796.41	3,749.89	81.599	SF
Wells Ranch 42-05 - Original Drilling - Original Drilling - A	6,108.50	6,085.52	4,002.64	3,960.14	94.180	CC, ES
Wells Ranch 42-05 - Original Drilling - Original Drilling - A	6,650.00	6,499.67	4,109.73	4,064.18	90.233	SF
Wells Ranch BB01-611 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-615 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-624 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-624 - Original Drilling - ST01 - ST01 -						Out of range
Wells Ranch BB01-638 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-649 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-655 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-669 - Original Drilling - Original Drilling						Out of range
Wells Ranch BB01-675 - Original Drilling - Original Drilling						Out of range
Wells Ranch State AA32-717 - Wellbore #1 - Plan 1	1,903.05	1,932.05	3,293.51	3,280.23	247.973	CC
Wells Ranch State AA32-717 - Wellbore #1 - Plan 1	2,000.00	2,000.00	3,293.63	3,279.76	237.423	ES
Wells Ranch State AA32-717 - Wellbore #1 - Plan 1	17,324.21	17,410.28	4,425.19	4,236.48	23.449	SF
Wells Ranch State AA32-724 - Wellbore #1 - Plan 1	2,871.65	2,709.91	3,251.44	3,232.02	167.390	CC
Wells Ranch State AA32-724 - Wellbore #1 - Plan 1	2,900.00	2,729.08	3,251.50	3,231.91	166.008	ES
Wells Ranch State AA32-724 - Wellbore #1 - Plan 1	17,324.21	17,318.77	3,985.71	3,796.99	21.120	SF
Wells Ranch State AA32-731 - Wellbore #1 - Plan 1	7,058.66	6,861.23	2,921.69	2,872.83	59.806	CC
Wells Ranch State AA32-731 - Wellbore #1 - Plan 1	7,100.00	6,893.46	2,921.78	2,872.73	59.573	ES
Wells Ranch State AA32-731 - Wellbore #1 - Plan 1	17,324.21	17,056.04	3,584.40	3,396.17	19.042	SF
Wells Ranch State AA32-737 - Wellbore #1 - Plan 1	6,638.39	6,642.24	2,505.95	2,459.06	53.446	CC
Wells Ranch State AA32-737 - Wellbore #1 - Plan 1	6,700.00	6,677.95	2,506.12	2,458.97	53.149	ES
Wells Ranch State AA32-737 - Wellbore #1 - Plan 1	17,324.21	17,204.06	3,155.29	2,966.75	16.735	SF
Wells Ranch State AA32-745 - Wellbore #1 - Plan 1	1,912.55	1,923.55	1,537.07	1,523.78	115.697	CC
Wells Ranch State AA32-745 - Wellbore #1 - Plan 1	2,000.00	2,000.00	1,537.11	1,523.23	110.802	ES
Wells Ranch State AA32-745 - Wellbore #1 - Plan 1	17,324.21	17,258.84	2,733.63	2,548.73	14.785	SF
Wells Ranch State AA32-751 - Wellbore #1 - Plan 1	2,644.79	2,567.32	1,497.61	1,479.47	82.577	CC, ES
Wells Ranch State AA32-751 - Wellbore #1 - Plan 1	17,324.21	17,277.67	2,303.62	2,118.50	12.444	SF
Wells Ranch State AA32-759 (Killed) - Wellbore #1 - Plan	6,655.19	6,554.35	1,119.46	1,073.56	24.392	CC
Wells Ranch State AA32-759 (Killed) - Wellbore #1 - Plan	7,044.92	6,873.88	1,120.61	1,073.20	23.636	ES
Wells Ranch State AA32-759 (Killed) - Wellbore #1 - Plan	17,324.21	17,107.78	1,767.69	1,583.19	9.581	SF
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	6,879.79	6,816.08	784.29	736.87	16.542	CC
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	11,800.00	11,734.32	808.28	696.02	7.200	ES
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	17,324.21	17,234.04	1,324.81	1,111.08	6.198	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 Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	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						
BB Section 05						
Wells Ranch State AA32-770 - Wellbore #1 - Plan #2	2,000.00	2,000.00	37.47	23.60	2.701	CC, ES
Wells Ranch State AA32-770 - Wellbore #1 - Plan #2	2,100.00	2,098.68	39.17	24.60	2.689	SF
Wells Ranch State AA32-783 - Wellbore #1 - Plan #2	2,200.00	2,199.00	37.47	22.17	2.448	CC, ES
Wells Ranch State AA32-783 - Wellbore #1 - Plan #2	2,300.00	2,297.78	39.03	23.03	2.439	SF
Wells Ranch State AA32-789 - Wellbore #1 - Plan #2	2,000.00	1,998.00	74.96	61.10	5.406	CC, ES
Wells Ranch State AA32-789 - Wellbore #1 - Plan #2	2,100.00	2,095.48	76.59	62.03	5.261	SF
Wells Ranch State BB01-690 - Original Drilling - Original						Out of range
Wells Ranch USX BB05-09 - Original Drilling - Original D	6,081.00	6,044.66	4,772.18	4,729.94	112.979	CC, ES
Wells Ranch USX BB05-09 - Original Drilling - Original D	6,600.38	6,501.03	4,900.92	4,855.53	107.965	SF
Wells Ranch USX BB05-10 - Original Drilling - Original D	6,058.02	5,999.31	3,920.23	3,878.21	93.310	CC, ES
Wells Ranch USX BB05-10 - Original Drilling - Original D	6,500.00	6,400.26	4,042.21	3,997.41	90.231	SF
Wells Ranch USX BB05-11 - Original Drilling - Original D	6,059.28	6,056.71	3,014.88	2,972.66	71.404	CC, ES
Wells Ranch USX BB05-11 - Original Drilling - Original D	6,400.00	6,398.62	3,098.77	3,054.24	69.582	SF
Wells Ranch USX BB05-12 - Original Drilling - Original D	257.74	245.77	3,027.81	3,026.41	2,169.914	CC
Wells Ranch USX BB05-12 - Original Drilling - Original D	3,100.00	3,059.99	3,045.03	3,023.69	142.717	ES
Wells Ranch USX BB05-12 - Original Drilling - Original D	6,350.00	6,344.31	3,171.28	3,127.00	71.610	SF
Wells Ranch USX BB05-13 - Original Drilling - Original D	5,970.29	5,977.11	4,332.12	4,290.44	103.956	CC
Wells Ranch USX BB05-13 - Original Drilling - Original D	6,041.44	6,038.60	4,332.20	4,290.06	102.801	ES
Wells Ranch USX BB05-13 - Original Drilling - Original D	6,500.00	6,470.32	4,491.06	4,445.95	99.564	SF
Wells Ranch USX BB05-14 - Original Drilling - Original D	6,024.79	5,974.79	4,306.59	4,264.75	102.935	CC
Wells Ranch USX BB05-14 - Original Drilling - Original D	6,041.44	5,985.47	4,306.60	4,264.67	102.700	ES
Wells Ranch USX BB05-14 - Original Drilling - Original D	6,400.00	6,456.51	4,398.47	4,353.70	98.260	SF
Wells Ranch USX BB05-15 - Original Drilling - Original D	6,050.31	5,975.85	4,836.40	4,794.49	115.413	CC, ES
Wells Ranch USX BB05-15 - Original Drilling - Original D	6,450.00	6,271.50	4,948.32	4,904.11	111.927	SF
Wells Ranch USX BB05-16 - Original Drilling - Original D	6,065.47	6,034.14	5,537.14	5,494.97	131.327	CC, ES
Wells Ranch USX BB05-16 - Original Drilling - Original D	6,550.00	6,468.52	5,675.45	5,630.29	125.671	SF
Wells Ranch USX BB05-23 - Original Drilling - Original D	6,066.77	6,038.23	4,805.07	4,762.84	113.778	CC, ES
Wells Ranch USX BB05-23 - Original Drilling - Original D	6,550.00	6,500.55	4,941.43	4,896.11	109.022	SF
Wells Ranch USX BB05-25 - Original Drilling - Original D	1,761.60	1,752.69	3,596.64	3,584.59	298.587	CC
Wells Ranch USX BB05-25 - Original Drilling - Original D	6,050.00	6,015.55	3,609.63	3,567.56	85.788	ES
Wells Ranch USX BB05-25 - Original Drilling - Original D	6,350.00	6,304.87	3,682.16	3,638.06	83.497	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	Offset TVD Reference:	Offset Datum

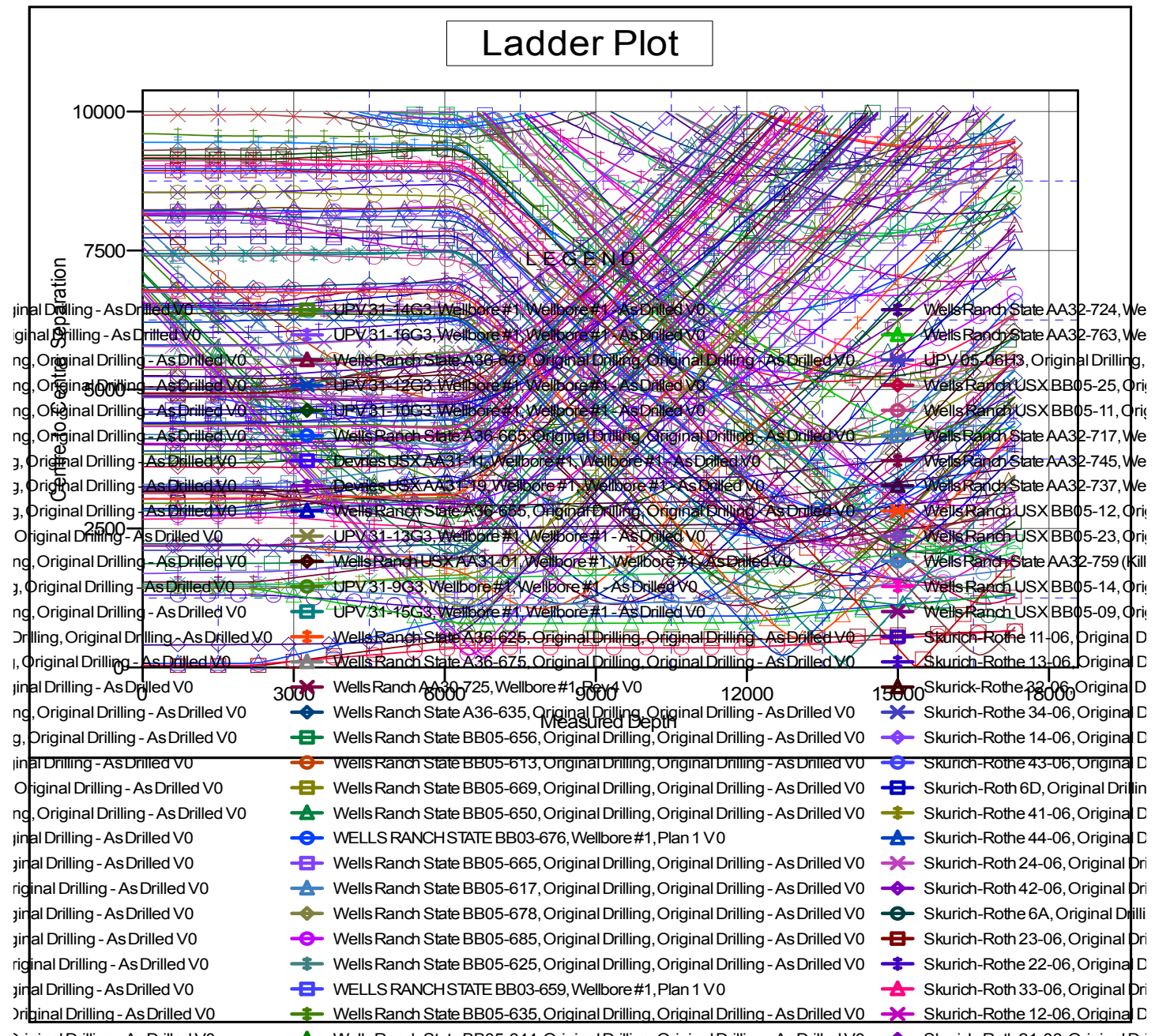
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 06						
Skurich-Roth 21-06 - Original Drilling - Original Drilling - A	2,430.56	2,379.84	4,001.96	3,985.35	240.922	CC, ES
Skurich-Roth 21-06 - Original Drilling - Original Drilling - A	6,950.00	6,568.60	4,288.23	4,241.74	92.243	SF
Skurich-Roth 23-06 - Original Drilling - Original Drilling - A	100.00	28.90	4,927.74	4,927.57	10,000.000	CC
Skurich-Roth 23-06 - Original Drilling - Original Drilling - A	2,000.00	1,903.28	4,935.11	4,921.68	367.598	ES
Skurich-Roth 23-06 - Original Drilling - Original Drilling - A	6,600.38	6,558.98	5,224.27	5,178.56	114.285	SF
Skurich-Roth 24-06 - Original Drilling - Original Drilling - A	370.17	309.07	5,774.27	5,772.26	2,880.893	CC
Skurich-Roth 33-06 - Original Drilling - Original Drilling - A	700.00	602.32	5,776.02	5,771.81	1,372.242	ES
Skurich-Roth 24-06 - Original Drilling - Original Drilling - A	6,650.00	6,549.21	6,158.25	6,112.46	134.498	SF
Skurich-Roth 33-06 - Original Drilling - Original Drilling - A	741.55	683.58	4,016.07	4,011.42	864.646	CC
Skurich-Roth 33-06 - Original Drilling - Original Drilling - A	2,400.00	2,318.80	4,023.92	4,007.63	246.965	ES
Skurich-Roth 6D - Original Drilling - Original Drilling - As	6,500.00	6,365.80	4,281.97	4,237.21	95.657	SF
Skurich-Roth 42-06 - Original Drilling - Original Drilling - A	356.39	319.40	2,184.64	2,182.65	1,099.888	CC
Skurich-Roth 42-06 - Original Drilling - Original Drilling - A	1,000.00	946.34	2,187.03	2,180.54	337.315	ES
Skurich-Roth 42-06 - Original Drilling - Original Drilling - A	6,350.00	6,264.47	2,401.40	2,357.42	54.600	SF
Skurich-Roth 6D - Original Drilling - Original Drilling - As	2,436.99	2,402.45	4,555.64	4,538.92	272.576	CC, ES
Skurich-Roth 6D - Original Drilling - Original Drilling - As	7,500.00	7,500.00	5,092.82	5,042.13	100.469	SF
Skurich-Roth 11-06 - Original Drilling - Original Drilling - A	957.46	866.47	5,234.79	5,228.74	864.635	CC
Skurich-Roth 11-06 - Original Drilling - Original Drilling - A	1,700.00	1,572.84	5,236.68	5,225.51	468.441	ES
Skurich-Roth 11-06 - Original Drilling - Original Drilling - A	7,044.92	6,578.22	5,550.80	5,492.44	95.108	SF
Skurich-Roth 12-06 - Original Drilling - Original Drilling - A	2,147.66	2,058.68	5,396.77	5,382.27	372.367	CC
Skurich-Roth 12-06 - Original Drilling - Original Drilling - A	2,400.00	2,296.29	5,397.54	5,381.32	332.724	ES
Skurich-Roth 12-06 - Original Drilling - Original Drilling - A	6,900.00	6,609.17	5,779.02	5,732.50	124.226	SF
Skurich-Roth 13-06 - Original Drilling - Original Drilling - A	100.00	9.62	6,025.81	6,025.67	10,000.000	CC
Skurich-Roth 13-06 - Original Drilling - Original Drilling - A	2,400.00	2,306.37	6,029.00	6,012.75	370.988	ES
Skurich-Roth 13-06 - Original Drilling - Original Drilling - A	6,850.00	6,528.27	6,455.93	6,407.95	134.549	SF
Skurich-Roth 14-06 - Original Drilling - Original Drilling - A	1,014.43	934.44	6,747.87	6,741.38	1,039.338	CC
Skurich-Roth 14-06 - Original Drilling - Original Drilling - A	2,400.00	2,291.00	6,754.02	6,737.82	417.003	ES
Skurich-Roth 14-06 - Original Drilling - Original Drilling - A	6,750.00	6,757.91	7,119.74	7,073.01	152.332	SF
Skurich-Roth 22-06 - Original Drilling - Original Drilling - A	420.90	358.91	4,390.35	4,387.99	1,862.746	CC
Skurich-Roth 22-06 - Original Drilling - Original Drilling - A	2,400.00	2,317.19	4,396.47	4,380.18	269.907	ES
Skurich-Roth 22-06 - Original Drilling - Original Drilling - A	6,700.00	6,523.66	4,736.93	4,691.11	103.374	SF
Skurich-Roth 31-06 - Original Drilling - Original Drilling - A	100.00	37.91	2,729.65	2,729.46	10,000.000	CC
Skurich-Roth 31-06 - Original Drilling - Original Drilling - A	600.00	520.65	2,732.09	2,728.52	766.139	ES
Skurich-Roth 31-06 - Original Drilling - Original Drilling - A	6,700.00	6,463.79	3,039.21	2,993.62	66.655	SF
Skurich-Roth 34-06 - Original Drilling - Original Drilling - A	1,107.33	1,057.33	5,009.85	5,002.59	690.680	CC
Skurich-Roth 34-06 - Original Drilling - Original Drilling - A	2,400.00	2,345.53	5,011.10	4,994.72	305.852	ES
Skurich-Roth 34-06 - Original Drilling - Original Drilling - A	6,500.00	6,337.24	5,282.61	5,237.94	118.272	SF
Skurich-Roth 41-06 - Original Drilling - Original Drilling - A	2,376.18	2,331.22	1,423.03	1,406.78	87.553	CC
Skurich-Roth 41-06 - Original Drilling - Original Drilling - A	2,400.00	2,353.95	1,423.04	1,406.62	86.676	ES
Skurich-Roth 41-06 - Original Drilling - Original Drilling - A	6,500.00	6,467.73	1,693.97	1,648.87	37.558	SF
Skurich-Roth 43-06 - Original Drilling - Original Drilling - A	615.88	576.89	3,230.14	3,226.32	846.026	CC
Skurich-Roth 43-06 - Original Drilling - Original Drilling - A	2,200.00	2,138.97	3,233.74	3,218.79	216.299	ES
Skurich-Roth 43-06 - Original Drilling - Original Drilling - A	6,350.00	6,274.72	3,399.01	3,354.98	77.191	SF
Skurich-Roth 44-06 - Original Drilling - Original Drilling - A	100.00	60.65	4,405.72	4,405.48	10,000.000	CC
Skurich-Roth 44-06 - Original Drilling - Original Drilling - A	3,900.00	3,903.14	4,419.82	4,392.76	163.360	ES
Skurich-Roth 44-06 - Original Drilling - Original Drilling - A	6,450.00	6,428.33	4,568.84	4,524.00	101.896	SF
Skurich-Roth 6A - Original Drilling - Original Drilling - As	2,488.70	2,498.45	4,096.49	4,079.23	237.400	CC
Skurich-Roth 6A - Original Drilling - Original Drilling - As	2,567.51	2,590.83	4,096.82	4,078.97	229.529	ES
Skurich-Roth 6A - Original Drilling - Original Drilling - As	6,450.00	6,358.28	4,282.15	4,237.53	95.974	SF
Skurich-Roth 32-06 - Original Drilling - Original Drilling - A	2,400.00	2,346.00	3,160.01	3,104.72	57.153	CC
Skurich-Roth 32-06 - Original Drilling - Original Drilling - A	2,500.00	2,445.98	3,161.44	3,103.80	54.849	ES
Skurich-Roth 32-06 - Original Drilling - Original Drilling - A	6,550.00	6,438.12	3,443.50	3,291.89	22.713	SF

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

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	Offset TVD Reference:	Offset Datum

Grid Convergence at Surface is: 0.67°



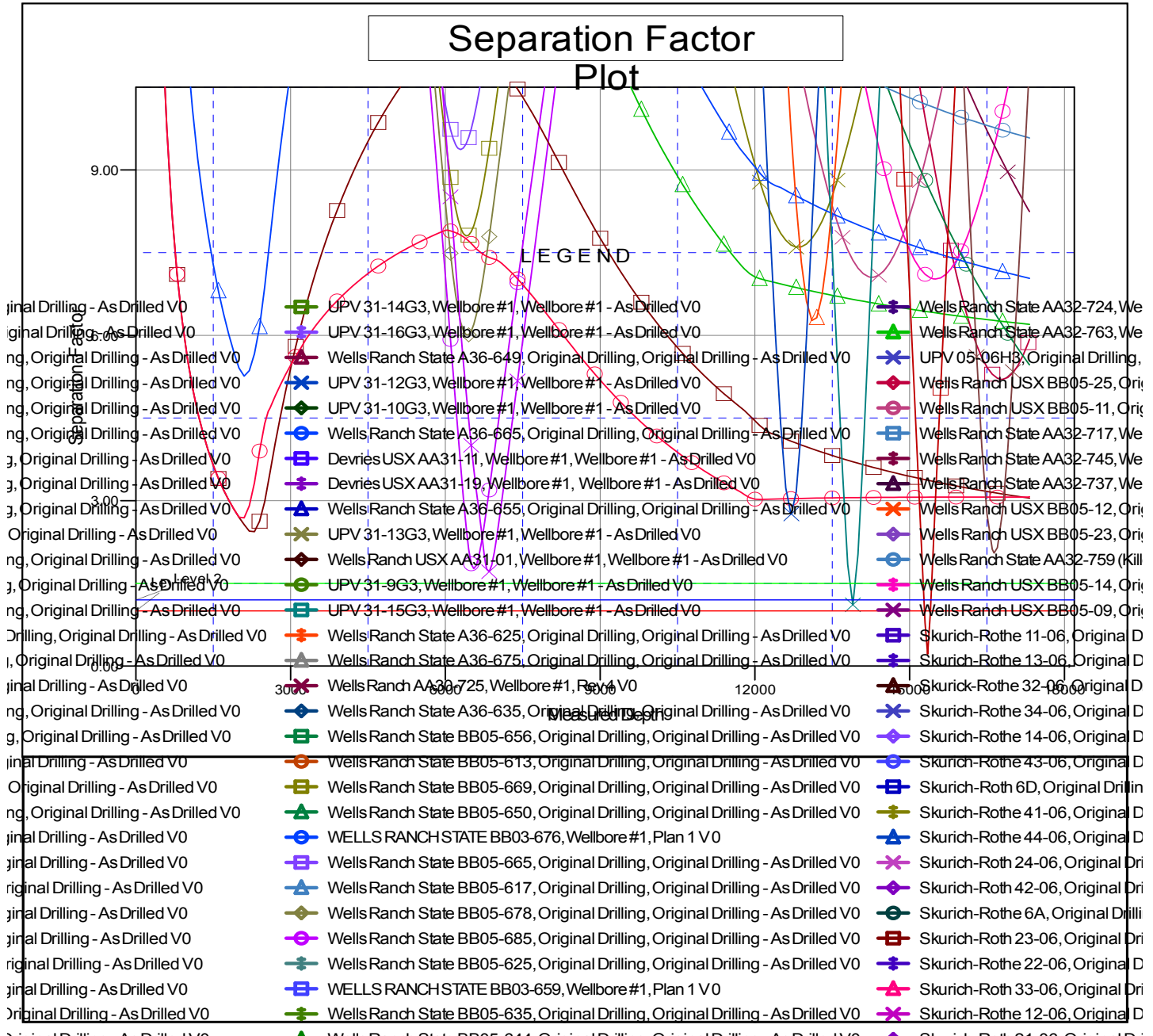
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Wells Ranch State AA32-775
Project:	Wells Ranch	TVD Reference:	Well @ 4704.00ft
Reference Site:	BB Section 05	MD Reference:	Well @ 4704.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Wells Ranch State AA32-775	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 4704.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Wells Ranch State AA32-775
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.67°



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