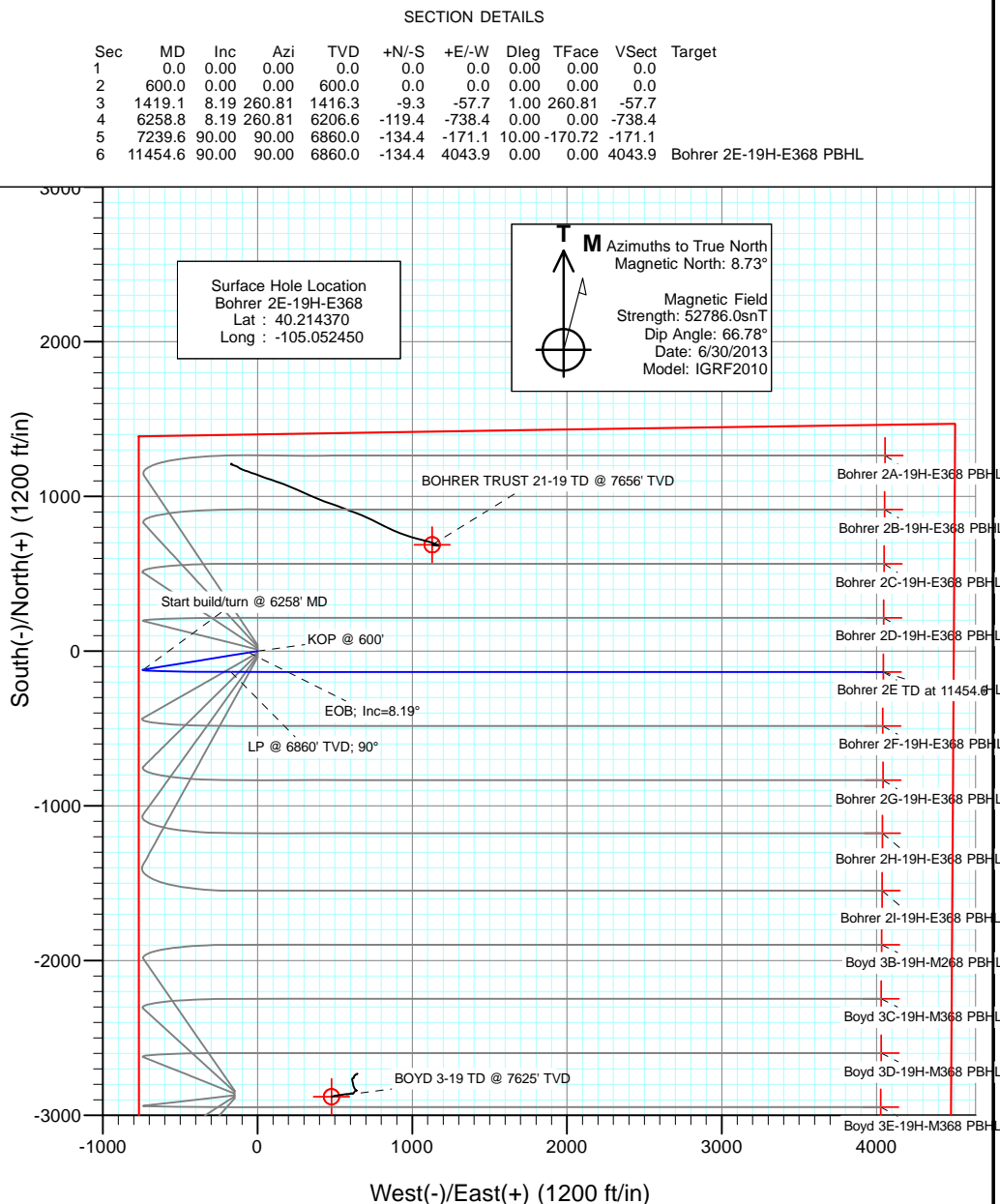
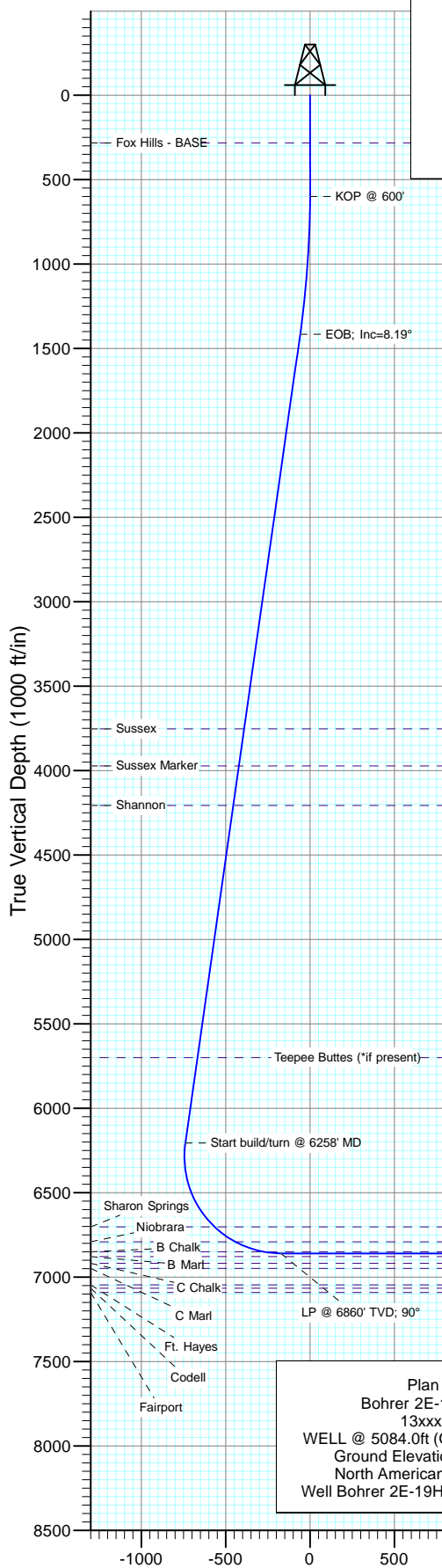




Project: DJ Wattenberg
 Site: S19-T3N-R68W (Bohrer)
 Well: Bohrер 2E-19H-E368
 Wellbore: Hz
 Design: Plan #1



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Bohrер 2E-19H-E368 PBHL	-134.4	4043.9	1321141.23	3129038.86	40.214000	-105.037970

Plan #1
 Bohrер 2E-19H-E368
 13xxx; LR
 WELL @ 5084.0ft (Original Well Elev)
 Ground Elevation @ 5059.0
 North American Datum 1983
 Well Bohrер 2E-19H-E368, True North

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
284.0	284.0	Fox Hills - BASE
3754.0	3780.9	Sussex
3973.0	4002.1	Sussex Marker
4207.0	4238.5	Shannon
5700.0	5746.9	Teepee Buttes (*if present)
6703.0	6805.1	Sharon Springs
6791.0	6955.5	Niobrara
6850.0	7132.4	B Chalk

Vertical Section at 90.00° (1000 ft/in)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S19-T3N-R68W (Bohrer)			
Site Position:		Northing:	1,318,413.14 ft	Latitude:	40.206570
From:	Lat/Long	Easting:	3,124,860.64 ft	Longitude:	-105.052980
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Bohrer 2E-19H-E368					
Well Position	+N/-S	0.0 ft	Northing:	1,321,255.26 ft	Latitude:	40.214370
	+E/-W	0.0 ft	Easting:	3,124,994.33 ft	Longitude:	-105.052450
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,059.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/30/2013	8.73	66.78	52,786

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	90.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,419.1	8.19	260.81	1,416.3	-9.3	-57.7	1.00	1.00	0.00	260.81	
6,258.8	8.19	260.81	6,206.6	-119.4	-738.4	0.00	0.00	0.00	0.00	
7,239.6	90.00	90.00	6,860.0	-134.4	-171.1	10.00	8.34	-17.41	-170.72	
11,454.6	90.00	90.00	6,860.0	-134.4	4,043.9	0.00	0.00	0.00	0.00	Bohrer 2E-19H-E368

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
284.0	0.00	0.00	284.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	1.00	260.81	700.0	-0.1	-0.9	-0.9	1.00	1.00	
800.0	2.00	260.81	800.0	-0.6	-3.4	-3.4	1.00	1.00	
900.0	3.00	260.81	899.9	-1.3	-7.8	-7.8	1.00	1.00	
1,000.0	4.00	260.81	999.7	-2.2	-13.8	-13.8	1.00	1.00	
1,100.0	5.00	260.81	1,099.4	-3.5	-21.5	-21.5	1.00	1.00	
1,200.0	6.00	260.81	1,198.9	-5.0	-31.0	-31.0	1.00	1.00	
1,300.0	7.00	260.81	1,298.3	-6.8	-42.2	-42.2	1.00	1.00	
1,400.0	8.00	260.81	1,397.4	-8.9	-55.0	-55.0	1.00	1.00	
1,419.1	8.19	260.81	1,416.3	-9.3	-57.7	-57.7	1.00	1.00	EOB; Inc=8.19°
1,500.0	8.19	260.81	1,496.4	-11.2	-69.1	-69.1	0.00	0.00	
1,600.0	8.19	260.81	1,595.4	-13.4	-83.1	-83.1	0.00	0.00	
1,700.0	8.19	260.81	1,694.3	-15.7	-97.2	-97.2	0.00	0.00	
1,800.0	8.19	260.81	1,793.3	-18.0	-111.3	-111.3	0.00	0.00	
1,900.0	8.19	260.81	1,892.3	-20.3	-125.3	-125.3	0.00	0.00	
2,000.0	8.19	260.81	1,991.3	-22.5	-139.4	-139.4	0.00	0.00	
2,100.0	8.19	260.81	2,090.3	-24.8	-153.5	-153.5	0.00	0.00	
2,200.0	8.19	260.81	2,189.2	-27.1	-167.5	-167.5	0.00	0.00	
2,300.0	8.19	260.81	2,288.2	-29.4	-181.6	-181.6	0.00	0.00	
2,400.0	8.19	260.81	2,387.2	-31.6	-195.7	-195.7	0.00	0.00	
2,500.0	8.19	260.81	2,486.2	-33.9	-209.7	-209.7	0.00	0.00	
2,600.0	8.19	260.81	2,585.2	-36.2	-223.8	-223.8	0.00	0.00	
2,700.0	8.19	260.81	2,684.1	-38.5	-237.8	-237.8	0.00	0.00	
2,800.0	8.19	260.81	2,783.1	-40.7	-251.9	-251.9	0.00	0.00	
2,900.0	8.19	260.81	2,882.1	-43.0	-266.0	-266.0	0.00	0.00	
3,000.0	8.19	260.81	2,981.1	-45.3	-280.0	-280.0	0.00	0.00	
3,100.0	8.19	260.81	3,080.1	-47.6	-294.1	-294.1	0.00	0.00	
3,200.0	8.19	260.81	3,179.0	-49.8	-308.2	-308.2	0.00	0.00	
3,300.0	8.19	260.81	3,278.0	-52.1	-322.2	-322.2	0.00	0.00	
3,400.0	8.19	260.81	3,377.0	-54.4	-336.3	-336.3	0.00	0.00	
3,500.0	8.19	260.81	3,476.0	-56.7	-350.4	-350.4	0.00	0.00	
3,600.0	8.19	260.81	3,575.0	-58.9	-364.4	-364.4	0.00	0.00	
3,700.0	8.19	260.81	3,673.9	-61.2	-378.5	-378.5	0.00	0.00	
3,780.9	8.19	260.81	3,754.0	-63.1	-389.9	-389.9	0.00	0.00	Sussex
3,800.0	8.19	260.81	3,772.9	-63.5	-392.6	-392.6	0.00	0.00	
3,900.0	8.19	260.81	3,871.9	-65.8	-406.6	-406.6	0.00	0.00	
4,000.0	8.19	260.81	3,970.9	-68.0	-420.7	-420.7	0.00	0.00	
4,002.1	8.19	260.81	3,973.0	-68.1	-421.0	-421.0	0.00	0.00	Sussex Marker
4,100.0	8.19	260.81	4,069.9	-70.3	-434.7	-434.7	0.00	0.00	
4,200.0	8.19	260.81	4,168.8	-72.6	-448.8	-448.8	0.00	0.00	
4,238.5	8.19	260.81	4,207.0	-73.5	-454.2	-454.2	0.00	0.00	Shannon
4,300.0	8.19	260.81	4,267.8	-74.9	-462.9	-462.9	0.00	0.00	
4,400.0	8.19	260.81	4,366.8	-77.1	-476.9	-476.9	0.00	0.00	
4,500.0	8.19	260.81	4,465.8	-79.4	-491.0	-491.0	0.00	0.00	
4,600.0	8.19	260.81	4,564.8	-81.7	-505.1	-505.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,700.0	8.19	260.81	4,663.7	-84.0	-519.1	-519.1	0.00	0.00	
4,800.0	8.19	260.81	4,762.7	-86.2	-533.2	-533.2	0.00	0.00	
4,900.0	8.19	260.81	4,861.7	-88.5	-547.3	-547.3	0.00	0.00	
5,000.0	8.19	260.81	4,960.7	-90.8	-561.3	-561.3	0.00	0.00	
5,100.0	8.19	260.81	5,059.7	-93.1	-575.4	-575.4	0.00	0.00	
5,200.0	8.19	260.81	5,158.6	-95.3	-589.5	-589.5	0.00	0.00	
5,300.0	8.19	260.81	5,257.6	-97.6	-603.5	-603.5	0.00	0.00	
5,400.0	8.19	260.81	5,356.6	-99.9	-617.6	-617.6	0.00	0.00	
5,500.0	8.19	260.81	5,455.6	-102.2	-631.6	-631.6	0.00	0.00	
5,600.0	8.19	260.81	5,554.6	-104.4	-645.7	-645.7	0.00	0.00	
5,700.0	8.19	260.81	5,653.5	-106.7	-659.8	-659.8	0.00	0.00	
5,746.9	8.19	260.81	5,700.0	-107.8	-666.4	-666.4	0.00	0.00	Teepee Buttes (*if present)
5,800.0	8.19	260.81	5,752.5	-109.0	-673.8	-673.8	0.00	0.00	
5,900.0	8.19	260.81	5,851.5	-111.3	-687.9	-687.9	0.00	0.00	
6,000.0	8.19	260.81	5,950.5	-113.5	-702.0	-702.0	0.00	0.00	
6,100.0	8.19	260.81	6,049.5	-115.8	-716.0	-716.0	0.00	0.00	
6,200.0	8.19	260.81	6,148.4	-118.1	-730.1	-730.1	0.00	0.00	
6,258.8	8.19	260.81	6,206.6	-119.4	-738.4	-738.4	0.00	0.00	Start build/turn @ 6258' MD
6,300.0	4.18	251.66	6,247.6	-120.4	-742.7	-742.7	10.00	-9.74	
6,400.0	6.18	102.26	6,347.4	-122.7	-740.9	-740.9	10.00	2.00	
6,500.0	16.09	94.57	6,445.4	-124.9	-721.8	-721.8	10.00	9.91	
6,600.0	26.07	92.69	6,538.6	-127.1	-685.9	-685.9	10.00	9.98	
6,700.0	36.06	91.81	6,624.2	-129.0	-634.4	-634.4	10.00	9.99	
6,800.0	46.05	91.27	6,699.5	-130.8	-568.8	-568.8	10.00	9.99	
6,805.1	46.56	91.25	6,703.0	-130.8	-565.2	-565.2	10.00	9.99	Sharon Springs
6,900.0	56.05	90.89	6,762.3	-132.2	-491.2	-491.2	10.00	10.00	
6,955.5	61.60	90.71	6,791.0	-132.9	-443.7	-443.7	10.00	10.00	Niobrara
7,000.0	66.04	90.59	6,810.6	-133.3	-403.8	-403.8	10.00	10.00	
7,100.0	76.04	90.33	6,843.1	-134.1	-309.4	-309.4	10.00	10.00	
7,132.4	79.28	90.25	6,850.0	-134.2	-277.7	-277.7	10.00	10.00	B Chalk
7,200.0	86.04	90.09	6,858.6	-134.4	-210.7	-210.7	10.00	10.00	
7,239.6	90.00	90.00	6,860.0	-134.4	-171.1	-171.1	10.00	10.00	LP @ 6860' TVD; 90°
7,300.0	90.00	90.00	6,860.0	-134.4	-110.7	-110.7	0.00	0.00	
7,400.0	90.00	90.00	6,860.0	-134.4	-10.7	-10.7	0.00	0.00	
7,500.0	90.00	90.00	6,860.0	-134.4	89.3	89.3	0.00	0.00	
7,600.0	90.00	90.00	6,860.0	-134.4	189.3	189.3	0.00	0.00	
7,700.0	90.00	90.00	6,860.0	-134.4	289.3	289.3	0.00	0.00	
7,800.0	90.00	90.00	6,860.0	-134.4	389.3	389.3	0.00	0.00	
7,900.0	90.00	90.00	6,860.0	-134.4	489.3	489.3	0.00	0.00	
8,000.0	90.00	90.00	6,860.0	-134.4	589.3	589.3	0.00	0.00	
8,100.0	90.00	90.00	6,860.0	-134.4	689.3	689.3	0.00	0.00	
8,200.0	90.00	90.00	6,860.0	-134.4	789.3	789.3	0.00	0.00	
8,300.0	90.00	90.00	6,860.0	-134.4	889.3	889.3	0.00	0.00	
8,400.0	90.00	90.00	6,860.0	-134.4	989.3	989.3	0.00	0.00	
8,500.0	90.00	90.00	6,860.0	-134.4	1,089.3	1,089.3	0.00	0.00	
8,600.0	90.00	90.00	6,860.0	-134.4	1,189.3	1,189.3	0.00	0.00	
8,700.0	90.00	90.00	6,860.0	-134.4	1,289.3	1,289.3	0.00	0.00	
8,800.0	90.00	90.00	6,860.0	-134.4	1,389.3	1,389.3	0.00	0.00	
8,900.0	90.00	90.00	6,860.0	-134.4	1,489.3	1,489.3	0.00	0.00	
9,000.0	90.00	90.00	6,860.0	-134.4	1,589.3	1,589.3	0.00	0.00	
9,100.0	90.00	90.00	6,860.0	-134.4	1,689.3	1,689.3	0.00	0.00	
9,200.0	90.00	90.00	6,860.0	-134.4	1,789.3	1,789.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,300.0	90.00	90.00	6,860.0	-134.4	1,889.3	1,889.3	0.00	0.00	
9,400.0	90.00	90.00	6,860.0	-134.4	1,989.3	1,989.3	0.00	0.00	
9,500.0	90.00	90.00	6,860.0	-134.4	2,089.3	2,089.3	0.00	0.00	
9,600.0	90.00	90.00	6,860.0	-134.4	2,189.3	2,189.3	0.00	0.00	
9,700.0	90.00	90.00	6,860.0	-134.4	2,289.3	2,289.3	0.00	0.00	
9,800.0	90.00	90.00	6,860.0	-134.4	2,389.3	2,389.3	0.00	0.00	
9,900.0	90.00	90.00	6,860.0	-134.4	2,489.3	2,489.3	0.00	0.00	
10,000.0	90.00	90.00	6,860.0	-134.4	2,589.3	2,589.3	0.00	0.00	
10,100.0	90.00	90.00	6,860.0	-134.4	2,689.3	2,689.3	0.00	0.00	
10,200.0	90.00	90.00	6,860.0	-134.4	2,789.3	2,789.3	0.00	0.00	
10,300.0	90.00	90.00	6,860.0	-134.4	2,889.3	2,889.3	0.00	0.00	
10,400.0	90.00	90.00	6,860.0	-134.4	2,989.3	2,989.3	0.00	0.00	
10,500.0	90.00	90.00	6,860.0	-134.4	3,089.3	3,089.3	0.00	0.00	
10,600.0	90.00	90.00	6,860.0	-134.4	3,189.3	3,189.3	0.00	0.00	
10,700.0	90.00	90.00	6,860.0	-134.4	3,289.3	3,289.3	0.00	0.00	
10,800.0	90.00	90.00	6,860.0	-134.4	3,389.3	3,389.3	0.00	0.00	
10,900.0	90.00	90.00	6,860.0	-134.4	3,489.3	3,489.3	0.00	0.00	
11,000.0	90.00	90.00	6,860.0	-134.4	3,589.3	3,589.3	0.00	0.00	
11,100.0	90.00	90.00	6,860.0	-134.4	3,689.3	3,689.3	0.00	0.00	
11,200.0	90.00	90.00	6,860.0	-134.4	3,789.3	3,789.3	0.00	0.00	
11,300.0	90.00	90.00	6,860.0	-134.4	3,889.3	3,889.3	0.00	0.00	
11,400.0	90.00	90.00	6,860.0	-134.4	3,989.3	3,989.3	0.00	0.00	
11,454.6	90.00	90.00	6,860.0	-134.4	4,043.9	4,043.9	0.00	0.00	TD at 11454.6

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Bohrer 2E-19H-E368 PE - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	6,860.0	-134.4	4,043.9	1,321,141.23	3,129,038.86	40.214000	-105.037970

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
284.0	284.0	Fox Hills - BASE				
3,780.9	3,754.0	Sussex				
4,002.1	3,973.0	Sussex Marker				
4,238.5	4,207.0	Shannon				
5,746.9	5,700.0	Teepee Buttes (*if present)				
6,805.1	6,703.0	Sharon Springs				
6,955.5	6,791.0	Niobrara				
7,132.4	6,850.0	B Chalk				

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
600.0	600.0	0.0	0.0	KOP @ 600'
1,419.1	1,416.3	-9.3	-57.7	EOB; Inc=8.19°
6,258.8	6,206.6	-119.4	-738.4	Start build/turn @ 6258' MD
7,239.6	6,860.0	-134.4	-171.1	LP @ 6860' TVD; 90°
11,454.6	6,860.0	-134.4	4,043.9	TD at 11454.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S19-T3N-R68W (Bohrer)

Bohrer 2E-19H-E368

Hz

Plan #1

Anticollision Report

30 June, 2013

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	6/30/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,454.6	Plan #1 (Hz)	Geolink MWD	Geolink MWD	

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						
S19-T3N-R68W (Bohrer)						
Bohrer 2A-19H-E368 - Hz - Plan #1	166.3	167.3	40.1	39.6	80.939	CC
Bohrer 2A-19H-E368 - Hz - Plan #1	200.0	201.0	40.1	39.5	65.411	ES
Bohrer 2A-19H-E368 - Hz - Plan #1	800.0	795.5	68.0	65.3	25.007	SF
Bohrer 2B-19H-E368 - Hz - Plan #1	266.3	267.3	29.1	28.3	34.518	CC
Bohrer 2B-19H-E368 - Hz - Plan #1	300.0	301.0	29.1	28.2	30.300	ES
Bohrer 2B-19H-E368 - Hz - Plan #1	700.0	698.9	40.5	38.1	17.111	SF
Bohrer 2C-19H-E368 - Hz - Plan #1	400.0	400.0	18.2	16.9	13.915	CC, ES
Bohrer 2C-19H-E368 - Hz - Plan #1	700.0	699.2	23.4	21.0	9.896	SF
Bohrer 2D-19H-E368 - Hz - Plan #1	500.0	500.0	10.9	9.3	6.591	CC
Bohrer 2D-19H-E368 - Hz - Plan #1	600.0	599.9	11.2	9.2	5.566	ES
Bohrer 2D-19H-E368 - Hz - Plan #1	11,454.6	11,666.4	411.0	224.8	2.207	SF
Bohrer 2F-19H-E368 - Hz - Plan #1	500.0	500.0	10.9	9.3	6.591	CC, ES
Bohrer 2F-19H-E368 - Hz - Plan #1	11,454.6	11,684.5	411.1	224.9	2.208	SF
Bohrer 2G-19H-E368 - Hz - Plan #1	400.0	400.0	18.2	16.9	13.915	CC, ES
Bohrer 2G-19H-E368 - Hz - Plan #1	700.0	699.1	24.0	21.7	10.190	SF
Bohrer 2H-19H-E368 - Hz - Plan #1	300.0	299.0	29.1	28.2	30.415	CC, ES
Bohrer 2H-19H-E368 - Hz - Plan #1	700.0	696.8	40.9	38.5	17.329	SF
Bohrer 2I-19H-E368 - Hz - Plan #1	200.0	199.0	40.1	39.5	65.786	CC, ES
Bohrer 2I-19H-E368 - Hz - Plan #1	800.0	793.4	67.7	65.0	24.959	SF
BOHRER TRUST 21-19 (EXISTING) - ENCANA WELL - S						Out of range
BOYD 3-19 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
Boyd 3B-19H-M368 - Hz - Plan #1						Out of range
Boyd 3C-19H-M368 - Hz - Plan #1						Out of range
Boyd 3D-19H-M368 - Hz - Plan #1						Out of range
Boyd 3E-19H-M368 - Hz - Plan #1						Out of range
Boyd 3F-19H-M368 - Hz - Plan #1						Out of range
Boyd 3G-19H-M368 - Hz - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2A-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	0.00	40.1	0.0	40.1					
100.0	100.0	101.0	101.0	0.1	0.1	0.00	40.1	0.0	40.1	39.8	0.26	152.047		
166.3	166.3	167.3	167.3	0.2	0.2	0.00	40.1	0.0	40.1	39.6	0.50	80.939 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	40.1	0.0	40.1	39.5	0.61	65.411 ES		
300.0	300.0	300.4	300.4	0.5	0.5	-0.69	40.8	-0.5	40.8	39.8	0.96	42.458		
400.0	400.0	400.0	400.0	0.7	0.7	-2.59	43.0	-1.9	43.0	41.7	1.31	32.778		
500.0	500.0	499.0	498.9	0.8	0.8	-5.33	46.6	-4.3	46.8	45.1	1.67	28.046		
600.0	600.0	598.0	597.7	1.0	1.0	-8.49	51.6	-7.7	52.2	50.2	2.03	25.673		
700.0	700.0	696.9	696.3	1.2	1.3	88.27	58.0	-12.0	59.3	57.0	2.36	25.100		
800.0	800.0	795.5	794.4	1.4	1.5	87.27	65.8	-17.2	68.0	65.3	2.72	25.007 SF		
900.0	899.9	893.8	892.1	1.5	1.7	87.28	74.9	-23.4	78.3	75.2	3.09	25.355		
1,000.0	999.7	991.8	989.3	1.7	2.0	87.94	85.4	-30.4	90.0	86.5	3.47	25.959		
1,100.0	1,099.4	1,089.4	1,085.8	1.9	2.3	89.00	97.3	-38.4	103.2	99.3	3.86	26.706		
1,200.0	1,198.9	1,186.5	1,181.7	2.1	2.6	90.27	110.4	-47.2	118.0	113.7	4.29	27.519		
1,300.0	1,298.3	1,283.2	1,276.8	2.4	2.9	91.62	124.9	-56.8	134.4	129.7	4.74	28.345		
1,400.0	1,397.4	1,379.4	1,371.1	2.6	3.3	92.99	140.5	-67.3	152.4	147.2	5.23	29.149		
1,500.0	1,496.4	1,475.0	1,464.5	2.9	3.7	94.29	157.4	-78.7	172.0	166.3	5.74	29.962		
1,600.0	1,595.4	1,570.1	1,557.1	3.2	4.1	95.12	175.5	-90.8	193.1	186.9	6.27	30.813		
1,700.0	1,694.3	1,667.1	1,651.2	3.5	4.5	95.64	194.8	-103.7	215.2	208.4	6.81	31.613		
1,800.0	1,793.3	1,764.6	1,745.9	3.7	4.9	96.07	214.2	-116.7	237.3	230.0	7.36	32.261		
1,900.0	1,892.3	1,862.1	1,840.5	4.0	5.4	96.42	233.7	-129.8	259.4	251.5	7.91	32.795		
2,000.0	1,991.3	1,959.6	1,935.2	4.3	5.8	96.72	253.1	-142.8	281.5	273.1	8.47	33.240		
2,100.0	2,090.3	2,057.1	2,029.9	4.6	6.2	96.97	272.6	-155.8	303.7	294.6	9.03	33.616		
2,200.0	2,189.2	2,154.6	2,124.5	4.9	6.7	97.19	292.0	-168.8	325.8	316.2	9.60	33.937		
2,300.0	2,288.2	2,252.1	2,219.2	5.2	7.1	97.39	311.4	-181.9	347.9	337.8	10.17	34.212		
2,400.0	2,387.2	2,349.7	2,313.9	5.5	7.5	97.55	330.9	-194.9	370.1	359.3	10.74	34.451		
2,500.0	2,486.2	2,447.2	2,408.5	5.8	8.0	97.70	350.3	-207.9	392.2	380.9	11.32	34.661		
2,600.0	2,585.2	2,544.7	2,503.2	6.1	8.4	97.84	369.8	-221.0	414.4	402.5	11.89	34.845		
2,700.0	2,684.1	2,642.2	2,597.9	6.4	8.9	97.96	389.2	-234.0	436.5	424.0	12.47	35.008		
2,800.0	2,783.1	2,739.7	2,692.5	6.7	9.3	98.07	408.6	-247.0	458.7	445.6	13.05	35.154		
2,900.0	2,882.1	2,837.2	2,787.2	7.0	9.7	98.17	428.1	-260.0	480.8	467.2	13.63	35.284		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2B-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	1.0	1.0	0.0	0.0	0.00	29.1	0.0	29.1					
100.0	100.0	101.0	101.0	0.1	0.1	0.00	29.1	0.0	29.1	28.9	0.26	110.564		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.61	47.565		
266.3	266.3	267.3	267.3	0.4	0.4	0.00	29.1	0.0	29.1	28.3	0.84	34.518 CC		
300.0	300.0	301.0	301.0	0.5	0.5	0.00	29.1	0.0	29.1	28.2	0.96	30.300 ES		
400.0	400.0	400.6	400.6	0.7	0.7	-1.15	29.8	-0.6	29.8	28.5	1.31	22.739		
500.0	500.0	500.0	500.0	0.8	0.8	-4.27	31.7	-2.4	31.8	30.1	1.66	19.157		
600.0	600.0	599.6	599.5	1.0	1.0	-8.66	34.9	-5.3	35.3	33.3	2.02	17.530		
700.0	700.0	698.9	698.6	1.2	1.2	86.90	39.3	-9.4	40.5	38.1	2.36	17.111 SF		
800.0	800.0	798.0	797.4	1.4	1.4	85.20	45.0	-14.7	47.1	44.4	2.72	17.294		
900.0	899.9	896.9	895.8	1.5	1.6	84.86	52.0	-21.1	55.1	52.0	3.09	17.830		
1,000.0	999.7	995.6	993.9	1.7	1.9	85.38	60.1	-28.6	64.4	61.0	3.47	18.566		
1,100.0	1,099.4	1,093.9	1,091.4	1.9	2.2	86.42	69.5	-37.3	75.2	71.3	3.87	19.408		
1,200.0	1,198.9	1,192.0	1,188.4	2.1	2.4	87.72	80.0	-47.0	87.3	83.0	4.30	20.294		
1,300.0	1,298.3	1,289.7	1,284.8	2.4	2.8	89.12	91.8	-57.9	100.9	96.1	4.76	21.180		
1,400.0	1,397.4	1,387.0	1,380.5	2.6	3.1	90.54	104.6	-69.8	115.9	110.6	5.26	22.038		
1,500.0	1,496.4	1,485.5	1,477.2	2.9	3.4	91.99	118.4	-82.5	131.8	126.0	5.78	22.797		
1,600.0	1,595.4	1,584.2	1,574.1	3.2	3.8	93.17	132.2	-95.2	147.8	141.5	6.32	23.393		
1,700.0	1,694.3	1,682.8	1,670.9	3.5	4.1	94.11	146.0	-107.9	163.9	157.0	6.86	23.869		
1,800.0	1,793.3	1,781.5	1,767.8	3.7	4.5	94.89	159.7	-120.7	179.9	172.5	7.42	24.255		
1,900.0	1,892.3	1,880.2	1,864.7	4.0	4.9	95.54	173.5	-133.4	196.0	188.1	7.98	24.572		
2,000.0	1,991.3	1,978.9	1,961.6	4.3	5.2	96.09	187.3	-146.1	212.2	203.6	8.54	24.837		
2,100.0	2,090.3	2,077.5	2,058.4	4.6	5.6	96.56	201.1	-158.8	228.3	219.2	9.11	25.060		
2,200.0	2,189.2	2,176.2	2,155.3	4.9	5.9	96.97	214.8	-171.6	244.5	234.8	9.68	25.250		
2,300.0	2,288.2	2,274.9	2,252.2	5.2	6.3	97.33	228.6	-184.3	260.7	250.4	10.26	25.413		
2,400.0	2,387.2	2,373.5	2,349.0	5.5	6.7	97.65	242.4	-197.0	276.8	266.0	10.83	25.555		
2,500.0	2,486.2	2,472.2	2,445.9	5.8	7.0	97.94	256.2	-209.8	293.0	281.6	11.41	25.679		
2,600.0	2,585.2	2,570.9	2,542.8	6.1	7.4	98.19	270.0	-222.5	309.2	297.2	11.99	25.788		
2,700.0	2,684.1	2,669.6	2,639.7	6.4	7.8	98.42	283.7	-235.2	325.4	312.8	12.57	25.885		
2,800.0	2,783.1	2,768.2	2,736.5	6.7	8.1	98.62	297.5	-248.0	341.6	328.5	13.15	25.971		
2,900.0	2,882.1	2,866.9	2,833.4	7.0	8.5	98.81	311.3	-260.7	357.8	344.1	13.74	26.048		
3,000.0	2,981.1	2,965.6	2,930.3	7.3	8.9	98.98	325.1	-273.4	374.0	359.7	14.32	26.118		
3,100.0	3,080.1	3,064.2	3,027.2	7.6	9.2	99.14	338.8	-286.2	390.2	375.3	14.91	26.181		
3,200.0	3,179.0	3,162.9	3,124.0	7.9	9.6	99.28	352.6	-298.9	406.4	391.0	15.49	26.238		
3,300.0	3,278.0	3,261.6	3,220.9	8.2	10.0	99.42	366.4	-311.6	422.7	406.6	16.08	26.290		
3,400.0	3,377.0	3,360.3	3,317.8	8.5	10.4	99.54	380.2	-324.3	438.9	422.2	16.66	26.338		
3,500.0	3,476.0	3,458.9	3,414.6	8.8	10.7	99.66	394.0	-337.1	455.1	437.9	17.25	26.381		
3,600.0	3,575.0	3,557.6	3,511.5	9.1	11.1	99.76	407.7	-349.8	471.3	453.5	17.84	26.422		
3,700.0	3,673.9	3,656.3	3,608.4	9.4	11.5	99.86	421.5	-362.5	487.6	469.1	18.43	26.459		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2C-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	18.2	0.0	18.2	18.0	0.26	69.573		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.61	29.817		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	18.2	0.0	18.2	17.3	0.96	18.975		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	18.2	0.0	18.2	16.9	1.31	13.915 CC, ES		
500.0	500.0	499.8	499.8	0.8	0.8	-2.22	18.7	-0.7	18.7	17.1	1.66	11.285		
600.0	600.0	599.6	599.5	1.0	1.0	-8.20	20.1	-2.9	20.3	18.3	2.01	10.133		
700.0	700.0	699.2	699.1	1.2	1.2	85.13	22.5	-6.5	23.4	21.0	2.36	9.896 SF		
800.0	800.0	798.8	798.5	1.4	1.4	81.98	25.9	-11.6	27.7	25.0	2.72	10.177		
900.0	899.9	898.2	897.6	1.5	1.6	80.81	30.1	-18.1	33.1	30.0	3.09	10.729		
1,000.0	999.7	997.5	996.4	1.7	1.8	80.91	35.4	-26.0	39.7	36.2	3.47	11.427		
1,100.0	1,099.4	1,096.6	1,094.9	1.9	2.1	81.74	41.5	-35.3	47.3	43.4	3.88	12.199		
1,200.0	1,198.9	1,195.6	1,193.0	2.1	2.3	82.93	48.6	-46.0	56.0	51.7	4.31	12.997		
1,300.0	1,298.3	1,294.3	1,290.7	2.4	2.6	84.29	56.6	-58.1	65.8	61.1	4.77	13.788		
1,400.0	1,397.4	1,393.3	1,388.3	2.6	2.9	85.81	65.4	-71.5	76.6	71.4	5.28	14.521		
1,500.0	1,496.4	1,492.6	1,486.4	2.9	3.2	87.71	74.4	-85.0	87.6	81.8	5.81	15.077		
1,600.0	1,595.4	1,592.0	1,584.4	3.2	3.5	89.22	83.3	-98.6	98.6	92.2	6.35	15.519		
1,700.0	1,694.3	1,691.4	1,682.4	3.5	3.8	90.42	92.3	-112.1	109.7	102.8	6.91	15.876		
1,800.0	1,793.3	1,790.7	1,780.5	3.7	4.2	91.40	101.2	-125.7	120.8	113.3	7.47	16.169		
1,900.0	1,892.3	1,890.1	1,878.5	4.0	4.5	92.22	110.2	-139.2	131.9	123.9	8.04	16.413		
2,000.0	1,991.3	1,989.4	1,976.5	4.3	4.8	92.91	119.1	-152.8	143.1	134.4	8.61	16.618		
2,100.0	2,090.3	2,088.8	2,074.5	4.6	5.1	93.50	128.1	-166.3	154.2	145.0	9.18	16.793		
2,200.0	2,189.2	2,188.2	2,172.6	4.9	5.4	94.01	137.0	-179.9	165.4	155.7	9.76	16.944		
2,300.0	2,288.2	2,287.5	2,270.6	5.2	5.8	94.46	146.0	-193.4	176.6	166.3	10.34	17.074		
2,400.0	2,387.2	2,386.9	2,368.6	5.5	6.1	94.85	154.9	-207.0	187.8	176.9	10.93	17.188		
2,500.0	2,486.2	2,486.3	2,466.6	5.8	6.4	95.20	163.9	-220.5	199.0	187.5	11.51	17.288		
2,600.0	2,585.2	2,585.6	2,564.7	6.1	6.8	95.51	172.8	-234.1	210.3	198.2	12.10	17.377		
2,700.0	2,684.1	2,685.0	2,662.7	6.4	7.1	95.79	181.8	-247.6	221.5	208.8	12.69	17.457		
2,800.0	2,783.1	2,784.3	2,760.7	6.7	7.4	96.04	190.7	-261.2	232.7	219.4	13.28	17.528		
2,900.0	2,882.1	2,883.7	2,858.7	7.0	7.8	96.27	199.7	-274.7	244.0	230.1	13.87	17.593		
3,000.0	2,981.1	2,983.1	2,956.8	7.3	8.1	96.48	208.6	-288.3	255.2	240.7	14.46	17.651		
3,100.0	3,080.1	3,082.4	3,054.8	7.6	8.4	96.67	217.6	-301.8	266.4	251.4	15.05	17.704		
3,200.0	3,179.0	3,181.8	3,152.8	7.9	8.7	96.85	226.5	-315.4	277.7	262.1	15.64	17.752		
3,300.0	3,278.0	3,281.2	3,250.8	8.2	9.1	97.01	235.5	-328.9	288.9	272.7	16.24	17.797		
3,400.0	3,377.0	3,380.5	3,348.9	8.5	9.4	97.16	244.4	-342.5	300.2	283.4	16.83	17.837		
3,500.0	3,476.0	3,479.9	3,446.9	8.8	9.7	97.30	253.4	-356.0	311.4	294.0	17.42	17.875		
3,600.0	3,575.0	3,579.2	3,544.9	9.1	10.1	97.43	262.3	-369.6	322.7	304.7	18.02	17.910		
3,700.0	3,673.9	3,678.6	3,642.9	9.4	10.4	97.55	271.3	-383.1	334.0	315.3	18.61	17.942		
3,800.0	3,772.9	3,778.0	3,741.0	9.7	10.7	97.66	280.2	-396.7	345.2	326.0	19.21	17.972		
3,900.0	3,871.9	3,877.3	3,839.0	10.0	11.1	97.77	289.2	-410.2	356.5	336.7	19.80	18.000		
4,000.0	3,970.9	3,976.7	3,937.0	10.3	11.4	97.87	298.1	-423.8	367.7	347.3	20.40	18.026		
4,100.0	4,069.9	4,076.1	4,035.1	10.6	11.7	97.96	307.1	-437.3	379.0	358.0	21.00	18.051		
4,200.0	4,168.8	4,175.4	4,133.1	10.9	12.1	98.05	316.0	-450.9	390.3	368.7	21.59	18.074		
4,300.0	4,267.8	4,274.8	4,231.1	11.2	12.4	98.13	325.0	-464.4	401.5	379.3	22.19	18.096		
4,400.0	4,366.8	4,374.1	4,329.1	11.5	12.7	98.21	333.9	-478.0	412.8	390.0	22.79	18.116		
4,500.0	4,465.8	4,473.5	4,427.2	11.8	13.1	98.28	342.9	-491.5	424.0	400.7	23.38	18.135		
4,600.0	4,564.8	4,572.9	4,525.2	12.1	13.4	98.35	351.8	-505.1	435.3	411.3	23.98	18.153		
4,700.0	4,663.7	4,672.2	4,623.2	12.4	13.7	98.42	360.8	-518.7	446.6	422.0	24.58	18.171		
4,800.0	4,762.7	4,771.6	4,721.2	12.7	14.1	98.48	369.7	-532.2	457.8	432.7	25.17	18.187		
4,900.0	4,861.7	4,871.0	4,819.3	13.0	14.4	98.54	378.7	-545.8	469.1	443.3	25.77	18.202		
5,000.0	4,960.7	4,970.3	4,917.3	13.3	14.7	98.60	387.6	-559.3	480.4	454.0	26.37	18.217		
5,100.0	5,059.7	5,069.7	5,015.3	13.7	15.1	98.66	396.6	-572.9	491.6	464.7	26.97	18.231		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2D-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.9	0.0	10.9	10.7	0.26	41.744		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.61	17.890		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	10.0	0.96	11.385		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	10.9	0.0	10.9	9.6	1.31	8.349		
500.0	500.0	500.0	500.0	0.8	0.8	0.00	10.9	0.0	10.9	9.3	1.66	6.591 CC		
600.0	600.0	599.9	599.9	1.0	1.0	-4.34	11.1	-0.8	11.2	9.2	2.01	5.566 ES		
700.0	700.0	699.8	699.8	1.2	1.2	87.22	11.8	-3.4	12.2	9.8	2.36	5.160		
800.0	800.0	799.7	799.6	1.4	1.4	81.86	12.8	-7.6	14.0	11.3	2.72	5.158		
900.0	899.9	899.5	899.2	1.5	1.6	78.74	14.3	-13.5	16.6	13.5	3.08	5.377		
1,000.0	999.7	999.3	998.7	1.7	1.8	77.32	16.2	-21.1	19.8	16.4	3.47	5.718		
1,100.0	1,099.4	1,099.0	1,097.9	1.9	2.0	77.01	18.5	-30.4	23.7	19.8	3.87	6.122		
1,200.0	1,198.9	1,198.6	1,196.9	2.1	2.2	77.37	21.2	-41.3	28.2	23.9	4.31	6.554		
1,300.0	1,298.3	1,298.3	1,295.7	2.4	2.5	78.15	24.3	-53.9	33.4	28.6	4.77	6.988		
1,400.0	1,397.4	1,398.1	1,394.6	2.6	2.7	80.54	27.6	-67.0	38.5	33.2	5.28	7.292		
1,500.0	1,496.4	1,498.0	1,493.5	2.9	3.0	83.93	30.8	-80.2	43.5	37.7	5.82	7.488		
1,600.0	1,595.4	1,597.8	1,592.4	3.2	3.3	86.65	34.1	-93.3	48.7	42.4	6.37	7.654		
1,700.0	1,694.3	1,697.6	1,691.4	3.5	3.6	88.85	37.4	-106.5	54.0	47.1	6.92	7.797		
1,800.0	1,793.3	1,797.5	1,790.3	3.7	3.8	90.65	40.6	-119.6	59.3	51.8	7.49	7.921		
1,900.0	1,892.3	1,897.3	1,889.2	4.0	4.1	92.15	43.9	-132.8	64.7	56.6	8.06	8.029		
2,000.0	1,991.3	1,997.2	1,988.1	4.3	4.4	93.43	47.2	-145.9	70.1	61.5	8.63	8.124		
2,100.0	2,090.3	2,097.0	2,087.0	4.6	4.7	94.52	50.5	-159.1	75.6	66.3	9.20	8.208		
2,200.0	2,189.2	2,196.8	2,186.0	4.9	5.0	95.46	53.7	-172.2	81.0	71.2	9.78	8.283		
2,300.0	2,288.2	2,296.7	2,284.9	5.2	5.3	96.28	57.0	-185.4	86.5	76.1	10.36	8.350		
2,400.0	2,387.2	2,396.5	2,383.8	5.5	5.6	97.01	60.3	-198.5	92.0	81.1	10.94	8.410		
2,500.0	2,486.2	2,496.4	2,482.7	5.8	5.9	97.65	63.5	-211.7	97.5	86.0	11.52	8.464		
2,600.0	2,585.2	2,596.2	2,581.6	6.1	6.1	98.23	66.8	-224.9	103.1	90.9	12.10	8.514		
2,700.0	2,684.1	2,696.1	2,680.5	6.4	6.4	98.74	70.1	-238.0	108.6	95.9	12.69	8.559		
2,800.0	2,783.1	2,795.9	2,779.5	6.7	6.7	99.21	73.3	-251.2	114.1	100.9	13.27	8.600		
2,900.0	2,882.1	2,895.7	2,878.4	7.0	7.0	99.63	76.6	-264.3	119.7	105.8	13.86	8.638		
3,000.0	2,981.1	2,995.6	2,977.3	7.3	7.3	100.02	79.9	-277.5	125.2	110.8	14.44	8.673		
3,100.0	3,080.1	3,095.4	3,076.2	7.6	7.6	100.37	83.1	-290.6	130.8	115.8	15.03	8.705		
3,200.0	3,179.0	3,195.3	3,175.1	7.9	7.9	100.69	86.4	-303.8	136.4	120.8	15.61	8.735		
3,300.0	3,278.0	3,295.1	3,274.0	8.2	8.2	100.99	89.7	-316.9	141.9	125.7	16.20	8.763		
3,400.0	3,377.0	3,395.0	3,373.0	8.5	8.5	101.27	92.9	-330.1	147.5	130.7	16.78	8.789		
3,500.0	3,476.0	3,494.8	3,471.9	8.8	8.8	101.52	96.2	-343.2	153.1	135.7	17.37	8.813		
3,600.0	3,575.0	3,594.6	3,570.8	9.1	9.1	101.76	99.5	-356.4	158.7	140.7	17.96	8.836		
3,700.0	3,673.9	3,694.5	3,669.7	9.4	9.4	101.98	102.7	-369.5	164.3	145.7	18.54	8.857		
3,800.0	3,772.9	3,794.3	3,768.6	9.7	9.6	102.19	106.0	-382.7	169.8	150.7	19.13	8.877		
3,900.0	3,871.9	3,894.2	3,867.6	10.0	9.9	102.38	109.3	-395.9	175.4	155.7	19.72	8.896		
4,000.0	3,970.9	3,994.0	3,966.5	10.3	10.2	102.56	112.5	-409.0	181.0	160.7	20.31	8.914		
4,100.0	4,069.9	4,093.8	4,065.4	10.6	10.5	102.74	115.8	-422.2	186.6	165.7	20.89	8.931		
4,200.0	4,168.8	4,193.7	4,164.3	10.9	10.8	102.90	119.1	-435.3	192.2	170.7	21.48	8.947		
4,300.0	4,267.8	4,293.5	4,263.2	11.2	11.1	103.05	122.3	-448.5	197.8	175.7	22.07	8.962		
4,400.0	4,366.8	4,393.4	4,362.1	11.5	11.4	103.19	125.6	-461.6	203.4	180.7	22.66	8.976		
4,500.0	4,465.8	4,493.2	4,461.1	11.8	11.7	103.33	128.9	-474.8	209.0	185.7	23.25	8.990		
4,600.0	4,564.8	4,593.1	4,560.0	12.1	12.0	103.46	132.1	-487.9	214.6	190.7	23.83	9.003		
4,700.0	4,663.7	4,692.9	4,658.9	12.4	12.3	103.58	135.4	-501.1	220.2	195.8	24.42	9.015		
4,800.0	4,762.7	4,792.7	4,757.8	12.7	12.6	103.69	138.7	-514.2	225.8	200.8	25.01	9.027		
4,900.0	4,861.7	4,892.6	4,856.7	13.0	12.9	103.81	142.0	-527.4	231.4	205.8	25.60	9.038		
5,000.0	4,960.7	4,992.4	4,955.7	13.3	13.2	103.91	145.2	-540.5	237.0	210.8	26.19	9.049		
5,100.0	5,059.7	5,092.3	5,054.6	13.7	13.5	104.01	148.5	-553.7	242.6	215.8	26.78	9.059		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2D-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,158.6	5,192.1	5,153.5	14.0	13.8	104.11	151.8	-566.9	248.2	220.8	27.37	9.069		
5,300.0	5,257.6	5,292.0	5,252.4	14.3	14.1	104.20	155.0	-580.0	253.8	225.8	27.95	9.079		
5,400.0	5,356.6	5,391.8	5,351.3	14.6	14.4	104.29	158.3	-593.2	259.4	230.8	28.54	9.088		
5,500.0	5,455.6	5,491.6	5,450.2	14.9	14.6	104.37	161.6	-606.3	265.0	235.9	29.13	9.096		
5,600.0	5,554.6	5,591.5	5,549.2	15.2	14.9	104.45	164.8	-619.5	270.6	240.9	29.72	9.105		
5,700.0	5,653.5	5,691.3	5,648.1	15.5	15.2	104.53	168.1	-632.6	276.2	245.9	30.31	9.113		
5,800.0	5,752.5	5,791.2	5,747.0	15.8	15.5	104.60	171.4	-645.8	281.8	250.9	30.90	9.120		
5,900.0	5,851.5	5,891.0	5,845.9	16.1	15.8	104.67	174.6	-658.9	287.4	255.9	31.49	9.128		
6,000.0	5,950.5	5,990.8	5,944.8	16.4	16.1	104.74	177.9	-672.1	293.0	260.9	32.08	9.135		
6,100.0	6,049.5	6,090.7	6,043.7	16.7	16.4	104.81	181.2	-685.2	298.6	266.0	32.67	9.142		
6,200.0	6,148.4	6,190.5	6,142.7	17.0	16.7	104.87	184.4	-698.4	304.2	271.0	33.26	9.149		
6,300.0	6,247.6	6,290.3	6,241.6	17.3	17.0	113.99	187.7	-711.5	309.7	275.9	33.81	9.160		
6,400.0	6,347.4	6,388.9	6,339.2	17.3	17.3	-99.06	190.9	-724.5	314.1	280.0	34.17	9.194		
6,500.0	6,445.4	6,483.6	6,433.0	17.1	17.6	-96.41	194.0	-737.0	319.5	285.4	34.18	9.348		
6,600.0	6,538.6	6,581.3	6,530.5	16.7	17.7	-100.45	197.2	-740.7	329.0	295.4	33.59	9.794		
6,700.0	6,624.2	6,687.0	6,634.9	16.1	17.6	-105.20	200.7	-726.0	342.4	310.0	32.39	10.569		
6,800.0	6,699.5	6,802.4	6,743.7	15.5	17.2	-109.85	204.3	-688.4	358.5	327.8	30.70	11.676		
6,900.0	6,762.3	6,929.4	6,852.1	14.8	16.5	-114.07	207.9	-622.8	375.6	346.8	28.73	13.074		
7,000.0	6,810.6	7,069.4	6,951.6	14.3	15.6	-117.60	211.2	-524.9	391.4	364.6	26.85	14.576		
7,100.0	6,843.1	7,221.9	7,029.6	14.0	14.8	-120.18	213.7	-394.3	403.7	378.0	25.65	15.740		
7,200.0	6,858.6	7,384.0	7,071.7	14.2	14.6	-121.54	215.1	-238.3	410.3	384.6	25.72	15.950		
7,300.0	6,860.0	7,511.8	7,076.0	14.9	15.2	-121.70	215.3	-110.7	411.0	384.1	26.97	15.239		
7,400.0	6,860.0	7,611.8	7,076.0	15.9	16.2	-121.70	215.3	-10.7	411.0	382.3	28.71	14.318		
7,500.0	6,860.0	7,711.8	7,076.0	17.2	17.6	-121.70	215.3	89.3	411.0	380.1	30.92	13.292		
7,600.0	6,860.0	7,811.8	7,076.0	18.8	19.1	-121.70	215.3	189.3	411.0	377.5	33.53	12.260		
7,700.0	6,860.0	7,911.8	7,076.0	20.5	20.9	-121.70	215.3	289.3	411.0	374.6	36.43	11.282		
7,800.0	6,860.0	8,011.8	7,076.0	22.4	22.7	-121.70	215.3	389.3	411.0	371.5	39.57	10.386		
7,900.0	6,860.0	8,111.8	7,076.0	24.4	24.7	-121.70	215.3	489.3	411.0	368.1	42.90	9.581		
8,000.0	6,860.0	8,211.8	7,076.0	26.5	26.8	-121.70	215.3	589.3	411.0	364.7	46.37	8.864		
8,100.0	6,860.0	8,311.8	7,076.0	28.6	28.9	-121.70	215.3	689.3	411.0	361.1	49.96	8.227		
8,200.0	6,860.0	8,411.8	7,076.0	30.8	31.1	-121.70	215.3	789.3	411.0	357.4	53.64	7.663		
8,300.0	6,860.0	8,511.8	7,076.0	33.0	33.3	-121.70	215.3	889.3	411.0	353.7	57.39	7.162		
8,400.0	6,860.0	8,611.8	7,076.0	35.3	35.5	-121.70	215.3	989.3	411.0	349.8	61.20	6.716		
8,500.0	6,860.0	8,711.8	7,076.0	37.5	37.8	-121.70	215.3	1,089.3	411.0	346.0	65.06	6.317		
8,600.0	6,860.0	8,811.8	7,076.0	39.8	40.1	-121.70	215.3	1,189.3	411.0	342.1	68.97	5.960		
8,700.0	6,860.0	8,911.8	7,076.0	42.2	42.4	-121.70	215.3	1,289.3	411.0	338.1	72.91	5.638		
8,800.0	6,860.0	9,011.8	7,076.0	44.5	44.7	-121.70	215.3	1,389.3	411.0	334.2	76.87	5.347		
8,900.0	6,860.0	9,111.8	7,076.0	46.9	47.1	-121.70	215.3	1,489.3	411.0	330.2	80.87	5.083		
9,000.0	6,860.0	9,211.8	7,076.0	49.2	49.4	-121.70	215.3	1,589.3	411.0	326.2	84.88	4.843		
9,100.0	6,860.0	9,311.8	7,076.0	51.6	51.8	-121.70	215.3	1,689.3	411.0	322.1	88.91	4.623		
9,200.0	6,860.0	9,411.8	7,076.0	54.0	54.2	-121.70	215.3	1,789.3	411.0	318.1	92.96	4.422		
9,300.0	6,860.0	9,511.8	7,076.0	56.4	56.6	-121.70	215.3	1,889.3	411.0	314.0	97.03	4.236		
9,400.0	6,860.0	9,611.8	7,076.0	58.8	59.0	-121.70	215.3	1,989.3	411.0	309.9	101.10	4.066		
9,500.0	6,860.0	9,711.8	7,076.0	61.2	61.4	-121.70	215.3	2,089.3	411.0	305.9	105.19	3.908		
9,600.0	6,860.0	9,811.8	7,076.0	63.6	63.8	-121.70	215.3	2,189.3	411.0	301.8	109.29	3.761		
9,700.0	6,860.0	9,911.8	7,076.0	66.0	66.2	-121.70	215.3	2,289.3	411.0	297.7	113.39	3.625		
9,800.0	6,860.0	10,011.8	7,076.0	68.4	68.6	-121.70	215.3	2,389.3	411.0	293.5	117.50	3.498		
9,900.0	6,860.0	10,111.8	7,076.0	70.9	71.0	-121.70	215.3	2,489.3	411.0	289.4	121.62	3.380		
10,000.0	6,860.0	10,211.8	7,076.0	73.3	73.5	-121.70	215.3	2,589.3	411.0	285.3	125.75	3.269		
10,100.0	6,860.0	10,311.8	7,076.0	75.7	75.9	-121.70	215.3	2,689.3	411.0	281.2	129.88	3.165		
10,200.0	6,860.0	10,411.8	7,076.0	78.2	78.3	-121.70	215.3	2,789.3	411.0	277.0	134.02	3.067		
10,300.0	6,860.0	10,511.8	7,076.0	80.6	80.8	-121.70	215.3	2,889.3	411.0	272.9	138.16	2.975		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												S19-T3N-R68W (Bohrer) - Bohrer 2D-19H-E368 - Hz - Plan #1		Offset Site Error:		0.0 ft	
Survey Program:												0-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
10,400.0	6,860.0	10,611.8	7,076.0	83.0	83.2	-121.70	215.3	2,989.3	411.0	268.7	142.31	2.888					
10,500.0	6,860.0	10,711.8	7,076.0	85.5	85.6	-121.70	215.3	3,089.3	411.0	264.6	146.46	2.807					
10,600.0	6,860.0	10,811.8	7,076.0	87.9	88.1	-121.70	215.3	3,189.3	411.0	260.4	150.61	2.729					
10,700.0	6,860.0	10,911.8	7,076.0	90.4	90.5	-121.70	215.3	3,289.3	411.0	256.3	154.77	2.656					
10,800.0	6,860.0	11,011.8	7,076.0	92.8	92.9	-121.70	215.3	3,389.3	411.0	252.1	158.93	2.586					
10,900.0	6,860.0	11,111.8	7,076.0	95.2	95.4	-121.70	215.3	3,489.3	411.0	247.9	163.09	2.520					
11,000.0	6,860.0	11,211.8	7,076.0	97.7	97.8	-121.70	215.3	3,589.3	411.0	243.8	167.26	2.458					
11,100.0	6,860.0	11,311.8	7,076.0	100.1	100.3	-121.70	215.3	3,689.3	411.0	239.6	171.43	2.398					
11,200.0	6,860.0	11,411.8	7,076.0	102.6	102.7	-121.70	215.3	3,789.3	411.0	235.4	175.60	2.341					
11,300.0	6,860.0	11,511.8	7,076.0	105.0	105.2	-121.70	215.3	3,889.3	411.0	231.3	179.77	2.286					
11,400.0	6,860.0	11,611.8	7,076.0	107.5	107.6	-121.70	215.3	3,989.3	411.0	227.1	183.95	2.235					
11,454.6	6,860.0	11,666.4	7,076.0	108.8	109.0	-121.70	215.3	4,043.9	411.0	224.8	186.23	2.207 SF					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2F-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-10.9	0.0	10.9	10.7	0.26	41.744		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.61	17.890		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-10.9	0.0	10.9	10.0	0.96	11.385		
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-10.9	0.0	10.9	9.6	1.31	8.349		
500.0	500.0	500.0	500.0	0.8	0.8	-180.00	-10.9	0.0	10.9	9.3	1.66	6.591 CC, ES		
600.0	600.0	599.9	599.9	1.0	1.0	-176.19	-11.4	-0.8	11.4	9.4	2.01	5.673		
700.0	700.0	699.8	699.7	1.2	1.2	-70.99	-12.7	-3.0	12.7	10.3	2.36	5.387		
800.0	800.0	799.6	799.4	1.4	1.4	-67.51	-14.8	-6.8	14.7	11.9	2.71	5.399		
900.0	899.9	899.4	899.0	1.5	1.6	-66.06	-17.8	-12.1	17.1	14.1	3.08	5.572		
1,000.0	999.7	999.1	998.4	1.7	1.8	-65.99	-21.7	-18.9	20.2	16.7	3.45	5.835		
1,100.0	1,099.4	1,098.7	1,097.7	1.9	2.0	-66.78	-26.4	-27.1	23.7	19.8	3.85	6.147		
1,200.0	1,198.9	1,198.4	1,196.6	2.1	2.2	-68.06	-32.0	-36.9	27.7	23.4	4.28	6.483		
1,300.0	1,298.3	1,297.9	1,295.3	2.4	2.5	-69.57	-38.4	-48.2	32.3	27.6	4.74	6.822		
1,400.0	1,397.4	1,397.4	1,393.8	2.6	2.8	-71.19	-45.7	-60.9	37.4	32.2	5.23	7.152		
1,500.0	1,496.4	1,497.3	1,492.4	2.9	3.0	-73.25	-53.3	-74.2	42.6	36.9	5.76	7.399		
1,600.0	1,595.4	1,597.1	1,591.1	3.2	3.3	-74.90	-60.9	-87.6	47.9	41.6	6.30	7.592		
1,700.0	1,694.3	1,697.0	1,689.8	3.5	3.6	-76.22	-68.5	-100.9	53.1	46.3	6.86	7.745		
1,800.0	1,793.3	1,796.9	1,788.4	3.7	3.9	-77.31	-76.1	-114.3	58.4	51.0	7.42	7.869		
1,900.0	1,892.3	1,896.7	1,887.1	4.0	4.2	-78.22	-83.8	-127.6	63.7	55.7	8.00	7.971		
2,000.0	1,991.3	1,996.6	1,985.8	4.3	4.6	-78.98	-91.4	-141.0	69.1	60.5	8.57	8.055		
2,100.0	2,090.3	2,096.4	2,084.4	4.6	4.9	-79.64	-99.0	-154.3	74.4	65.2	9.15	8.127		
2,200.0	2,189.2	2,196.3	2,183.1	4.9	5.2	-80.21	-106.6	-167.6	79.7	70.0	9.74	8.187		
2,300.0	2,288.2	2,296.1	2,281.8	5.2	5.5	-80.70	-114.2	-181.0	85.1	74.8	10.33	8.239		
2,400.0	2,387.2	2,396.0	2,380.4	5.5	5.8	-81.14	-121.8	-194.3	90.4	79.5	10.92	8.283		
2,500.0	2,486.2	2,495.8	2,479.1	5.8	6.1	-81.53	-129.4	-207.7	95.8	84.3	11.51	8.323		
2,600.0	2,585.2	2,595.7	2,577.8	6.1	6.4	-81.88	-137.0	-221.0	101.2	89.1	12.11	8.357		
2,700.0	2,684.1	2,695.5	2,676.4	6.4	6.7	-82.19	-144.7	-234.3	106.5	93.8	12.70	8.387		
2,800.0	2,783.1	2,795.4	2,775.1	6.7	7.1	-82.47	-152.3	-247.7	111.9	98.6	13.30	8.414		
2,900.0	2,882.1	2,895.2	2,873.8	7.0	7.4	-82.73	-159.9	-261.0	117.3	103.4	13.90	8.438		
3,000.0	2,981.1	2,995.1	2,972.4	7.3	7.7	-82.97	-167.5	-274.4	122.6	108.1	14.50	8.460		
3,100.0	3,080.1	3,095.0	3,071.1	7.6	8.0	-83.18	-175.1	-287.7	128.0	112.9	15.10	8.480		
3,200.0	3,179.0	3,194.8	3,169.8	7.9	8.3	-83.38	-182.7	-301.0	133.4	117.7	15.70	8.498		
3,300.0	3,278.0	3,294.7	3,268.4	8.2	8.7	-83.56	-190.3	-314.4	138.8	122.5	16.30	8.514		
3,400.0	3,377.0	3,394.5	3,367.1	8.5	9.0	-83.73	-198.0	-327.7	144.2	127.3	16.90	8.529		
3,500.0	3,476.0	3,494.4	3,465.8	8.8	9.3	-83.88	-205.6	-341.1	149.5	132.0	17.51	8.542		
3,600.0	3,575.0	3,594.2	3,564.4	9.1	9.6	-84.03	-213.2	-354.4	154.9	136.8	18.11	8.555		
3,700.0	3,673.9	3,694.1	3,663.1	9.4	9.9	-84.17	-220.8	-367.7	160.3	141.6	18.71	8.566		
3,800.0	3,772.9	3,793.9	3,761.8	9.7	10.2	-84.29	-228.4	-381.1	165.7	146.4	19.32	8.577		
3,900.0	3,871.9	3,893.8	3,860.4	10.0	10.6	-84.41	-236.0	-394.4	171.1	151.2	19.92	8.587		
4,000.0	3,970.9	3,993.6	3,959.1	10.3	10.9	-84.52	-243.6	-407.8	176.5	155.9	20.53	8.596		
4,100.0	4,069.9	4,093.5	4,057.7	10.6	11.2	-84.63	-251.3	-421.1	181.9	160.7	21.13	8.605		
4,200.0	4,168.8	4,193.4	4,156.4	10.9	11.5	-84.73	-258.9	-434.5	187.2	165.5	21.74	8.613		
4,300.0	4,267.8	4,293.2	4,255.1	11.2	11.8	-84.82	-266.5	-447.8	192.6	170.3	22.35	8.620		
4,400.0	4,366.8	4,393.1	4,353.7	11.5	12.2	-84.91	-274.1	-461.1	198.0	175.1	22.95	8.628		
4,500.0	4,465.8	4,492.9	4,452.4	11.8	12.5	-84.99	-281.7	-474.5	203.4	179.8	23.56	8.634		
4,600.0	4,564.8	4,592.8	4,551.1	12.1	12.8	-85.07	-289.3	-487.8	208.8	184.6	24.16	8.640		
4,700.0	4,663.7	4,692.6	4,649.7	12.4	13.1	-85.15	-296.9	-501.2	214.2	189.4	24.77	8.646		
4,800.0	4,762.7	4,792.5	4,748.4	12.7	13.4	-85.22	-304.5	-514.5	219.6	194.2	25.38	8.652		
4,900.0	4,861.7	4,892.3	4,847.1	13.0	13.8	-85.29	-312.2	-527.8	225.0	199.0	25.99	8.657		
5,000.0	4,960.7	4,992.2	4,945.7	13.3	14.1	-85.35	-319.8	-541.2	230.4	203.8	26.59	8.662		
5,100.0	5,059.7	5,092.0	5,044.4	13.7	14.4	-85.42	-327.4	-554.5	235.7	208.5	27.20	8.667		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2F-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,158.6	5,191.9	5,143.1	14.0	14.7	-85.47	-335.0	-567.9	241.1	213.3	27.81	8.671		
5,300.0	5,257.6	5,291.8	5,241.7	14.3	15.0	-85.53	-342.6	-581.2	246.5	218.1	28.42	8.676		
5,400.0	5,356.6	5,391.6	5,340.4	14.6	15.4	-85.59	-350.2	-594.5	251.9	222.9	29.02	8.680		
5,500.0	5,455.6	5,491.5	5,439.1	14.9	15.7	-85.64	-357.8	-607.9	257.3	227.7	29.63	8.684		
5,600.0	5,554.6	5,591.3	5,537.7	15.2	16.0	-85.69	-365.5	-621.2	262.7	232.5	30.24	8.687		
5,700.0	5,653.5	5,691.2	5,636.4	15.5	16.3	-85.74	-373.1	-634.6	268.1	237.2	30.85	8.691		
5,800.0	5,752.5	5,791.0	5,735.1	15.8	16.6	-85.78	-380.7	-647.9	273.5	242.0	31.46	8.694		
5,900.0	5,851.5	5,890.9	5,833.7	16.1	17.0	-85.83	-388.3	-661.2	278.9	246.8	32.06	8.698		
6,000.0	5,950.5	5,990.7	5,932.4	16.4	17.3	-85.87	-395.9	-674.6	284.3	251.6	32.67	8.701		
6,100.0	6,049.5	6,090.6	6,031.1	16.7	17.6	-85.91	-403.5	-687.9	289.7	256.4	33.28	8.704		
6,200.0	6,148.4	6,190.4	6,129.7	17.0	17.9	-85.95	-411.1	-701.3	295.1	261.2	33.89	8.706		
6,300.0	6,247.6	6,290.3	6,228.4	17.3	18.3	-76.80	-418.7	-714.6	300.3	265.9	34.45	8.716		
6,400.0	6,347.4	6,388.8	6,325.8	17.3	18.6	74.93	-426.3	-727.8	304.7	270.1	34.52	8.824		
6,500.0	6,445.4	6,483.3	6,419.1	17.1	18.9	87.58	-433.5	-740.4	310.2	276.3	33.98	9.131		
6,600.0	6,538.6	6,580.4	6,515.6	16.7	19.1	95.62	-440.9	-746.7	320.5	287.7	32.80	9.772		
6,700.0	6,624.2	6,666.2	6,620.3	16.1	19.0	102.36	-449.0	-734.9	335.4	304.2	31.21	10.748		
6,800.0	6,699.5	6,802.8	6,731.0	15.5	18.7	108.24	-457.5	-699.9	353.5	324.1	29.36	12.040		
6,900.0	6,762.3	6,932.5	6,842.9	14.8	18.2	113.28	-466.2	-635.6	372.7	345.2	27.47	13.567		
7,000.0	6,810.6	7,076.9	6,947.1	14.3	17.3	117.36	-474.2	-536.4	390.4	364.5	25.86	15.094		
7,100.0	6,843.1	7,235.9	7,029.2	14.0	16.5	120.23	-480.5	-401.0	403.8	378.8	25.02	16.143		
7,200.0	6,858.6	7,405.6	7,072.5	14.2	15.8	121.61	-483.9	-237.6	410.6	385.2	25.42	16.149		
7,300.0	6,860.0	7,532.6	7,076.0	14.9	15.6	121.70	-484.2	-110.7	411.0	384.3	26.78	15.348		
7,400.0	6,860.0	7,632.6	7,076.0	15.9	16.5	121.70	-484.2	-10.7	411.0	382.5	28.53	14.406		
7,500.0	6,860.0	7,732.6	7,076.0	17.2	18.0	121.70	-484.2	89.3	411.0	380.3	30.76	13.361		
7,600.0	6,860.0	7,832.6	7,076.0	18.8	19.6	121.70	-484.2	189.3	411.0	377.7	33.38	12.313		
7,700.0	6,860.0	7,932.6	7,076.0	20.5	21.4	121.70	-484.2	289.3	411.0	374.7	36.30	11.323		
7,800.0	6,860.0	8,032.6	7,076.0	22.4	23.3	121.70	-484.2	389.3	411.0	371.6	39.46	10.417		
7,900.0	6,860.0	8,132.6	7,076.0	24.4	25.2	121.70	-484.2	489.3	411.0	368.2	42.80	9.604		
8,000.0	6,860.0	8,232.6	7,076.0	26.5	27.3	121.70	-484.2	589.3	411.0	364.8	46.28	8.882		
8,100.0	6,860.0	8,332.6	7,076.0	28.6	29.4	121.70	-484.2	689.3	411.0	361.2	49.88	8.241		
8,200.0	6,860.0	8,432.6	7,076.0	30.8	31.5	121.70	-484.2	789.3	411.0	357.5	53.56	7.674		
8,300.0	6,860.0	8,532.6	7,076.0	33.0	33.7	121.70	-484.2	889.3	411.0	353.7	57.32	7.171		
8,400.0	6,860.0	8,632.6	7,076.0	35.3	36.0	121.70	-484.2	989.3	411.0	349.9	61.14	6.723		
8,500.0	6,860.0	8,732.6	7,076.0	37.5	38.2	121.70	-484.2	1,089.3	411.0	346.0	65.01	6.323		
8,600.0	6,860.0	8,832.6	7,076.0	39.8	40.5	121.70	-484.2	1,189.3	411.0	342.1	68.92	5.964		
8,700.0	6,860.0	8,932.6	7,076.0	42.2	42.8	121.70	-484.2	1,289.3	411.0	338.2	72.86	5.642		
8,800.0	6,860.0	9,032.6	7,076.0	44.5	45.1	121.70	-484.2	1,389.3	411.0	334.2	76.83	5.350		
8,900.0	6,860.0	9,132.6	7,076.0	46.9	47.5	121.70	-484.2	1,489.3	411.0	330.2	80.83	5.085		
9,000.0	6,860.0	9,232.6	7,076.0	49.2	49.8	121.70	-484.2	1,589.3	411.0	326.2	84.85	4.845		
9,100.0	6,860.0	9,332.6	7,076.0	51.6	52.2	121.70	-484.2	1,689.3	411.0	322.2	88.88	4.625		
9,200.0	6,860.0	9,432.6	7,076.0	54.0	54.5	121.70	-484.2	1,789.3	411.0	318.1	92.94	4.423		
9,300.0	6,860.0	9,532.6	7,076.0	56.4	56.9	121.70	-484.2	1,889.3	411.0	314.0	97.00	4.237		
9,400.0	6,860.0	9,632.6	7,076.0	58.8	59.3	121.70	-484.2	1,989.3	411.0	310.0	101.08	4.067		
9,500.0	6,860.0	9,732.6	7,076.0	61.2	61.7	121.70	-484.2	2,089.3	411.0	305.9	105.17	3.908		
9,600.0	6,860.0	9,832.6	7,076.0	63.6	64.1	121.70	-484.2	2,189.3	411.0	301.8	109.27	3.762		
9,700.0	6,860.0	9,932.6	7,076.0	66.0	66.5	121.70	-484.2	2,289.3	411.0	297.7	113.37	3.626		
9,800.0	6,860.0	10,032.6	7,076.0	68.4	68.9	121.70	-484.2	2,389.3	411.0	293.6	117.49	3.499		
9,900.0	6,860.0	10,132.6	7,076.0	70.9	71.3	121.70	-484.2	2,489.3	411.0	289.4	121.61	3.380		
10,000.0	6,860.0	10,232.6	7,076.0	73.3	73.7	121.70	-484.2	2,589.3	411.0	285.3	125.74	3.269		
10,100.0	6,860.0	10,332.6	7,076.0	75.7	76.2	121.70	-484.2	2,689.3	411.0	281.2	129.87	3.165		
10,200.0	6,860.0	10,432.6	7,076.0	78.2	78.6	121.70	-484.2	2,789.3	411.0	277.0	134.01	3.067		
10,300.0	6,860.0	10,532.6	7,076.0	80.6	81.0	121.70	-484.2	2,889.3	411.0	272.9	138.16	2.975		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													S19-T3N-R68W (Bohrer) - Bohrer 2F-19H-E368 - Hz - Plan #1		Offset Site Error:		0.0 ft
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
10,400.0	6,860.0	10,632.6	7,076.0	83.0	83.4	121.70	-484.2	2,989.3	411.0	268.7	142.30	2.888					
10,500.0	6,860.0	10,732.6	7,076.0	85.5	85.9	121.70	-484.2	3,089.3	411.0	264.6	146.45	2.807					
10,600.0	6,860.0	10,832.6	7,076.0	87.9	88.3	121.70	-484.2	3,189.3	411.0	260.4	150.61	2.729					
10,700.0	6,860.0	10,932.6	7,076.0	90.4	90.7	121.70	-484.2	3,289.3	411.0	256.3	154.77	2.656					
10,800.0	6,860.0	11,032.6	7,076.0	92.8	93.2	121.70	-484.2	3,389.3	411.0	252.1	158.93	2.586					
10,900.0	6,860.0	11,132.6	7,076.0	95.2	95.6	121.70	-484.2	3,489.3	411.0	247.9	163.09	2.520					
11,000.0	6,860.0	11,232.6	7,076.0	97.7	98.1	121.70	-484.2	3,589.3	411.0	243.8	167.26	2.457					
11,100.0	6,860.0	11,332.6	7,076.0	100.1	100.5	121.70	-484.2	3,689.3	411.0	239.6	171.43	2.398					
11,200.0	6,860.0	11,432.6	7,076.0	102.6	103.0	121.70	-484.2	3,789.3	411.0	235.4	175.60	2.341					
11,300.0	6,860.0	11,532.6	7,076.0	105.0	105.4	121.70	-484.2	3,889.3	411.0	231.3	179.77	2.286					
11,400.0	6,860.0	11,632.6	7,076.0	107.5	107.9	121.70	-484.2	3,989.3	411.0	227.1	183.95	2.235					
11,430.0	6,860.0	11,662.6	7,076.0	108.2	108.6	121.70	-484.2	4,019.2	411.0	225.8	185.20	2.219					
11,454.6	6,860.0	11,684.5	7,076.0	108.8	109.1	121.70	-484.2	4,041.2	411.1	224.9	186.17	2.208 SF					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2G-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-18.2	0.0	18.2	18.0	0.26	69.573		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-18.2	0.0	18.2	17.6	0.61	29.817		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-18.2	0.0	18.2	17.3	0.96	18.975		
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-18.2	0.0	18.2	16.9	1.31	13.915 CC, ES		
500.0	500.0	499.8	499.8	0.8	0.8	-178.12	-18.8	-0.6	18.8	17.2	1.66	11.360		
600.0	600.0	599.5	599.4	1.0	1.0	-173.18	-20.7	-2.5	20.8	18.8	2.01	10.355		
700.0	700.0	699.1	699.0	1.2	1.2	-69.50	-23.7	-5.6	24.0	21.7	2.36	10.190 SF		
800.0	800.0	798.6	798.3	1.4	1.4	-67.52	-27.9	-9.9	28.2	25.5	2.72	10.380		
900.0	899.9	898.0	897.4	1.5	1.6	-67.26	-33.4	-15.4	33.1	30.1	3.08	10.764		
1,000.0	999.7	997.4	996.3	1.7	1.8	-68.06	-40.1	-22.1	38.9	35.4	3.46	11.254		
1,100.0	1,099.4	1,096.5	1,094.8	1.9	2.1	-69.48	-47.9	-30.1	45.5	41.6	3.85	11.801		
1,200.0	1,198.9	1,195.5	1,193.0	2.1	2.3	-71.22	-56.9	-39.3	52.9	48.6	4.28	12.367		
1,300.0	1,298.3	1,294.4	1,290.8	2.4	2.6	-73.08	-67.1	-49.6	61.2	56.5	4.74	12.928		
1,400.0	1,397.4	1,393.1	1,388.1	2.6	2.9	-74.94	-78.5	-61.1	70.5	65.2	5.24	13.462		
1,500.0	1,496.4	1,491.5	1,484.9	2.9	3.2	-76.42	-91.0	-73.8	80.8	75.0	5.76	14.019		
1,600.0	1,595.4	1,590.6	1,582.2	3.2	3.6	-77.11	-104.4	-87.4	92.0	85.7	6.30	14.603		
1,700.0	1,694.3	1,690.0	1,679.7	3.5	3.9	-77.63	-117.9	-101.0	103.3	96.4	6.85	15.077		
1,800.0	1,793.3	1,789.4	1,777.2	3.7	4.3	-78.05	-131.4	-114.7	114.6	107.2	7.41	15.463		
1,900.0	1,892.3	1,888.7	1,874.7	4.0	4.7	-78.40	-144.9	-128.4	125.9	117.9	7.97	15.782		
2,000.0	1,991.3	1,988.1	1,972.2	4.3	5.0	-78.68	-158.3	-142.0	137.1	128.6	8.54	16.050		
2,100.0	2,090.3	2,087.4	2,069.6	4.6	5.4	-78.93	-171.8	-155.7	148.4	139.3	9.12	16.277		
2,200.0	2,189.2	2,186.8	2,167.1	4.9	5.8	-79.14	-185.3	-169.3	159.7	150.0	9.70	16.471		
2,300.0	2,288.2	2,286.2	2,264.6	5.2	6.1	-79.32	-198.7	-183.0	171.0	160.7	10.28	16.639		
2,400.0	2,387.2	2,385.5	2,362.1	5.5	6.5	-79.48	-212.2	-196.6	182.3	171.4	10.86	16.785		
2,500.0	2,486.2	2,484.9	2,459.6	5.8	6.9	-79.62	-225.7	-210.3	193.6	182.2	11.45	16.913		
2,600.0	2,585.2	2,584.2	2,557.1	6.1	7.2	-79.75	-239.2	-224.0	204.9	192.9	12.03	17.026		
2,700.0	2,684.1	2,683.6	2,654.6	6.4	7.6	-79.86	-252.6	-237.6	216.2	203.6	12.62	17.126		
2,800.0	2,783.1	2,783.0	2,752.1	6.7	8.0	-79.96	-266.1	-251.3	227.5	214.3	13.21	17.216		
2,900.0	2,882.1	2,882.3	2,849.6	7.0	8.4	-80.05	-279.6	-264.9	238.8	225.0	13.81	17.297		
3,000.0	2,981.1	2,981.7	2,947.0	7.3	8.7	-80.13	-293.1	-278.6	250.1	235.7	14.40	17.370		
3,100.0	3,080.1	3,081.0	3,044.5	7.6	9.1	-80.21	-306.5	-292.2	261.4	246.4	14.99	17.436		
3,200.0	3,179.0	3,180.4	3,142.0	7.9	9.5	-80.28	-320.0	-305.9	272.7	257.1	15.59	17.496		
3,300.0	3,278.0	3,279.7	3,239.5	8.2	9.9	-80.34	-333.5	-319.6	284.0	267.8	16.18	17.552		
3,400.0	3,377.0	3,379.1	3,337.0	8.5	10.2	-80.40	-347.0	-333.2	295.3	278.5	16.78	17.602		
3,500.0	3,476.0	3,478.5	3,434.5	8.8	10.6	-80.46	-360.4	-346.9	306.6	289.2	17.37	17.648		
3,600.0	3,575.0	3,577.8	3,532.0	9.1	11.0	-80.51	-373.9	-360.5	317.9	299.9	17.97	17.691		
3,700.0	3,673.9	3,677.2	3,629.5	9.4	11.4	-80.56	-387.4	-374.2	329.2	310.6	18.57	17.731		
3,800.0	3,772.9	3,776.5	3,727.0	9.7	11.7	-80.60	-400.9	-387.8	340.5	321.3	19.16	17.768		
3,900.0	3,871.9	3,875.9	3,824.4	10.0	12.1	-80.64	-414.3	-401.5	351.8	332.1	19.76	17.802		
4,000.0	3,970.9	3,975.3	3,921.9	10.3	12.5	-80.68	-427.8	-415.2	363.1	342.8	20.36	17.834		
4,100.0	4,069.9	4,074.6	4,019.4	10.6	12.9	-80.72	-441.3	-428.8	374.4	353.5	20.96	17.864		
4,200.0	4,168.8	4,174.0	4,116.9	10.9	13.3	-80.75	-454.8	-442.5	385.7	364.2	21.56	17.892		
4,300.0	4,267.8	4,273.3	4,214.4	11.2	13.6	-80.78	-468.2	-456.1	397.0	374.9	22.16	17.918		
4,400.0	4,366.8	4,372.7	4,311.9	11.5	14.0	-80.81	-481.7	-469.8	408.3	385.6	22.76	17.943		
4,500.0	4,465.8	4,472.1	4,409.4	11.8	14.4	-80.84	-495.2	-483.4	419.6	396.3	23.36	17.966		
4,600.0	4,564.8	4,571.4	4,506.9	12.1	14.8	-80.87	-508.6	-497.1	430.9	407.0	23.96	17.988		
4,700.0	4,663.7	4,670.8	4,604.4	12.4	15.1	-80.90	-522.1	-510.7	442.2	417.7	24.56	18.009		
4,800.0	4,762.7	4,770.1	4,701.9	12.7	15.5	-80.92	-535.6	-524.4	453.5	428.4	25.16	18.028		
4,900.0	4,861.7	4,869.5	4,799.3	13.0	15.9	-80.95	-549.1	-538.1	464.8	439.1	25.76	18.047		
5,000.0	4,960.7	4,968.8	4,896.8	13.3	16.3	-80.97	-562.5	-551.7	476.1	449.8	26.36	18.065		
5,100.0	5,059.7	5,068.2	4,994.3	13.7	16.7	-80.99	-576.0	-565.4	487.5	460.5	26.96	18.081		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2E-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5084.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2G-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
5,200.0	5,158.6	5,167.6	5,091.8	14.0	17.0	-81.01	-589.5	-579.0	498.8	471.2	27.56	18.097	

Cathedral Energy Services

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Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2H-19H-E368 - Hz - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: O-Geolink MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-29.1	0.0	29.2				
100.0	100.0	99.0	99.0	0.1	0.1	-180.00	-29.1	0.0	29.1	28.9	0.26	111.876	
200.0	200.0	199.0	199.0	0.3	0.3	-180.00	-29.1	0.0	29.1	28.5	0.61	47.844	
300.0	300.0	299.0	299.0	0.5	0.5	-180.00	-29.1	0.0	29.1	28.2	0.96	30.415 CC, ES	
400.0	400.0	398.6	398.6	0.7	0.7	-179.05	-29.8	-0.5	29.8	28.5	1.31	22.828	
500.0	500.0	498.1	498.1	0.8	0.8	-176.42	-31.9	-2.0	32.0	30.3	1.66	19.289	
600.0	600.0	597.5	597.4	1.0	1.0	-172.74	-35.4	-4.5	35.7	33.7	2.02	17.715	
700.0	700.0	696.8	696.4	1.2	1.2	-70.65	-40.3	-8.0	40.9	38.5	2.36	17.329 SF	
800.0	800.0	795.9	795.3	1.4	1.4	-69.51	-46.6	-12.5	47.0	44.3	2.71	17.329	
900.0	899.9	894.8	893.8	1.5	1.6	-69.60	-54.2	-18.0	54.2	51.1	3.08	17.598	
1,000.0	999.7	993.6	991.9	1.7	1.9	-70.48	-63.2	-24.5	62.3	58.8	3.45	18.021	
1,100.0	1,099.4	1,092.1	1,089.6	1.9	2.2	-71.84	-73.5	-31.9	71.3	67.5	3.85	18.526	
1,200.0	1,198.9	1,190.4	1,186.9	2.1	2.4	-73.46	-85.2	-40.3	81.5	77.2	4.27	19.065	
1,300.0	1,298.3	1,288.5	1,283.6	2.4	2.7	-75.20	-98.2	-49.7	92.7	88.0	4.73	19.601	
1,400.0	1,397.4	1,386.2	1,379.7	2.6	3.1	-76.96	-112.5	-60.0	105.0	99.8	5.22	20.109	
1,500.0	1,496.4	1,483.7	1,475.3	2.9	3.4	-78.52	-128.0	-71.2	118.6	112.9	5.74	20.646	
1,600.0	1,595.4	1,580.7	1,570.1	3.2	3.8	-79.37	-144.9	-83.3	133.6	127.3	6.28	21.275	
1,700.0	1,694.3	1,679.1	1,665.9	3.5	4.2	-79.81	-162.8	-96.2	149.6	142.8	6.83	21.912	
1,800.0	1,793.3	1,777.8	1,762.1	3.7	4.6	-80.16	-180.8	-109.1	165.6	158.2	7.38	22.430	
1,900.0	1,892.3	1,876.5	1,858.3	4.0	5.0	-80.45	-198.8	-122.1	181.6	173.7	7.94	22.858	
2,000.0	1,991.3	1,975.2	1,954.5	4.3	5.4	-80.69	-216.8	-135.0	197.6	189.1	8.51	23.214	
2,100.0	2,090.3	2,073.9	2,050.7	4.6	5.9	-80.90	-234.9	-148.0	213.6	204.5	9.08	23.515	
2,200.0	2,189.2	2,172.6	2,146.8	4.9	6.3	-81.07	-252.9	-161.0	229.6	220.0	9.66	23.772	
2,300.0	2,288.2	2,271.3	2,243.0	5.2	6.7	-81.22	-270.9	-173.9	245.7	235.4	10.24	23.993	
2,400.0	2,387.2	2,370.0	2,339.2	5.5	7.1	-81.36	-288.9	-186.9	261.7	250.8	10.82	24.185	
2,500.0	2,486.2	2,468.7	2,435.4	5.8	7.5	-81.48	-306.9	-199.9	277.7	266.3	11.40	24.353	
2,600.0	2,585.2	2,567.5	2,531.5	6.1	8.0	-81.58	-324.9	-212.8	293.7	281.7	11.99	24.501	
2,700.0	2,684.1	2,666.2	2,627.7	6.4	8.4	-81.68	-343.0	-225.8	309.7	297.2	12.57	24.632	
2,800.0	2,783.1	2,764.9	2,723.9	6.7	8.8	-81.77	-361.0	-238.8	325.7	312.6	13.16	24.749	
2,900.0	2,882.1	2,863.6	2,820.1	7.0	9.2	-81.84	-379.0	-251.7	341.8	328.0	13.75	24.854	
3,000.0	2,981.1	2,962.3	2,916.3	7.3	9.6	-81.91	-397.0	-264.7	357.8	343.5	14.34	24.949	
3,100.0	3,080.1	3,061.0	3,012.4	7.6	10.1	-81.98	-415.0	-277.7	373.8	358.9	14.93	25.034	
3,200.0	3,179.0	3,159.7	3,108.6	7.9	10.5	-82.04	-433.1	-290.6	389.8	374.3	15.52	25.112	
3,300.0	3,278.0	3,258.4	3,204.8	8.2	10.9	-82.09	-451.1	-303.6	405.9	389.7	16.12	25.183	
3,400.0	3,377.0	3,357.1	3,301.0	8.5	11.3	-82.14	-469.1	-316.5	421.9	405.2	16.71	25.248	
3,500.0	3,476.0	3,455.8	3,397.2	8.8	11.8	-82.19	-487.1	-329.5	437.9	420.6	17.30	25.308	
3,600.0	3,575.0	3,554.5	3,493.3	9.1	12.2	-82.23	-505.1	-342.5	453.9	436.0	17.90	25.363	
3,700.0	3,673.9	3,653.2	3,589.5	9.4	12.6	-82.27	-523.1	-355.4	470.0	451.5	18.49	25.413	
3,800.0	3,772.9	3,751.9	3,685.7	9.7	13.0	-82.31	-541.2	-368.4	486.0	466.9	19.09	25.460	

Cathedral Energy Services

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Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5084.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S19-T3N-R68W (Bohrer) - Bohrer 2I-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-40.1	0.0	40.1					
100.0	100.0	99.0	99.0	0.1	0.1	-180.00	-40.1	0.0	40.1	39.8	0.26	153.830		
200.0	200.0	199.0	199.0	0.3	0.3	-180.00	-40.1	0.0	40.1	39.5	0.61	65.786	CC, ES	
300.0	300.0	298.4	298.4	0.5	0.5	-179.43	-40.8	-0.4	40.8	39.9	0.96	42.609		
400.0	400.0	397.7	397.7	0.7	0.7	-177.81	-43.1	-1.6	43.1	41.8	1.31	32.892		
500.0	500.0	496.9	496.8	0.8	0.8	-175.46	-46.8	-3.7	47.0	45.3	1.67	28.133		
600.0	600.0	595.9	595.6	1.0	1.0	-172.77	-52.0	-6.6	52.6	50.5	2.04	25.743		
700.0	700.0	694.8	694.2	1.2	1.3	-71.58	-58.8	-10.3	59.6	57.2	2.36	25.276		
800.0	800.0	793.4	792.3	1.4	1.5	-70.91	-67.0	-14.8	67.7	65.0	2.71	24.959	SF	
900.0	899.9	891.8	890.1	1.5	1.7	-71.17	-76.6	-20.1	76.9	73.8	3.07	24.995		
1,000.0	999.7	990.0	987.5	1.7	2.0	-72.05	-87.7	-26.3	87.1	83.6	3.45	25.237		
1,100.0	1,099.4	1,087.8	1,084.3	1.9	2.3	-73.32	-100.2	-33.2	98.4	94.6	3.85	25.593		
1,200.0	1,198.9	1,185.3	1,180.5	2.1	2.6	-74.81	-114.1	-40.8	110.9	106.6	4.26	25.999		
1,300.0	1,298.3	1,282.5	1,276.1	2.4	2.9	-76.42	-129.3	-49.2	124.5	119.8	4.72	26.412		
1,400.0	1,397.4	1,379.3	1,371.0	2.6	3.3	-78.06	-146.0	-58.4	139.4	134.2	5.20	26.801		
1,500.0	1,496.4	1,475.7	1,465.2	2.9	3.7	-79.60	-163.9	-68.3	155.7	150.0	5.72	27.229		
1,600.0	1,595.4	1,571.7	1,558.6	3.2	4.1	-80.62	-183.2	-78.9	173.5	167.2	6.25	27.766		
1,700.0	1,694.3	1,667.1	1,651.1	3.5	4.5	-81.20	-203.6	-90.2	192.7	185.9	6.79	28.393		
1,800.0	1,793.3	1,762.1	1,742.8	3.7	5.0	-81.45	-225.4	-102.2	213.4	206.1	7.33	29.093		
1,900.0	1,892.3	1,856.8	1,833.8	4.0	5.5	-81.47	-248.4	-114.9	235.4	227.6	7.88	29.862		
2,000.0	1,991.3	1,954.2	1,927.3	4.3	5.9	-81.41	-272.5	-128.2	258.0	249.6	8.45	30.552		
2,100.0	2,090.3	2,051.6	2,020.7	4.6	6.4	-81.35	-296.7	-141.5	280.6	271.6	9.01	31.144		
2,200.0	2,189.2	2,149.1	2,114.1	4.9	6.9	-81.31	-320.8	-154.9	303.2	293.6	9.58	31.655		
2,300.0	2,288.2	2,246.5	2,207.5	5.2	7.4	-81.27	-345.0	-168.2	325.8	315.6	10.15	32.100		
2,400.0	2,387.2	2,343.9	2,301.0	5.5	8.0	-81.24	-369.1	-181.5	348.4	337.7	10.72	32.490		
2,500.0	2,486.2	2,441.3	2,394.4	5.8	8.5	-81.21	-393.3	-194.8	371.0	359.7	11.30	32.836		
2,600.0	2,585.2	2,538.7	2,487.8	6.1	9.0	-81.19	-417.4	-208.2	393.5	381.7	11.87	33.143		
2,700.0	2,684.1	2,636.1	2,581.2	6.4	9.5	-81.17	-441.6	-221.5	416.1	403.7	12.45	33.417		
2,800.0	2,783.1	2,733.6	2,674.7	6.7	10.0	-81.15	-465.8	-234.8	438.7	425.7	13.03	33.664		
2,900.0	2,882.1	2,831.0	2,768.1	7.0	10.5	-81.13	-489.9	-248.1	461.3	447.7	13.61	33.887		
3,000.0	2,981.1	2,928.4	2,861.5	7.3	11.0	-81.11	-514.1	-261.5	483.9	469.7	14.19	34.090		

Cathedral Energy Services

Anticollision Report

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Reference Well:	Bohrer 2E-19H-E368	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5084.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Bohrer 2E-19H-E368
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.29°

