

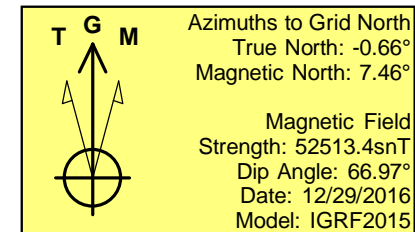
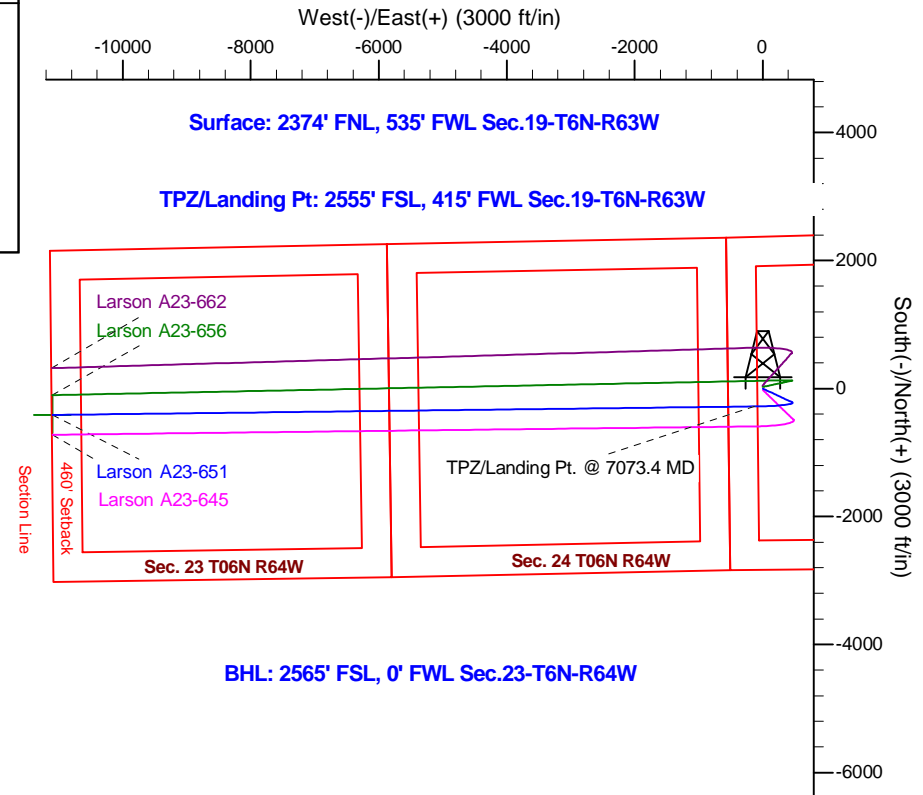
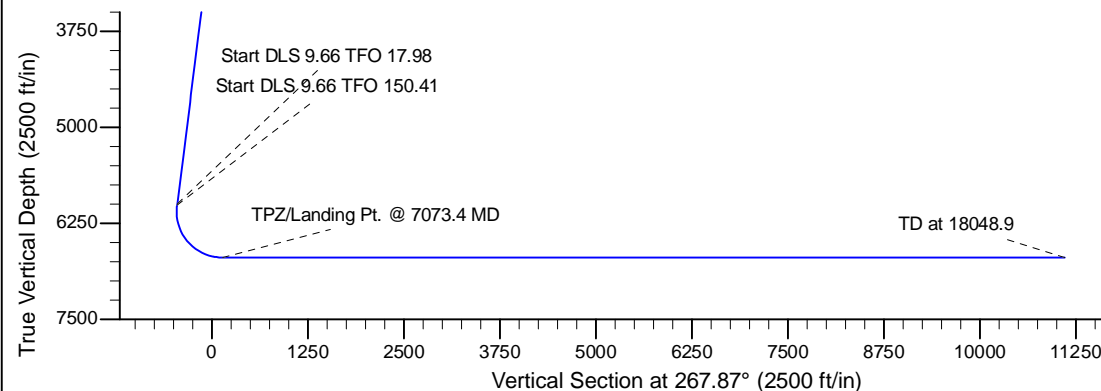
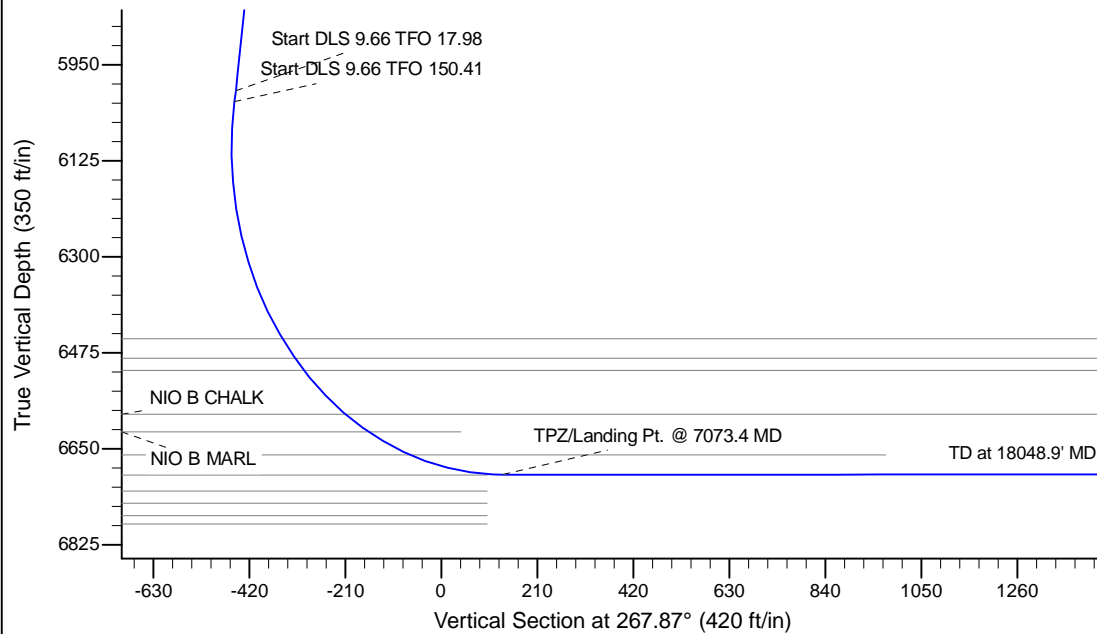
Project: Wells Ranch
 Site: AA Section 19-T6N-R63W Weld County, CO
 Well: Larson A23-651
 Wellbore: Original Drilling
 Design: APD - Rev 0

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	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0	
3	2600.0	8.00	115.00	2598.7	-11.8	25.3	2.00	115.00	-24.8	
4	6031.7	8.00	115.00	5997.0	-213.6	458.1	0.00	0.00	-449.9	
5	6052.1	9.89	118.54	6017.1	-215.1	460.9	9.66	17.98	-452.6	
6	7073.4	90.00	269.31	6697.0	-280.0	-125.0	9.66	150.41	135.3	
7	18048.9	90.00	269.31	6697.0	-412.1	-11099.6	0.00	0.00	11107.3	Larson A23-651 BHL 2565'FNL, 0'FWL



WELL DETAILS: Larson A23-651					
		Ground Elevation: 4649.0			
	Northing	Easting	Latitude	Longitude	
0.0	0.0	1416596.92	3281864.70	40.4725399	-104.4868500
Plan: APD - Rev 0 (Larson A23-651/Original Drilling)					
Created By: Shailey Jewell			Date: 9:49, January 06 2017		
OK to submit with 2A as per Noble Drilling 3/24/2017 9:43					

Northern Region - DJ Basin

Wells Ranch

AA Section 19

Larson A23-651

Original Drilling

APD - Rev 0

Anticollision Summary Report

06 January, 2017

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccction
Reference Design:	APD - Rev 0	Offset TVD Reference:	Offset Datum

Reference	APD - 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 10,000.0 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	1/6/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	18,048.9	APD - Rev 0 (Original Drilling)	MWD+IFR1+MS_WY	Fixed:v2:Rockies, crustal dec + 3-axis correction

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						
A Section 23						
Cecil 23-13 - Original Drilling - Original Drilling - As Drille	15,036.3	6,685.0	843.1	667.0	4.786	CC, ES
Cecil 23-13 - Original Drilling - Original Drilling - As Drille	15,100.0	6,684.2	845.5	668.8	4.783	SF
Champlin 23-02 (PA) - Original Drilling - Original Drilling -	17,441.3	6,702.0	599.9	207.3	1.528	CC, ES, SF
Champlin 23-03 - Original Drilling - Original Drilling - As D	16,311.0	6,668.0	1,874.4	1,674.2	9.360	CC, ES
Champlin 23-03 - Original Drilling - Original Drilling - As D	16,500.0	6,666.4	1,883.9	1,680.8	9.276	SF
Champlin Amoco A 1 #308 - Original Drilling - Original Dr	16,474.4	6,677.0	1,930.6	1,557.1	5.169	CC
Champlin Amoco A 1 #308 - Original Drilling - Original Dr	16,500.0	6,677.0	1,930.8	1,556.7	5.162	ES
Champlin Amoco A 1 #308 - Original Drilling - Original Dr	16,600.0	6,677.0	1,934.7	1,559.0	5.150	SF
Cooper 23-1-17 - Original Drilling - Original Drilling - As Dr	14,114.1	6,669.6	2,289.5	2,130.8	14.427	CC, ES
Cooper 23-1-17 - Original Drilling - Original Drilling - As Dr	14,400.0	6,668.7	2,307.3	2,144.6	14.177	SF
Cooper 23-1-19 - Original Drilling - Original Drilling - As D	15,246.2	6,652.6	1,454.9	1,274.8	8.080	CC, ES
Cooper 23-1-19 - Original Drilling - Original Drilling - As D	15,400.0	6,650.7	1,463.0	1,281.1	8.045	SF
Cooper 23-12 - Original Drilling - Original Drilling - As Dri	14,714.4	6,688.9	1,930.3	1,760.0	11.341	CC, ES
Cooper 23-12 - Original Drilling - Original Drilling - As Dri	14,900.0	6,687.6	1,939.2	1,766.3	11.219	SF
Cooper 23-1-20 - Original Drilling - Original Drilling - As D	15,233.8	6,660.2	106.7	-73.4	0.593	Level 1, CC, ES, SF
Cooper 23-15 - Original Drilling - Original Drilling - As Dri	14,061.1	6,630.8	1,383.7	1,225.6	8.750	CC
Cooper 23-15 - Original Drilling - Original Drilling - As Dri	14,100.0	6,630.7	1,384.3	1,225.5	8.718	ES
Cooper 23-15 - Original Drilling - Original Drilling - As Dri	14,200.0	6,630.4	1,390.7	1,230.8	8.696	SF
Foss 41-23D - Original Drilling - Original Drilling - As Drill	13,415.6	6,924.7	1,953.2	1,805.1	13.188	CC, ES
Foss 41-23D - Original Drilling - Original Drilling - As Drill	13,700.0	6,921.3	1,973.8	1,822.0	13.005	SF
Foss 42-23 - Original Drilling - Original Drilling - As Drille	13,624.6	6,675.6	508.6	359.1	3.402	CC, ES, SF
J&L Farms 23-11 - Original Drilling - Original Drilling - As	17,520.1	6,696.8	1,969.0	1,745.8	8.820	CC, ES
J&L Farms 23-11 - Original Drilling - Original Drilling - As	17,700.0	6,697.4	1,977.2	1,751.6	8.763	SF
J&L Farms 23-12 - Original Drilling - Original Drilling - As	17,627.0	6,696.6	481.2	255.7	2.134	CC, ES, SF
J&L Farms 23-21 - Original Drilling - Original Drilling - As	15,903.4	6,665.0	2,189.3	1,996.8	11.373	CC, ES
J&L Farms 23-21 - Original Drilling - Original Drilling - As	16,100.0	6,662.5	2,198.1	2,002.8	11.252	SF
J&L Farms 23-22 - Original Drilling - Original Drilling - As	16,142.0	6,670.0	706.0	508.8	3.579	CC, ES, SF
McIntosh 33-23 - Original Drilling - Original Drilling - As D	14,737.1	6,619.6	823.0	652.8	4.836	CC, ES
McIntosh 33-23 - Original Drilling - Original Drilling - As D	14,800.0	6,621.9	825.4	654.3	4.824	SF
McIntosh 34-23 - Original Drilling - Original Drilling - As D	14,608.6	6,633.3	1,940.2	1,772.2	11.552	CC, ES
McIntosh 34-23 - Original Drilling - Original Drilling - As D	14,800.0	6,634.7	1,949.6	1,778.6	11.399	SF
McIntosh 43-23 - Original Drilling - Original Drilling - As D	13,252.6	6,653.1	542.0	399.5	3.804	CC, ES
McIntosh 43-23 - Original Drilling - Original Drilling - As D	13,300.0	6,652.9	544.1	401.0	3.803	SF
McIntosh 44-23 - Original Drilling - Original Drilling - As D	13,186.2	6,611.1	2,118.1	1,977.0	15.010	CC
McIntosh 44-23 - Original Drilling - Original Drilling - As D	13,200.0	6,611.4	2,118.2	1,976.8	14.982	ES
McIntosh 44-23 - Original Drilling - Original Drilling - As D	13,500.0	6,615.4	2,141.3	1,995.3	14.673	SF
Schroeder 23-31 - Original Drilling - Original Drilling - As	15,896.3	6,669.3	886.3	693.9	4.606	CC

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 Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccion
Reference Design:	APD - Rev 0	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						
A Section 23						
Schroeder 23-31 - Original Drilling - Original Drilling - As	15,900.0	6,669.2	886.4	693.9	4.604	ES, SF
Schroeder 23-33 - Original Drilling - Original Drilling - As	17,556.2	6,687.2	2,191.6	1,967.5	9.780	CC
Schroeder 23-33 - Original Drilling - Original Drilling - As	17,600.0	6,687.0	2,192.0	1,967.1	9.746	ES
Schroeder 23-33 - Original Drilling - Original Drilling - As	17,800.0	6,685.6	2,205.1	1,977.5	9.686	SF
A Section 24						
Larson Farms 01-24 - Original Drilling - Original Drilling -	8,164.8	6,770.4	1,992.1	1,920.4	27.768	CC, ES
Larson Farms 01-24 - Original Drilling - Original Drilling -	8,400.0	6,765.7	2,005.9	1,932.7	27.380	SF
Larson Farms 02-24 - Original Drilling - Original Drilling -	8,110.6	6,919.1	680.6	608.1	9.386	CC, ES
Larson Farms 02-24 - Original Drilling - Original Drilling -	8,200.0	6,917.2	686.4	611.8	9.201	SF
Larson Farms 03-24 - Original Drilling - Original Drilling -	9,432.6	6,784.0	614.8	529.1	7.167	CC, ES, SF
Larson Farms 04-24 - Original Drilling - Original Drilling -	8,142.9	7,219.2	615.2	515.3	6.158	CC, ES, SF
Larson Farms 05-24 - Original Drilling - Original Drilling -	8,835.2	7,047.0	1,235.5	1,143.9	13.486	CC, ES, SF
Larson Farms 06-24 - Original Drilling - Original Drilling -	8,200.0	7,067.8	1,904.5	1,805.4	19.220	SF
Larson Farms 06-24 - Original Drilling - Original Drilling -	8,242.9	7,064.0	1,904.0	1,805.0	19.231	CC, ES
Larson Farms 07-24 - Original Drilling - Original Drilling -	9,436.3	7,098.8	1,942.6	1,852.8	21.645	CC, ES
Larson Farms 07-24 - Original Drilling - Original Drilling -	9,600.0	7,096.2	1,949.4	1,859.0	21.550	SF
Peppler 24-32 - Original Drilling - Original Drilling - As Dr	12,258.6	6,668.2	440.3	316.5	3.557	CC, ES, SF
Roth 24-21 - Original Drilling - Original Drilling - As Drilled	10,832.6	6,644.6	1,904.9	1,807.6	19.578	CC, ES
Roth 24-21 - Original Drilling - Original Drilling - As Drilled	11,200.0	6,654.2	1,940.0	1,837.7	18.963	SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	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:	APD - Rev 0	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
AA Section 19						
J&L Farms 31-19 - Original Drilling - Original Drilling - As	6,096.3	6,063.7	2,866.5	2,832.3	83.841	CC
J&L Farms 31-19 - Original Drilling - Original Drilling - As	6,100.0	6,067.6	2,866.5	2,832.3	83.789	ES
J&L Farms 31-19 - Original Drilling - Original Drilling - As	6,750.0	6,613.5	3,100.3	3,061.5	79.934	SF
J&L Farms 32-19 - Original Drilling - Original Drilling - As	6,149.2	6,147.1	1,898.3	1,864.2	55.785	CC
J&L Farms 32-19 - Original Drilling - Original Drilling - As	6,150.0	6,147.8	1,898.3	1,864.2	55.778	ES
J&L Farms 32-19 - Original Drilling - Original Drilling - As	6,300.0	6,291.3	1,917.2	1,882.5	55.231	SF
J&L Farms 41-19 - Original Drilling - Original Drilling - As	6,101.9	6,017.7	3,959.8	3,925.9	116.625	CC, ES
J&L Farms 41-19 - Original Drilling - Original Drilling - As	6,400.0	6,299.4	4,020.9	3,985.6	114.039	SF
J&L Farms 42-19 - Original Drilling - Original Drilling - As	6,129.3	6,040.4	3,700.2	3,666.5	109.753	CC, ES
J&L Farms 42-19 - Original Drilling - Original Drilling - As	6,400.0	6,279.3	3,761.5	3,726.6	107.874	SF
Larson A23-645 - Original Drilling - APD - Rev 0	2,000.0	2,000.0	21.9	9.7	1.801	CC
Larson A23-645 - Original Drilling - APD - Rev 0	18,048.9	18,107.1	310.4	-123.2	0.716	Level 1, ES, SF
Larson A23-656 - Original Drilling - APD - Rev 0	2,200.0	2,200.0	25.7	12.3	1.916	CC
Larson A23-656 - Original Drilling - APD - Rev 0	18,048.9	18,071.0	310.7	-122.6	0.717	Level 1, ES, SF
Larson A23-662 - Original Drilling - APD - Rev 0	2,000.0	2,000.0	47.4	35.3	3.910	CC, ES
Larson A23-662 - Original Drilling - APD - Rev 0	18,048.9	18,064.8	732.4	298.0	1.686	SF
Larson A23-668 - Original Drilling - APD - Rev 0	18,048.9	17,466.4	1,103.9	685.6	2.639	CC, ES, SF
Larson A23-672 - Original Drilling - APD - Rev 0	18,048.9	17,459.1	1,424.0	1,012.8	3.463	CC, ES, SF
Larson A23-678 - Original Drilling - APD - Rev 0	18,048.9	17,179.6	1,766.9	1,348.9	4.226	CC, ES, SF
Larson A23-683 - Original Drilling - APD - Rev 0	2,296.4	2,349.6	1,912.2	1,898.2	136.006	CC
Larson A23-683 - Original Drilling - APD - Rev 0	18,048.9	17,320.2	2,077.3	1,659.1	4.967	ES, SF
Larson USX AA19-03 - Original Drilling - Original Drilling	6,093.6	6,106.8	2,072.1	2,037.8	60.379	CC
Larson USX AA19-03 - Original Drilling - Original Drilling	6,100.0	6,113.1	2,072.2	2,037.8	60.316	ES
Larson USX AA19-03 - Original Drilling - Original Drilling	6,350.0	6,376.2	2,098.3	2,062.7	59.072	SF
Larson USX AA19-04 - Original Drilling - Original Drilling	2,349.5	2,348.9	1,629.5	1,616.7	127.465	CC
Larson USX AA19-04 - Original Drilling - Original Drilling	2,400.0	2,397.7	1,629.7	1,616.6	124.992	ES
Larson USX AA19-04 - Original Drilling - Original Drilling	7,300.0	6,723.2	1,979.1	1,939.7	50.251	SF
Larson USX AA19-05 - Original Drilling - Original Drilling	1,698.5	1,668.7	290.0	280.8	31.606	CC
Larson USX AA19-05 - Original Drilling - Original Drilling	1,800.0	1,768.9	290.3	280.6	29.869	ES
Larson USX AA19-05 - Original Drilling - Original Drilling	6,900.0	6,672.1	585.2	548.1	15.761	SF
Larson USX AA19-06 - Original Drilling - Original Drilling	6,126.4	6,111.7	1,087.0	1,052.7	31.647	CC, ES
Larson USX AA19-06 - Original Drilling - Original Drilling	6,250.0	6,241.7	1,095.8	1,060.9	31.375	SF
Thrall USX AA19-11 - Original Drilling - Original Drilling	6,191.7	6,142.6	1,301.6	1,267.9	38.581	CC, ES
Thrall USX AA19-11 - Original Drilling - Original Drilling	6,300.0	6,250.1	1,309.4	1,275.1	38.258	SF
Thrall USX AA19-12 - Original Drilling - Original Drilling	7,063.4	6,663.3	475.7	437.8	12.538	CC, ES
Thrall USX AA19-12 - Original Drilling - Original Drilling	7,100.0	6,663.3	477.2	439.1	12.512	SF
Thrall USX AA19-13 - Original Drilling - Original Drilling	6,805.7	6,609.1	1,886.7	1,850.1	51.562	CC, ES
Thrall USX AA19-13 - Original Drilling - Original Drilling	7,700.0	6,669.2	2,113.0	2,070.0	49.177	SF
Thrall USX AA19-14 - Original Drilling - Original Drilling	6,271.8	6,191.7	2,287.7	2,253.2	66.376	CC, ES
Thrall USX AA19-14 - Original Drilling - Original Drilling	6,500.0	6,347.0	2,305.8	2,270.6	65.518	SF
Thrall USX AA19-25 - Original Drilling - Original Drilling	6,488.9	6,397.8	1,010.1	974.7	28.543	CC, ES
Thrall USX AA19-25 - Original Drilling - Original Drilling	6,600.0	6,480.1	1,014.2	978.5	28.413	SF
Wells Ranch USX AA19-09 - Original Drilling - Original D	6,146.5	6,070.8	3,539.8	3,506.2	105.308	CC
Wells Ranch USX AA19-09 - Original Drilling - Original D	6,150.0	6,074.7	3,539.8	3,506.2	105.250	ES
Wells Ranch USX AA19-09 - Original Drilling - Original D	6,400.0	6,328.2	3,592.2	3,557.4	103.358	SF
Wells Ranch USX AA19-10 - Original Drilling - Original D	6,156.8	6,104.7	2,262.0	2,228.3	67.193	CC, ES
Wells Ranch USX AA19-10 - Original Drilling - Original D	6,350.0	6,296.4	2,292.3	2,257.7	66.381	SF
Wells Ranch USX AA19-15 - Original Drilling - Original D	6,200.0	6,218.1	2,802.8	2,768.1	80.779	ES
Wells Ranch USX AA19-15 - Original Drilling - Original D	6,203.0	6,215.0	2,802.8	2,768.1	80.866	CC
Wells Ranch USX AA19-15 - Original Drilling - Original D	6,800.0	6,659.2	3,011.6	2,969.5	71.451	SF
Wells Ranch USX AA19-16 - Original Drilling - Original D	6,152.4	5,985.6	4,091.7	4,058.4	122.828	CC, ES
Wells Ranch USX AA19-16 - Original Drilling - Original D	6,400.0	6,209.7	4,136.4	4,102.0	120.340	SF
Wells Ranch USX AA19-23 - Original Drilling - Original D	6,185.8	6,224.9	3,168.5	3,134.5	93.181	CC, ES

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 Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	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:	APD - Rev 0	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 19						
Wells Ranch USX AA19-23 - Original Drilling - Original D	6,350.0	6,337.9	3,190.2	3,155.5	92.142	SF
AA Section 20						
Cook 20D - Original Drilling - Original Drilling - As Drilled	6,142.9	6,033.6	8,218.4	8,184.8	244.728	CC
Cook 20D - Original Drilling - Original Drilling - As Drilled	6,150.0	6,043.7	8,218.4	8,184.8	244.412	ES
Cook 20D - Original Drilling - Original Drilling - As Drilled	6,550.0	6,408.2	8,350.6	8,315.4	236.984	SF
Cook 33-20 - Original Drilling - Original Drilling - As Drilled	6,143.8	6,064.8	7,379.6	7,346.0	219.559	CC
Cook 33-20 - Original Drilling - Original Drilling - As Drilled	6,150.0	6,073.4	7,379.6	7,346.0	219.323	ES
Cook 33-20 - Original Drilling - Original Drilling - As Drilled	6,500.0	6,397.5	7,482.5	7,447.4	213.322	SF
Cook 34-20 - Original Drilling - Original Drilling - As Drilled	6,157.0	6,145.7	7,558.5	7,524.4	221.189	CC, ES
Cook 34-20 - Original Drilling - Original Drilling - As Drilled	6,600.0	6,494.1	7,713.9	7,678.2	215.880	SF
Cook 43-20 - Original Drilling - Original Drilling - As Drilled	6,142.8	6,059.4	8,947.2	8,913.6	266.127	CC, ES
Cook 43-20 - Original Drilling - Original Drilling - As Drilled	6,550.0	6,410.0	9,081.3	9,046.1	258.097	SF
Cook 44-20 - Original Drilling - Original Drilling - As Drilled	6,137.2	5,871.8	9,106.6	9,073.5	275.308	CC, ES
Cook 44-20 - Original Drilling - Original Drilling - As Drilled	6,650.0	6,478.2	9,305.0	9,269.6	263.131	SF
J&L Farms 01-20 - Original Drilling - Original Drilling - As Drilled	6,129.6	6,095.8	9,016.4	8,979.8	246.040	CC, ES
J&L Farms 01-20 - Original Drilling - Original Drilling - As Drilled	6,500.0	6,310.4	9,127.4	9,089.5	240.404	SF
J&L Farms 02-20 - Original Drilling - Original Drilling - As Drilled	6,127.2	6,083.6	7,759.2	7,724.9	225.615	CC, ES
J&L Farms 02-20 - Original Drilling - Original Drilling - As Drilled	6,550.0	6,444.8	7,899.1	7,863.1	219.234	SF
J&L Farms 08-20 - Original Drilling - Original Drilling - As Drilled	6,137.1	6,094.5	8,834.1	8,645.0	46.713	CC
J&L Farms 08-20 - Original Drilling - Original Drilling - As Drilled	6,150.0	6,107.4	8,834.2	8,644.7	46.617	ES
J&L Farms 08-20 - Original Drilling - Original Drilling - As Drilled	6,700.0	6,576.7	9,080.8	8,877.4	44.641	SF
J&L Farms 11-20 - Original Drilling - Original Drilling - As Drilled	6,096.9	5,886.2	5,119.1	5,085.5	152.348	CC
J&L Farms 11-20 - Original Drilling - Original Drilling - As Drilled	6,100.0	5,888.3	5,119.1	5,085.5	152.280	ES
J&L Farms 11-20 - Original Drilling - Original Drilling - As Drilled	6,500.0	6,508.9	5,228.7	5,192.8	145.812	SF
J&L Farms 12-20 - Original Drilling - Original Drilling - As Drilled	6,133.0	6,061.0	4,600.5	4,566.4	134.976	CC, ES
J&L Farms 12-20 - Original Drilling - Original Drilling - As Drilled	6,400.0	6,328.6	4,659.0	4,623.8	132.257	SF
J&L Farms 22-20 - Original Drilling - Original Drilling - As Drilled	6,133.3	6,061.2	6,155.7	6,121.9	182.158	CC, ES
J&L Farms 22-20 - Original Drilling - Original Drilling - As Drilled	6,500.0	6,386.2	6,265.0	6,229.8	177.699	SF
J&L Farms 32-20 - Original Drilling - Original Drilling - As Drilled	6,146.3	6,224.8	7,552.1	7,517.9	221.192	CC
J&L Farms 32-20 - Original Drilling - Original Drilling - As Drilled	6,150.0	6,227.5	7,552.1	7,517.9	221.089	ES
J&L Farms 32-20 - Original Drilling - Original Drilling - As Drilled	6,550.0	6,500.0	7,686.0	7,650.5	216.377	SF
Wells Ranch 13-20 - Original Drilling - Original Drilling - A	6,151.9	6,116.5	4,887.8	4,854.1	144.883	CC, ES
Wells Ranch 13-20 - Original Drilling - Original Drilling - A	6,450.0	6,418.1	4,960.2	4,925.1	141.495	SF
Wells Ranch 14-20 - Original Drilling - Original Drilling - A	6,171.5	6,177.1	5,281.2	5,247.4	156.296	CC, ES
Wells Ranch 14-20 - Original Drilling - Original Drilling - A	6,450.0	6,383.2	5,341.2	5,306.4	153.322	SF
Wells Ranch 23-20 - Original Drilling - Original Drilling - A	6,143.3	6,043.7	6,341.3	6,307.4	187.121	CC, ES
Wells Ranch 23-20 - Original Drilling - Original Drilling - A	6,450.0	6,300.8	6,418.8	6,383.7	183.066	SF
Wells Ranch 24-20 - Original Drilling - Original Drilling - A	6,156.4	6,072.7	6,317.3	6,283.6	187.531	CC, ES
Wells Ranch 24-20 - Original Drilling - Original Drilling - A	6,550.0	6,389.2	6,437.8	6,402.7	183.353	SF

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

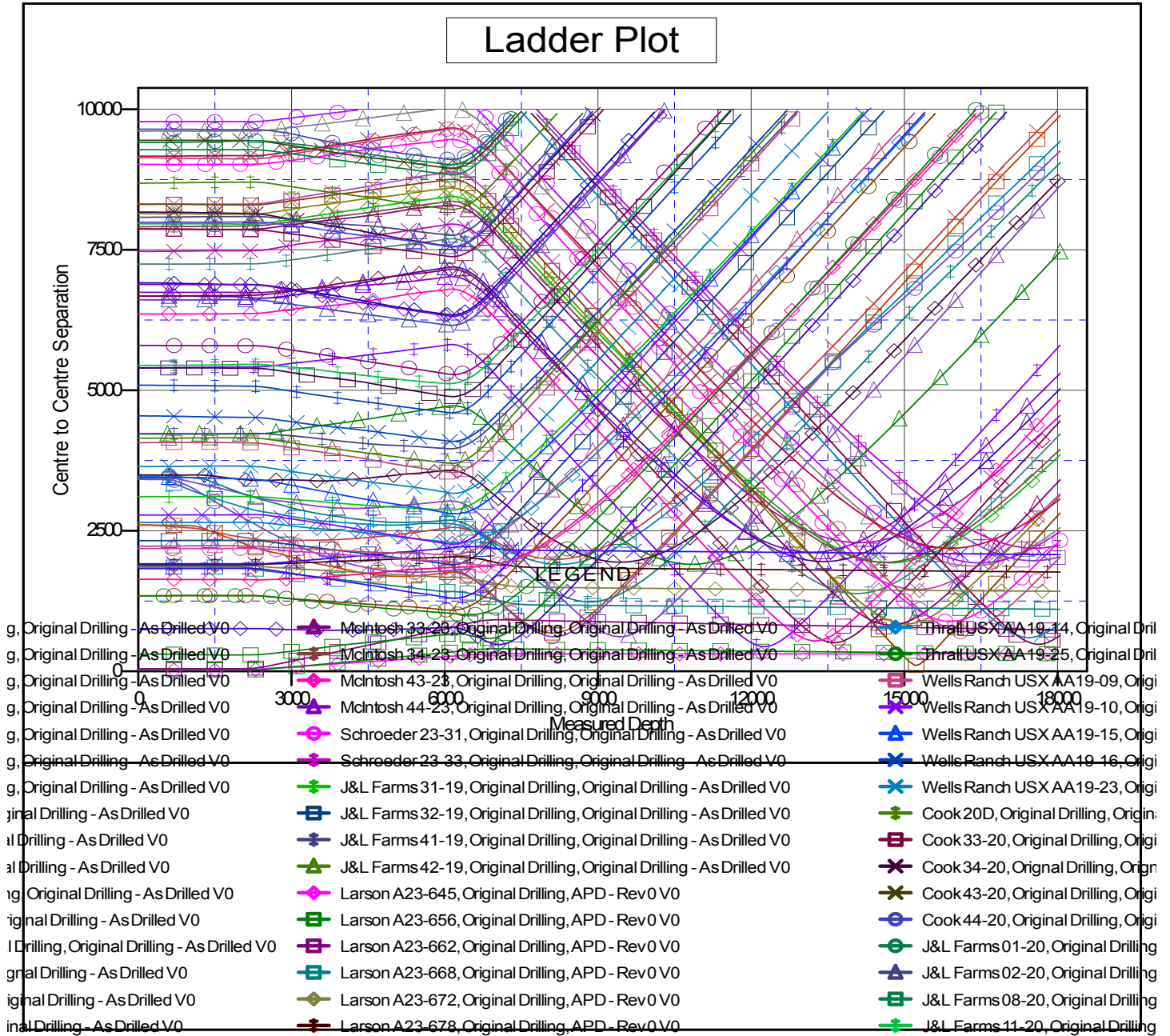
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	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:	APD - Rev 0	Offset TVD Reference:	Offset Datum

Coordinates are relative to: Larson A23-651

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.65°



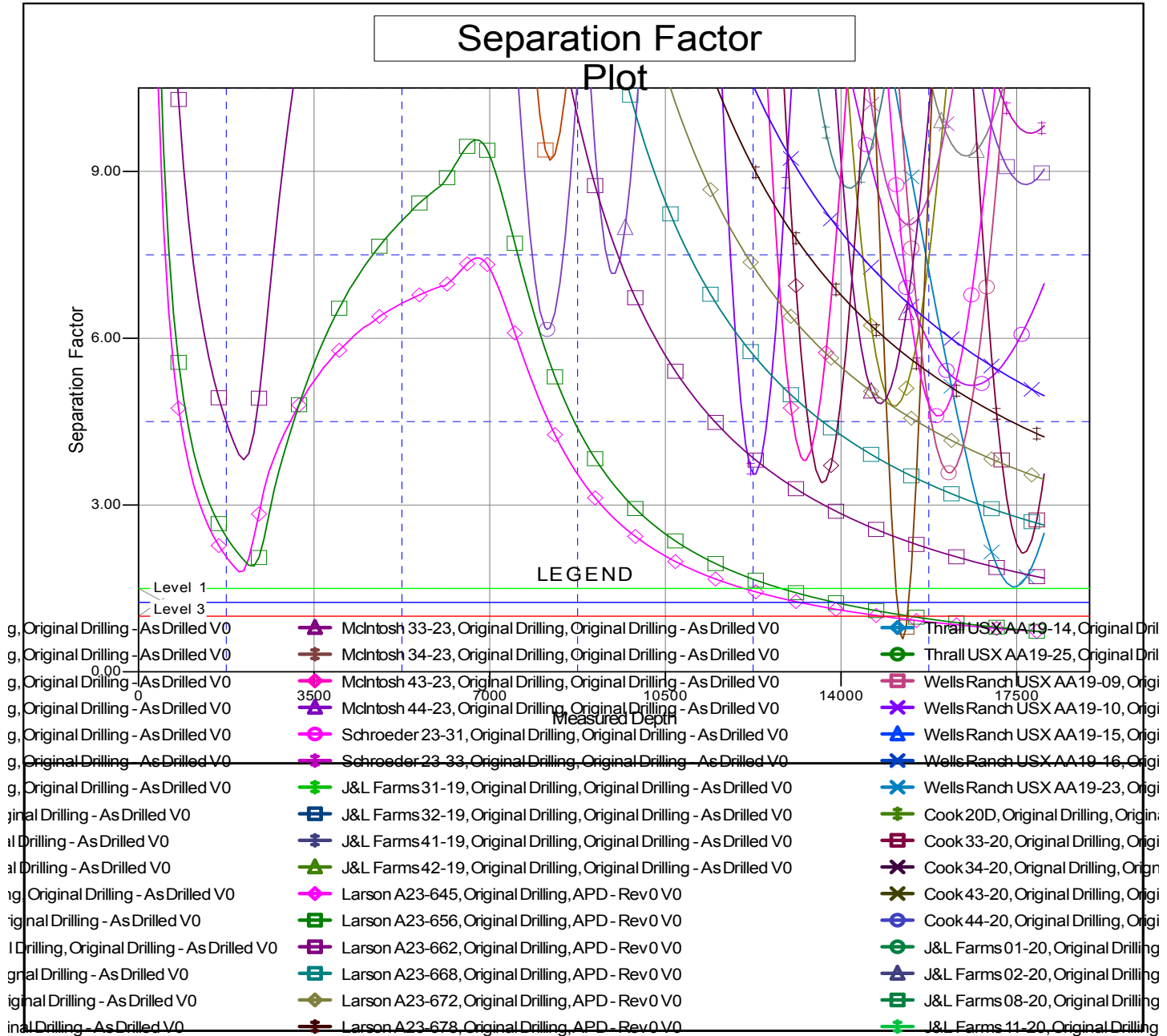
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Larson A23-651
Project:	Wells Ranch	TVD Reference:	WELL @ 4679.0ft (Original Drilling)
Reference Site:	AA Section 19	MD Reference:	WELL @ 4679.0ft (Original Drilling)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Larson A23-651	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:	APD - Rev 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4679.0ft (Original Drilling)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Larson A23-651
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.65°



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