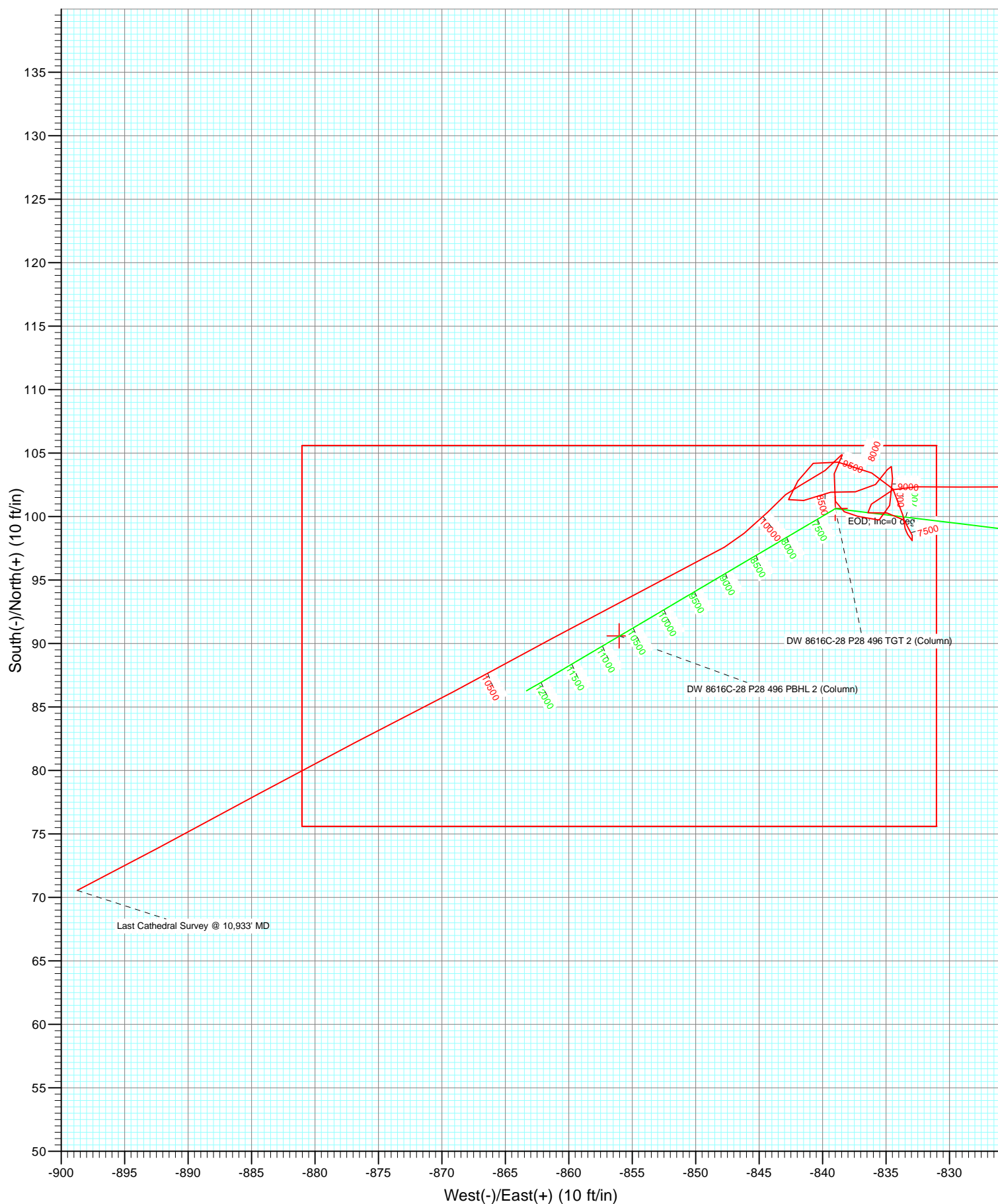


Azimuths to True North  
Magnetic North: 10.36°

Magnetic Field  
Strength: 52239.0snT  
Dip Angle: 65.83°  
Date: 2/15/2012  
Model: IGRF2010

DD DW 8616C-28 (P28 496) 115591/131755 (SH); LR							
KBE @ 7813.0ft (Patterson 308) North American Datum 1983 Well DW 8616C-28 (P28 496), True North							
Type Target	Target	Azimuth	Origin Type	N/S	E/W	From TVD	
	DW 8616C-28 P28 496 PBHL (Column)	276.04	Slot	0.0	0.0	0.0	
Name	TVD	+N/-S	+E/-W	Latitude		Longitude	
DW 8616C-28 P28 496 TGT 2 (Column)	7146.0	100.6	-839.0	39° 40' 5.29 N		108° 10' 7.39 W	
DW 8616C-28 P28 496 PBHL 2 (Column)	10726.0	90.6	-856.0	39° 40' 5.19 N		108° 10' 7.60 W	



## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well DW 8616C-28 (P28 496)
<b>Project:</b>	Double Willow	<b>TVD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>MD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Well:</b>	DW 8616C-28 (P28 496)	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	Double Willow		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

<b>Site</b>	S28-T4S-R96W (P28 496)(column pattern)			
<b>Site Position:</b>		<b>Northing:</b>	1,679,243.29 ft	<b>Latitude:</b> 39° 40' 5.13 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,249,687.54 ft	<b>Longitude:</b> 108° 9' 56.55 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.68 °

<b>Well</b>	DW 8616C-28 (P28 496)			
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,679,159.53 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	2,249,676.63 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b> 7,780.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2/15/2012	10.36	65.83	52,239

<b>Design</b>	DD			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b> 0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	276.04

<b>Survey Program</b>	<b>Date</b>	2/24/2012		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
173.0	10,933.0	Survey #1 (DD)	MWD	Geolink MWD

<b>Survey</b>									
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
173.0	0.70	247.00	173.0	-0.4	-1.0	0.9	0.40	0.40	
203.0	2.00	276.10	203.0	-0.4	-1.7	1.6	4.76	4.33	
232.0	1.90	249.40	232.0	-0.5	-2.6	2.5	3.12	-0.34	
262.0	2.80	269.00	261.9	-0.7	-3.8	3.7	3.98	3.00	
292.0	3.40	284.30	291.9	-0.5	-5.4	5.3	3.39	2.00	
321.0	4.00	292.90	320.8	0.1	-7.2	7.1	2.81	2.07	
352.0	4.60	296.20	351.8	1.1	-9.3	9.3	2.09	1.94	
383.0	4.40	300.40	382.7	2.2	-11.4	11.6	1.24	-0.65	
413.0	5.20	291.00	412.6	3.3	-13.7	14.0	3.73	2.67	
443.0	6.10	289.00	442.4	4.3	-16.5	16.8	3.07	3.00	
504.0	6.90	285.70	503.0	6.3	-23.1	23.6	1.45	1.31	
599.0	8.60	277.50	597.1	8.8	-35.6	36.3	2.13	1.79	

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well DW 8616C-28 (P28 496)
<b>Project:</b>	Double Willow	<b>TVD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>MD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Well:</b>	DW 8616C-28 (P28 496)	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
690.0	7.90	282.70	687.2	11.1	-48.4	49.3	1.12	-0.77	
782.0	8.40	276.00	778.3	13.2	-61.3	62.3	1.17	0.54	
873.0	8.20	265.00	868.3	13.3	-74.4	75.4	1.76	-0.22	
965.0	7.40	262.50	959.5	11.9	-86.8	87.6	0.94	-0.87	
1,056.0	6.70	268.80	1,049.8	11.1	-97.9	98.5	1.15	-0.77	
1,148.0	6.60	273.30	1,141.2	11.3	-108.5	109.1	0.58	-0.11	
1,239.0	7.60	279.70	1,231.5	12.6	-119.7	120.3	1.40	1.10	
1,331.0	7.40	280.70	1,322.7	14.7	-131.5	132.3	0.26	-0.22	
1,423.0	7.90	277.60	1,413.9	16.6	-143.6	144.6	0.70	0.54	
1,514.0	7.30	275.40	1,504.1	18.0	-155.6	156.6	0.73	-0.66	
1,606.0	7.10	277.20	1,595.3	19.3	-167.0	168.1	0.33	-0.22	
1,697.0	7.10	278.60	1,685.6	20.8	-178.2	179.4	0.19	0.00	
1,789.0	8.30	285.00	1,776.8	23.4	-190.2	191.6	1.60	1.30	
1,880.0	8.10	280.60	1,866.9	26.3	-202.8	204.5	0.72	-0.22	
1,972.0	8.00	270.80	1,958.0	27.5	-215.6	217.3	1.49	-0.11	
2,055.0	7.20	267.60	2,040.3	27.4	-226.6	228.2	1.09	-0.96	
2,167.0	5.50	255.30	2,151.6	25.7	-238.8	240.2	1.94	-1.52	
2,259.0	6.40	266.70	2,243.1	24.3	-248.2	249.4	1.61	0.98	
2,350.0	7.70	277.10	2,333.4	24.8	-259.3	260.5	2.00	1.43	
2,442.0	6.60	271.90	2,424.7	25.7	-270.7	271.9	1.39	-1.20	
2,533.0	8.50	288.40	2,514.9	28.0	-282.3	283.7	3.15	2.09	
2,625.0	8.50	288.90	2,605.9	32.4	-295.2	296.9	0.08	0.00	
2,716.0	7.90	289.10	2,696.0	36.6	-307.5	309.6	0.66	-0.66	
2,808.0	7.00	289.70	2,787.2	40.6	-318.7	321.2	0.98	-0.98	
2,899.0	8.30	289.90	2,877.4	44.7	-330.1	333.0	1.43	1.43	
2,991.0	8.80	278.80	2,968.3	48.0	-343.3	346.4	1.87	0.54	
3,082.0	7.40	275.80	3,058.4	49.7	-356.0	359.3	1.61	-1.54	
3,174.0	6.40	273.20	3,149.8	50.5	-367.0	370.3	1.14	-1.09	
3,265.0	7.20	265.20	3,240.1	50.3	-377.8	381.0	1.36	0.88	
3,356.0	8.80	271.50	3,330.2	50.1	-390.4	393.5	2.00	1.76	
3,448.0	8.30	269.40	3,421.2	50.2	-404.1	407.1	0.64	-0.54	
3,539.0	7.50	269.10	3,511.4	50.0	-416.6	419.5	0.88	-0.88	
3,631.0	9.10	274.30	3,602.4	50.5	-429.9	432.8	1.92	1.74	
3,722.0	8.50	272.20	3,692.3	51.3	-443.8	446.7	0.75	-0.66	
3,814.0	8.00	278.50	3,783.4	52.5	-456.9	459.9	1.12	-0.54	
3,905.0	7.10	276.10	3,873.6	54.0	-468.7	471.8	1.05	-0.99	
3,997.0	6.60	273.90	3,964.9	55.0	-479.7	482.8	0.61	-0.54	
4,088.0	6.00	272.30	4,055.4	55.5	-489.6	492.8	0.69	-0.66	
4,180.0	8.10	281.80	4,146.7	57.0	-500.8	504.0	2.60	2.28	
4,271.0	7.00	277.50	4,236.9	59.1	-512.6	515.9	1.36	-1.21	
4,363.0	6.20	273.50	4,328.3	60.1	-523.1	526.5	1.00	-0.87	
4,454.0	8.10	286.60	4,418.6	62.2	-534.1	537.7	2.74	2.09	
4,546.0	7.30	285.80	4,509.7	65.7	-546.0	549.8	0.88	-0.87	
4,637.0	7.00	285.60	4,600.0	68.7	-556.9	561.0	0.33	-0.33	
4,729.0	6.70	282.50	4,691.4	71.4	-567.5	571.9	0.52	-0.33	
4,821.0	6.20	279.20	4,782.8	73.4	-577.6	582.2	0.68	-0.54	
4,912.0	5.50	276.30	4,873.3	74.6	-586.8	591.4	0.83	-0.77	
5,004.0	6.80	276.10	4,964.8	75.7	-596.6	601.3	1.41	1.41	
5,095.0	6.20	276.50	5,055.2	76.8	-606.9	611.6	0.66	-0.66	
5,187.0	8.60	279.70	5,146.4	78.5	-618.6	623.4	2.65	2.61	
5,278.0	7.90	277.60	5,236.5	80.5	-631.5	636.5	0.84	-0.77	
5,370.0	7.00	273.90	5,327.7	81.7	-643.4	648.4	1.11	-0.98	
5,461.0	5.40	267.10	5,418.2	81.9	-653.2	658.2	1.93	-1.76	

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well DW 8616C-28 (P28 496)
<b>Project:</b>	Double Willow	<b>TVD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>MD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Well:</b>	DW 8616C-28 (P28 496)	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,553.0	6.70	270.70	5,509.7	81.7	-662.9	667.8	1.47	1.41	
5,644.0	8.40	274.40	5,599.9	82.3	-674.8	679.7	1.94	1.87	
5,736.0	7.90	272.50	5,690.9	83.1	-687.8	692.7	0.62	-0.54	
5,827.0	6.90	268.10	5,781.2	83.2	-699.5	704.4	1.26	-1.10	
5,919.0	7.20	274.40	5,872.5	83.5	-710.8	715.6	0.90	0.33	
6,010.0	8.00	284.20	5,962.7	85.4	-722.6	727.6	1.67	0.88	
6,102.0	7.30	282.20	6,053.9	88.2	-734.5	739.7	0.81	-0.76	
6,194.0	6.60	282.20	6,145.2	90.6	-745.4	750.8	0.76	-0.76	
6,285.0	6.10	281.70	6,235.6	92.7	-755.3	760.8	0.55	-0.55	
6,377.0	7.80	280.60	6,327.0	94.8	-766.2	771.9	1.85	1.85	
6,469.0	7.50	276.80	6,418.1	96.7	-778.3	784.1	0.64	-0.33	
6,560.0	6.70	276.10	6,508.4	98.0	-789.5	795.4	0.88	-0.88	
6,652.0	8.10	279.00	6,599.7	99.5	-801.2	807.2	1.57	1.52	
6,744.0	7.60	278.10	6,690.8	101.4	-813.6	819.8	0.56	-0.54	
6,835.0	4.60	271.20	6,781.3	102.3	-823.2	829.4	3.39	-3.30	
6,927.0	2.90	267.80	6,873.1	102.3	-829.2	835.4	1.86	-1.85	
7,019.0	1.30	276.30	6,965.0	102.3	-832.6	838.8	1.77	-1.74	
7,110.0	1.10	246.80	7,056.0	102.1	-834.4	840.5	0.70	-0.22	
7,200.1	1.49	228.88	7,146.1	101.0	-836.1	842.1	0.62	0.43	DW 8616C-28 P28 496 TGT 2 (Column)
7,202.0	1.50	228.60	7,148.0	101.0	-836.2	842.1	0.62	0.49	
7,293.0	0.80	78.80	7,239.0	100.3	-836.4	842.3	2.45	-0.77	
7,385.0	1.10	99.70	7,331.0	100.3	-834.9	840.8	0.49	0.33	
7,476.0	0.80	130.40	7,421.9	99.7	-833.6	839.4	0.64	-0.33	
7,568.0	1.00	169.10	7,513.9	98.5	-832.9	838.7	0.68	0.22	
7,659.0	0.50	337.80	7,604.9	98.1	-832.9	838.6	1.64	-0.55	
7,751.0	0.30	302.20	7,696.9	98.6	-833.3	839.0	0.34	-0.22	
7,842.0	1.70	352.60	7,787.9	100.1	-833.7	839.6	1.68	1.54	
7,934.0	1.20	320.70	7,879.9	102.2	-834.5	840.6	1.01	-0.54	
8,025.0	1.50	296.50	7,970.9	103.4	-836.1	842.4	0.70	0.33	
8,117.0	2.00	280.90	8,062.8	104.3	-838.8	845.1	0.75	0.54	
8,208.0	0.70	226.60	8,153.8	104.2	-840.7	847.0	1.86	-1.43	
8,300.0	1.60	218.20	8,245.8	102.8	-841.9	848.1	0.99	0.98	
8,391.0	0.60	173.60	8,336.8	101.3	-842.7	848.7	1.37	-1.10	
8,483.0	1.50	70.00	8,428.7	101.3	-841.5	847.5	1.89	0.98	
8,574.0	1.30	76.10	8,519.7	101.9	-839.4	845.4	0.27	-0.22	
8,666.0	1.20	103.00	8,611.7	102.0	-837.4	843.5	0.64	-0.11	
8,757.0	1.30	40.20	8,702.7	102.5	-835.8	842.0	1.43	0.11	
8,848.0	0.60	34.60	8,793.7	103.7	-834.9	841.2	0.78	-0.77	
8,940.0	0.20	168.50	8,885.7	103.9	-834.6	840.9	0.82	-0.43	
9,032.0	1.00	175.70	8,977.7	103.0	-834.5	840.7	0.87	0.87	
9,123.0	1.70	192.40	9,068.6	100.9	-834.7	840.7	0.87	0.77	
9,215.0	0.70	288.50	9,160.6	99.7	-835.5	841.4	2.07	-1.09	
9,306.0	1.50	275.80	9,251.6	100.0	-837.3	843.1	0.91	0.88	
9,398.0	1.50	333.10	9,343.6	101.2	-839.0	845.0	1.56	0.00	
9,489.0	1.50	22.80	9,434.5	103.4	-839.1	845.3	1.39	0.00	
9,581.0	0.50	23.60	9,526.5	104.9	-838.4	844.8	1.09	-1.09	
9,673.0	0.50	209.20	9,618.5	104.9	-838.5	844.9	1.09	0.00	
9,764.0	1.80	231.40	9,709.5	103.6	-839.8	846.0	1.48	1.43	
9,856.0	1.10	251.70	9,801.5	102.5	-841.8	847.9	0.93	-0.76	
9,947.0	0.70	215.60	9,892.5	101.7	-842.9	848.9	0.74	-0.44	
10,039.0	1.80	229.40	9,984.4	100.3	-844.3	850.2	1.23	1.20	
10,130.0	1.30	226.30	10,075.4	98.7	-846.2	851.9	0.56	-0.55	
10,222.0	1.10	245.30	10,167.4	97.6	-847.7	853.3	0.48	-0.22	

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well DW 8616C-28 (P28 496)
<b>Project:</b>	Double Willow	<b>TVD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Site:</b>	S28-T4S-R96W (P28 496)(column pattern)	<b>MD Reference:</b>	KBE @ 7813.0ft (Patterson 308)
<b>Well:</b>	DW 8616C-28 (P28 496)	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
10,496.0	5.40	241.40	10,440.9	90.3	-861.4	866.2	1.57	1.57	
10,588.0	5.50	241.90	10,532.5	86.2	-869.1	873.4	0.12	0.11	
10,680.0	5.30	243.50	10,624.1	82.2	-876.8	880.6	0.27	-0.22	
10,771.0	5.50	240.50	10,714.7	78.2	-884.4	887.7	0.38	0.22	
10,779.2	5.53	240.73	10,722.9	77.8	-885.1	888.3	0.42	0.32	DW 8616C-28 P28 496 PBHL 2 (Column)
10,863.0	5.80	243.00	10,806.2	73.9	-892.4	895.2	0.42	0.33	
10,933.0	6.00	241.70	10,875.8	70.6	-898.7	901.2	0.34	0.29	Last Cathedral Survey @ 10,933' MD

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
DW 8616C-28 P28 496 `	0.00	0.00	7,083.0	100.6	-839.0	1,679,284.75	2,248,840.94	39° 40' 5.29 N	108° 10' 7.39 W
- actual wellpath misses target center by 4.3ft at 7137.1ft MD (7083.1 TVD, 101.9 N, -834.9 E)									
- Point									
DW 8616C-28 P28 496 `	0.00	0.00	7,146.0	100.6	-839.0	1,679,284.75	2,248,840.94	39° 40' 5.29 N	108° 10' 7.39 W
- actual wellpath misses target center by 2.9ft at 7200.1ft MD (7146.1 TVD, 101.0 N, -836.1 E)									
- Point									
DW 8616C-28 P28 496 I	0.00	0.00	10,743.0	90.6	-856.0	1,679,275.21	2,248,823.64	39° 40' 5.19 N	108° 10' 7.60 W
- actual wellpath misses target center by 33.5ft at 10796.2ft MD (10739.7 TVD, 77.0 N, -886.5 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
DW 8616C-28 P28 496 I	0.00	0.00	10,726.0	90.6	-856.0	1,679,275.21	2,248,823.64	39° 40' 5.19 N	108° 10' 7.60 W
- actual wellpath misses target center by 31.9ft at 10779.2ft MD (10722.9 TVD, 77.8 N, -885.1 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,933.0	10,875.8	70.6	-898.7	Last Cathedral Survey @ 10,933' MD

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------