

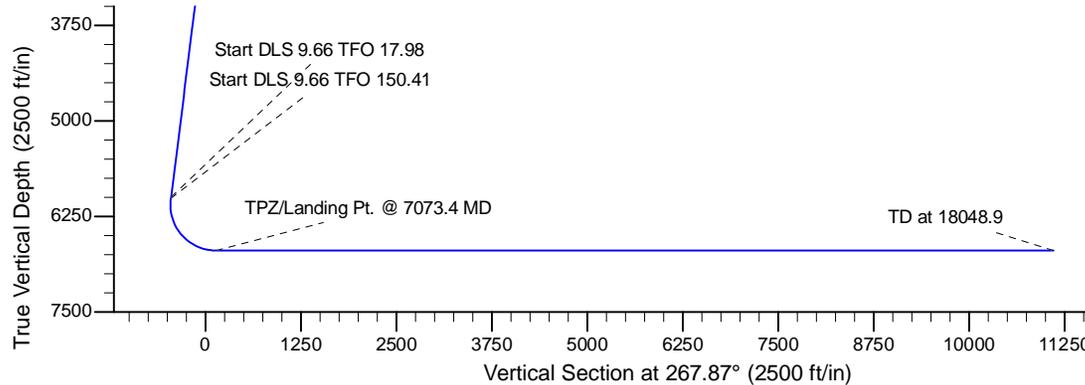
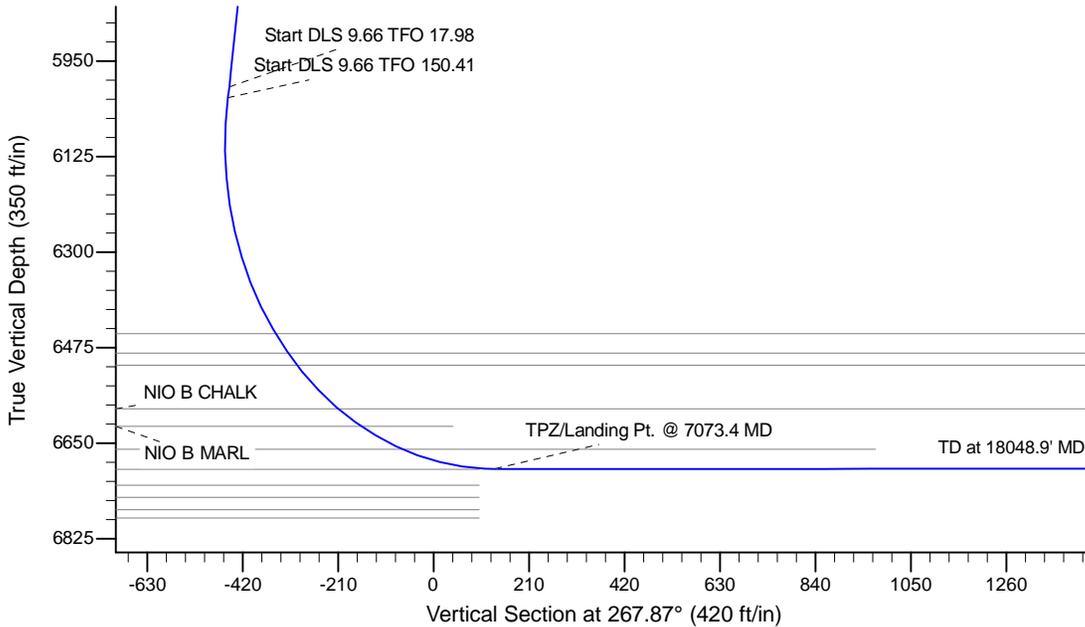
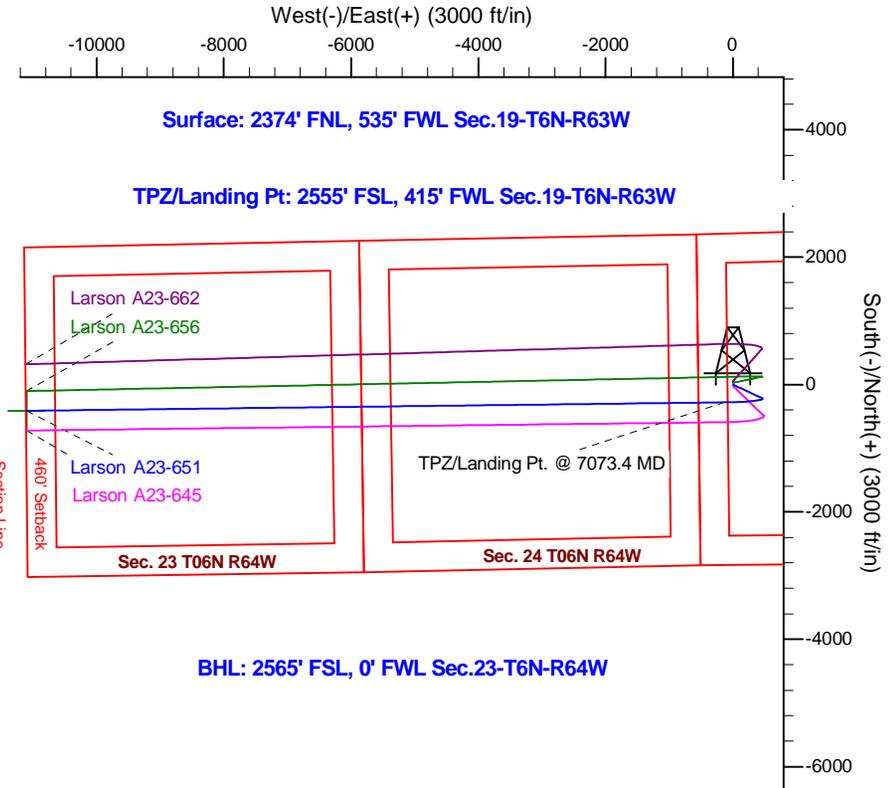
Project: Wells Ranch
 Site: AA Section 19-T6N-R63W Weld County, CO
 Well: Larson A23-651
 Wellbore: Original Drilling
 Design: APD - Rev 0

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



T G M

Azimuths to Grid North
 True North: -0.66°
 Magnetic North: 7.46°

Magnetic Field
 Strength: 52513.4snT
 Dip Angle: 66.97°
 Date: 12/29/2016
 Model: IGRF2015

WELL DETAILS: Larson A23-651					
Sec	MD	Northing	Easting	Ground Elevation	Longitude
0.0	0.0	1416596.92	3281864.70	4649.0	-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 Production
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 covergent 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
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

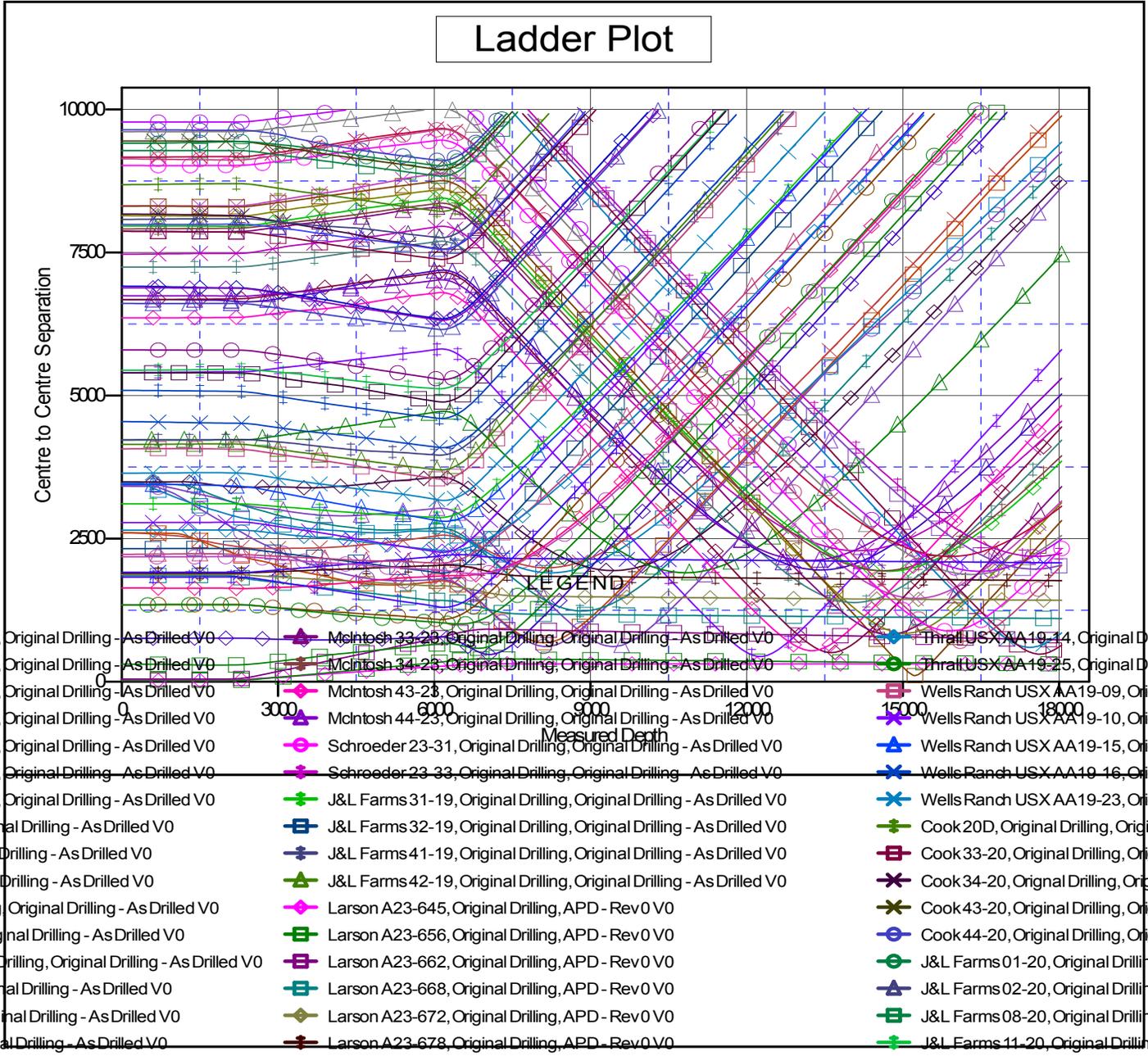
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
AA Section 19						
Wells Ranch USX AA19-23 - Original Drilling - Original D	6,350.0	6,337.9	3,190.2	3,155.5	92.142	SF
AA Section 20						
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

Reference Depths are relative to WELL @ 4679.0ft (Original Drilling) Coordinates are relative to: Larson A23-651
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.5000000 Grid Convergence at Surface is: 0.65°



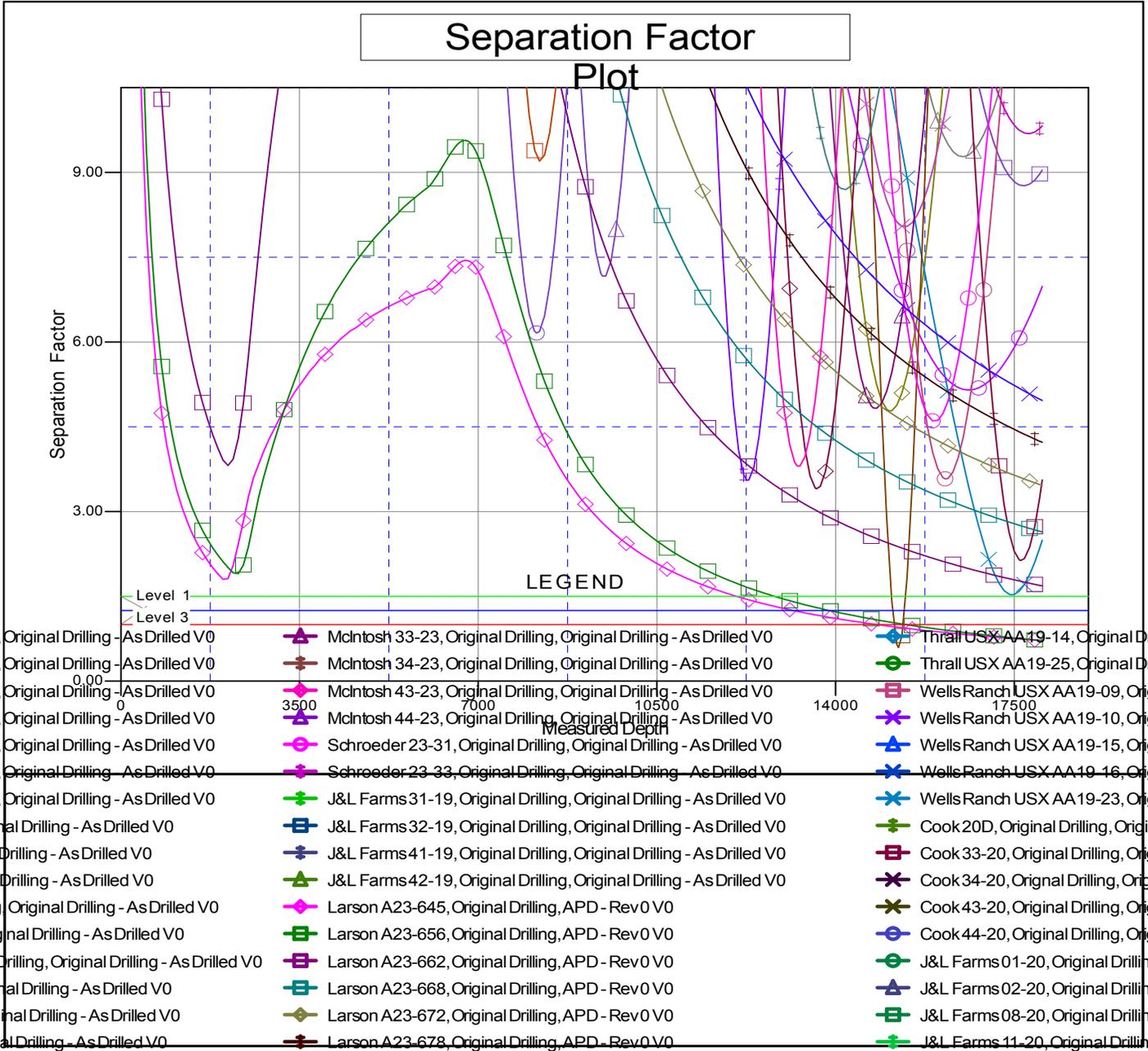
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Anticollision Summary Report

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Well Error:	0.0 ft	Output errors are at	2.79 sigma
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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