

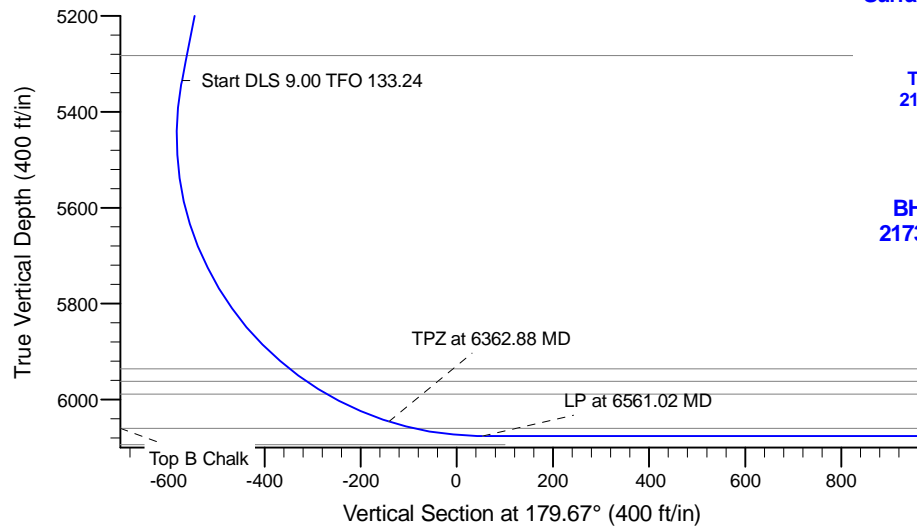
Project: East Pony
 Site: LG Section 09
 Well: Dorothy State LG16-757
 Wellbore: Original Drilling
 Design: Rev 0

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

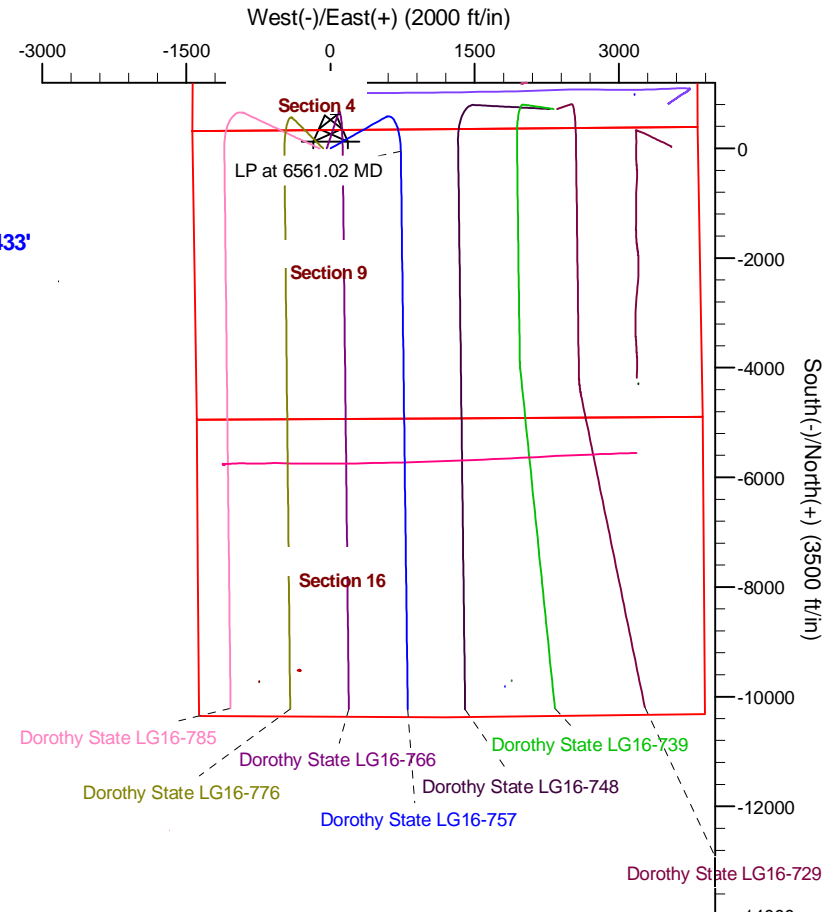
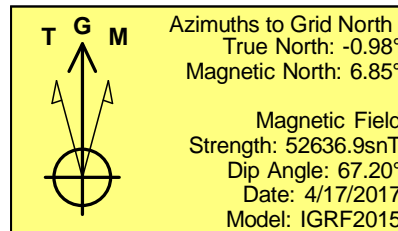
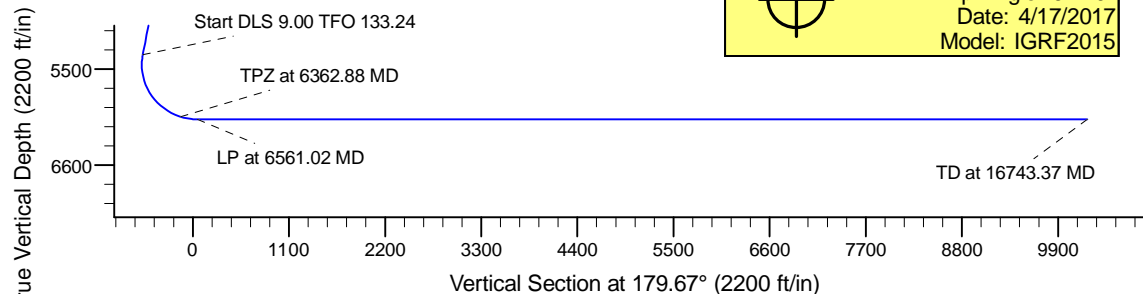
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2775.30	15.51	45.29	2765.87	73.36	74.10	2.00	45.29	-72.93	
4	5441.44	15.51	45.29	5334.97	574.83	580.62	0.00	0.00	-571.46	
5	6561.02	90.00	179.59	6076.00	-49.53	732.18	9.00	133.24	53.77	LP Dorothy State LG16-757
6	16743.37	90.00	179.59	6076.00	-10231.63	804.57	0.00	0.00	10236.11	BHL Dorothy State LG16-757



Surface: 335' FNL, 1433' FWL, Sec.9

TPZ: 200' FNL, 2165' FWL, Sec.9

BHL: 140' FSL, 2173' FWL, Sec.16



WELL DETAILS: Dorothy State LG16-757

North	East	Lat	Long
0.00	0.00	4850.00	40.6831997
1495318.96	3419978.85	40.6831997	-103.9856535

Plan: Rev 0 (Dorothy State LG16-757/Original Drilling)

Created By: Colby Baxter

Date: 13:58, March 05 2018

**OK to submit with 2A as per Noble Drilling
 3/5/2018**

Northern Region - DJ Basin

East Pony

LG Section 09

Dorothy State LG16-757

Original Drilling

Rev 0

Anticollision Summary Report

05 March, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Dorothy State LG16-757
Project:	East Pony	TVD Reference:	KB @ 4880.00ft
Reference Site:	LG Section 09	MD Reference:	KB @ 4880.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Dorothy State LG16-757	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference	Rev 0		
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	3/5/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	16,743.29	Rev 0 (Original Drilling)	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						
LG Section 04						
Bulleit Federal PC LG04-62HN - Original Drilling - Original	5,907.16	8,871.52	604.49	523.42	7.457	CC
Bulleit Federal PC LG04-62HN - Original Drilling - Original	5,950.00	8,865.38	607.40	523.38	7.229	ES
Bulleit Federal PC LG04-62HN - Original Drilling - Original	6,000.00	8,858.76	618.04	531.09	7.108	SF
Dorothy State LG16-729 - Original Drilling - Rev 0	10,638.20	10,660.94	1,824.19	1,736.82	20.879	CC
Dorothy State LG16-729 - Original Drilling - Rev 0	10,700.00	10,700.00	1,824.59	1,736.45	20.700	ES
Dorothy State LG16-729 - Original Drilling - Rev 0	16,743.37	16,532.51	2,454.74	2,273.72	13.560	SF
Dorothy State LG16-739 - Original Drilling - Rev 1	10,356.99	10,497.66	1,210.42	1,127.16	14.539	CC
Dorothy State LG16-739 - Original Drilling - Rev 1	10,400.00	10,530.37	1,210.60	1,126.81	14.447	ES
Dorothy State LG16-739 - Original Drilling - Rev 1	16,743.37	16,814.01	1,529.77	1,348.07	8.419	SF
Dorothy State LG16-748 - Original Drilling - Rev 0	16,743.37	16,856.21	601.69	419.96	3.311	CC, ES, SF
Grey #1 - Wellbore #1 - Actual	6,021.48	5,803.86	2,542.56	2,421.01	20.917	CC
Grey #1 - Wellbore #1 - Actual	6,050.00	5,824.40	2,542.82	2,420.85	20.848	ES
Grey #1 - Wellbore #1 - Actual	6,300.00	5,963.25	2,569.66	2,444.83	20.585	SF
McClellan PC LG04-15 - Wellbore #1 - Wellbore #1- As D	5,811.89	5,654.61	1,538.39	1,498.10	38.179	CC, ES
McClellan PC LG04-15 - Wellbore #1 - Wellbore #1- As D	6,000.00	5,806.17	1,554.84	1,513.53	37.647	SF
LG Section 09						
Dorothy State LG16-766 - Original Drilling - Rev 0	2,000.00	2,000.00	38.00	24.13	2.739	CC, ES
Dorothy State LG16-766 - Original Drilling - Rev 0	2,100.00	2,100.02	39.28	24.69	2.693	SF
Dorothy State LG16-776 - Original Drilling - Rev 0	2,000.00	2,004.00	75.00	61.11	5.401	CC, ES
Dorothy State LG16-776 - Original Drilling - Rev 0	2,100.00	2,103.98	76.27	61.67	5.224	SF
Dorothy State LG16-785 - Original Drilling - Rev 0	2,000.00	2,000.00	113.00	99.13	8.146	CC, ES
Dorothy State LG16-785 - Original Drilling - Rev 0	2,100.00	2,097.02	115.55	100.98	7.932	SF
Kirchner 1 - Original Drilling - Original Drilling - As Drilled	10,815.48	5,978.00	2,441.57	2,346.08	25.570	CC, ES
Kirchner 1 - Original Drilling - Original Drilling - As Drilled	11,200.00	5,978.00	2,471.66	2,373.29	25.127	SF
McClellan LG09-72HN - Original Drilling - As Drilled	9,777.06	9,369.46	2,418.25	2,321.06	24.882	CC
McClellan LG09-72HN - Original Drilling - As Drilled	10,714.43	10,307.02	2,425.94	2,306.48	20.306	ES
McClellan LG09-72HN - Original Drilling - As Drilled	10,900.00	10,307.02	2,433.03	2,312.65	20.211	SF

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

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Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
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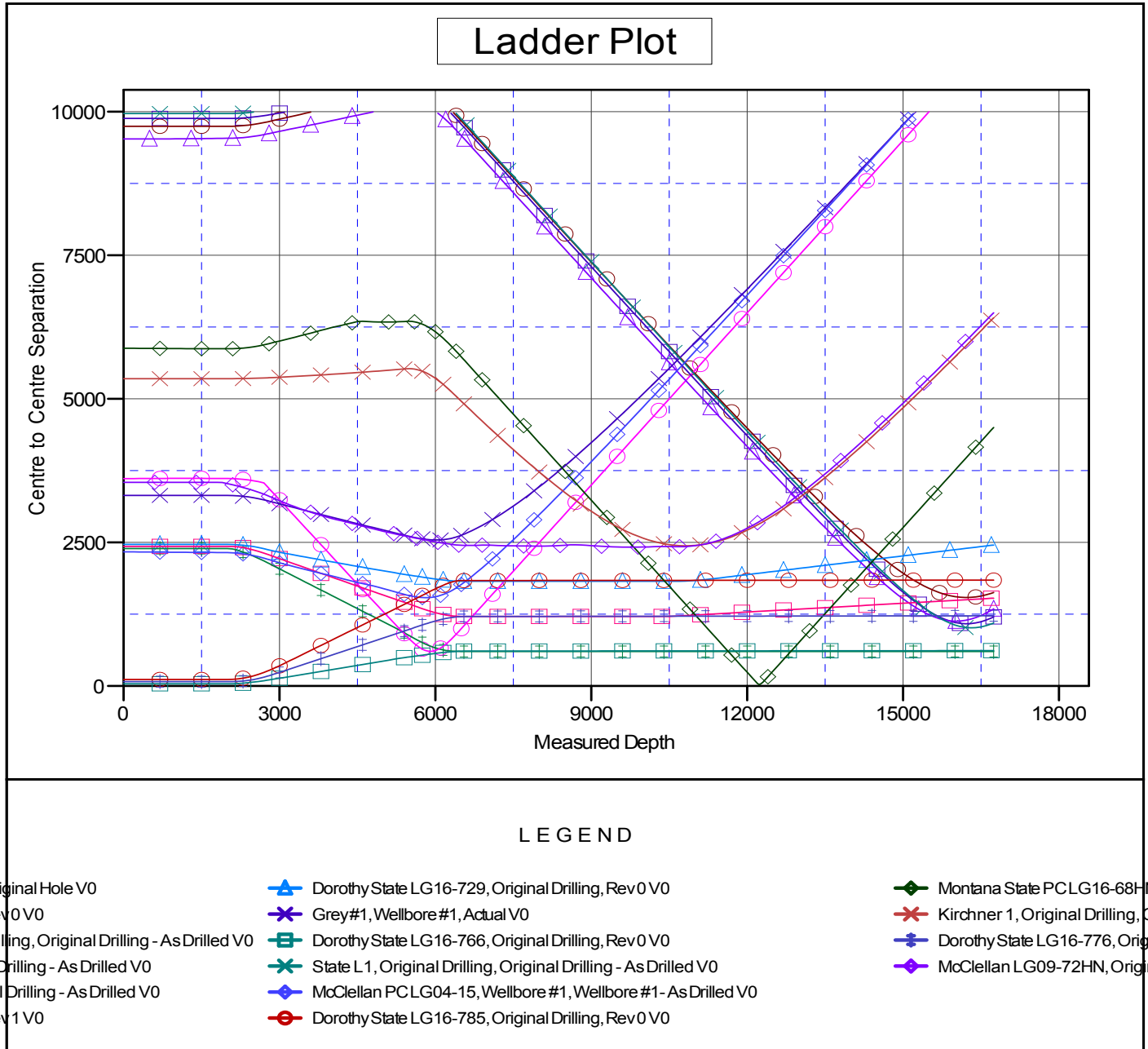
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)		Separation Factor	Warning
Offset Well - Wellbore - Design						
LG Section 16						
Montana State PC LG16-68HN - Production Hole - Wellb	12,239.54	7,679.36	20.08	-46.38	0.302	Level 1, CC, ES, SF
State 1 (E L Fundingsland) - Original Hole - Original Hole	16,218.46	6,080.00	1,541.09	1,403.20	11.176	CC, ES
State 1 (E L Fundingsland) - Original Hole - Original Hole	16,300.00	6,080.00	1,543.24	1,405.01	11.164	SF
State 1 (Juniper) - Original Drilling - Original Drilling - As	16,221.40	6,056.00	1,083.81	946.03	7.866	CC, ES
State 1 (Juniper) - Original Drilling - Original Drilling - As	16,300.00	6,056.00	1,086.66	948.18	7.847	SF
State L1 - Original Drilling - Original Drilling - As Drilled	16,320.48	6,055.00	1,012.67	874.10	7.308	CC, ES
State L1 - Original Drilling - Original Drilling - As Drilled	16,400.00	6,055.00	1,015.78	876.53	7.294	SF
State-Tincup 13-16 - Original Drilling - Original Drilling - As	16,016.65	6,129.97	1,128.29	1,023.75	10.792	CC, ES, SF

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Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	EDMP
Reference Design:	Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 4880.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Dorothy State LG16-757
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.98°



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