

Edge Energy LLC

Weld County, Co (NAD 83)

Sec. 33 Twn 1N Rng 65W

Cherry Knolls 33-2* - Slot 2

Hz

UWI:

WL:

Plan: #1

Standard Planning Report

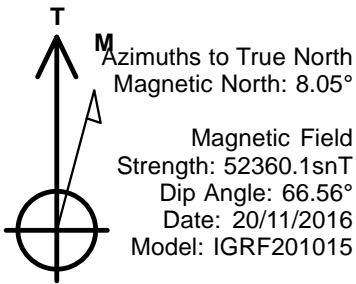
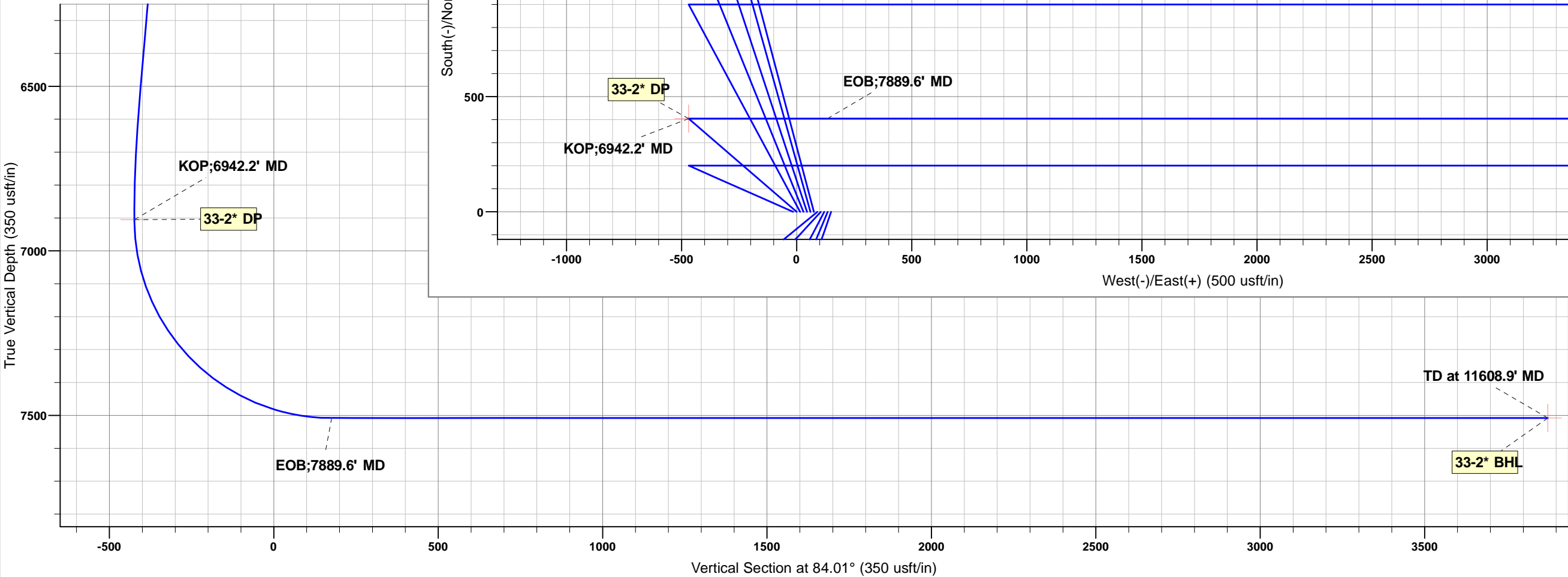
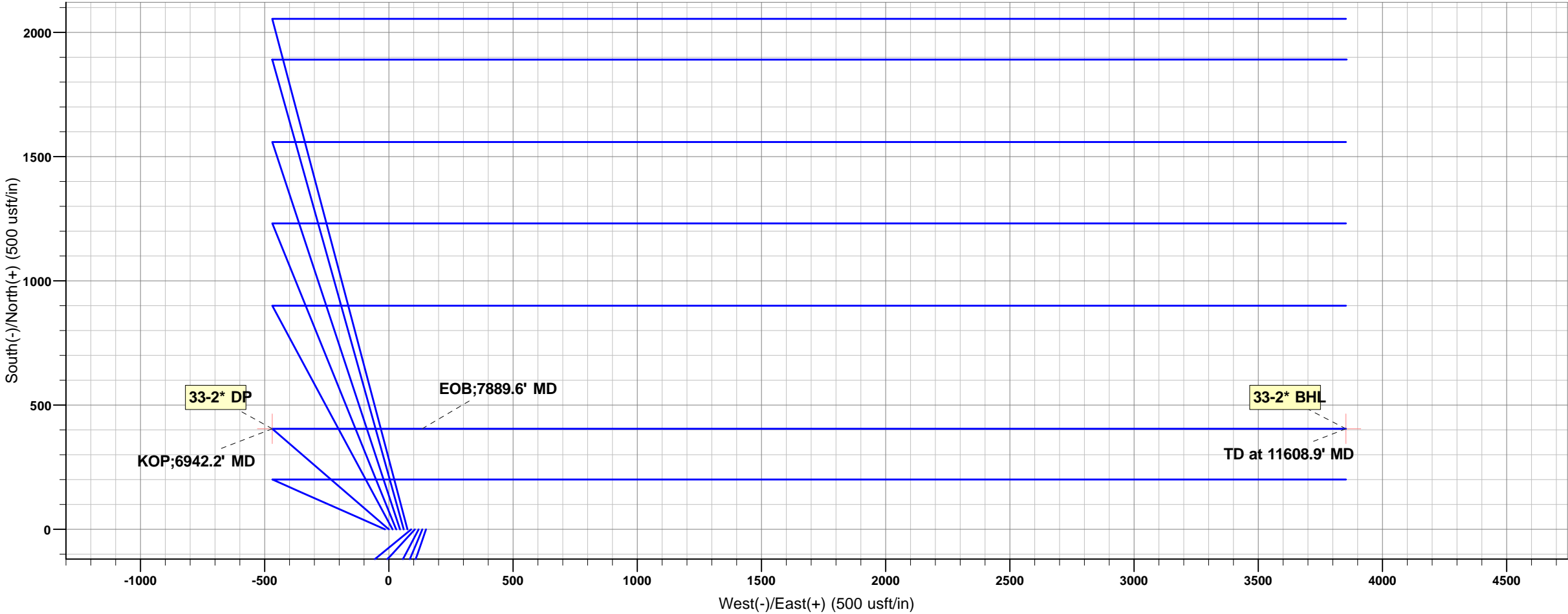
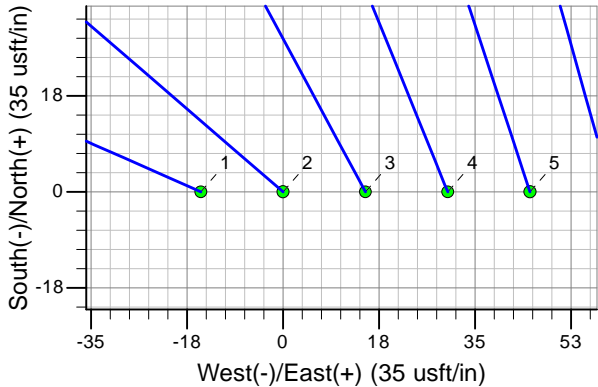
07 December, 2016

Project: Weld County, Co (NAD 83)
Site: Sec. 33 TwN 1N Rng 65W
Well: Cherry Knolls 33-2*
Wellbore: Hz
Plan: #1

Reference Details - WELL CENTRE
Geodetic System: US State Plane 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
Northing: 1246558.96
Easting: 3231071.82
Latitude: 40° 0' 26.06396 N
Longitude: 104° 40' 30.34723 W
Grid Convergence: 0.53° West
Ground Elevation: 5103.0
KB Elevation: Est. RKB @ 5123.0usft (kb;20')

PLAN 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	1550.0	0.00	0.00	1550.0	0.0	0.0	0.00	0.00	0.0	
3	1903.0	7.06	310.79	1902.1	14.2	-16.4	2.00	310.79	-14.9	
4	6589.2	7.06	310.79	6552.8	390.4	-452.6	0.00	0.00	-409.3	
5	6942.2	0.00	0.00	6904.9	404.6	-469.0	2.00	180.00	-424.2	33-2* DP
6	7889.6	90.00	90.00	7508.0	404.6	134.1	9.50	90.00	175.6	
7	11608.9	90.00	90.00	7508.0	404.6	3853.4	0.00	0.00	3874.6	33-2* BHL



Planning Report

Database:	WellPlan Services	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Company:	Edge Energy LLC	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Project:	Weld County, Co (NAD 83)	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site:	Sec. 33 TwN 1N Rng 65W	North Reference:	True
Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	#1		

Project	Weld County, Co (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec. 33 TwN 1N Rng 65W			
Site Position:		Northing:	1,246,558.82 usft	Latitude:	40° 0' 26.06400 N
From:	Lat/Long	Easting:	3,231,056.83 usft	Longitude:	104° 40' 30.54000 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well	Cherry Knolls 33-2* - Slot 2					
Well Position	+N/-S	0.0 usft	Northing:	1,246,558.96 usft	Latitude:	40° 0' 26.06396 N
	+E/-W	15.0 usft	Easting:	3,231,071.83 usft	Longitude:	104° 40' 30.34723 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,103.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF201015	20/11/2016	8.05	66.56	52,360

Design	#1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	84.01

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,550.0	0.00	0.00	1,550.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,903.0	7.06	310.79	1,902.1	14.2	-16.4	2.00	2.00	0.00	310.79	
6,589.2	7.06	310.79	6,552.8	390.4	-452.6	0.00	0.00	0.00	0.00	
6,942.2	0.00	0.00	6,904.9	404.6	-469.0	2.00	-2.00	0.00	180.00	33-2* DP
7,889.6	90.00	90.00	7,508.0	404.6	134.1	9.50	9.50	0.00	90.00	
11,608.9	90.00	90.00	7,508.0	404.6	3,853.4	0.00	0.00	0.00	0.00	33-2* BHL

Planning Report

Database:	WellPlan Services	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Company:	Edge Energy LLC	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Project:	Weld County, Co (NAD 83)	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site:	Sec. 33 Twn 1N Rng 65W	North Reference:	True
Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Wellbore:	H2		
Design:	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	-5,123.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP;1550' MD										
1,550.0	0.00	0.00	1,550.0	-3,573.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	1.00	310.79	1,600.0	-3,523.0	0.3	-0.3	-0.3	2.00	2.00	0.00
1,700.0	3.00	310.79	1,699.9	-3,423.1	2.6	-3.0	-2.7	2.00	2.00	0.00
1,800.0	5.00	310.79	1,799.7	-3,323.3	7.1	-8.3	-7.5	2.00	2.00	0.00
1,900.0	7.00	310.79	1,899.1	-3,223.9	13.9	-16.2	-14.6	2.00	2.00	0.00
1,903.0	7.06	310.79	1,902.1	-3,220.9	14.2	-16.4	-14.9	2.00	2.00	0.00
2,000.0	7.06	310.79	1,998.4	-3,124.6	22.0	-25.5	-23.0	0.00	0.00	0.00
2,100.0	7.06	310.79	2,097.6	-3,025.4	30.0	-34.8	-31.5	0.00	0.00	0.00
2,200.0	7.06	310.79	2,196.9	-2,926.1	38.0	-44.1	-39.9	0.00	0.00	0.00
2,300.0	7.06	310.79	2,296.1	-2,826.9	46.1	-53.4	-48.3	0.00	0.00	0.00
2,400.0	7.06	310.79	2,395.3	-2,727.7	54.1	-62.7	-56.7	0.00	0.00	0.00
2,500.0	7.06	310.79	2,494.6	-2,628.4	62.1	-72.0	-65.1	0.00	0.00	0.00
2,600.0	7.06	310.79	2,593.8	-2,529.2	70.2	-81.3	-73.5	0.00	0.00	0.00
2,700.0	7.06	310.79	2,693.1	-2,429.9	78.2	-90.6	-82.0	0.00	0.00	0.00
2,800.0	7.06	310.79	2,792.3	-2,330.7	86.2	-99.9	-90.4	0.00	0.00	0.00
2,900.0	7.06	310.79	2,891.5	-2,231.5	94.2	-109.2	-98.8	0.00	0.00	0.00
3,000.0	7.06	310.79	2,990.8	-2,132.2	102.3	-118.5	-107.2	0.00	0.00	0.00
3,100.0	7.06	310.79	3,090.0	-2,033.0	110.3	-127.8	-115.6	0.00	0.00	0.00
3,200.0	7.06	310.79	3,189.3	-1,933.7	118.3	-137.1	-124.0	0.00	0.00	0.00
3,300.0	7.06	310.79	3,288.5	-1,834.5	126.4	-146.5	-132.5	0.00	0.00	0.00
3,400.0	7.06	310.79	3,387.8	-1,735.2	134.4	-155.8	-140.9	0.00	0.00	0.00
3,500.0	7.06	310.79	3,487.0	-1,636.0	142.4	-165.1	-149.3	0.00	0.00	0.00
3,600.0	7.06	310.79	3,586.2	-1,536.8	150.4	-174.4	-157.7	0.00	0.00	0.00
3,700.0	7.06	310.79	3,685.5	-1,437.5	158.5	-183.7	-166.1	0.00	0.00	0.00
3,800.0	7.06	310.79	3,784.7	-1,338.3	166.5	-193.0	-174.5	0.00	0.00	0.00
3,900.0	7.06	310.79	3,884.0	-1,239.0	174.5	-202.3	-183.0	0.00	0.00	0.00
4,000.0	7.06	310.79	3,983.2	-1,139.8	182.6	-211.6	-191.4	0.00	0.00	0.00
4,100.0	7.06	310.79	4,082.4	-1,040.6	190.6	-220.9	-199.8	0.00	0.00	0.00
4,200.0	7.06	310.79	4,181.7	-941.3	198.6	-230.2	-208.2	0.00	0.00	0.00
4,300.0	7.06	310.79	4,280.9	-842.1	206.6	-239.5	-216.6	0.00	0.00	0.00
4,400.0	7.06	310.79	4,380.2	-742.8	214.7	-248.8	-225.0	0.00	0.00	0.00
4,500.0	7.06	310.79	4,479.4	-643.6	222.7	-258.1	-233.5	0.00	0.00	0.00
4,600.0	7.06	310.79	4,578.7	-544.3	230.7	-267.4	-241.9	0.00	0.00	0.00
4,700.0	7.06	310.79	4,677.9	-445.1	238.8	-276.7	-250.3	0.00	0.00	0.00
4,800.0	7.06	310.79	4,777.1	-345.9	246.8	-286.0	-258.7	0.00	0.00	0.00
4,900.0	7.06	310.79	4,876.4	-246.6	254.8	-295.4	-267.1	0.00	0.00	0.00
5,000.0	7.06	310.79	4,975.6	-147.4	262.8	-304.7	-275.5	0.00	0.00	0.00
5,100.0	7.06	310.79	5,074.9	-48.1	270.9	-314.0	-284.0	0.00	0.00	0.00
5,200.0	7.06	310.79	5,174.1	51.1	278.9	-323.3	-292.4	0.00	0.00	0.00
5,300.0	7.06	310.79	5,273.4	150.4	286.9	-332.6	-300.8	0.00	0.00	0.00
5,400.0	7.06	310.79	5,372.6	249.6	295.0	-341.9	-309.2	0.00	0.00	0.00
5,500.0	7.06	310.79	5,471.8	348.8	303.0	-351.2	-317.6	0.00	0.00	0.00
5,600.0	7.06	310.79	5,571.1	448.1	311.0	-360.5	-326.0	0.00	0.00	0.00
5,700.0	7.06	310.79	5,670.3	547.3	319.0	-369.8	-334.5	0.00	0.00	0.00

Planning Report

Database:	WellPlan Services	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Company:	Edge Energy LLC	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Project:	Weld County, Co (NAD 83)	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site:	Sec. 33 Twn 1N Rng 65W	North Reference:	True
Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Wellbore:	H2		
Design:	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,800.0	7.06	310.79	5,769.6	646.6	327.1	-379.1	-342.9	0.00	0.00	0.00
5,900.0	7.06	310.79	5,868.8	745.8	335.1	-388.4	-351.3	0.00	0.00	0.00
6,000.0	7.06	310.79	5,968.0	845.0	343.1	-397.7	-359.7	0.00	0.00	0.00
6,100.0	7.06	310.79	6,067.3	944.3	351.2	-407.0	-368.1	0.00	0.00	0.00
6,200.0	7.06	310.79	6,166.5	1,043.5	359.2	-416.3	-376.5	0.00	0.00	0.00
6,300.0	7.06	310.79	6,265.8	1,142.8	367.2	-425.6	-385.0	0.00	0.00	0.00
6,400.0	7.06	310.79	6,365.0	1,242.0	375.3	-434.9	-393.4	0.00	0.00	0.00
6,500.0	7.06	310.79	6,464.3	1,341.3	383.3	-444.3	-401.8	0.00	0.00	0.00
6,589.2	7.06	310.79	6,552.8	1,429.8	390.4	-452.6	-409.3	0.00	0.00	0.00
6,600.0	6.84	310.79	6,563.5	1,440.5	391.3	-453.5	-410.2	2.00	-2.00	0.00
6,700.0	4.84	310.79	6,663.0	1,540.0	397.9	-461.3	-417.2	2.00	-2.00	0.00
6,800.0	2.84	310.79	6,762.7	1,639.7	402.3	-466.3	-421.8	2.00	-2.00	0.00
6,900.0	0.84	310.79	6,862.7	1,739.7	404.4	-468.8	-424.0	2.00	-2.00	0.00
KOP;6942.2' MD										
6,942.2	0.00	310.79	6,904.9	1,781.9	404.6	-469.0	-424.2	2.00	-2.00	0.00
7,000.0	5.49	90.00	6,962.6	1,839.6	404.6	-466.2	-421.4	9.50	9.50	240.85
7,100.0	14.99	90.00	7,060.9	1,937.9	404.6	-448.5	-403.8	9.50	9.50	0.00
7,200.0	24.49	90.00	7,154.9	2,031.9	404.6	-414.7	-370.2	9.50	9.50	0.00
7,300.0	33.99	90.00	7,242.1	2,119.1	404.6	-366.0	-321.7	9.50	9.50	0.00
7,400.0	43.49	90.00	7,320.0	2,197.0	404.6	-303.4	-259.5	9.50	9.50	0.00
7,500.0	52.99	90.00	7,386.5	2,263.5	404.6	-228.9	-185.4	9.50	9.50	0.00
7,600.0	62.49	90.00	7,439.8	2,316.8	404.6	-144.5	-101.4	9.50	9.50	0.00
7,700.0	71.99	90.00	7,478.5	2,355.5	404.6	-52.4	-9.8	9.50	9.50	0.00
7,800.0	81.49	90.00	7,501.4	2,378.4	404.6	44.9	86.9	9.50	9.50	0.00
EOB;7889.6' MD										
7,889.6	90.00	90.00	7,508.0	2,385.0	404.6	134.1	175.7	9.50	9.50	0.00
7,900.0	90.00	90.00	7,508.0	2,385.0	404.6	144.5	186.0	0.00	0.00	0.00
8,000.0	90.00	90.00	7,508.0	2,385.0	404.6	244.5	285.4	0.00	0.00	0.00
8,100.0	90.00	90.00	7,508.0	2,385.0	404.6	344.5	384.9	0.00	0.00	0.00
8,200.0	90.00	90.00	7,508.0	2,385.0	404.6	444.5	484.4	0.00	0.00	0.00
8,300.0	90.00	90.00	7,508.0	2,385.0	404.6	544.5	583.8	0.00	0.00	0.00
8,400.0	90.00	90.00	7,508.0	2,385.0	404.6	644.5	683.3	0.00	0.00	0.00
8,500.0	90.00	90.00	7,508.0	2,385.0	404.6	744.5	782.7	0.00	0.00	0.00
8,600.0	90.00	90.00	7,508.0	2,385.0	404.6	844.5	882.2	0.00	0.00	0.00
8,700.0	90.00	90.00	7,508.0	2,385.0	404.6	944.5	981.6	0.00	0.00	0.00
8,800.0	90.00	90.00	7,508.0	2,385.0	404.6	1,044.5	1,081.1	0.00	0.00	0.00
8,900.0	90.00	90.00	7,508.0	2,385.0	404.6	1,144.5	1,180.5	0.00	0.00	0.00
9,000.0	90.00	90.00	7,508.0	2,385.0	404.6	1,244.5	1,280.0	0.00	0.00	0.00
9,100.0	90.00	90.00	7,508.0	2,385.0	404.6	1,344.5	1,379.4	0.00	0.00	0.00
9,200.0	90.00	90.00	7,508.0	2,385.0	404.6	1,444.5	1,478.9	0.00	0.00	0.00
9,300.0	90.00	90.00	7,508.0	2,385.0	404.6	1,544.5	1,578.3	0.00	0.00	0.00
9,400.0	90.00	90.00	7,508.0	2,385.0	404.6	1,644.5	1,677.8	0.00	0.00	0.00
9,500.0	90.00	90.00	7,508.0	2,385.0	404.6	1,744.5	1,777.2	0.00	0.00	0.00
9,600.0	90.00	90.00	7,508.0	2,385.0	404.6	1,844.5	1,876.7	0.00	0.00	0.00
9,700.0	90.00	90.00	7,508.0	2,385.0	404.6	1,944.5	1,976.2	0.00	0.00	0.00
9,800.0	90.00	90.00	7,508.0	2,385.0	404.6	2,044.5	2,075.6	0.00	0.00	0.00

Planning Report

Database:	WellPlan Services	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Company:	Edge Energy LLC	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Project:	Weld County, Co (NAD 83)	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site:	Sec. 33 Twn 1N Rng 65W	North Reference:	True
Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Wellbore:	H2		
Design:	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,900.0	90.00	90.00	7,508.0	2,385.0	404.6	2,144.5	2,175.1	0.00	0.00	0.00
10,000.0	90.00	90.00	7,508.0	2,385.0	404.6	2,244.5	2,274.5	0.00	0.00	0.00
10,100.0	90.00	90.00	7,508.0	2,385.0	404.6	2,344.5	2,374.0	0.00	0.00	0.00
10,200.0	90.00	90.00	7,508.0	2,385.0	404.6	2,444.5	2,473.4	0.00	0.00	0.00
10,300.0	90.00	90.00	7,508.0	2,385.0	404.6	2,544.5	2,572.9	0.00	0.00	0.00
10,400.0	90.00	90.00	7,508.0	2,385.0	404.6	2,644.5	2,672.3	0.00	0.00	0.00
10,500.0	90.00	90.00	7,508.0	2,385.0	404.6	2,744.5	2,771.8	0.00	0.00	0.00
10,600.0	90.00	90.00	7,508.0	2,385.0	404.6	2,844.5	2,871.2	0.00	0.00	0.00
10,700.0	90.00	90.00	7,508.0	2,385.0	404.6	2,944.5	2,970.7	0.00	0.00	0.00
10,800.0	90.00	90.00	7,508.0	2,385.0	404.6	3,044.5	3,070.1	0.00	0.00	0.00
10,900.0	90.00	90.00	7,508.0	2,385.0	404.6	3,144.5	3,169.6	0.00	0.00	0.00
11,000.0	90.00	90.00	7,508.0	2,385.0	404.6	3,244.5	3,269.0	0.00	0.00	0.00
11,100.0	90.00	90.00	7,508.0	2,385.0	404.6	3,344.5	3,368.5	0.00	0.00	0.00
11,200.0	90.00	90.00	7,508.0	2,385.0	404.6	3,444.5	3,467.9	0.00	0.00	0.00
11,300.0	90.00	90.00	7,508.0	2,385.0	404.6	3,544.5	3,567.4	0.00	0.00	0.00
11,400.0	90.00	90.00	7,508.0	2,385.0	404.6	3,644.5	3,666.9	0.00	0.00	0.00
11,500.0	90.00	90.00	7,508.0	2,385.0	404.6	3,744.5	3,766.3	0.00	0.00	0.00
11,600.0	90.00	90.00	7,508.0	2,385.0	404.6	3,844.5	3,865.8	0.00	0.00	0.00
TD at 11608.9' MD										
11,608.9	90.00	90.00	7,508.0	2,385.0	404.6	3,853.4	3,874.6	0.00	0.00	0.00

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
33-2* DP - hit/miss target - Shape - Point	0.00	0.00	6,904.9	404.6	-469.0	1,246,959.21	3,230,599.08	40° 0' 30.06277 N		104° 40' 36.37466 W
33-2* BHL - plan hits target center - Point	0.00	0.00	7,508.0	404.6	3,853.4	1,246,999.43	3,234,921.34	40° 0' 30.05996 N		104° 39' 40.82400 W

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,550.0	1,550.0	0.0	0.0	KOP;1550' MD	
6,942.2	6,904.9	404.6	-469.0	KOP;6942.2' MD	
7,889.6	7,508.0	404.6	134.1	EOB;7889.6' MD	
11,608.9	7,508.0	404.6	3,853.4	TD at 11608.9' MD	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Reference	#1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.0usft	Error Model:	ISCWSA
Depth Range:	0.0 to 11,608.9usft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	07/12/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,608.9	#1 (Hz)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec. 33 Twn 1N Rng 65W						
Cherry Knolls 33-1* - Hz - #1	1,805.2	1,805.8	9.8	2.0	1.251	Level 3, CC, ES, SF
Cherry Knolls 33-10 - Hz - #1						Out of range
Cherry Knolls 33-11 - Hz - #1						Out of range
Cherry Knolls 33-12 - Hz - #1						Out of range
Cherry Knolls 33-3* - Hz - #1	852.6	851.8	13.2	9.7	3.711	CC, ES
Cherry Knolls 33-3* - Hz - #1	900.0	899.0	13.7	10.0	3.638	SF
Cherry Knolls 33-4 - Hz - #1	965.8	964.1	27.8	23.7	6.830	CC, ES
Cherry Knolls 33-4 - Hz - #1	1,050.0	1,047.8	29.1	24.7	6.533	SF
Cherry Knolls 33-5* - Hz - #1	936.8	934.2	42.7	38.8	10.839	CC
Cherry Knolls 33-5* - Hz - #1	950.0	947.4	42.8	38.8	10.679	ES
Cherry Knolls 33-5* - Hz - #1	1,050.0	1,046.4	44.8	40.3	10.010	SF
Cherry Knolls 33-6* - Hz - #1	987.9	984.5	57.8	53.6	13.848	CC
Cherry Knolls 33-6* - Hz - #1	1,000.0	996.5	57.8	53.6	13.671	ES
Cherry Knolls 33-6* - Hz - #1	1,150.0	1,144.5	61.7	56.8	12.468	SF
Cherry Knolls 33-7* - Hz - #1	985.1	981.8	72.5	68.3	17.407	CC
Cherry Knolls 33-7* - Hz - #1	1,000.0	996.6	72.5	68.3	17.131	ES
Cherry Knolls 33-7* - Hz - #1	1,200.0	1,193.1	79.5	74.3	15.211	SF
Cherry Knolls 33-8 - Hz - #1	1,606.7	1,613.1	58.0	51.0	8.287	CC, ES
Cherry Knolls 33-8 - Hz - #1	1,650.0	1,655.8	58.8	51.6	8.133	SF
Cherry Knolls 33-9 - Hz - #1	1,152.2	1,159.2	77.2	72.2	15.456	CC, ES
Cherry Knolls 33-9 - Hz - #1	1,300.0	1,304.7	81.4	75.7	14.511	SF

Offset Design		Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-1* - Hz - #1											Offset Site Error:		0.0 usft	
Survey Program:		0-MWD											Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-15.0	15.0							
50.0	50.0	51.0	51.0	0.0	0.0	-90.00	0.0	-15.0	15.0	14.9	0.08	188.520				
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-15.0	15.0	14.8	0.18	82.390				
150.0	150.0	151.0	151.0	0.2	0.2	-90.00	0.0	-15.0	15.0	14.6	0.41	36.871				
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-15.0	15.0	14.4	0.63	23.749				
250.0	250.0	251.0	251.0	0.4	0.4	-90.00	0.0	-15.0	15.0	14.1	0.86	17.516				
300.0	300.0	301.0	301.0	0.5	0.5	-90.00	0.0	-15.0	15.0	13.9	1.08	13.874				

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

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-1* - HZ - #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
350.0	350.0	351.0	351.0	0.7	0.7	-90.00	0.0	-15.0	15.0	13.7	1.31	11.486		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-15.0	15.0	13.5	1.53	9.800		
450.0	450.0	451.0	451.0	0.9	0.9	-90.00	0.0	-15.0	15.0	13.2	1.76	8.545		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-15.0	15.0	13.0	1.98	7.575		
550.0	550.0	551.0	551.0	1.1	1.1	-90.00	0.0	-15.0	15.0	12.8	2.20	6.803		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-15.0	15.0	12.6	2.43	6.174		
650.0	650.0	651.0	651.0	1.3	1.3	-90.00	0.0	-15.0	15.0	12.3	2.65	5.651		
700.0	700.0	701.0	701.0	1.4	1.4	-90.00	0.0	-15.0	15.0	12.1	2.88	5.210		
750.0	750.0	751.0	751.0	1.6	1.6	-90.00	0.0	-15.0	15.0	11.9	3.10	4.832		
800.0	800.0	801.0	801.0	1.7	1.7	-90.00	0.0	-15.0	15.0	11.7	3.33	4.506		
850.0	850.0	851.0	851.0	1.8	1.8	-90.00	0.0	-15.0	15.0	11.4	3.55	4.221		
900.0	900.0	901.0	901.0	1.9	1.9	-90.00	0.0	-15.0	15.0	11.2	3.78	3.970		
950.0	950.0	951.0	951.0	2.0	2.0	-90.00	0.0	-15.0	15.0	11.0	4.00	3.747		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-90.00	0.0	-15.0	15.0	10.8	4.23	3.548		
1,050.0	1,050.0	1,051.0	1,051.0	2.2	2.2	-90.00	0.0	-15.0	15.0	10.5	4.45	3.369		
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-90.00	0.0	-15.0	15.0	10.3	4.68	3.207		
1,150.0	1,150.0	1,151.0	1,151.0	2.4	2.5	-90.00	0.0	-15.0	15.0	10.1	4.90	3.060		
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-90.00	0.0	-15.0	15.0	9.9	5.13	2.926		
1,250.0	1,250.0	1,251.0	1,251.0	2.7	2.7	-90.00	0.0	-15.0	15.0	9.6	5.35	2.803		
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-90.00	0.0	-15.0	15.0	9.4	5.58	2.690		
1,350.0	1,350.0	1,351.0	1,351.0	2.9	2.9	-90.00	0.0	-15.0	15.0	9.2	5.80	2.586		
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-90.00	0.0	-15.0	15.0	9.0	6.03	2.489		
1,450.0	1,450.0	1,451.0	1,451.0	3.1	3.1	-90.00	0.0	-15.0	15.0	8.7	6.25	2.400		
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.2	-90.00	0.0	-15.0	15.0	8.5	6.48	2.316		
1,550.0	1,550.0	1,551.0	1,551.0	3.3	3.4	-90.00	0.0	-15.0	15.0	8.3	6.70	2.239		
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-41.90	0.0	-15.0	14.7	7.8	6.92	2.120		
1,650.0	1,650.0	1,651.0	1,651.0	3.6	3.6	-45.57	0.0	-15.0	13.7	6.6	7.14	1.922		
1,700.0	1,699.9	1,700.9	1,700.9	3.7	3.7	-52.86	0.0	-15.0	12.3	4.9	7.36	1.671		
1,750.0	1,749.8	1,750.8	1,750.8	3.8	3.8	-65.97	0.0	-15.0	10.7	3.2	7.58	1.415 Level 3		
1,800.0	1,799.7	1,800.7	1,800.7	3.9	3.9	-87.35	0.0	-15.0	9.8	2.0	7.81	1.256 Level 3		
1,805.2	1,804.8	1,805.8	1,805.8	3.9	3.9	-90.00	0.0	-15.0	9.8	2.0	7.83	1.251 Level 3, CC, ES, SF		
1,850.0	1,849.5	1,850.5	1,850.5	4.0	4.0	-113.76	0.0	-15.0	10.7	2.7	8.03	1.334 Level 3		
1,900.0	1,899.1	1,900.1	1,900.1	4.1	4.1	-135.36	0.0	-15.0	14.0	5.8	8.24	1.699		
1,950.0	1,948.8	1,949.8	1,949.8	4.3	4.2	-148.54	0.0	-15.0	18.9	10.4	8.45	2.234		
2,000.0	1,998.4	1,999.4	1,999.4	4.4	4.4	-156.10	0.0	-15.0	24.3	15.7	8.67	2.809		
2,050.0	2,048.0	2,049.0	2,049.0	4.5	4.5	-160.85	0.0	-15.0	30.1	21.2	8.89	3.384		
2,100.0	2,097.6	2,098.6	2,098.6	4.6	4.6	-164.06	0.0	-15.0	35.9	26.8	9.10	3.947		
2,150.0	2,147.2	2,148.2	2,148.2	4.8	4.7	-166.37	0.0	-15.0	41.9	32.6	9.33	4.491		
2,200.0	2,196.9	2,197.9	2,197.9	4.9	4.8	-168.10	0.0	-15.0	47.9	38.3	9.55	5.015		
2,250.0	2,246.5	2,247.5	2,247.5	5.0	4.9	-169.45	0.0	-15.0	53.9	44.1	9.77	5.518		
2,300.0	2,296.1	2,297.1	2,297.1	5.2	5.0	-170.52	0.0	-15.0	60.0	50.0	9.99	6.001		
2,350.0	2,345.7	2,347.6	2,347.6	5.3	5.1	-171.29	0.1	-15.3	65.7	55.5	10.22	6.434		
2,400.0	2,395.3	2,398.5	2,398.5	5.4	5.2	-171.62	0.6	-16.5	70.7	60.3	10.44	6.774		
2,450.0	2,445.0	2,449.5	2,449.4	5.6	5.4	-171.61	1.5	-18.4	74.9	64.2	10.66	7.026		
2,500.0	2,494.6	2,500.6	2,500.4	5.7	5.5	-171.32	2.8	-21.2	78.3	67.4	10.88	7.193		
2,550.0	2,544.2	2,551.8	2,551.5	5.9	5.6	-170.78	4.4	-24.9	80.8	69.7	11.11	7.279		
2,600.0	2,593.8	2,603.1	2,602.5	6.0	5.7	-169.98	6.3	-29.4	82.6	71.3	11.33	7.291		
2,650.0	2,643.4	2,654.3	2,653.5	6.1	5.8	-168.92	8.7	-34.7	83.6	72.1	11.57	7.232		
2,700.0	2,693.1	2,704.3	2,703.0	6.3	5.9	-167.78	11.2	-40.3	84.3	72.5	11.80	7.146		
2,750.0	2,742.7	2,754.3	2,752.6	6.4	6.0	-166.65	13.6	-45.8	85.0	73.0	12.03	7.065		
2,800.0	2,792.3	2,804.2	2,802.2	6.6	6.2	-165.55	16.1	-51.4	85.7	73.5	12.27	6.989		
2,850.0	2,841.9	2,854.2	2,851.8	6.7	6.3	-164.46	18.5	-57.0	86.5	74.0	12.51	6.916		

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

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-1* - Hz - #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,900.0	2,891.5	2,904.2	2,901.4	6.9	6.4	-163.40	21.0	-62.5	87.3	74.6	12.75	6.847	
2,950.0	2,941.2	2,954.1	2,951.0	7.0	6.5	-162.35	23.5	-68.1	88.1	75.1	13.00	6.782	
3,000.0	2,990.8	3,004.1	3,000.6	7.2	6.7	-161.32	25.9	-73.7	89.0	75.7	13.24	6.720	
3,050.0	3,040.4	3,054.1	3,050.2	7.3	6.8	-160.31	28.4	-79.2	89.9	76.4	13.49	6.661	
3,100.0	3,090.0	3,104.0	3,099.8	7.5	6.9	-159.32	30.9	-84.8	90.8	77.0	13.74	6.605	
3,150.0	3,139.7	3,154.0	3,149.4	7.6	7.0	-158.36	33.3	-90.4	91.7	77.7	14.00	6.552	
3,200.0	3,189.3	3,204.0	3,199.0	7.8	7.2	-157.41	35.8	-96.0	92.7	78.4	14.25	6.501	
3,250.0	3,238.9	3,253.9	3,248.6	7.9	7.3	-156.48	38.2	-101.5	93.7	79.1	14.51	6.453	
3,300.0	3,288.5	3,303.9	3,298.2	8.1	7.4	-155.57	40.7	-107.1	94.7	79.9	14.77	6.407	
3,350.0	3,338.1	3,353.9	3,347.8	8.2	7.6	-154.68	43.2	-112.7	95.7	80.7	15.04	6.363	
3,400.0	3,387.8	3,403.8	3,397.4	8.4	7.7	-153.81	45.6	-118.2	96.8	81.4	15.30	6.322	
3,450.0	3,437.4	3,453.8	3,447.0	8.5	7.9	-152.96	48.1	-123.8	97.8	82.3	15.57	6.282	
3,500.0	3,487.0	3,503.8	3,496.6	8.7	8.0	-152.13	50.5	-129.4	98.9	83.1	15.84	6.244	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	15.0	15.0				
50.0	50.0	49.0	49.0	0.0	0.0	90.00	0.0	15.0	15.0	14.9	0.08	192.879	
100.0	100.0	99.0	99.0	0.1	0.1	90.00	0.0	15.0	15.0	14.8	0.18	83.839	
150.0	150.0	149.0	149.0	0.2	0.2	90.00	0.0	15.0	15.0	14.6	0.40	37.283	
200.0	200.0	199.0	199.0	0.3	0.3	90.00	0.0	15.0	15.0	14.4	0.63	23.920	
250.0	250.0	249.0	249.0	0.4	0.4	90.00	0.0	15.0	15.0	14.1	0.85	17.608	
300.0	300.0	299.0	299.0	0.5	0.5	90.00	0.0	15.0	15.0	13.9	1.08	13.932	
350.0	350.0	349.0	349.0	0.7	0.6	90.00	0.0	15.0	15.0	13.7	1.30	11.526	
400.0	400.0	399.0	399.0	0.8	0.8	90.00	0.0	15.0	15.0	13.5	1.53	9.829	
450.0	450.0	449.0	449.0	0.9	0.9	90.00	0.0	15.0	15.0	13.2	1.75	8.567	
500.0	500.0	499.0	499.0	1.0	1.0	90.00	0.0	15.0	15.0	13.0	1.98	7.592	
550.0	550.0	549.0	549.0	1.1	1.1	90.00	0.0	15.0	15.0	12.8	2.20	6.817	
600.0	600.0	599.0	599.0	1.2	1.2	90.00	0.0	15.0	15.0	12.6	2.43	6.185	
650.0	650.0	649.0	649.0	1.3	1.3	90.00	0.0	15.0	15.0	12.4	2.65	5.660	
700.0	700.0	699.1	699.1	1.4	1.4	88.56	0.4	14.8	14.8	11.9	2.87	5.151	
750.0	750.0	749.2	749.2	1.6	1.5	83.91	1.5	14.2	14.3	11.2	3.10	4.604	
800.0	800.0	799.2	799.2	1.7	1.7	75.42	3.4	13.2	13.6	10.3	3.32	4.093	
850.0	850.0	849.2	849.0	1.8	1.8	62.53	6.1	11.7	13.2	9.7	3.55	3.724	
852.6	852.6	851.8	851.6	1.8	1.8	61.73	6.3	11.6	13.2	9.7	3.56	3.711 CC, ES	
900.0	900.0	899.0	898.7	1.9	1.9	46.05	9.5	9.9	13.7	10.0	3.77	3.638 SF	
950.0	950.0	948.7	948.1	2.0	2.0	29.13	13.7	7.6	15.7	11.7	4.01	3.921	
1,000.0	1,000.0	998.1	997.3	2.1	2.1	15.02	18.6	5.0	19.3	15.1	4.24	4.560	
1,050.0	1,050.0	1,047.4	1,046.1	2.2	2.3	4.63	24.2	2.0	24.5	20.0	4.49	5.455	
1,100.0	1,100.0	1,096.5	1,094.7	2.3	2.4	-2.70	30.6	-1.4	30.9	26.2	4.74	6.529	
1,150.0	1,150.0	1,145.2	1,142.8	2.4	2.5	-7.91	37.6	-5.2	38.5	33.5	4.99	7.709	
1,200.0	1,200.0	1,194.1	1,190.9	2.6	2.7	-11.67	45.3	-9.4	46.9	41.7	5.25	8.943	
1,250.0	1,250.0	1,243.3	1,239.2	2.7	2.9	-14.32	53.1	-13.6	55.7	50.1	5.51	10.095	
1,300.0	1,300.0	1,292.5	1,287.6	2.8	3.0	-16.25	60.9	-17.8	64.5	58.7	5.78	11.156	
1,350.0	1,350.0	1,341.7	1,336.0	2.9	3.2	-17.72	68.7	-22.0	73.3	67.3	6.04	12.127	
1,400.0	1,400.0	1,390.8	1,384.4	3.0	3.4	-18.87	76.5	-26.2	82.2	75.9	6.31	13.020	
1,450.0	1,450.0	1,440.0	1,432.7	3.1	3.5	-19.79	84.3	-30.4	91.1	84.5	6.58	13.840	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	30.0	30.1				
50.0	50.0	48.0	48.0	0.0	0.0	90.00	0.0	30.0	30.0	29.9	0.08	390.269	
100.0	100.0	98.0	98.0	0.1	0.1	90.00	0.0	30.0	30.0	29.8	0.18	168.525	
150.0	150.0	148.0	148.0	0.2	0.2	90.00	0.0	30.0	30.0	29.6	0.40	74.984	
200.0	200.0	198.0	198.0	0.3	0.3	90.00	0.0	30.0	30.0	29.4	0.62	48.012	
250.0	250.0	248.0	248.0	0.4	0.4	90.00	0.0	30.0	30.0	29.2	0.85	35.310	
300.0	300.0	298.0	298.0	0.5	0.5	90.00	0.0	30.0	30.0	28.9	1.07	27.923	
350.0	350.0	348.0	348.0	0.7	0.6	90.00	0.0	30.0	30.0	28.7	1.30	23.092	
400.0	400.0	398.0	398.0	0.8	0.8	90.00	0.0	30.0	30.0	28.5	1.52	19.686	
450.0	450.0	448.0	448.0	0.9	0.9	90.00	0.0	30.0	30.0	28.3	1.75	17.156	
500.0	500.0	498.0	498.0	1.0	1.0	90.00	0.0	30.0	30.0	28.0	1.97	15.202	
550.0	550.0	548.0	548.0	1.1	1.1	90.00	0.0	30.0	30.0	27.8	2.20	13.647	
600.0	600.0	598.0	598.0	1.2	1.2	90.00	0.0	30.0	30.0	27.6	2.42	12.381	
650.0	650.0	648.0	648.0	1.3	1.3	90.00	0.0	30.0	30.0	27.4	2.65	11.330	
700.0	700.0	698.0	698.0	1.4	1.4	90.00	0.0	30.0	30.0	27.1	2.87	10.444	
750.0	750.0	748.1	748.1	1.6	1.5	89.55	0.2	29.9	29.9	26.8	3.10	9.655	
800.0	800.0	798.3	798.3	1.7	1.7	87.55	1.3	29.5	29.5	26.2	3.32	8.885	
850.0	850.0	848.4	848.4	1.8	1.8	83.85	3.1	28.7	28.9	25.4	3.55	8.150	
900.0	900.0	898.5	898.3	1.9	1.9	78.27	5.7	27.7	28.3	24.5	3.77	7.492	
950.0	950.0	948.4	948.1	2.0	2.0	70.73	9.2	26.3	27.8	23.8	4.00	6.960	
965.8	965.8	964.1	963.8	2.0	2.0	67.94	10.4	25.8	27.8	23.7	4.07	6.830 CC, ES	
1,000.0	1,000.0	998.2	997.7	2.1	2.1	61.35	13.4	24.6	28.0	23.8	4.23	6.625	
1,050.0	1,050.0	1,047.8	1,047.0	2.2	2.2	50.71	18.4	22.5	29.1	24.7	4.46	6.533 SF	
1,100.0	1,100.0	1,097.2	1,096.0	2.3	2.4	39.83	24.2	20.2	31.6	26.9	4.70	6.727	
1,150.0	1,150.0	1,146.3	1,144.6	2.4	2.5	29.72	30.7	17.5	35.6	30.6	4.95	7.186	
1,200.0	1,200.0	1,195.2	1,192.9	2.6	2.6	21.03	38.0	14.6	41.0	35.8	5.20	7.888	
1,250.0	1,250.0	1,243.9	1,240.8	2.7	2.8	13.90	46.0	11.4	47.9	42.4	5.47	8.760	
1,300.0	1,300.0	1,292.2	1,288.2	2.8	2.9	8.19	54.6	7.9	56.1	50.3	5.74	9.776	
1,350.0	1,350.0	1,340.2	1,335.1	2.9	3.1	3.65	64.0	4.1	65.4	59.4	6.02	10.872	
1,400.0	1,400.0	1,387.8	1,381.5	3.0	3.3	0.02	74.0	0.0	75.8	69.5	6.29	12.040	
1,450.0	1,450.0	1,435.4	1,427.7	3.1	3.5	-2.90	84.6	-4.3	87.1	80.6	6.58	13.237	
1,500.0	1,500.0	1,483.9	1,474.7	3.2	3.7	-5.23	95.7	-8.8	98.9	92.0	6.88	14.372	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	45.0	45.1				
50.0	50.0	47.0	47.0	0.0	0.0	90.00	0.0	45.0	45.0	44.9	0.08	592.331	
100.0	100.0	97.0	97.0	0.1	0.1	90.00	0.0	45.0	45.0	44.8	0.18	254.071	
150.0	150.0	147.0	147.0	0.2	0.2	90.00	0.0	45.0	45.0	44.6	0.40	113.112	
200.0	200.0	197.0	197.0	0.3	0.3	90.00	0.0	45.0	45.0	44.4	0.62	72.277	
250.0	250.0	247.0	247.0	0.4	0.4	90.00	0.0	45.0	45.0	44.2	0.85	53.106	
300.0	300.0	297.0	297.0	0.5	0.5	90.00	0.0	45.0	45.0	43.9	1.07	41.972	
350.0	350.0	347.0	347.0	0.7	0.6	90.00	0.0	45.0	45.0	43.7	1.30	34.698	
400.0	400.0	397.0	397.0	0.8	0.8	90.00	0.0	45.0	45.0	43.5	1.52	29.573	
450.0	450.0	447.0	447.0	0.9	0.9	90.00	0.0	45.0	45.0	43.3	1.75	25.767	
500.0	500.0	497.0	497.0	1.0	1.0	90.00	0.0	45.0	45.0	43.0	1.97	22.829	
550.0	550.0	547.0	547.0	1.1	1.1	90.00	0.0	45.0	45.0	42.8	2.20	20.492	
600.0	600.0	597.0	597.0	1.2	1.2	90.00	0.0	45.0	45.0	42.6	2.42	18.589	
650.0	650.0	647.0	647.0	1.3	1.3	90.00	0.0	45.0	45.0	42.4	2.65	17.010	
700.0	700.0	697.2	697.2	1.4	1.4	89.53	0.4	44.9	44.9	42.0	2.87	15.635	
750.0	750.0	747.4	747.4	1.6	1.5	87.97	1.6	44.5	44.5	41.4	3.10	14.377	
800.0	800.0	797.6	797.5	1.7	1.7	85.29	3.6	43.8	44.0	40.6	3.32	13.237	
850.0	850.0	847.7	847.5	1.8	1.8	81.41	6.5	42.9	43.4	39.8	3.55	12.220	
900.0	900.0	897.6	897.3	1.9	1.9	76.30	10.2	41.7	42.9	39.1	3.77	11.360	
936.8	936.8	934.2	933.8	2.0	2.0	71.76	13.4	40.6	42.7	38.8	3.94	10.839 CC	
950.0	950.0	947.4	946.9	2.0	2.0	69.97	14.6	40.2	42.8	38.8	4.00	10.679 ES	
1,000.0	1,000.0	997.0	996.2	2.1	2.1	62.58	19.9	38.4	43.3	39.1	4.23	10.227	
1,050.0	1,050.0	1,046.4	1,045.1	2.2	2.3	54.48	26.0	36.4	44.8	40.3	4.48	10.010 SF	
1,100.0	1,100.0	1,095.6	1,093.8	2.3	2.4	46.14	32.8	34.2	47.5	42.8	4.72	10.064	
1,150.0	1,150.0	1,144.5	1,142.0	2.4	2.5	38.08	40.4	31.7	51.6	46.6	4.98	10.355	
1,200.0	1,200.0	1,193.1	1,189.9	2.6	2.7	30.69	48.7	28.9	57.1	51.9	5.25	10.884	
1,250.0	1,250.0	1,241.4	1,237.2	2.7	2.9	24.20	57.8	26.0	64.1	58.6	5.53	11.584	
1,300.0	1,300.0	1,289.4	1,284.1	2.8	3.0	18.64	67.5	22.8	72.4	66.6	5.82	12.445	
1,350.0	1,350.0	1,337.0	1,330.4	2.9	3.2	13.95	77.9	19.3	81.9	75.8	6.11	13.400	
1,400.0	1,400.0	1,384.2	1,376.2	3.0	3.4	10.03	88.9	15.7	92.6	86.2	6.41	14.446	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	60.0	60.1				
50.0	50.0	46.0	46.0	0.0	0.0	90.00	0.0	60.0	60.0	59.9	0.08	799.233	
100.0	100.0	96.0	96.0	0.1	0.1	90.00	0.0	60.0	60.0	59.8	0.18	340.490	
150.0	150.0	146.0	146.0	0.2	0.2	90.00	0.0	60.0	60.0	59.6	0.40	151.673	
200.0	200.0	196.0	196.0	0.3	0.3	90.00	0.0	60.0	60.0	59.4	0.62	96.719	
250.0	250.0	246.0	246.0	0.4	0.4	90.00	0.0	60.0	60.0	59.2	0.85	70.996	
300.0	300.0	296.0	296.0	0.5	0.5	90.00	0.0	60.0	60.0	58.9	1.07	56.081	
350.0	350.0	346.0	346.0	0.7	0.6	90.00	0.0	60.0	60.0	58.7	1.29	46.344	
400.0	400.0	396.0	396.0	0.8	0.8	90.00	0.0	60.0	60.0	58.5	1.52	39.489	
450.0	450.0	446.0	446.0	0.9	0.9	90.00	0.0	60.0	60.0	58.3	1.74	34.400	
500.0	500.0	496.0	496.0	1.0	1.0	90.00	0.0	60.0	60.0	58.0	1.97	30.473	
550.0	550.0	546.0	546.0	1.1	1.1	90.00	0.0	60.0	60.0	57.8	2.19	27.351	
600.0	600.0	596.0	596.0	1.2	1.2	90.00	0.0	60.0	60.0	57.6	2.42	24.809	
650.0	650.0	646.0	646.0	1.3	1.3	90.00	0.0	60.0	60.0	57.4	2.64	22.699	
700.0	700.0	696.1	696.1	1.4	1.4	89.96	0.0	60.0	60.0	57.1	2.87	20.915	
750.0	750.0	746.4	746.4	1.6	1.5	89.29	0.7	59.8	59.8	56.7	3.09	19.331	
800.0	800.0	796.6	796.6	1.7	1.7	87.80	2.3	59.4	59.4	56.1	3.32	17.902	
850.0	850.0	846.8	846.7	1.8	1.8	85.45	4.7	58.7	58.9	55.3	3.55	16.610	
900.0	900.0	896.8	896.6	1.9	1.9	82.22	7.9	57.8	58.3	54.6	3.77	15.468	
950.0	950.0	946.7	946.4	2.0	2.0	78.09	11.9	56.7	57.9	53.9	4.00	14.476	
987.9	987.9	984.5	983.9	2.1	2.1	74.37	15.6	55.6	57.8	53.6	4.17	13.848 CC	
1,000.0	1,000.0	996.5	995.9	2.1	2.1	73.08	16.8	55.3	57.8	53.6	4.23	13.671 ES	
1,050.0	1,050.0	1,046.1	1,045.1	2.2	2.2	67.28	22.5	53.7	58.2	53.8	4.46	13.050	
1,100.0	1,100.0	1,095.4	1,094.0	2.3	2.4	60.84	29.0	51.9	59.5	54.8	4.70	12.655	
1,150.0	1,150.0	1,144.5	1,142.5	2.4	2.5	54.03	36.2	49.9	61.7	56.8	4.95	12.468 SF	
1,200.0	1,200.0	1,193.4	1,190.6	2.6	2.7	47.16	44.2	47.6	65.2	60.0	5.21	12.522	
1,250.0	1,250.0	1,241.9	1,238.3	2.7	2.8	40.51	52.9	45.2	70.0	64.5	5.48	12.771	
1,300.0	1,300.0	1,290.1	1,285.5	2.8	3.0	34.33	62.3	42.6	76.2	70.4	5.76	13.227	
1,350.0	1,350.0	1,338.0	1,332.2	2.9	3.2	28.74	72.4	39.7	83.8	77.7	6.06	13.829	
1,400.0	1,400.0	1,385.4	1,378.3	3.0	3.3	23.81	83.2	36.7	92.7	86.3	6.36	14.578	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	75.0	75.1				
50.0	50.0	46.0	46.0	0.0	0.0	90.00	0.0	75.0	75.0	74.9	0.08	999.042	
100.0	100.0	96.0	96.0	0.1	0.1	90.00	0.0	75.0	75.0	74.8	0.18	425.612	
150.0	150.0	146.0	146.0	0.2	0.2	90.00	0.0	75.0	75.0	74.6	0.40	189.591	
200.0	200.0	196.0	196.0	0.3	0.3	90.00	0.0	75.0	75.0	74.4	0.62	120.899	
250.0	250.0	246.0	246.0	0.4	0.4	90.00	0.0	75.0	75.0	74.2	0.85	88.745	
300.0	300.0	296.0	296.0	0.5	0.5	90.00	0.0	75.0	75.0	73.9	1.07	70.101	
350.0	350.0	346.0	346.0	0.7	0.6	90.00	0.0	75.0	75.0	73.7	1.29	57.931	
400.0	400.0	396.0	396.0	0.8	0.8	90.00	0.0	75.0	75.0	73.5	1.52	49.361	
450.0	450.0	446.0	446.0	0.9	0.9	90.00	0.0	75.0	75.0	73.3	1.74	43.000	
500.0	500.0	496.0	496.0	1.0	1.0	90.00	0.0	75.0	75.0	73.0	1.97	38.091	
550.0	550.0	546.0	546.0	1.1	1.1	90.00	0.0	75.0	75.0	72.8	2.19	34.189	
600.0	600.0	596.0	596.0	1.2	1.2	90.00	0.0	75.0	75.0	72.6	2.42	31.011	
650.0	650.0	646.0	646.0	1.3	1.3	90.00	0.0	75.0	75.0	72.4	2.64	28.374	
700.0	700.0	696.3	696.3	1.4	1.4	89.72	0.4	74.9	74.9	72.0	2.87	26.113	
750.0	750.0	746.6	746.6	1.6	1.5	88.79	1.6	74.6	74.6	71.5	3.09	24.109	
800.0	800.0	796.9	796.8	1.7	1.7	87.19	3.6	74.0	74.1	70.8	3.32	22.329	
850.0	850.0	847.0	846.9	1.8	1.8	84.89	6.5	73.3	73.6	70.0	3.55	20.739	
900.0	900.0	897.0	896.7	1.9	1.9	81.90	10.3	72.3	73.0	69.2	3.77	19.346	
950.0	950.0	946.9	946.4	2.0	2.0	78.19	14.9	71.1	72.6	68.6	4.00	18.133	
985.1	985.1	981.8	981.1	2.1	2.1	75.17	18.6	70.1	72.5	68.3	4.17	17.407 CC	
1,000.0	1,000.0	996.6	995.8	2.1	2.1	73.79	20.2	69.6	72.5	68.3	4.23	17.131 ES	
1,050.0	1,050.0	1,046.1	1,044.9	2.2	2.3	68.76	26.4	68.0	73.0	68.5	4.47	16.319	
1,100.0	1,100.0	1,095.4	1,093.6	2.3	2.4	63.21	33.4	66.2	74.1	69.4	4.71	15.737	
1,150.0	1,150.0	1,144.4	1,141.9	2.4	2.5	57.31	41.1	64.1	76.3	71.3	4.97	15.356	
1,200.0	1,200.0	1,193.1	1,189.8	2.6	2.7	51.27	49.6	61.9	79.5	74.3	5.23	15.211 SF	
1,250.0	1,250.0	1,241.5	1,237.3	2.7	2.9	45.30	58.8	59.4	84.1	78.6	5.51	15.254	
1,300.0	1,300.0	1,289.5	1,284.2	2.8	3.0	39.58	68.7	56.8	89.9	84.1	5.80	15.510	
1,350.0	1,350.0	1,337.2	1,330.6	2.9	3.2	34.26	79.3	54.0	97.2	91.1	6.11	15.915	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	90.00	0.0	90.0	90.0				
50.0	50.0	51.0	51.0	0.0	0.0	90.00	0.0	90.0	90.0	89.9	0.08	1,131.118	
100.0	100.0	101.0	101.0	0.1	0.1	90.00	0.0	90.0	90.0	89.8	0.18	494.341	
150.0	150.0	151.0	151.0	0.2	0.2	90.00	0.0	90.0	90.0	89.6	0.41	221.224	
200.0	200.0	201.0	201.0	0.3	0.3	90.00	0.0	90.0	90.0	89.4	0.63	142.497	
250.0	250.0	251.0	251.0	0.4	0.4	90.00	0.0	90.0	90.0	89.1	0.86	105.096	
300.0	300.0	301.0	301.0	0.5	0.5	90.00	0.0	90.0	90.0	88.9	1.08	83.247	
350.0	350.0	351.0	351.0	0.7	0.7	90.00	0.0	90.0	90.0	88.7	1.31	68.918	
400.0	400.0	401.0	401.0	0.8	0.8	90.00	0.0	90.0	90.0	88.5	1.53	58.798	
450.0	450.0	451.0	451.0	0.9	0.9	90.00	0.0	90.0	90.0	88.2	1.76	51.270	
500.0	500.0	501.0	501.0	1.0	1.0	90.00	0.0	90.0	90.0	88.0	1.98	45.450	
550.0	550.0	551.0	551.0	1.1	1.1	90.00	0.0	90.0	90.0	87.8	2.20	40.817	
600.0	600.0	601.0	601.0	1.2	1.2	90.00	0.0	90.0	90.0	87.6	2.43	37.041	
650.0	650.0	651.0	651.0	1.3	1.3	90.00	0.0	90.0	90.0	87.3	2.65	33.905	
700.0	700.0	701.0	701.0	1.4	1.4	90.00	0.0	90.0	90.0	87.1	2.88	31.258	
750.0	750.0	751.0	751.0	1.6	1.6	90.00	0.0	90.0	90.0	86.9	3.10	28.995	
800.0	800.0	801.0	801.0	1.7	1.7	90.00	0.0	90.0	90.0	86.7	3.33	27.037	
850.0	850.0	851.0	851.0	1.8	1.8	90.00	0.0	90.0	90.0	86.4	3.55	25.327	
900.0	900.0	901.0	901.0	1.9	1.9	90.00	0.0	90.0	90.0	86.2	3.78	23.820	
950.0	950.0	951.0	951.0	2.0	2.0	90.00	0.0	90.0	90.0	86.0	4.00	22.483	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	90.00	0.0	90.0	90.0	85.8	4.23	21.288	
1,050.0	1,050.0	1,052.3	1,052.3	2.2	2.2	90.19	-0.3	89.6	89.6	85.2	4.44	20.173	
1,100.0	1,100.0	1,103.5	1,103.4	2.3	2.3	90.77	-1.2	88.6	88.6	83.9	4.66	19.017	
1,150.0	1,150.0	1,154.6	1,154.5	2.4	2.4	91.75	-2.6	86.8	86.9	82.0	4.87	17.852	
1,200.0	1,200.0	1,205.6	1,205.5	2.6	2.5	93.18	-4.7	84.3	84.5	79.5	5.08	16.654	
1,250.0	1,250.0	1,256.6	1,256.2	2.7	2.6	95.13	-7.3	81.1	81.6	76.3	5.29	15.423	
1,300.0	1,300.0	1,307.3	1,306.7	2.8	2.7	97.70	-10.4	77.3	78.2	72.7	5.51	14.187	
1,350.0	1,350.0	1,357.9	1,356.9	2.9	2.8	101.02	-14.2	72.7	74.3	68.6	5.74	12.956	
1,400.0	1,400.0	1,408.2	1,406.8	3.0	3.0	105.25	-18.4	67.6	70.3	64.3	5.97	11.772	
1,450.0	1,450.0	1,458.3	1,456.3	3.1	3.1	110.60	-23.2	61.7	66.2	59.9	6.21	10.655	
1,500.0	1,500.0	1,508.0	1,505.3	3.2	3.2	117.27	-28.5	55.3	62.3	55.9	6.45	9.671	
1,550.0	1,550.0	1,557.2	1,553.8	3.3	3.4	124.87	-33.9	48.7	59.4	52.7	6.68	8.886	
1,600.0	1,600.0	1,606.5	1,602.3	3.5	3.5	-177.72	-39.3	42.1	58.0	51.1	6.97	8.333	
1,606.7	1,606.7	1,613.1	1,608.9	3.5	3.5	-176.60	-40.1	41.2	58.0	51.0	7.00	8.287 CC, ES	
1,650.0	1,650.0	1,655.8	1,650.9	3.6	3.7	-169.47	-44.8	35.4	58.8	51.6	7.23	8.133 SF	
1,700.0	1,699.9	1,705.0	1,699.4	3.7	3.8	-161.82	-50.2	28.8	61.6	54.1	7.49	8.226	
1,750.0	1,749.8	1,754.3	1,747.9	3.8	4.0	-155.22	-55.6	22.2	66.2	58.5	7.75	8.549	
1,800.0	1,799.7	1,803.5	1,796.3	3.9	4.2	-149.84	-61.0	15.6	72.3	64.4	7.99	9.051	
1,850.0	1,849.5	1,852.6	1,844.7	4.0	4.3	-145.64	-66.4	9.0	79.7	71.5	8.24	9.671	
1,900.0	1,899.1	1,901.7	1,893.1	4.1	4.5	-142.47	-71.9	2.4	88.1	79.6	8.49	10.379	
1,950.0	1,948.8	1,950.8	1,941.4	4.3	4.7	-140.11	-77.3	-4.2	97.0	88.3	8.75	11.094	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Offset Design Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-9 - Hz - #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
750.0	750.0	757.7	757.4	1.6	1.5	95.01	-8.5	97.1	97.7	94.6	3.06	31.903	
800.0	800.0	808.5	807.9	1.7	1.6	97.41	-12.2	93.8	94.7	91.4	3.29	28.798	
850.0	850.0	859.1	858.1	1.8	1.8	100.43	-16.5	89.8	91.5	88.0	3.53	25.926	
900.0	900.0	909.4	908.0	1.9	1.9	104.15	-21.5	85.2	88.1	84.3	3.77	23.356	
950.0	950.0	959.5	957.6	2.0	2.0	108.66	-27.0	80.1	84.7	80.7	4.02	21.048	
1,000.0	1,000.0	1,009.3	1,006.6	2.1	2.2	114.03	-33.2	74.4	81.6	77.3	4.27	19.095	
1,050.0	1,050.0	1,058.5	1,055.1	2.2	2.4	119.91	-39.5	68.6	79.2	74.7	4.52	17.519	
1,100.0	1,100.0	1,107.7	1,103.6	2.3	2.5	126.07	-45.8	62.8	77.7	73.0	4.76	16.335	
1,150.0	1,150.0	1,157.0	1,152.1	2.4	2.7	132.39	-52.0	57.0	77.2	72.2	4.99	15.486	
1,152.2	1,152.2	1,159.2	1,154.2	2.5	2.7	132.67	-52.3	56.8	77.2	72.2	5.00	15.456 CC, ES	
1,200.0	1,200.0	1,206.2	1,200.6	2.6	2.9	138.71	-58.3	51.2	77.6	72.4	5.20	14.935	
1,250.0	1,250.0	1,255.5	1,249.1	2.7	3.1	144.89	-64.6	45.4	79.0	73.6	5.41	14.623	
1,300.0	1,300.0	1,304.7	1,297.5	2.8	3.2	150.79	-70.9	39.6	81.4	75.7	5.61	14.511 SF	
1,350.0	1,350.0	1,353.9	1,346.0	2.9	3.4	156.33	-77.2	33.8	84.5	78.7	5.81	14.547	
1,400.0	1,400.0	1,403.2	1,394.5	3.0	3.6	161.43	-83.5	28.0	88.4	82.4	6.01	14.698	
1,450.0	1,450.0	1,452.4	1,443.0	3.1	3.8	166.08	-89.8	22.3	92.9	86.7	6.23	14.926	
1,500.0	1,500.0	1,501.7	1,491.5	3.2	4.0	170.28	-96.1	16.5	98.0	91.6	6.44	15.210	

Anticollision Report

Company:	Edge Energy LLC	Local Co-ordinate Reference:	Well Cherry Knolls 33-2* - Slot 2
Project:	Weld County, Co (NAD 83)	TVD Reference:	Est. RKB @ 5123.0usft (kb;20')
Reference Site:	Sec. 33 Twn 1N Rng 65W	MD Reference:	Est. RKB @ 5123.0usft (kb;20')
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Cherry Knolls 33-2*	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	WellPlan Services
Reference Design:	#1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Est. RKB @ 5123.0usft (kb;20')

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.00000 W

Coordinates are relative to: Cherry Knolls 33-2* - Slot 2

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.53°

