

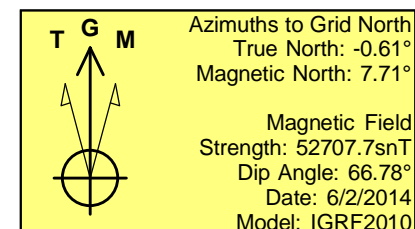
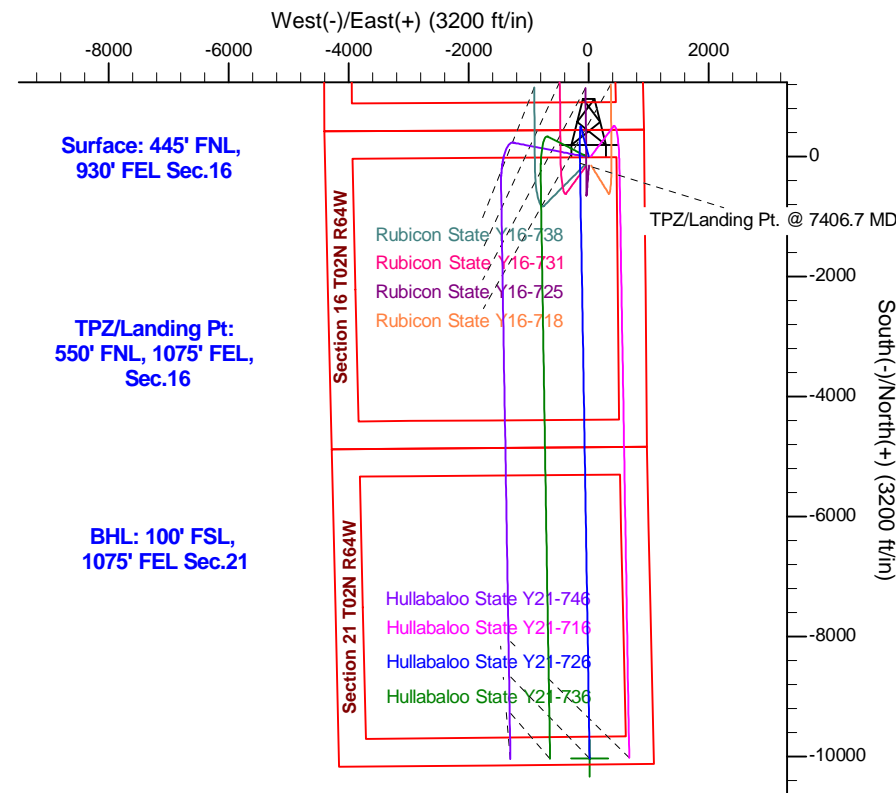
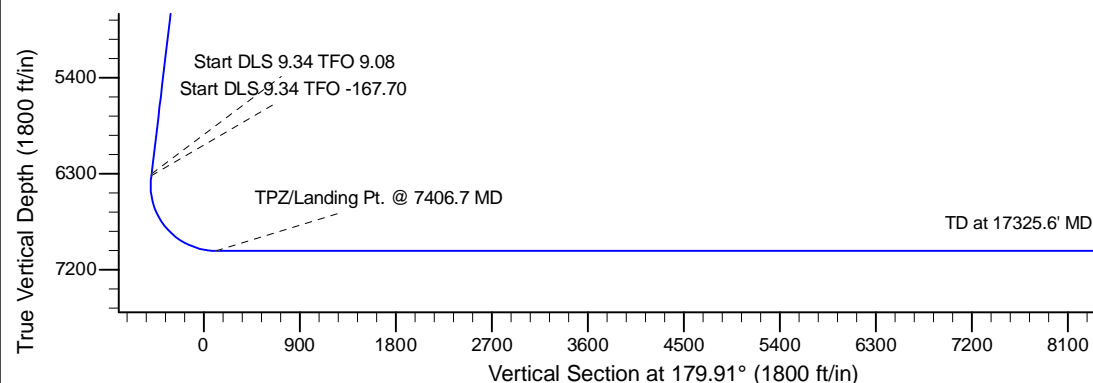
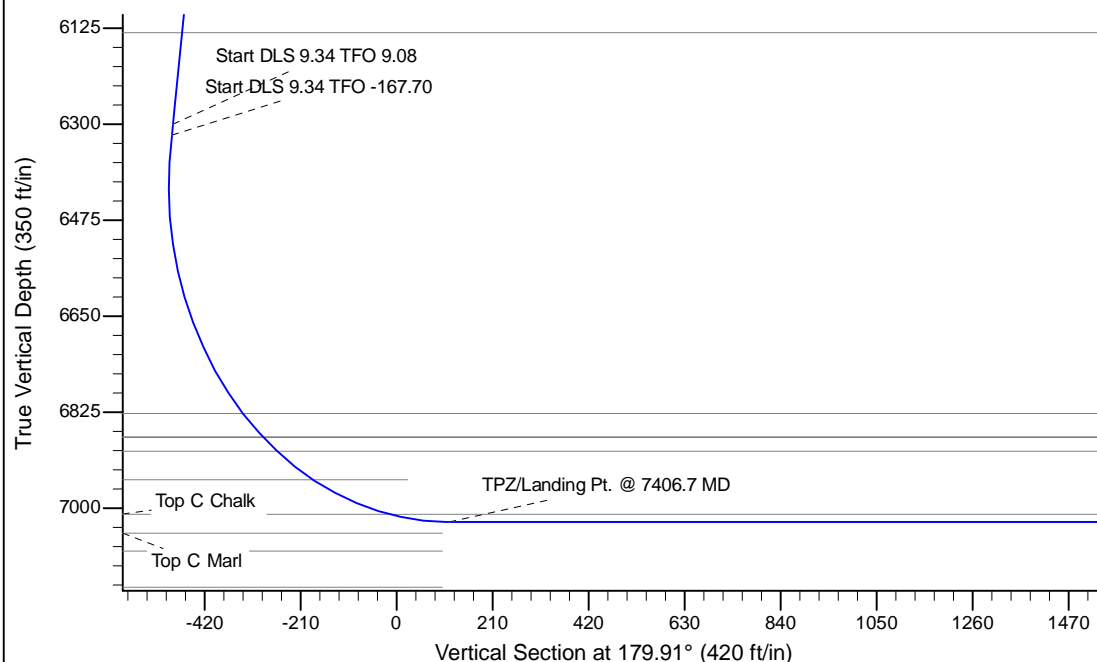
Project: Mustang
 Site: Y Section 16-T2N-R64W Weld County, CO
 Well: Hullabaloo State Y21-726
 Wellbore: Wellbore #1
 Design: Design #1

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	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2350.0	7.00	345.00	2349.1	20.6	-5.5	2.00	345.00	-20.6	
4	6330.5	7.00	345.00	6300.0	489.2	-131.1	0.00	0.00	-489.4	
5	6350.4	8.84	346.91	6319.7	491.9	-131.7	9.34	9.08	-492.1	
6	7406.7	90.00	179.07	7025.0	-115.0	-145.0	9.34	-167.70	114.8	
7	17325.6	90.00	179.08	7025.0	-10032.7	15.2	0.00	90.00	10032.7	Hullabaloo State Y21-726 BHL 100'FSL, 1075'FEL



Model: GRT 2010				
WELL DETAILS: Hullabaloo State Y21-726				
		Ground Level: 4945.0		
	Northing	Easting	Latitude	Longitude
0.0	1296913.7908899	3265490.1681530	40.1445200	-104.5503100
Plan: Design #1 (Hullabaloo State Y21-726/Wellbore #1)				
Created By: Shailey Jewell			Date: 10:08, April 11 2017	
OK to submit with 2A as per Noble Drilling 4/11/2017 10:13				

Northern Region - DJ Basin

Mustang

Y Section 16

Hullabaloo State Y21-726

Wellbore #1

Design #1

Anticollision Summary Report

11 April, 2017

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Hullabaloo State Y21-726
Project:	Mustang	TVD Reference:	WELL @ 4975.0ft (Original Well Elev)
Reference Site:	Y Section 16	MD Reference:	WELL @ 4975.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Hullabaloo State Y21-726	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM Produccction
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,740.1 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	4/11/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	17,320.5	Design #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
Y Section 09						
Perkins 34-09 - Wellbore #1 - Wellbore #1 - As Drilled	6,501.3	6,461.7	1,024.9	979.4	22.532	CC, ES
Perkins 34-09 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.0	6,666.8	1,042.6	995.9	22.306	SF
Perkins USX Y09-23 - Original Drilling - Original Drilling -	6,461.8	6,433.5	1,165.7	1,120.4	25.716	CC, ES
Perkins USX Y09-23 - Original Drilling - Original Drilling -	6,600.0	6,569.6	1,181.2	1,135.0	25.552	SF
Y Section 16						
Hullabaloo State Y21-716 - Original Drilling - APD - Rev	2,000.0	2,001.0	36.3	29.4	5.239	CC, ES
Hullabaloo State Y21-716 - Original Drilling - APD - Rev	2,100.0	2,100.2	37.9	30.6	5.191	SF
Hullabaloo State Y21-736 - Wellbore #1 - Design #1	2,000.0	2,000.0	36.3	22.5	2.620	CC, ES
Hullabaloo State Y21-736 - Wellbore #1 - Design #1	2,100.0	2,098.9	37.4	22.9	2.570	SF
Hullabaloo State Y21-746 - Wellbore #1 - Design #1	1,900.0	1,899.0	75.5	64.8	7.054	CC, ES
Hullabaloo State Y21-746 - Wellbore #1 - Design #1	17,325.6	17,211.4	1,320.1	1,038.9	4.695	SF
Hullabaloo State Y21-756 - Wellbore #1 - Design #1						Out of range
Hullabaloo State Y21-763 - Wellbore #1 - Design #1						Out of range
Hullabaloo State Y21-769 - Wellbore #1 - Design #1						Out of range
Hullabaloo State Y21-775 - Wellbore #1 - Design #1						Out of range
Hullabaloo State Y21-781 - Wellbore #1 - Design #1						Out of range
Hullabaloo State Y21-787 - Original Drilling - Prelim - Re						Out of range
Rubicon State Y16-718 - Wellbore #1 - Design #1	1,900.0	1,901.0	157.9	147.2	14.753	CC, ES
Rubicon State Y16-718 - Wellbore #1 - Design #1	7,683.2	7,094.5	517.3	476.9	12.796	SF
Rubicon State Y16-725 - Wellbore #1 - Design #1	7,075.0	7,564.7	102.6	53.4	2.085	CC, ES, SF
Rubicon State Y16-731 - Wellbore #1 - Design #1	2,000.0	2,000.0	153.7	139.8	11.080	CC, ES
Rubicon State Y16-731 - Wellbore #1 - Design #1	7,400.0	7,311.9	323.1	273.4	6.502	SF
Rubicon State Y16-738 - Wellbore #1 - Design #1	2,000.0	1,999.0	166.1	152.2	11.976	CC, ES
Rubicon State Y16-738 - Wellbore #1 - Design #1	2,100.0	2,093.8	169.0	154.4	11.614	SF
Rubicon State Y16-744 - Wellbore #1 - Design #1	7,300.0	7,605.6	1,176.2	1,126.2	23.517	SF
Rubicon State Y16-744 - Wellbore #1 - Design #1	7,336.5	7,558.4	1,176.2	1,126.2	23.530	CC, ES
Rubicon State Y16-751 - Wellbore #1 - Design #1	7,198.9	7,299.3	1,637.6	1,588.6	33.429	CC
Rubicon State Y16-751 - Wellbore #1 - Design #1	7,200.0	7,298.3	1,637.6	1,588.6	33.429	ES, SF
Rubicon State Y16-757 - Wellbore #1 - Design #1						Out of range
Rubicon State Y16-763 - Wellbore #1 - Design #1						Out of range
Rubicon State Y16-770 - Wellbore #1 - Design #1						Out of range
Rubicon State Y16-776 - Wellbore #1 - Design #1						Out of range
Rubicon State Y16-783 - Wellbore #1 - Design #1						Out of range
Rubicon State Y16-789 - Wellbore #1 - Design #1						Out of range
State 01 - Original Drilling - Original Drilling - As Drilled	8,184.6	6,982.1	284.8	228.3	5.039	CC, ES, SF
State 21 (PA) - Original Drilling - Original Drilling - As Dril						Out of range

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

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Reference Well:	Hullabaloo State Y21-726	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM Production
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

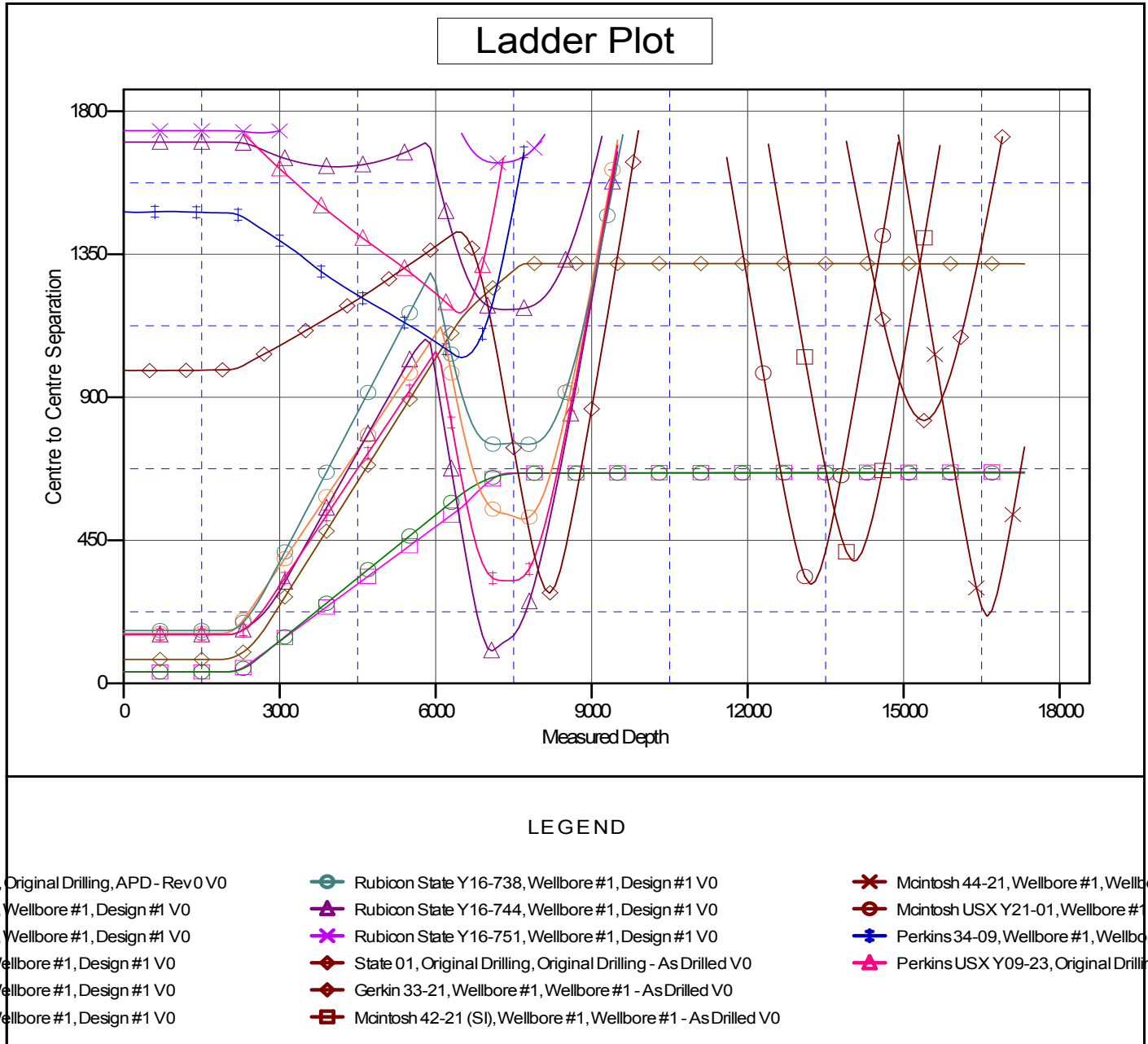
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Y Section 16						
State Y16-05D - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Y Section 21						
Gerkin 33-21 - Wellbore #1 - Wellbore #1 - As Drilled	15,391.8	7,074.5	827.0	730.3	8.552	CC
Gerkin 33-21 - Wellbore #1 - Wellbore #1 - As Drilled	15,400.0	7,074.6	827.0	730.3	8.547	ES, SF
Mcintosh 42-21 (SI) - Wellbore #1 - Wellbore #1 - As Dril	14,052.0	7,014.5	385.2	298.9	4.462	CC, ES, SF
Mcintosh 44-21 - Wellbore #1 - Wellbore #1 - As Drilled	16,612.7	7,011.8	211.8	105.7	1.996	CC, ES, SF
Mcintosh USX Y21-01 - Wellbore #1 - Wellbore #1 - As D	13,225.7	6,999.5	312.2	232.1	3.896	CC, ES, SF

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Well Error:	0.0 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM Production
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4975.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Hullabaloo State Y21-726
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.61°



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