

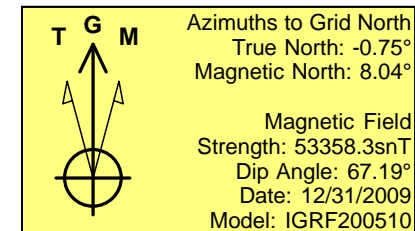
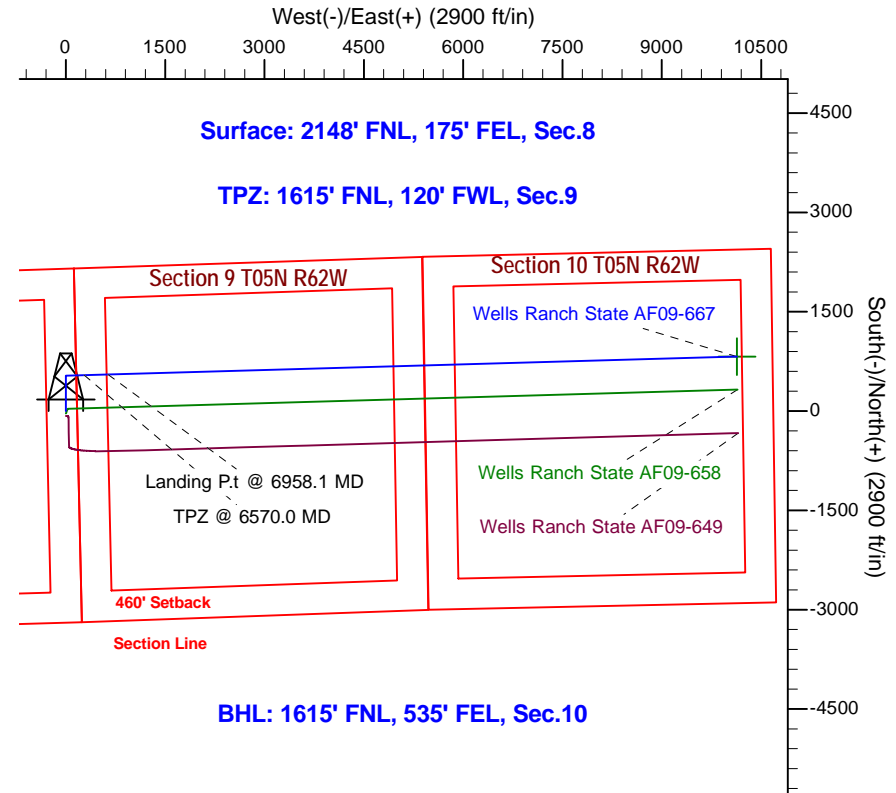
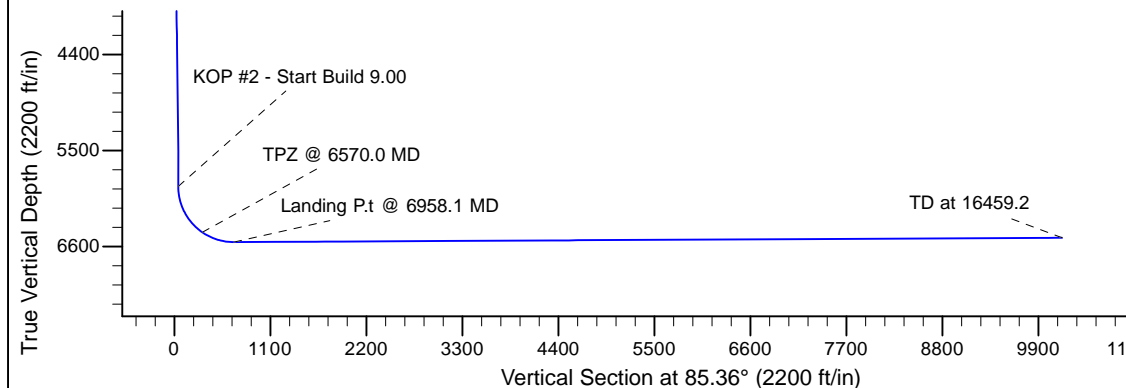
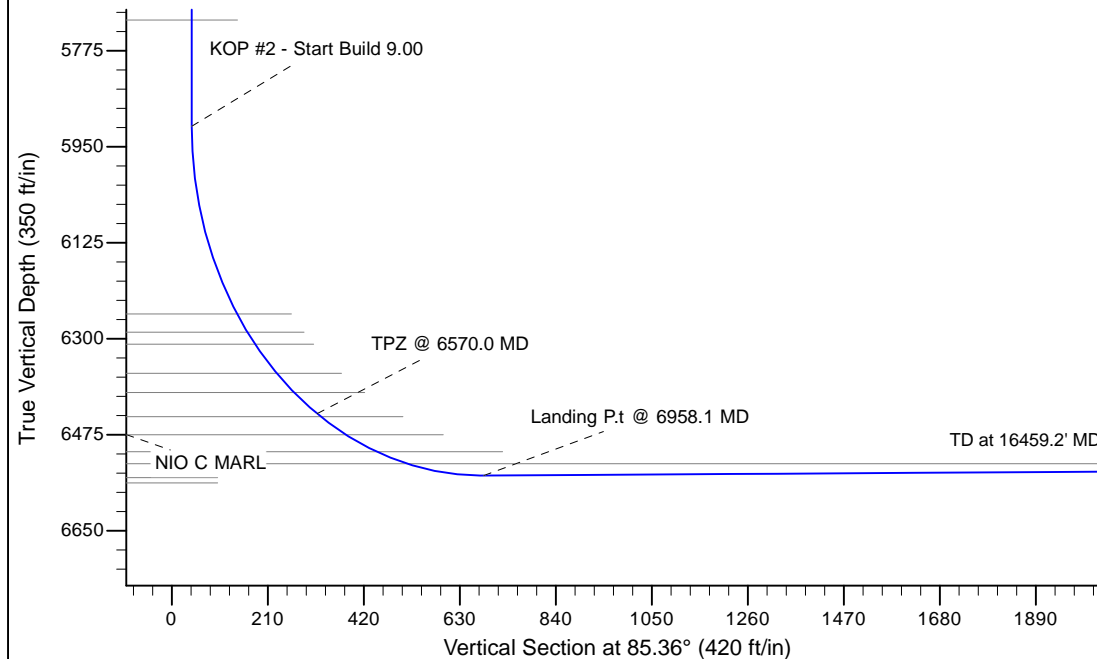
Project: Wattenberg Field
 Site: AF (Section 8-T05N-R62W) Weld County, Co
 Well: Wells Ranch State AF09-667
 Wellbore: Original Drilling
 Design: APD - Rev 1

Northern Region Drilling - Working

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	1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	
3	2370.5	9.41	0.00	2368.3	38.5	0.0	2.00	0.00	3.1	
4	5171.5	9.41	0.00	5131.7	496.5	0.0	0.00	0.00	40.2	
5	5641.9	0.00	0.00	5600.0	535.0	0.0	2.00	180.00	43.3	
6	5954.7	0.00	0.00	5912.8	535.0	0.0	0.00	0.00	43.3	
7	6958.1	90.30	88.37	6549.4	553.2	639.7	9.00	88.37	682.4	
8	16459.2	90.30	88.37	6499.7	823.5	10136.8	0.00	0.00	10170.2	Wells Ranch State AF09-667 BHL 1615'FNL, 535'FEL



WELL DETAILS: Wells Ranch State AF09-667					
Ground Level: 4707.0					
	Northing	Easting	Latitude	Longitude	
0.0	0.0	1396369.27	3323442.19	40.415620	-104.338370

Plan: APD - Rev 1 (Wells Ranch State AF09-667/Original Drilling)

Created By: Shailey Jewell Date: 14:38, October 17 2016

OK to submit with 2A as per Noble Drilling
 10/17/2016 2:42

Northern Region - DJ Basin

Wells Ranch

AF Section 09

Jude 1 (PA)

Original Drilling

Original Drilling - As Drilled

Anticollision Summary Report

28 November, 2016

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Jude 1 (PA)
Project:	Wells Ranch	TVD Reference:	WELL @ 4707.0ft (Original Well Elev)
Reference Site:	AF Section 09	MD Reference:	WELL @ 4707.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Jude 1 (PA)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	Original Drilling - As Drilled	Offset TVD Reference:	Offset Datum

Reference	Original Drilling - As Drilled		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Program	Date	11/28/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
7,070.0	7,070.0	Projection to TD (Original Drilling)	UNKNOWN	Unknown survey

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						
AF Section 08						
Wells Ranch State AF09-649 - Original Drilling - APD - R	6,521.9	7,214.8	579.9	372.5	2.796	CC, ES, SF
Wells Ranch State AF09-658 - Original Drilling - APD - R	6,460.5	7,103.0	81.1	-117.5	0.408	Level 1, CC, ES, SF
Wells Ranch State AF09-667 - Original Drilling - APD - R	6,524.0	7,238.5	579.7	371.4	2.782	CC, ES, SF

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Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	Original Drilling - As Drilled	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4707.0ft (Original Well Elev)

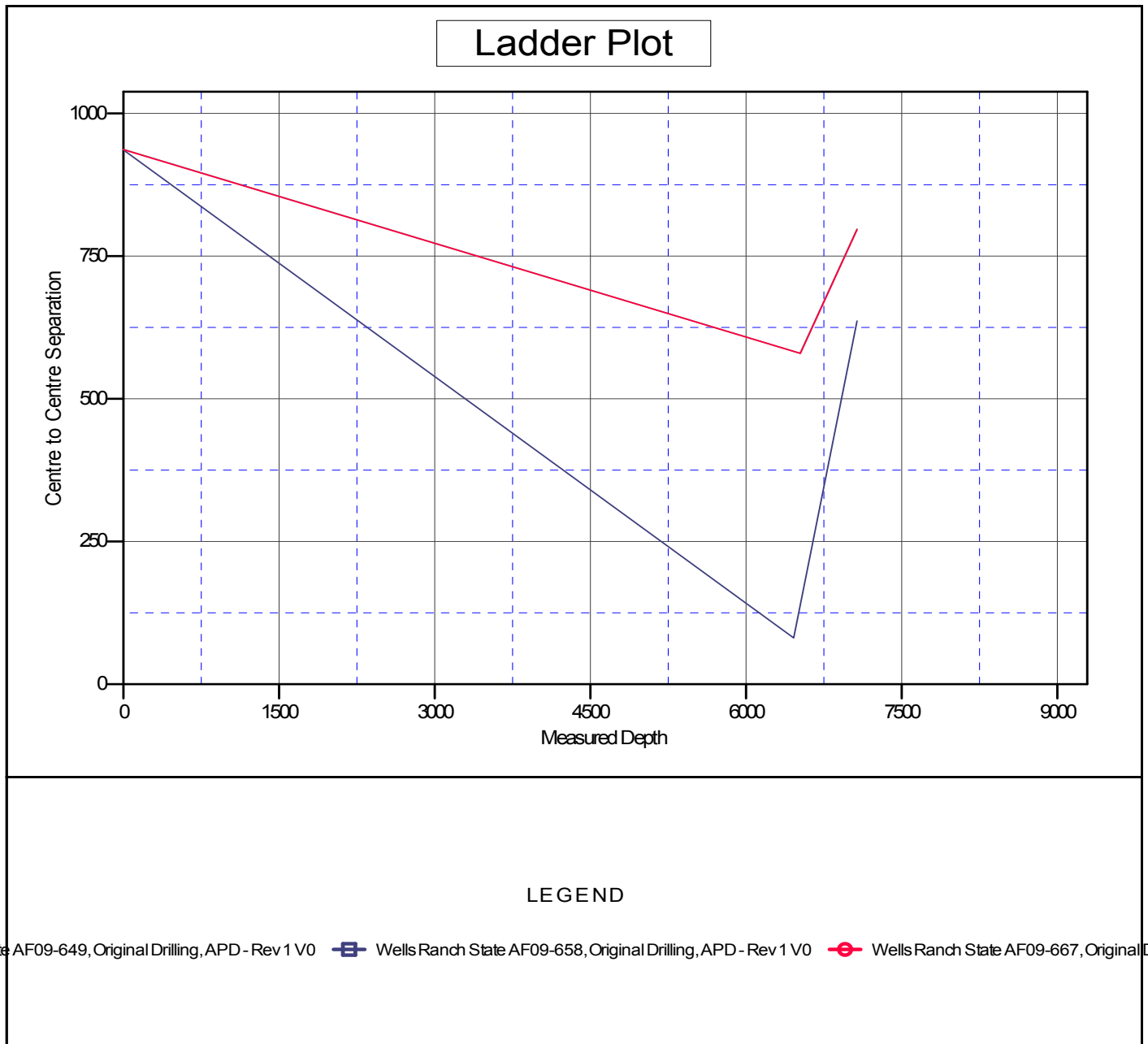
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: Jude 1 (PA)

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.75°



Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Jude 1 (PA)
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