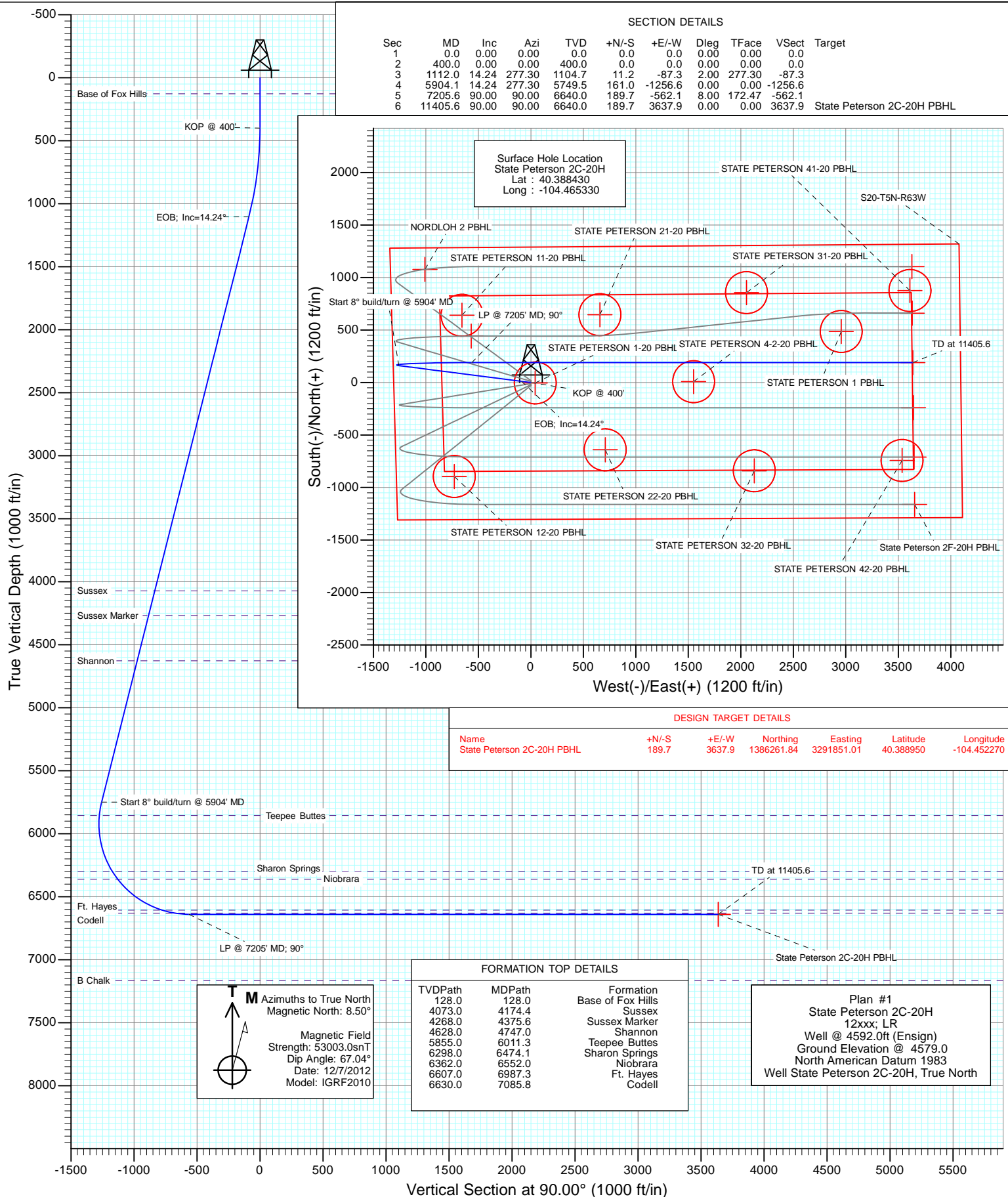




Project: DJ Wattenberg
Site: S20-T5N-R63W (State Peterson)
Well: State Peterson 2C-20H
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2C-20H	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		S20-T5N-R63W (State Peterson)			
Site Position:		Northing:	1,386,047.92 ft	Latitude:	40.388480
From:	Lat/Long	Easting:	3,288,215.31 ft	Longitude:	-104.465330
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.67 °

Well	State Peterson 2C-20H					
Well Position	+N/-S	0.0 ft	Northing:	1,386,029.69 ft	Latitude:	40.388430
	+E/-W	0.0 ft	Easting:	3,288,215.53 ft	Longitude:	-104.465330
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,579.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/7/2012	8.50	67.04	53,003

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,112.0	14.24	277.30	1,104.7	11.2	-87.3	2.00	2.00	0.00	277.30	
5,904.1	14.24	277.30	5,749.5	161.0	-1,256.6	0.00	0.00	0.00	0.00	
7,205.6	90.00	90.00	6,640.0	189.7	-562.1	8.00	5.82	13.27	172.47	
11,405.6	90.00	90.00	6,640.0	189.7	3,637.9	0.00	0.00	0.00	0.00	State Peterson 2C-20

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2C-20H	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	
128.0	0.00	0.00	128.0	0.0	0.0	0.0	0.00	0.00	Base of Fox Hills
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
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	KOP @ 400'
500.0	2.00	277.30	500.0	0.2	-1.7	-1.7	2.00	2.00	
600.0	4.00	277.30	599.8	0.9	-6.9	-6.9	2.00	2.00	
700.0	6.00	277.30	699.5	2.0	-15.6	-15.6	2.00	2.00	
800.0	8.00	277.30	798.7	3.5	-27.7	-27.7	2.00	2.00	
900.0	10.00	277.30	897.5	5.5	-43.2	-43.2	2.00	2.00	
1,000.0	12.00	277.30	995.6	8.0	-62.1	-62.1	2.00	2.00	
1,100.0	14.00	277.30	1,093.1	10.8	-84.4	-84.4	2.00	2.00	
1,112.0	14.24	277.30	1,104.7	11.2	-87.3	-87.3	2.00	2.00	EOB; Inc=14.24°
1,200.0	14.24	277.30	1,190.0	13.9	-108.8	-108.8	0.00	0.00	
1,300.0	14.24	277.30	1,286.9	17.1	-133.2	-133.2	0.00	0.00	
1,400.0	14.24	277.30	1,383.8	20.2	-157.6	-157.6	0.00	0.00	
1,500.0	14.24	277.30	1,480.8	23.3	-182.0	-182.0	0.00	0.00	
1,600.0	14.24	277.30	1,577.7	26.4	-206.4	-206.4	0.00	0.00	
1,700.0	14.24	277.30	1,674.6	29.6	-230.8	-230.8	0.00	0.00	
1,800.0	14.24	277.30	1,771.6	32.7	-255.2	-255.2	0.00	0.00	
1,900.0	14.24	277.30	1,868.5	35.8	-279.6	-279.6	0.00	0.00	
2,000.0	14.24	277.30	1,965.4	38.9	-304.0	-304.0	0.00	0.00	
2,100.0	14.24	277.30	2,062.3	42.1	-328.4	-328.4	0.00	0.00	
2,200.0	14.24	277.30	2,159.3	45.2	-352.8	-352.8	0.00	0.00	
2,300.0	14.24	277.30	2,256.2	48.3	-377.2	-377.2	0.00	0.00	
2,400.0	14.24	277.30	2,353.1	51.5	-401.6	-401.6	0.00	0.00	
2,500.0	14.24	277.30	2,450.0	54.6	-426.0	-426.0	0.00	0.00	
2,600.0	14.24	277.30	2,547.0	57.7	-450.4	-450.4	0.00	0.00	
2,700.0	14.24	277.30	2,643.9	60.8	-474.8	-474.8	0.00	0.00	
2,800.0	14.24	277.30	2,740.8	64.0	-499.2	-499.2	0.00	0.00	
2,900.0	14.24	277.30	2,837.7	67.1	-523.6	-523.6	0.00	0.00	
3,000.0	14.24	277.30	2,934.7	70.2	-548.0	-548.0	0.00	0.00	
3,100.0	14.24	277.30	3,031.6	73.3	-572.4	-572.4	0.00	0.00	
3,200.0	14.24	277.30	3,128.5	76.5	-596.8	-596.8	0.00	0.00	
3,300.0	14.24	277.30	3,225.5	79.6	-621.2	-621.2	0.00	0.00	
3,400.0	14.24	277.30	3,322.4	82.7	-645.6	-645.6	0.00	0.00	
3,500.0	14.24	277.30	3,419.3	85.8	-670.0	-670.0	0.00	0.00	
3,600.0	14.24	277.30	3,516.2	89.0	-694.4	-694.4	0.00	0.00	
3,700.0	14.24	277.30	3,613.2	92.1	-718.8	-718.8	0.00	0.00	
3,800.0	14.24	277.30	3,710.1	95.2	-743.2	-743.2	0.00	0.00	
3,900.0	14.24	277.30	3,807.0	98.3	-767.6	-767.6	0.00	0.00	
4,000.0	14.24	277.30	3,903.9	101.5	-792.0	-792.0	0.00	0.00	
4,100.0	14.24	277.30	4,000.9	104.6	-816.4	-816.4	0.00	0.00	
4,174.4	14.24	277.30	4,073.0	106.9	-834.6	-834.6	0.00	0.00	Sussex
4,200.0	14.24	277.30	4,097.8	107.7	-840.8	-840.8	0.00	0.00	
4,300.0	14.24	277.30	4,194.7	110.8	-865.2	-865.2	0.00	0.00	
4,375.6	14.24	277.30	4,268.0	113.2	-883.6	-883.6	0.00	0.00	Sussex Marker
4,400.0	14.24	277.30	4,291.7	114.0	-889.6	-889.6	0.00	0.00	
4,500.0	14.24	277.30	4,388.6	117.1	-914.0	-914.0	0.00	0.00	
4,600.0	14.24	277.30	4,485.5	120.2	-938.4	-938.4	0.00	0.00	
4,700.0	14.24	277.30	4,582.4	123.4	-962.8	-962.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2C-20H	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
4,747.0	14.24	277.30	4,628.0	124.8	-974.3	-974.3	0.00	0.00	Shannon
4,800.0	14.24	277.30	4,679.4	126.5	-987.2	-987.2	0.00	0.00	
4,900.0	14.24	277.30	4,776.3	129.6	-1,011.6	-1,011.6	0.00	0.00	
5,000.0	14.24	277.30	4,873.2	132.7	-1,036.0	-1,036.0	0.00	0.00	
5,100.0	14.24	277.30	4,970.1	135.9	-1,060.4	-1,060.4	0.00	0.00	
5,200.0	14.24	277.30	5,067.1	139.0	-1,084.8	-1,084.8	0.00	0.00	
5,300.0	14.24	277.30	5,164.0	142.1	-1,109.2	-1,109.2	0.00	0.00	
5,400.0	14.24	277.30	5,260.9	145.2	-1,133.6	-1,133.6	0.00	0.00	
5,500.0	14.24	277.30	5,357.8	148.4	-1,158.0	-1,158.0	0.00	0.00	
5,600.0	14.24	277.30	5,454.8	151.5	-1,182.4	-1,182.4	0.00	0.00	
5,700.0	14.24	277.30	5,551.7	154.6	-1,206.8	-1,206.8	0.00	0.00	
5,800.0	14.24	277.30	5,648.6	157.7	-1,231.2	-1,231.2	0.00	0.00	
5,900.0	14.24	277.30	5,745.6	160.9	-1,255.6	-1,255.6	0.00	0.00	
5,904.1	14.24	277.30	5,749.5	161.0	-1,256.6	-1,256.6	0.00	0.00	Start 8° build/turn @ 5904' MD
6,000.0	6.71	285.92	5,843.8	164.0	-1,273.7	-1,273.7	8.00	-7.85	
6,011.3	5.84	288.37	5,855.0	164.4	-1,274.9	-1,274.9	8.00	-7.64	Teepee Buttes
6,100.0	2.41	40.02	5,943.5	167.3	-1,278.0	-1,278.0	8.00	-3.87	
6,200.0	9.73	79.15	6,042.9	170.5	-1,268.3	-1,268.3	8.00	7.31	
6,300.0	17.64	84.18	6,140.0	173.6	-1,244.9	-1,244.9	8.00	7.92	
6,400.0	25.61	86.14	6,232.9	176.6	-1,208.2	-1,208.2	8.00	7.97	
6,474.1	31.53	86.99	6,298.0	178.7	-1,172.8	-1,172.8	8.00	7.98	Sharon Springs
6,500.0	33.60	87.22	6,319.8	179.4	-1,158.9	-1,158.9	8.00	7.99	
6,552.0	37.75	87.61	6,362.0	180.7	-1,128.7	-1,128.7	8.00	7.99	Niobrara
6,600.0	41.58	87.92	6,399.0	181.9	-1,098.0	-1,098.0	8.00	7.99	
6,700.0	49.58	88.43	6,468.9	184.2	-1,026.7	-1,026.7	8.00	7.99	
6,800.0	57.57	88.83	6,528.2	186.1	-946.3	-946.3	8.00	7.99	
6,900.0	65.56	89.16	6,575.8	187.6	-858.5	-858.5	8.00	7.99	
6,987.3	72.54	89.42	6,607.0	188.7	-777.0	-777.0	8.00	8.00	Ft. Hayes
7,000.0	73.56	89.45	6,610.7	188.8	-764.9	-764.9	8.00	8.00	
7,085.8	80.42	89.69	6,630.0	189.4	-681.3	-681.3	8.00	8.00	Codell
7,100.0	81.56	89.73	6,632.2	189.5	-667.3	-667.3	8.00	8.00	
7,200.0	89.55	89.99	6,640.0	189.7	-567.7	-567.7	8.00	8.00	
7,205.6	90.00	90.00	6,640.0	189.7	-562.1	-562.1	8.00	8.00	LP @ 7205' MD; 90°
7,300.0	90.00	90.00	6,640.0	189.7	-467.7	-467.7	0.00	0.00	
7,400.0	90.00	90.00	6,640.0	189.7	-367.7	-367.7	0.00	0.00	
7,500.0	90.00	90.00	6,640.0	189.7	-267.7	-267.7	0.00	0.00	
7,600.0	90.00	90.00	6,640.0	189.7	-167.7	-167.7	0.00	0.00	
7,700.0	90.00	90.00	6,640.0	189.7	-67.7	-67.7	0.00	0.00	
7,800.0	90.00	90.00	6,640.0	189.7	32.3	32.3	0.00	0.00	
7,900.0	90.00	90.00	6,640.0	189.7	132.3	132.3	0.00	0.00	
8,000.0	90.00	90.00	6,640.0	189.7	232.3	232.3	0.00	0.00	
8,100.0	90.00	90.00	6,640.0	189.7	332.3	332.3	0.00	0.00	
8,200.0	90.00	90.00	6,640.0	189.7	432.3	432.3	0.00	0.00	
8,300.0	90.00	90.00	6,640.0	189.7	532.3	532.3	0.00	0.00	
8,400.0	90.00	90.00	6,640.0	189.7	632.3	632.3	0.00	0.00	
8,500.0	90.00	90.00	6,640.0	189.7	732.3	732.3	0.00	0.00	
8,600.0	90.00	90.00	6,640.0	189.7	832.3	832.3	0.00	0.00	
8,700.0	90.00	90.00	6,640.0	189.7	932.3	932.3	0.00	0.00	
8,800.0	90.00	90.00	6,640.0	189.7	1,032.3	1,032.3	0.00	0.00	
8,900.0	90.00	90.00	6,640.0	189.7	1,132.3	1,132.3	0.00	0.00	
9,000.0	90.00	90.00	6,640.0	189.7	1,232.3	1,232.3	0.00	0.00	
9,100.0	90.00	90.00	6,640.0	189.7	1,332.3	1,332.3	0.00	0.00	

Planning Report

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Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2C-20H	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
9,200.0	90.00	90.00	6,640.0	189.7	1,432.3	1,432.3	0.00	0.00	
9,300.0	90.00	90.00	6,640.0	189.7	1,532.3	1,532.3	0.00	0.00	
9,400.0	90.00	90.00	6,640.0	189.7	1,632.3	1,632.3	0.00	0.00	
9,500.0	90.00	90.00	6,640.0	189.7	1,732.3	1,732.3	0.00	0.00	
9,600.0	90.00	90.00	6,640.0	189.7	1,832.3	1,832.3	0.00	0.00	
9,700.0	90.00	90.00	6,640.0	189.7	1,932.3	1,932.3	0.00	0.00	
9,800.0	90.00	90.00	6,640.0	189.7	2,032.3	2,032.3	0.00	0.00	
9,900.0	90.00	90.00	6,640.0	189.7	2,132.3	2,132.3	0.00	0.00	
10,000.0	90.00	90.00	6,640.0	189.7	2,232.3	2,232.3	0.00	0.00	
10,100.0	90.00	90.00	6,640.0	189.7	2,332.3	2,332.3	0.00	0.00	
10,200.0	90.00	90.00	6,640.0	189.7	2,432.3	2,432.3	0.00	0.00	
10,300.0	90.00	90.00	6,640.0	189.7	2,532.3	2,532.3	0.00	0.00	
10,400.0	90.00	90.00	6,640.0	189.7	2,632.3	2,632.3	0.00	0.00	
10,500.0	90.00	90.00	6,640.0	189.7	2,732.3	2,732.3	0.00	0.00	
10,600.0	90.00	90.00	6,640.0	189.7	2,832.3	2,832.3	0.00	0.00	
10,700.0	90.00	90.00	6,640.0	189.7	2,932.3	2,932.3	0.00	0.00	
10,800.0	90.00	90.00	6,640.0	189.7	3,032.3	3,032.3	0.00	0.00	
10,900.0	90.00	90.00	6,640.0	189.7	3,132.3	3,132.3	0.00	0.00	
11,000.0	90.00	90.00	6,640.0	189.7	3,232.3	3,232.3	0.00	0.00	
11,100.0	90.00	90.00	6,640.0	189.7	3,332.3	3,332.3	0.00	0.00	
11,200.0	90.00	90.00	6,640.0	189.7	3,432.3	3,432.3	0.00	0.00	
11,300.0	90.00	90.00	6,640.0	189.7	3,532.3	3,532.3	0.00	0.00	
11,400.0	90.00	90.00	6,640.0	189.7	3,632.3	3,632.3	0.00	0.00	
11,405.6	90.00	90.00	6,640.0	189.7	3,637.9	3,637.9	0.00	0.00	TD at 11405.6 - State Peterson 2C-20H PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
State Peterson 2C-20H I - plan hits target center - Point	0.00	0.00	6,640.0	189.7	3,637.9	1,386,261.84	3,291,851.01	40.388950	-104.452270

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
128.0	128.0	Base of Fox Hills			
4,174.4	4,073.0	Sussex			
4,375.6	4,268.0	Sussex Marker			
4,747.0	4,628.0	Shannon			
6,011.3	5,855.0	Teepee Buttes			
6,474.1	6,298.0	Sharon Springs			
6,552.0	6,362.0	Niobrara			
6,987.3	6,607.0	Ft. Hayes			
7,085.8	6,630.0	Codell			

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2C-20H	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)	
400.0	400.0	0.0	0.0	KOP @ 400'
1,112.0	1,104.7	11.2	-87.3	EOB; Inc=14.24°
5,904.1	5,749.5	161.0	-1,256.6	Start 8° build/turn @ 5904' MD
7,205.6	6,640.0	189.7	-562.1	LP @ 7205' MD; 90°
11,405.6	6,640.0	189.7	3,637.9	TD at 11405.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S20-T5N-R63W (State Peterson)

State Peterson 2C-20H

Hz

Plan #1

Anticollision Report

07 December, 2012

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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	12/7/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,405.6	Plan #1 (Hz)	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						
S20-T5N-R63W (State Peterson)						
NORDLOH 2 - DD - Plan #1						Out of range
STATE PETERSON 1 (EXISTING) - Existing - Existing	10,723.7	6,690.0	296.4	198.5	3.026	CC, ES, SF
STATE PETERSON 11-20 (EXISTING) - Existing - Existin	7,100.0	6,627.2	451.1	422.5	15.768	SF
STATE PETERSON 11-20 (EXISTING) - Existing - Existin	7,113.5	6,629.1	450.9	422.4	15.800	CC, ES
STATE PETERSON 1-20 (EXISTING) - Existing - Existin	400.0	387.0	42.0	40.6	31.073	CC, ES
STATE PETERSON 1-20 (EXISTING) - Existing - Existin	7,809.5	6,627.0	193.7	161.5	6.015	SF
STATE PETERSON 12-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 21-20 (EXISTING) - Existing - Existi	8,425.6	6,635.0	456.2	412.3	10.397	CC, ES
STATE PETERSON 21-20 (EXISTING) - Existing - Existi	8,500.0	6,635.0	462.2	416.7	10.164	SF
STATE PETERSON 22-20 (EXISTING) - Existing - Existi						Out of range
State Peterson 2A-20H - Hz - Plan #1	200.0	200.0	18.2	17.6	27.911	CC, ES
State Peterson 2A-20H - Hz - Plan #1	3,900.0	3,856.7	486.2	455.6	15.872	SF
State Peterson 2B-20H - Hz - Plan #1	300.0	300.0	10.9	9.9	10.909	CC, ES
State Peterson 2B-20H - Hz - Plan #1	6,300.0	6,274.8	200.1	150.0	4.000	SF
State Peterson 2D-20H - Hz - Plan #1	400.0	400.0	10.9	9.6	8.090	CC, ES
State Peterson 2D-20H - Hz - Plan #1	600.0	600.0	13.2	11.1	6.383	SF
State Peterson 2E-20H - Hz - Plan #1	300.0	300.0	21.9	20.9	21.818	CC, ES
State Peterson 2E-20H - Hz - Plan #1	600.0	598.4	30.3	28.2	14.450	SF
State Peterson 2F-20H - Hz - Plan #1	200.0	200.0	29.1	28.5	44.647	CC, ES
State Peterson 2F-20H - Hz - Plan #1	3,000.0	2,942.9	499.6	477.8	22.914	SF
STATE PETERSON 31-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 32-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 41-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 42-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 4-2-20 (EXISTING) - Existing - Exist	9,317.8	6,649.0	181.7	117.5	2.832	CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - STATE PETERSON 1 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-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		
10,400.0	6,640.0	6,690.0	6,690.0	78.5	11.7	-90.00	486.1	2,956.0	438.9	348.8	90.11	4.871		
10,500.0	6,640.0	6,690.0	6,690.0	80.9	11.7	-90.00	486.1	2,956.0	371.4	278.8	92.53	4.013		
10,600.0	6,640.0	6,690.0	6,690.0	83.3	11.7	-90.00	486.1	2,956.0	321.2	226.2	94.96	3.382		
10,700.0	6,640.0	6,690.0	6,690.0	85.8	11.7	-90.00	486.1	2,956.0	297.4	200.0	97.39	3.054		
10,723.7	6,640.0	6,690.0	6,690.0	86.3	11.7	-90.00	486.1	2,956.0	296.4	198.5	97.96	3.026 CC, ES, SF		
10,800.0	6,640.0	6,690.0	6,690.0	88.2	11.7	-90.00	486.1	2,956.0	306.1	206.3	99.82	3.067		
10,900.0	6,640.0	6,690.0	6,690.0	90.6	11.7	-90.00	486.1	2,956.0	344.9	242.7	102.25	3.373		
11,000.0	6,640.0	6,690.0	6,690.0	93.1	11.7	-90.00	486.1	2,956.0	405.3	300.6	104.69	3.871		
11,100.0	6,640.0	6,690.0	6,690.0	95.5	11.7	-90.00	486.1	2,956.0	479.1	371.9	107.12	4.472		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - STATE PETERSON 11-20 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft
Survey Program: 0-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	
6,900.0	6,575.8	6,570.8	6,570.8	19.3	11.5	-79.10	640.4	-655.7	496.1	465.9	30.26	16.398	
7,000.0	6,610.7	6,605.7	6,605.7	18.2	11.5	-85.92	640.4	-655.7	464.7	435.3	29.42	15.795	
7,100.0	6,632.2	6,627.2	6,627.2	17.3	11.6	-89.74	640.4	-655.7	451.1	422.5	28.61	15.768 SF	
7,113.5	6,634.1	6,629.1	6,629.1	17.2	11.6	-90.00	640.4	-655.7	450.9	422.4	28.54	15.800 CC, ES	
7,200.0	6,640.0	6,635.0	6,635.0	16.7	11.6	-90.09	640.4	-655.7	459.2	431.2	28.09	16.351	
7,300.0	6,640.0	6,635.0	6,635.0	16.5	11.6	-90.00	640.4	-655.7	488.4	460.5	27.90	17.503	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - STATE PETERSON 1-20 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-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	95.48	-4.0	41.8	43.9					
100.0	100.0	87.0	87.0	0.2	0.2	95.48	-4.0	41.8	42.0	41.7	0.30	138.208		
200.0	200.0	187.0	187.0	0.3	0.3	95.48	-4.0	41.8	42.0	41.3	0.65	64.305		
300.0	300.0	287.0	287.0	0.5	0.5	95.48	-4.0	41.8	42.0	41.0	1.00	41.899		
400.0	400.0	387.0	387.0	0.7	0.7	95.48	-4.0	41.8	42.0	40.6	1.35	31.073 CC, ES		
500.0	500.0	487.0	487.0	0.9	0.8	178.25	-4.0	41.8	43.7	42.0	1.70	25.729		
600.0	599.8	586.8	586.8	1.0	1.0	178.43	-4.0	41.8	49.0	46.9	2.05	23.927		
700.0	699.5	686.5	686.5	1.3	1.2	178.67	-4.0	41.8	57.7	55.3	2.39	24.127		
800.0	798.7	785.7	785.7	1.5	1.4	178.89	-4.0	41.8	69.8	67.1	2.73	25.576		
900.0	897.5	884.5	884.5	1.8	1.5	179.09	-4.0	41.8	85.5	82.4	3.07	27.863		
1,000.0	995.6	982.6	982.6	2.2	1.7	179.25	-4.0	41.8	104.6	101.2	3.40	30.747		
1,100.0	1,093.1	1,080.1	1,080.1	2.6	1.9	179.38	-4.0	41.8	127.1	123.3	3.73	34.079		
1,200.0	1,190.0	1,177.0	1,177.0	3.0	2.1	179.48	-4.0	41.8	151.6	147.6	4.07	37.266		
1,300.0	1,286.9	1,273.9	1,273.9	3.4	2.2	179.55	-4.0	41.8	176.2	171.8	4.41	39.949		
1,400.0	1,383.8	1,370.8	1,370.8	3.9	2.4	179.61	-4.0	41.8	200.8	196.1	4.75	42.247		
1,500.0	1,480.8	1,467.8	1,467.8	4.3	2.6	179.65	-4.0	41.8	225.4	220.3	5.10	44.236		
1,600.0	1,577.7	1,564.7	1,564.7	4.8	2.7	179.68	-4.0	41.8	250.0	244.6	5.44	45.977		
1,700.0	1,674.6	1,661.6	1,661.6	5.3	2.9	179.71	-4.0	41.8	274.6	268.8	5.78	47.511		
1,800.0	1,771.6	1,758.6	1,758.6	5.7	3.1	179.74	-4.0	41.8	299.2	293.1	6.12	48.875		
1,900.0	1,868.5	1,855.5	1,855.5	6.2	3.2	179.76	-4.0	41.8	323.8	317.4	6.46	50.095		
2,000.0	1,965.4	1,952.4	1,952.4	6.7	3.4	179.77	-4.0	41.8	348.4	341.6	6.81	51.193		
2,100.0	2,062.3	2,049.3	2,049.3	7.1	3.6	179.79	-4.0	41.8	373.0	365.9	7.15	52.185		
2,200.0	2,159.3	2,146.3	2,146.3	7.6	3.7	179.80	-4.0	41.8	397.6	390.1	7.49	53.088		
2,300.0	2,256.2	2,243.2	2,243.2	8.1	3.9	179.81	-4.0	41.8	422.2	414.4	7.83	53.912		
2,400.0	2,353.1	2,340.1	2,340.1	8.5	4.1	179.82	-4.0	41.8	446.8	438.7	8.17	54.667		
2,500.0	2,450.0	2,437.0	2,437.0	9.0	4.3	179.83	-4.0	41.8	471.4	462.9	8.52	55.362		
2,600.0	2,547.0	2,534.0	2,534.0	9.5	4.4	179.84	-4.0	41.8	496.0	487.2	8.86	56.003		
7,400.0	6,640.0	6,627.0	6,627.0	16.6	11.6	90.00	-4.0	41.8	453.0	424.9	28.08	16.133		
7,500.0	6,640.0	6,627.0	6,627.0	17.1	11.6	90.00	-4.0	41.8	365.1	336.5	28.63	12.754		
7,600.0	6,640.0	6,627.0	6,627.0	17.9	11.6	90.00	-4.0	41.8	285.3	255.8	29.50	9.671		
7,700.0	6,640.0	6,627.0	6,627.0	19.1	11.6	90.00	-4.0	41.8	222.5	191.8	30.66	7.257		
7,800.0	6,640.0	6,627.0	6,627.0	20.5	11.6	90.00	-4.0	41.8	194.0	161.9	32.05	6.051		
7,809.5	6,640.0	6,627.0	6,627.0	20.7	11.6	90.00	-4.0	41.8	193.7	161.5	32.20	6.015 SF		
7,900.0	6,640.0	6,627.0	6,627.0	22.1	11.6	90.00	-4.0	41.8	213.8	180.2	33.64	6.357		
8,000.0	6,640.0	6,627.0	6,627.0	23.9	11.6	90.00	-4.0	41.8	271.7	236.4	35.37	7.681		
8,100.0	6,640.0	6,627.0	6,627.0	25.7	11.6	90.00	-4.0	41.8	349.2	312.0	37.23	9.379		
8,200.0	6,640.0	6,627.0	6,627.0	27.7	11.6	90.00	-4.0	41.8	436.0	396.8	39.19	11.125		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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													S20-T5N-R63W (State Peterson) - STATE PETERSON 21-20 (EXISTING) - Existing - Existing		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD															Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance											
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	Warning					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)								
8,300.0	6,640.0	6,635.0	6,635.0	29.7	11.6	-90.00	645.9	657.9	473.2	431.9	41.23	11.476						
8,400.0	6,640.0	6,635.0	6,635.0	31.8	11.6	-90.00	645.9	657.9	456.9	413.6	43.33	10.545						
8,425.6	6,640.0	6,635.0	6,635.0	32.4	11.6	-90.00	645.9	657.9	456.2	412.3	43.88	10.397 CC, ES						
8,500.0	6,640.0	6,635.0	6,635.0	34.0	11.6	-90.00	645.9	657.9	462.2	416.7	45.47	10.164 SF						
8,600.0	6,640.0	6,635.0	6,635.0	36.2	11.6	-90.00	645.9	657.9	488.4	440.7	47.66	10.247						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2A-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	18.2	0.0	18.2	17.9	0.30	59.992		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.65	27.911	CC, ES	
300.0	300.0	299.6	299.6	0.5	0.5	-4.15	19.2	-1.4	19.3	18.3	1.00	19.238		
400.0	400.0	398.9	398.8	0.7	0.7	-14.02	22.3	-5.6	23.0	21.7	1.37	16.848		
500.0	500.0	497.9	497.4	0.9	0.9	60.95	27.4	-12.5	29.3	27.6	1.72	17.046		
600.0	599.8	596.6	595.4	1.0	1.2	57.99	34.4	-22.1	37.1	35.0	2.10	17.693		
700.0	699.5	695.0	692.5	1.3	1.5	57.63	43.4	-34.4	46.0	43.5	2.51	18.381		
800.0	798.7	792.9	788.7	1.5	1.9	58.63	54.4	-49.3	56.1	53.2	2.97	18.918		
900.0	897.5	890.5	883.8	1.8	2.3	60.31	67.2	-66.8	67.4	63.9	3.51	19.227		
1,000.0	995.6	987.6	977.7	2.2	2.7	62.29	81.8	-86.8	79.9	75.8	4.14	19.298		
1,100.0	1,093.1	1,085.1	1,071.1	2.6	3.2	64.45	98.3	-109.2	93.5	88.6	4.88	19.149		
1,200.0	1,190.0	1,184.1	1,165.8	3.0	3.8	67.07	115.4	-132.5	107.0	101.3	5.72	18.714		
1,300.0	1,286.9	1,283.1	1,260.5	3.4	4.3	69.14	132.5	-155.9	120.6	114.0	6.58	18.328		
1,400.0	1,383.8	1,382.1	1,355.1	3.9	4.8	70.79	149.6	-179.2	134.3	126.8	7.46	18.001		
1,500.0	1,480.8	1,481.0	1,449.8	4.3	5.4	72.13	166.7	-202.5	148.1	139.7	8.36	17.726		
1,600.0	1,577.7	1,580.0	1,544.5	4.8	5.9	73.24	183.8	-225.8	162.0	152.7	9.26	17.494		
1,700.0	1,674.6	1,679.0	1,639.2	5.3	6.5	74.18	200.9	-249.2	175.9	165.7	10.17	17.297		
1,800.0	1,771.6	1,778.0	1,733.8	5.7	7.0	74.98	218.0	-272.5	189.9	178.8	11.09	17.128		
1,900.0	1,868.5	1,877.0	1,828.5	6.2	7.5	75.67	235.1	-295.8	203.9	191.9	12.01	16.982		
2,000.0	1,965.4	1,976.0	1,923.2	6.7	8.1	76.27	252.2	-319.1	217.9	205.0	12.93	16.855		
2,100.0	2,062.3	2,075.0	2,017.8	7.1	8.6	76.80	269.3	-342.4	231.9	218.1	13.85	16.744		
2,200.0	2,159.3	2,174.0	2,112.5	7.6	9.2	77.27	286.4	-365.8	246.0	231.2	14.78	16.646		
2,300.0	2,256.2	2,272.9	2,207.2	8.1	9.7	77.69	303.5	-389.1	260.1	244.4	15.71	16.559		
2,400.0	2,353.1	2,371.9	2,301.8	8.5	10.2	78.06	320.6	-412.4	274.2	257.5	16.64	16.481		
2,500.0	2,450.0	2,470.9	2,396.5	9.0	10.8	78.40	337.7	-435.7	288.3	270.7	17.57	16.412		
2,600.0	2,547.0	2,569.9	2,491.2	9.5	11.3	78.70	354.8	-459.0	302.4	283.9	18.50	16.348		
2,700.0	2,643.9	2,668.9	2,585.8	10.0	11.9	78.98	371.9	-482.4	316.5	297.1	19.43	16.291		
2,800.0	2,740.8	2,767.9	2,680.5	10.4	12.4	79.24	389.0	-505.7	330.6	310.3	20.36	16.239		
2,900.0	2,837.7	2,866.9	2,775.2	10.9	13.0	79.47	406.1	-529.0	344.8	323.5	21.29	16.191		
3,000.0	2,934.7	2,965.9	2,869.9	11.4	13.5	79.69	423.2	-552.3	358.9	336.7	22.23	16.148		
3,100.0	3,031.6	3,064.8	2,964.5	11.9	14.1	79.89	440.3	-575.7	373.0	349.9	23.16	16.107		
3,200.0	3,128.5	3,163.8	3,059.2	12.3	14.6	80.07	457.4	-599.0	387.2	363.1	24.09	16.070		
3,300.0	3,225.5	3,262.8	3,153.9	12.8	15.2	80.24	474.5	-622.3	401.3	376.3	25.03	16.036		
3,400.0	3,322.4	3,361.8	3,248.5	13.3	15.7	80.41	491.6	-645.6	415.5	389.5	25.96	16.004		
3,500.0	3,419.3	3,460.8	3,343.2	13.7	16.2	80.55	508.7	-668.9	429.6	402.7	26.90	15.974		
3,600.0	3,516.2	3,559.8	3,437.9	14.2	16.8	80.69	525.8	-692.3	443.8	415.9	27.83	15.946		
3,700.0	3,613.2	3,658.8	3,532.5	14.7	17.3	80.83	542.9	-715.6	457.9	429.2	28.76	15.920		
3,800.0	3,710.1	3,757.8	3,627.2	15.2	17.9	80.95	560.0	-738.9	472.1	442.4	29.70	15.895		
3,900.0	3,807.0	3,856.7	3,721.9	15.6	18.4	81.07	577.0	-762.2	486.2	455.6	30.63	15.872	SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2B-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.30	35.987		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.743		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	9.9	1.00	10.909 CC, ES		
400.0	400.0	399.9	399.8	0.7	0.7	-8.31	11.4	-1.7	11.5	10.2	1.35	8.542		
500.0	500.0	499.6	499.4	0.9	0.9	61.37	12.9	-6.7	13.6	11.9	1.71	7.946		
600.0	599.8	599.1	598.6	1.0	1.1	53.43	15.3	-15.0	16.6	14.5	2.09	7.942		
700.0	699.5	698.6	697.3	1.3	1.3	49.13	18.8	-26.6	20.2	17.7	2.49	8.103		
800.0	798.7	797.9	795.4	1.5	1.6	47.12	23.1	-41.4	24.2	21.2	2.92	8.266		
900.0	897.5	897.1	892.8	1.8	2.0	46.52	28.5	-59.5	28.5	25.1	3.41	8.368		
1,000.0	995.6	996.5	989.8	2.2	2.4	47.13	34.7	-80.5	33.0	29.0	3.96	8.323		
1,100.0	1,093.1	1,096.5	1,087.1	2.6	2.8	51.18	41.1	-102.2	35.6	30.9	4.67	7.629		
1,200.0	1,190.0	1,196.4	1,184.4	3.0	3.2	57.38	47.5	-123.9	37.2	31.7	5.53	6.724		
1,300.0	1,286.9	1,296.3	1,281.7	3.4	3.7	63.04	53.9	-145.6	39.2	32.7	6.47	6.060		
1,400.0	1,383.8	1,396.2	1,379.0	3.9	4.1	68.12	60.3	-167.3	41.5	34.1	7.44	5.581		
1,500.0	1,480.8	1,496.1	1,476.4	4.3	4.5	72.63	66.7	-189.0	44.1	35.7	8.42	5.238		
1,600.0	1,577.7	1,596.0	1,573.7	4.8	4.9	76.61	73.1	-210.7	47.0	37.6	9.41	4.992		
1,700.0	1,674.6	1,695.9	1,671.0	5.3	5.4	80.12	79.5	-232.4	50.0	39.6	10.39	4.815		
1,800.0	1,771.6	1,795.8	1,768.3	5.7	5.8	83.22	85.8	-254.1	53.3	41.9	11.36	4.688		
1,900.0	1,868.5	1,895.7	1,865.6	6.2	6.2	85.95	92.2	-275.8	56.6	44.3	12.32	4.597		
2,000.0	1,965.4	1,995.6	1,962.9	6.7	6.7	88.38	98.6	-297.5	60.1	46.8	13.26	4.532		
2,100.0	2,062.3	2,095.5	2,060.2	7.1	7.1	90.54	105.0	-319.2	63.7	49.5	14.19	4.486		
2,200.0	2,159.3	2,195.5	2,157.6	7.6	7.6	92.46	111.4	-340.9	67.3	52.2	15.11	4.454		
2,300.0	2,256.2	2,295.4	2,254.9	8.1	8.0	94.19	117.8	-362.6	71.0	55.0	16.03	4.433		
2,400.0	2,353.1	2,395.3	2,352.2	8.5	8.4	95.74	124.2	-384.2	74.8	57.9	16.93	4.420		
2,500.0	2,450.0	2,495.2	2,449.5	9.0	8.9	97.15	130.6	-405.9	78.6	60.8	17.82	4.413		
2,600.0	2,547.0	2,595.1	2,546.8	9.5	9.3	98.42	137.0	-427.6	82.5	63.8	18.71	4.411		
2,700.0	2,643.9	2,695.0	2,644.1	10.0	9.7	99.58	143.4	-449.3	86.4	66.8	19.59	4.412		
2,800.0	2,740.8	2,794.9	2,741.5	10.4	10.2	100.63	149.8	-471.0	90.4	69.9	20.46	4.416		
2,900.0	2,837.7	2,894.8	2,838.8	10.9	10.6	101.60	156.2	-492.7	94.3	73.0	21.33	4.422		
3,000.0	2,934.7	2,994.7	2,936.1	11.4	11.1	102.49	162.6	-514.4	98.3	76.1	22.20	4.430		
3,100.0	3,031.6	3,094.6	3,033.4	11.9	11.5	103.31	169.0	-536.1	102.3	79.3	23.06	4.438		
3,200.0	3,128.5	3,194.5	3,130.7	12.3	11.9	104.07	175.4	-557.8	106.4	82.5	23.92	4.447		
3,300.0	3,225.5	3,294.5	3,228.0	12.8	12.4	104.77	181.8	-579.5	110.4	85.6	24.77	4.457		
3,400.0	3,322.4	3,394.4	3,325.3	13.3	12.8	105.43	188.2	-601.2	114.5	88.9	25.62	4.468		
3,500.0	3,419.3	3,494.3	3,422.7	13.7	13.2	106.04	194.6	-622.9	118.6	92.1	26.47	4.478		
3,600.0	3,516.2	3,594.2	3,520.0	14.2	13.7	106.60	201.0	-644.6	122.7	95.3	27.32	4.489		
3,700.0	3,613.2	3,694.1	3,617.3	14.7	14.1	107.13	207.4	-666.3	126.8	98.6	28.17	4.500		
3,800.0	3,710.1	3,794.0	3,714.6	15.2	14.6	107.63	213.8	-688.0	130.9	101.9	29.01	4.511		
3,900.0	3,807.0	3,893.9	3,811.9	15.6	15.0	108.10	220.2	-709.7	135.0	105.1	29.85	4.522		
4,000.0	3,903.9	3,993.8	3,909.2	16.1	15.4	108.54	226.6	-731.4	139.1	108.4	30.70	4.532		
4,100.0	4,000.9	4,093.7	4,006.6	16.6	15.9	108.95	233.0	-753.0	143.3	111.7	31.54	4.543		
4,200.0	4,097.8	4,193.6	4,103.9	17.1	16.3	109.34	239.4	-774.7	147.4	115.0	32.37	4.553		
4,300.0	4,194.7	4,293.6	4,201.2	17.5	16.8	109.71	245.8	-796.4	151.6	118.4	33.21	4.564		
4,400.0	4,291.7	4,393.5	4,298.5	18.0	17.2	110.06	252.2	-818.1	155.7	121.7	34.05	4.574		
4,500.0	4,388.6	4,493.4	4,395.8	18.5	17.6	110.40	258.6	-839.8	159.9	125.0	34.88	4.584		
4,600.0	4,485.5	4,593.3	4,493.1	19.0	18.1	110.71	265.0	-861.5	164.1	128.3	35.72	4.593		
4,700.0	4,582.4	4,693.2	4,590.4	19.4	18.5	111.01	271.3	-883.2	168.2	131.7	36.55	4.603		
4,800.0	4,679.4	4,793.1	4,687.8	19.9	19.0	111.29	277.7	-904.9	172.4	135.0	37.38	4.612		
4,900.0	4,776.3	4,893.0	4,785.1	20.4	19.4	111.56	284.1	-926.6	176.6	138.4	38.22	4.621		
5,000.0	4,873.2	4,992.9	4,882.4	20.9	19.8	111.82	290.5	-948.3	180.8	141.7	39.05	4.630		
5,100.0	4,970.1	5,092.8	4,979.7	21.3	20.3	112.07	296.9	-970.0	185.0	145.1	39.88	4.638		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2B-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	5,067.1	5,192.7	5,077.0	21.8	20.7	112.31	303.3	-991.7	189.2	148.4	40.71	4.646		
5,300.0	5,164.0	5,292.6	5,174.3	22.3	21.2	112.53	309.7	-1,013.4	193.4	151.8	41.54	4.655		
5,400.0	5,260.9	5,392.6	5,271.7	22.8	21.6	112.75	316.1	-1,035.1	197.6	155.2	42.37	4.663		
5,500.0	5,357.8	5,492.5	5,369.0	23.2	22.0	112.96	322.5	-1,056.8	201.8	158.6	43.20	4.670		
5,600.0	5,454.8	5,592.4	5,466.3	23.7	22.5	113.15	328.9	-1,078.5	206.0	161.9	44.03	4.678		
5,700.0	5,551.7	5,692.3	5,563.6	24.2	22.9	113.35	335.3	-1,100.2	210.2	165.3	44.86	4.685		
5,800.0	5,648.6	5,792.2	5,660.9	24.7	23.4	113.53	341.7	-1,121.8	214.4	168.7	45.68	4.693		
5,900.0	5,745.6	5,892.1	5,758.2	25.1	23.8	113.70	348.1	-1,143.5	218.6	172.1	46.51	4.700		
6,000.0	5,843.8	5,991.9	5,855.4	25.4	24.2	104.01	354.5	-1,165.2	219.5	172.0	47.53	4.619		
6,100.0	5,943.5	6,090.2	5,951.2	25.5	24.7	-14.77	360.8	-1,186.6	214.2	165.3	48.91	4.379		
6,200.0	6,042.9	6,185.1	6,043.7	25.4	25.1	-62.23	366.9	-1,207.2	205.7	155.6	50.09	4.107		
6,300.0	6,140.0	6,274.8	6,131.0	25.1	25.5	-78.68	372.6	-1,226.6	200.1	150.0	50.02	4.000 SF		
6,312.7	6,152.1	6,285.8	6,141.7	25.0	25.5	-80.61	373.3	-1,229.0	200.0	150.1	49.86	4.011		
6,400.0	6,232.9	6,357.5	6,211.6	24.5	25.8	-93.18	377.9	-1,244.6	205.7	157.8	47.94	4.291		
6,500.0	6,319.8	6,431.6	6,283.7	23.7	26.2	-105.20	382.7	-1,260.7	230.2	185.7	44.50	5.172		
6,600.0	6,399.0	6,507.7	6,358.2	22.7	26.5	-115.29	387.5	-1,275.6	274.7	234.2	40.50	6.784		
6,700.0	6,468.9	6,599.0	6,448.8	21.6	26.6	-124.30	393.5	-1,283.7	332.0	295.9	36.18	9.177		
6,800.0	6,528.2	6,707.0	6,556.4	20.4	26.6	-132.02	400.6	-1,278.2	396.1	364.0	32.09	12.345		
6,900.0	6,575.8	6,844.1	6,689.7	19.3	26.2	-139.20	409.3	-1,248.0	462.4	434.3	28.14	16.434		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2D-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis	Factor		
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	0.2	0.2	180.00	-10.9	0.0	10.9	10.6	0.30	35.987		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.65	16.743		
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-10.9	0.0	10.9	9.9	1.00	10.909		
400.0	400.0	400.0	400.0	0.7	0.7	180.00	-10.9	0.0	10.9	9.6	1.35	8.090 CC, ES		
500.0	500.0	500.0	500.0	0.9	0.8	-106.12	-10.9	0.0	11.3	9.6	1.70	6.630		
600.0	599.8	600.0	600.0	1.0	1.0	-120.54	-11.2	-1.7	13.2	11.1	2.06	6.383 SF		
700.0	699.5	700.1	699.9	1.3	1.2	-129.00	-12.0	-6.9	16.5	14.1	2.44	6.759		
800.0	798.7	800.2	799.7	1.5	1.4	-132.88	-13.4	-15.5	20.9	18.0	2.85	7.320		
900.0	897.5	900.5	899.2	1.8	1.7	-134.06	-15.3	-27.6	26.1	22.8	3.31	7.876		
1,000.0	995.6	1,000.8	998.2	2.2	2.0	-133.74	-17.8	-43.1	32.1	28.3	3.85	8.342		
1,100.0	1,093.1	1,101.1	1,096.7	2.6	2.3	-132.64	-20.9	-62.0	38.9	34.5	4.48	8.684		
1,200.0	1,190.0	1,201.1	1,194.3	3.0	2.7	-130.66	-24.3	-83.7	46.0	40.7	5.20	8.829		
1,300.0	1,286.9	1,300.8	1,291.5	3.4	3.1	-128.96	-27.8	-105.6	52.9	46.9	5.96	8.869		
1,400.0	1,383.8	1,400.6	1,388.8	3.9	3.5	-127.64	-31.3	-127.5	59.9	53.1	6.75	8.876		
1,500.0	1,480.8	1,500.3	1,486.0	4.3	3.9	-126.61	-34.8	-149.4	66.9	59.3	7.54	8.867		
1,600.0	1,577.7	1,600.1	1,583.3	4.8	4.3	-125.77	-38.4	-171.3	73.9	65.5	8.35	8.850		
1,700.0	1,674.6	1,699.8	1,680.5	5.3	4.7	-125.07	-41.9	-193.2	80.9	71.8	9.17	8.830		
1,800.0	1,771.6	1,799.6	1,777.8	5.7	5.1	-124.49	-45.4	-215.1	88.0	78.0	9.99	8.808		
1,900.0	1,868.5	1,899.3	1,875.0	6.2	5.5	-123.99	-48.9	-237.0	95.0	84.2	10.82	8.787		
2,000.0	1,965.4	1,999.1	1,972.3	6.7	6.0	-123.56	-52.4	-258.9	102.1	90.4	11.65	8.766		
2,100.0	2,062.3	2,098.8	2,069.5	7.1	6.4	-123.19	-55.9	-280.8	109.1	96.7	12.48	8.746		
2,200.0	2,159.3	2,198.6	2,166.8	7.6	6.8	-122.86	-59.4	-302.7	116.2	102.9	13.32	8.728		
2,300.0	2,256.2	2,298.3	2,264.0	8.1	7.2	-122.57	-62.9	-324.6	123.3	109.1	14.15	8.711		
2,400.0	2,353.1	2,398.1	2,361.3	8.5	7.7	-122.32	-66.4	-346.5	130.4	115.4	14.99	8.695		
2,500.0	2,450.0	2,497.8	2,458.5	9.0	8.1	-122.08	-69.9	-368.4	137.4	121.6	15.83	8.680		
2,600.0	2,547.0	2,597.6	2,555.8	9.5	8.5	-121.87	-73.4	-390.3	144.5	127.8	16.68	8.666		
2,700.0	2,643.9	2,697.3	2,653.0	10.0	9.0	-121.69	-76.9	-412.2	151.6	134.1	17.52	8.653		
2,800.0	2,740.8	2,797.1	2,750.3	10.4	9.4	-121.51	-80.4	-434.1	158.7	140.3	18.36	8.641		
2,900.0	2,837.7	2,896.8	2,847.5	10.9	9.8	-121.35	-83.9	-456.0	165.8	146.5	19.21	8.630		
3,000.0	2,934.7	2,996.6	2,944.8	11.4	10.2	-121.21	-87.4	-477.9	172.8	152.8	20.05	8.619		
3,100.0	3,031.6	3,096.3	3,042.0	11.9	10.7	-121.08	-90.9	-499.8	179.9	159.0	20.90	8.609		
3,200.0	3,128.5	3,196.1	3,139.3	12.3	11.1	-120.95	-94.5	-521.6	187.0	165.3	21.75	8.600		
3,300.0	3,225.5	3,295.8	3,236.5	12.8	11.5	-120.84	-98.0	-543.5	194.1	171.5	22.59	8.591		
3,400.0	3,322.4	3,395.5	3,333.8	13.3	12.0	-120.73	-101.5	-565.4	201.2	177.7	23.44	8.583		
3,500.0	3,419.3	3,495.3	3,431.0	13.7	12.4	-120.63	-105.0	-587.3	208.3	184.0	24.29	8.575		
3,600.0	3,516.2	3,595.0	3,528.3	14.2	12.8	-120.54	-108.5	-609.2	215.4	190.2	25.14	8.568		
3,700.0	3,613.2	3,694.8	3,625.5	14.7	13.3	-120.45	-112.0	-631.1	222.4	196.5	25.98	8.561		
3,800.0	3,710.1	3,794.5	3,722.8	15.2	13.7	-120.37	-115.5	-653.0	229.5	202.7	26.83	8.555		
3,900.0	3,807.0	3,894.3	3,820.0	15.6	14.1	-120.30	-119.0	-674.9	236.6	208.9	27.68	8.548		
4,000.0	3,903.9	3,994.0	3,917.3	16.1	14.5	-120.22	-122.5	-696.8	243.7	215.2	28.53	8.543		
4,100.0	4,000.9	4,093.8	4,014.6	16.6	15.0	-120.16	-126.0	-718.7	250.8	221.4	29.38	8.537		
4,200.0	4,097.8	4,193.5	4,111.8	17.1	15.4	-120.09	-129.5	-740.6	257.9	227.7	30.23	8.532		
4,300.0	4,194.7	4,293.3	4,209.1	17.5	15.8	-120.03	-133.0	-762.5	265.0	233.9	31.08	8.527		
4,400.0	4,291.7	4,393.0	4,306.3	18.0	16.3	-119.97	-136.5	-784.4	272.1	240.2	31.93	8.522		
4,500.0	4,388.6	4,492.8	4,403.6	18.5	16.7	-119.92	-140.0	-806.3	279.2	246.4	32.78	8.517		
4,600.0	4,485.5	4,592.5	4,500.8	19.0	17.1	-119.87	-143.5	-828.2	286.3	252.6	33.63	8.513		
4,700.0	4,582.4	4,692.3	4,598.1	19.4	17.6	-119.82	-147.0	-850.1	293.4	258.9	34.48	8.509		
4,800.0	4,679.4	4,792.0	4,695.3	19.9	18.0	-119.77	-150.5	-872.0	300.4	265.1	35.33	8.505		
4,900.0	4,776.3	4,891.8	4,792.6	20.4	18.4	-119.72	-154.1	-893.9	307.5	271.4	36.18	8.501		
5,000.0	4,873.2	4,991.5	4,889.8	20.9	18.9	-119.68	-157.6	-915.8	314.6	277.6	37.03	8.497		
5,100.0	4,970.1	5,091.3	4,987.1	21.3	19.3	-119.64	-161.1	-937.7	321.7	283.8	37.88	8.494		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2D-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	5,067.1	5,191.0	5,084.3	21.8	19.7	-119.60	-164.6	-959.6	328.8	290.1	38.73	8.490		
5,300.0	5,164.0	5,290.8	5,181.6	22.3	20.2	-119.56	-168.1	-981.5	335.9	296.3	39.58	8.487		
5,400.0	5,260.9	5,390.5	5,278.8	22.8	20.6	-119.53	-171.6	-1,003.4	343.0	302.6	40.43	8.484		
5,500.0	5,357.8	5,490.3	5,376.1	23.2	21.0	-119.49	-175.1	-1,025.3	350.1	308.8	41.28	8.481		
5,600.0	5,454.8	5,590.0	5,473.3	23.7	21.5	-119.46	-178.6	-1,047.2	357.2	315.1	42.13	8.478		
5,700.0	5,551.7	5,689.7	5,570.6	24.2	21.9	-119.43	-182.1	-1,069.1	364.3	321.3	42.98	8.475		
5,800.0	5,648.6	5,789.5	5,667.8	24.7	22.3	-119.40	-185.6	-1,091.0	371.4	327.5	43.83	8.473		
5,900.0	5,745.6	5,889.2	5,765.1	25.1	22.8	-119.37	-189.1	-1,112.9	378.5	333.8	44.68	8.470		
6,000.0	5,843.8	5,988.9	5,862.2	25.4	23.2	-127.27	-192.6	-1,134.7	383.2	337.6	45.60	8.404		
6,100.0	5,943.5	6,087.0	5,957.9	25.5	23.6	121.51	-196.1	-1,156.3	383.4	336.7	46.77	8.198		
6,200.0	6,042.9	6,181.6	6,050.2	25.4	24.0	87.21	-199.4	-1,177.1	381.0	333.1	47.95	7.947		
6,300.0	6,140.0	6,271.1	6,137.3	25.1	24.4	88.46	-202.5	-1,196.7	379.2	330.5	48.73	7.781		
6,302.2	6,142.1	6,272.9	6,139.2	25.0	24.4	88.55	-202.6	-1,197.1	379.2	330.5	48.74	7.780		
6,400.0	6,232.9	6,353.5	6,217.7	24.5	24.8	93.38	-205.4	-1,214.8	382.4	333.6	48.78	7.839		
6,500.0	6,319.8	6,427.2	6,289.6	23.7	25.1	98.73	-208.0	-1,231.0	395.2	347.2	48.00	8.233		
6,600.0	6,399.0	6,502.8	6,363.7	22.7	25.3	104.12	-210.7	-1,245.4	420.8	374.3	46.52	9.047		
6,700.0	6,468.9	6,589.1	6,449.6	21.6	25.5	109.51	-213.8	-1,252.4	458.0	413.6	44.39	10.317		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2E-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-21.9	0.0	21.9	21.6	0.30	71.975		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.2	0.65	33.486		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-21.9	0.0	21.9	20.9	1.00	21.818 CC, ES		
400.0	400.0	399.6	399.6	0.7	0.7	-176.05	-22.6	-1.6	22.7	21.3	1.35	16.779		
500.0	500.0	499.1	498.9	0.9	0.9	-87.02	-24.8	-6.2	25.5	23.8	1.71	14.876		
600.0	599.8	598.4	597.8	1.0	1.1	-83.53	-28.6	-14.0	30.3	28.2	2.10	14.450 SF		
700.0	699.5	697.4	696.1	1.3	1.3	-82.28	-33.7	-24.8	37.1	34.5	2.53	14.631		
800.0	798.7	796.1	793.7	1.5	1.6	-82.41	-40.3	-38.7	45.5	42.5	3.03	15.014		
900.0	897.5	894.5	890.2	1.8	2.0	-83.26	-48.4	-55.4	55.8	52.1	3.62	15.406		
1,000.0	995.6	992.5	985.7	2.2	2.4	-84.42	-57.8	-75.1	67.8	63.4	4.31	15.726		
1,100.0	1,093.1	1,090.7	1,080.7	2.6	2.8	-85.85	-68.5	-97.5	81.3	76.2	5.10	15.952		
1,200.0	1,190.0	1,189.6	1,176.3	3.0	3.3	-88.05	-79.5	-120.6	95.2	89.3	5.95	15.994		
1,300.0	1,286.9	1,288.6	1,272.0	3.4	3.8	-89.73	-90.6	-143.7	109.2	102.4	6.83	15.993		
1,400.0	1,383.8	1,387.6	1,367.6	3.9	4.3	-91.03	-101.6	-166.7	123.2	115.5	7.71	15.974		
1,500.0	1,480.8	1,486.6	1,463.2	4.3	4.7	-92.06	-112.6	-189.8	137.3	128.7	8.61	15.949		
1,600.0	1,577.7	1,585.5	1,558.8	4.8	5.2	-92.90	-123.7	-212.9	151.4	141.9	9.51	15.922		
1,700.0	1,674.6	1,684.5	1,654.4	5.3	5.7	-93.60	-134.7	-236.0	165.6	155.2	10.42	15.896		
1,800.0	1,771.6	1,783.5	1,750.0	5.7	6.2	-94.19	-145.8	-259.0	179.8	168.5	11.33	15.871		
1,900.0	1,868.5	1,882.4	1,845.6	6.2	6.7	-94.69	-156.8	-282.1	194.0	181.7	12.24	15.847		
2,000.0	1,965.4	1,981.4	1,941.3	6.7	7.1	-95.12	-167.8	-305.2	208.2	195.0	13.15	15.826		
2,100.0	2,062.3	2,080.4	2,036.9	7.1	7.6	-95.50	-178.9	-328.2	222.4	208.3	14.07	15.806		
2,200.0	2,159.3	2,179.4	2,132.5	7.6	8.1	-95.83	-189.9	-351.3	236.6	221.6	14.99	15.789		
2,300.0	2,256.2	2,278.3	2,228.1	8.1	8.6	-96.12	-200.9	-374.4	250.8	234.9	15.90	15.772		
2,400.0	2,353.1	2,377.3	2,323.7	8.5	9.1	-96.39	-212.0	-397.5	265.1	248.3	16.82	15.757		
2,500.0	2,450.0	2,476.3	2,419.3	9.0	9.6	-96.62	-223.0	-420.5	279.3	261.6	17.74	15.743		
2,600.0	2,547.0	2,575.3	2,514.9	9.5	10.1	-96.84	-234.0	-443.6	293.6	274.9	18.66	15.730		
2,700.0	2,643.9	2,674.2	2,610.6	10.0	10.5	-97.03	-245.1	-466.7	307.8	288.2	19.58	15.719		
2,800.0	2,740.8	2,773.2	2,706.2	10.4	11.0	-97.21	-256.1	-489.7	322.1	301.6	20.50	15.708		
2,900.0	2,837.7	2,872.2	2,801.8	10.9	11.5	-97.37	-267.1	-512.8	336.3	314.9	21.42	15.698		
3,000.0	2,934.7	2,971.2	2,897.4	11.4	12.0	-97.52	-278.2	-535.9	350.6	328.2	22.35	15.688		
3,100.0	3,031.6	3,070.1	2,993.0	11.9	12.5	-97.65	-289.2	-559.0	364.8	341.6	23.27	15.679		
3,200.0	3,128.5	3,169.1	3,088.6	12.3	13.0	-97.78	-300.2	-582.0	379.1	354.9	24.19	15.671		
3,300.0	3,225.5	3,268.1	3,184.2	12.8	13.5	-97.90	-311.3	-605.1	393.4	368.2	25.11	15.664		
3,400.0	3,322.4	3,367.1	3,279.8	13.3	14.0	-98.00	-322.3	-628.2	407.6	381.6	26.04	15.656		
3,500.0	3,419.3	3,466.0	3,375.5	13.7	14.4	-98.11	-333.3	-651.2	421.9	394.9	26.96	15.650		
3,600.0	3,516.2	3,565.0	3,471.1	14.2	14.9	-98.20	-344.4	-674.3	436.1	408.3	27.88	15.643		
3,700.0	3,613.2	3,664.0	3,566.7	14.7	15.4	-98.29	-355.4	-697.4	450.4	421.6	28.80	15.637		
3,800.0	3,710.1	3,763.0	3,662.3	15.2	15.9	-98.37	-366.4	-720.4	464.7	435.0	29.73	15.632		
3,900.0	3,807.0	3,861.9	3,757.9	15.6	16.4	-98.45	-377.5	-743.5	479.0	448.3	30.65	15.627		
4,000.0	3,903.9	3,960.9	3,853.5	16.1	16.9	-98.53	-388.5	-766.6	493.2	461.7	31.57	15.621		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 S20-T5N-R63W (State Peterson) - State Peterson 2F-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-29.1	0.0	29.1	28.8	0.30	95.966		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-29.1	0.0	29.1	28.5	0.65	44.647 CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	-177.46	-30.2	-1.3	30.3	29.3	1.00	30.206		
400.0	400.0	398.4	398.3	0.7	0.7	-170.91	-33.4	-5.4	33.9	32.6	1.36	24.970		
500.0	500.0	497.1	496.6	0.9	0.9	-82.40	-38.8	-12.0	40.5	38.8	1.72	23.486		
600.0	599.8	595.4	594.2	1.0	1.2	-79.98	-46.2	-21.2	49.6	47.5	2.11	23.483		
700.0	699.5	693.2	690.8	1.3	1.5	-79.69	-55.7	-33.0	60.9	58.3	2.54	23.979		
800.0	798.7	790.4	786.2	1.5	1.8	-80.56	-67.2	-47.2	74.4	71.4	3.03	24.549		
900.0	897.5	886.9	880.3	1.8	2.3	-81.97	-80.5	-63.9	90.1	86.5	3.60	25.006		
1,000.0	995.6	983.1	973.4	2.2	2.7	-83.60	-95.8	-82.8	108.1	103.8	4.27	25.318		
1,100.0	1,093.1	1,081.2	1,068.0	2.6	3.2	-85.93	-112.0	-103.0	126.8	121.7	5.04	25.127		
1,200.0	1,190.0	1,179.2	1,162.5	3.0	3.6	-88.76	-128.3	-123.2	145.6	139.7	5.88	24.749		
1,300.0	1,286.9	1,277.1	1,257.0	3.4	4.1	-90.98	-144.5	-143.4	164.6	157.9	6.74	24.434		
1,400.0	1,383.8	1,375.1	1,351.5	3.9	4.6	-92.74	-160.7	-163.5	183.9	176.3	7.60	24.179		
1,500.0	1,480.8	1,473.1	1,446.0	4.3	5.1	-94.16	-177.0	-183.7	203.3	194.8	8.48	23.972		
1,600.0	1,577.7	1,571.1	1,540.5	4.8	5.6	-95.34	-193.2	-203.9	222.8	213.4	9.36	23.802		
1,700.0	1,674.6	1,669.1	1,635.0	5.3	6.1	-96.33	-209.4	-224.0	242.3	232.1	10.24	23.662		
1,800.0	1,771.6	1,767.1	1,729.5	5.7	6.6	-97.17	-225.6	-244.2	262.0	250.8	11.13	23.545		
1,900.0	1,868.5	1,865.1	1,824.0	6.2	7.0	-97.89	-241.9	-264.4	281.6	269.6	12.01	23.446		
2,000.0	1,965.4	1,963.1	1,918.5	6.7	7.5	-98.52	-258.1	-284.5	301.4	288.5	12.90	23.361		
2,100.0	2,062.3	2,061.1	2,013.0	7.1	8.0	-99.07	-274.3	-304.7	321.1	307.3	13.79	23.288		
2,200.0	2,159.3	2,159.0	2,107.6	7.6	8.5	-99.56	-290.6	-324.9	340.9	326.2	14.68	23.224		
2,300.0	2,256.2	2,257.0	2,202.1	8.1	9.0	-99.99	-306.8	-345.1	360.7	345.1	15.57	23.168		
2,400.0	2,353.1	2,355.0	2,296.6	8.5	9.5	-100.38	-323.0	-365.2	380.5	364.0	16.46	23.119		
2,500.0	2,450.0	2,453.0	2,391.1	9.0	10.0	-100.73	-339.3	-385.4	400.3	382.9	17.35	23.075		
2,600.0	2,547.0	2,551.0	2,485.6	9.5	10.5	-101.05	-355.5	-405.6	420.1	401.9	18.24	23.036		
2,700.0	2,643.9	2,649.0	2,580.1	10.0	11.0	-101.33	-371.7	-425.7	440.0	420.8	19.13	23.000		
2,800.0	2,740.8	2,747.0	2,674.6	10.4	11.4	-101.60	-387.9	-445.9	459.8	439.8	20.02	22.969		
2,900.0	2,837.7	2,845.0	2,769.1	10.9	11.9	-101.84	-404.2	-466.1	479.7	458.8	20.91	22.940		
3,000.0	2,934.7	2,942.9	2,863.6	11.4	12.4	-102.06	-420.4	-486.2	499.6	477.8	21.80	22.914 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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													S20-T5N-R63W (State Peterson) - STATE PETERSON 4-2-20 (EXISTING) - Existing - Existing		Offset Site Error:		0.0 ft
Survey Program:													0-MWD	Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
8,900.0	6,640.0	6,649.0	6,649.0	42.9	11.6	90.00	8.1	1,550.2	455.6	401.2	54.44	8.369					
9,000.0	6,640.0	6,649.0	6,649.0	45.2	11.6	90.00	8.1	1,550.2	366.1	309.4	56.74	6.453					
9,100.0	6,640.0	6,649.0	6,649.0	47.5	11.6	90.00	8.1	1,550.2	283.6	224.6	59.05	4.803					
9,200.0	6,640.0	6,649.0	6,649.0	49.8	11.6	90.00	8.1	1,550.2	216.5	155.1	61.38	3.528					
9,300.0	6,640.0	6,649.0	6,649.0	52.2	11.6	90.00	8.1	1,550.2	182.5	118.8	63.73	2.864					
9,317.8	6,640.0	6,649.0	6,649.0	52.6	11.6	90.00	8.1	1,550.2	181.7	117.5	64.15	2.832	CC, ES, SF				
9,400.0	6,640.0	6,649.0	6,649.0	54.5	11.6	90.00	8.1	1,550.2	199.4	133.3	66.08	3.017					
9,500.0	6,640.0	6,649.0	6,649.0	56.9	11.6	90.00	8.1	1,550.2	257.2	188.8	68.45	3.758					
9,600.0	6,640.0	6,649.0	6,649.0	59.3	11.6	90.00	8.1	1,550.2	335.6	264.7	70.82	4.738					
9,700.0	6,640.0	6,649.0	6,649.0	61.7	11.6	90.00	8.1	1,550.2	423.1	349.9	73.20	5.780					

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2C-20H	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 @ 4592.0ft (Ensign)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: State Peterson 2C-20H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.67°

