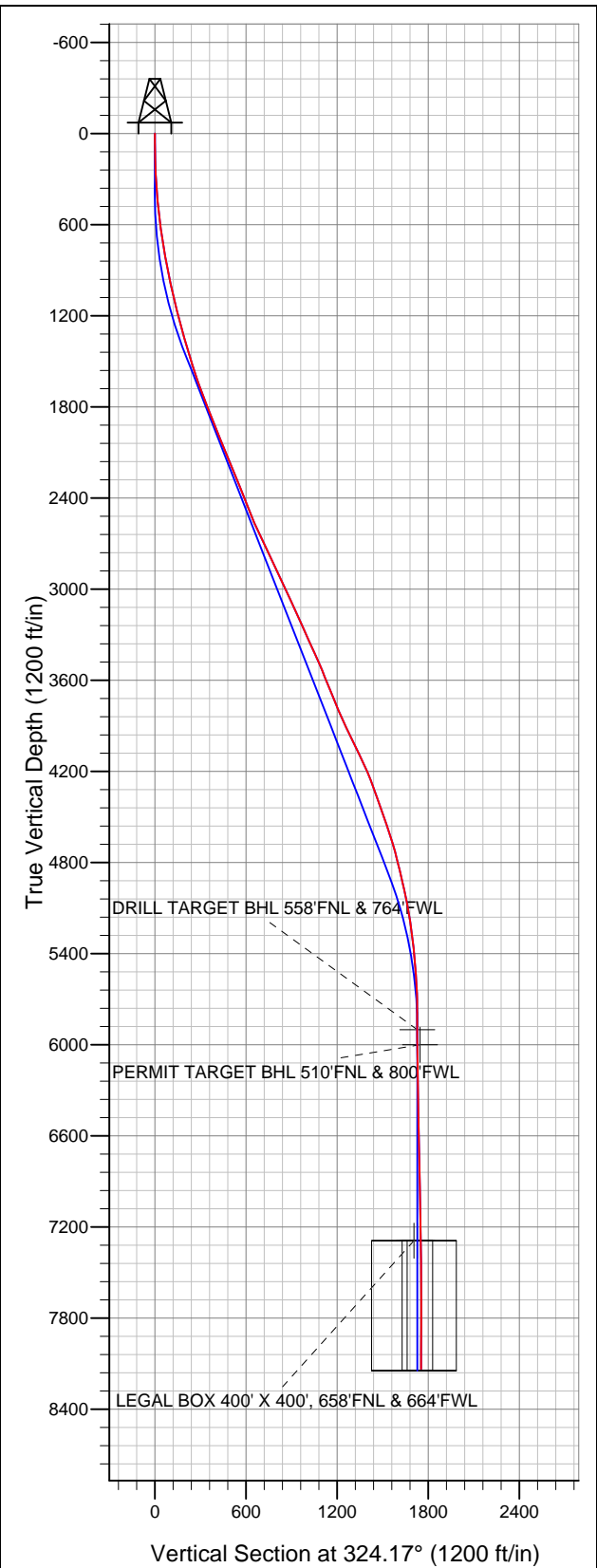


Well Name: Rasmussen 11-28

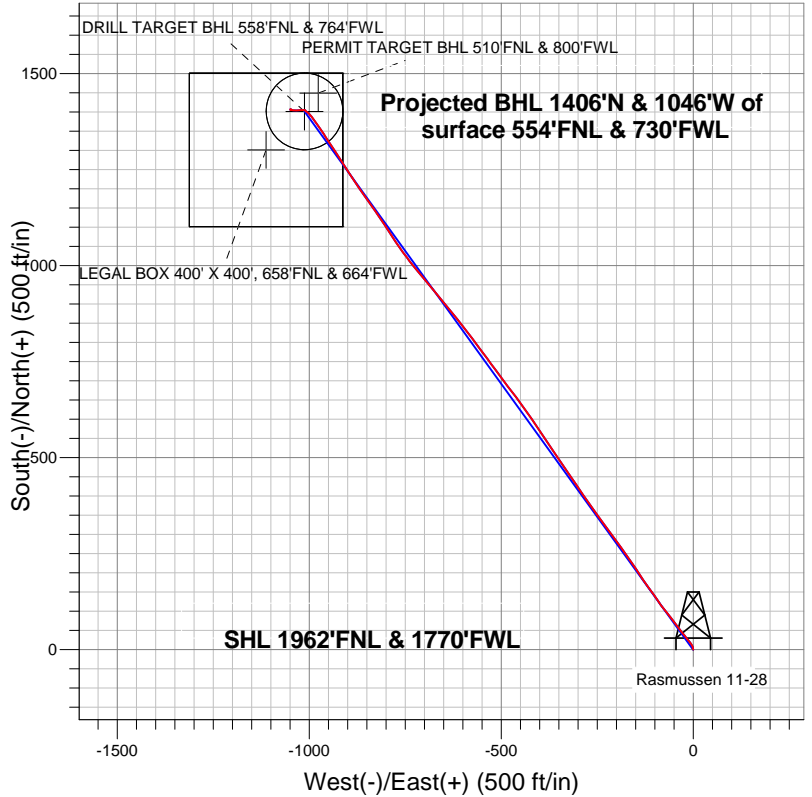
Surface Location: Rasmussen 4-4-28 Pad Sec.28-T2N-R68W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4934.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1283840.13	3136664.15	40.111500	-105.011380	

 Original Well Elev WELL @ 4947.0ft (Original Well Elev)



EnCana Oil & Gas Weld County CO



LEGEND

- Rasmussen 11-28, Wellbore #1, Plan #1 (3-20-13)R V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8446'MD & 8135'TVD @ 1753'VS
 0.26 deg Inc 70.4 deg AZ

Project: SEC.28-T2N-R68W
 Site: Rasmussen 4-4-28 Pad Sec.28-T2N-R68W
 Well: Rasmussen 11-28
 Plan: Wellbore #1



EnCana Oil & Gas Weld County CO

SEC.28-T2N-R68W

Rasmussen 4-4-28 Pad Sec.28-T2N-R68W

Rasmussen 11-28

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 March, 2013

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 11-28
Project:	SEC.28-T2N-R68W	TVD Reference:	WELL @ 4947.0ft (Original Well Elev)
Site:	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W	MD Reference:	WELL @ 4947.0ft (Original Well Elev)
Well:	Rasmussen 11-28	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.28-T2N-R68W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W				
Site Position:		Northing:	1,283,840.25ft	Latitude:	40.111500
From:	Lat/Long	Easting:	3,136,683.73ft	Longitude:	-105.011310
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.32 °

Well	Rasmussen 11-28					
Well Position	+N/-S	0.0 ft	Northing:	1,283,840.13 ft	Latitude:	40.111500
	+E/-W	0.0 ft	Easting:	3,136,664.15 ft	Longitude:	-105.011380
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,934.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/20/2013	8.73	66.72	52,767

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	324.17	

Survey Program	Date	3/28/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
108.0	8,446.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
108.0	1.70	344.00	108.0	1.5	-0.4	1.5	1.57	1.57	0.00	
168.0	1.90	355.90	168.0	3.4	-0.8	3.2	0.70	0.33	19.83	
228.0	2.30	0.30	227.9	5.6	-0.8	5.0	0.72	0.67	7.33	
288.0	2.90	337.30	287.9	8.2	-1.4	7.5	1.99	1.00	-38.33	
349.0	3.90	328.80	348.7	11.4	-3.1	11.0	1.83	1.64	-13.93	
409.0	4.30	328.70	408.6	15.1	-5.3	15.3	0.67	0.67	-0.17	
470.0	5.50	321.50	469.4	19.3	-8.3	20.5	2.21	1.97	-11.80	
530.0	6.40	321.10	529.0	24.1	-12.2	26.7	1.50	1.50	-0.67	
591.0	7.40	321.80	589.6	29.9	-16.8	34.0	1.65	1.64	1.15	
652.0	8.40	320.90	650.0	36.4	-22.0	42.4	1.65	1.64	-1.48	
714.0	9.60	321.80	711.3	44.0	-28.1	52.1	1.95	1.94	1.45	
793.0	10.60	323.20	789.0	55.0	-36.5	65.9	1.30	1.27	1.77	

Company:	EnCana Oil & Gas Weld County CO	Local Co-ordinate Reference:	Well Rasmussen 11-28
Project:	SEC.28-T2N-R68W	TVD Reference:	WELL @ 4947.0ft (Original Well Elev)
Site:	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W	MD Reference:	WELL @ 4947.0ft (Original Well Elev)
Well:	Rasmussen 11-28	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
848.0	11.30	324.17	843.0	63.4	-42.7	76.4	1.32	1.27	1.76
868.0	10.10	319.50	862.7	66.3	-45.0	80.1	7.40	-6.00	-23.35
954.0	10.80	322.50	947.3	78.5	-54.8	95.7	1.03	0.81	3.49
1,040.0	12.50	321.50	1,031.5	92.1	-65.5	113.0	1.99	1.98	-1.16
1,126.0	13.80	322.70	1,115.2	107.6	-77.5	132.6	1.54	1.51	1.40
1,211.0	14.70	325.70	1,197.6	124.6	-89.7	153.5	1.37	1.06	3.53
1,297.0	15.40	324.60	1,280.7	142.9	-102.4	175.8	0.88	0.81	-1.28
1,383.0	16.40	323.90	1,363.4	162.0	-116.2	199.4	1.18	1.16	-0.81
1,468.0	16.90	325.70	1,444.8	181.9	-130.2	223.7	0.85	0.59	2.12
1,554.0	17.20	326.70	1,527.0	202.9	-144.3	248.9	0.49	0.35	1.16
1,640.0	18.70	325.80	1,608.8	224.9	-159.0	275.4	1.77	1.74	-1.05
1,726.0	20.80	325.10	1,689.8	248.8	-175.5	304.5	2.46	2.44	-0.81
1,811.0	21.60	323.70	1,769.0	273.8	-193.4	335.2	1.11	0.94	-1.65
1,897.0	21.60	325.30	1,849.0	299.6	-211.8	366.9	0.68	0.00	1.86
1,983.0	21.00	323.20	1,929.1	324.9	-230.0	398.1	1.13	-0.70	-2.44
2,069.0	21.80	322.30	2,009.2	349.9	-249.0	429.5	1.01	0.93	-1.05
2,154.0	22.70	325.30	2,087.9	375.9	-268.0	461.6	1.70	1.06	3.53
2,240.0	22.70	326.20	2,167.2	403.3	-286.7	494.8	0.40	0.00	1.05
2,326.0	22.50	326.00	2,246.6	430.7	-305.1	527.8	0.25	-0.23	-0.23
2,412.0	22.20	323.90	2,326.1	457.5	-323.9	560.5	0.99	-0.35	-2.44
2,497.0	21.50	327.60	2,405.0	483.6	-341.7	592.1	1.82	-0.82	4.35
2,583.0	21.00	326.00	2,485.2	509.7	-358.8	623.3	0.89	-0.58	-1.86
2,669.0	23.70	326.20	2,564.7	536.9	-377.0	656.0	3.14	3.14	0.23
2,754.0	25.20	325.50	2,642.1	566.0	-396.7	691.1	1.80	1.76	-0.82
2,840.0	25.80	325.70	2,719.7	596.5	-417.7	728.1	0.70	0.70	0.23
2,926.0	25.30	325.00	2,797.3	627.0	-438.7	765.2	0.68	-0.58	-0.81
3,012.0	24.90	322.30	2,875.2	656.4	-460.4	801.7	1.41	-0.47	-3.14
3,097.0	25.90	322.50	2,952.0	685.3	-482.6	838.1	1.18	1.18	0.24
3,183.0	25.20	323.70	3,029.6	715.0	-504.9	875.2	1.01	-0.81	1.40
3,269.0	23.60	325.10	3,107.9	743.8	-525.6	910.7	1.98	-1.86	1.63
3,355.0	23.80	321.30	3,186.6	771.5	-546.3	945.3	1.79	0.23	-4.42
3,440.0	24.90	323.90	3,264.1	799.3	-567.5	980.3	1.81	1.29	3.06
3,526.0	24.70	323.00	3,342.1	828.3	-589.0	1,016.4	0.50	-0.23	-1.05
3,612.0	24.20	321.50	3,420.4	856.5	-610.8	1,051.9	0.93	-0.58	-1.74
3,697.0	23.50	321.10	3,498.2	883.3	-632.3	1,086.3	0.85	-0.82	-0.47
3,783.0	22.20	319.50	3,577.4	909.0	-653.6	1,119.6	1.68	-1.51	-1.86
3,869.0	22.20	320.00	3,657.0	933.8	-674.6	1,152.0	0.22	0.00	0.58
3,955.0	22.50	322.00	3,736.6	959.2	-695.2	1,184.6	0.95	0.35	2.33
4,040.0	23.50	319.70	3,814.8	984.9	-716.2	1,217.8	1.58	1.18	-2.71
4,126.0	24.10	321.60	3,893.5	1,011.8	-738.2	1,252.4	1.13	0.70	2.21
4,212.0	25.70	324.80	3,971.5	1,040.8	-759.8	1,288.6	2.43	1.86	3.72
4,298.0	26.80	326.20	4,048.6	1,072.1	-781.3	1,326.6	1.47	1.28	1.63
4,383.0	25.90	327.30	4,124.8	1,103.7	-802.0	1,364.3	1.20	-1.06	1.29
4,469.0	22.80	325.50	4,203.2	1,133.2	-821.6	1,399.7	3.71	-3.60	-2.09
4,555.0	20.60	324.30	4,283.1	1,159.3	-839.9	1,431.5	2.61	-2.56	-1.40
4,641.0	19.60	324.80	4,363.8	1,183.3	-857.0	1,461.1	1.18	-1.16	0.58
4,726.0	18.80	325.80	4,444.1	1,206.3	-873.0	1,489.0	1.02	-0.94	1.18
4,812.0	20.00	327.10	4,525.2	1,230.1	-888.7	1,517.6	1.48	1.40	1.51
4,898.0	17.90	327.60	4,606.5	1,253.6	-903.8	1,545.5	2.45	-2.44	0.58
4,983.0	15.90	326.90	4,687.9	1,274.4	-917.2	1,570.1	2.37	-2.35	-0.82
5,069.0	14.50	327.10	4,770.9	1,293.3	-929.4	1,592.6	1.63	-1.63	0.23
5,155.0	13.20	325.50	4,854.3	1,310.4	-940.9	1,613.2	1.58	-1.51	-1.86
5,241.0	13.20	328.10	4,938.1	1,326.9	-951.6	1,632.8	0.69	0.00	3.02
5,326.0	12.00	326.40	5,021.0	1,342.5	-961.6	1,651.3	1.48	-1.41	-2.00

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Site:	Rasmussen 4-4-28 Pad Sec.28-T2N-R68W	MD Reference:	WELL @ 4947.0ft (Original Well Elev)
Well:	Rasmussen 11-28	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,412.0	10.10	325.80	5,105.4	1,356.2	-970.8	1,667.8	2.21	-2.21	-0.70
5,498.0	8.80	323.70	5,190.3	1,367.7	-978.9	1,681.9	1.56	-1.51	-2.44
5,584.0	7.10	323.40	5,275.4	1,377.3	-986.0	1,693.8	1.98	-1.98	-0.35
5,669.0	6.20	323.40	5,359.9	1,385.2	-991.9	1,703.7	1.06	-1.06	0.00
5,755.0	5.40	322.00	5,445.4	1,392.1	-997.1	1,712.4	0.94	-0.93	-1.63
5,841.0	4.00	316.20	5,531.1	1,397.4	-1,001.7	1,719.4	1.72	-1.63	-6.74
5,927.0	3.10	294.90	5,617.0	1,400.6	-1,005.9	1,724.4	1.84	-1.05	-24.77
6,012.0	1.80	311.60	5,701.9	1,402.4	-1,009.0	1,727.7	1.73	-1.53	19.65
6,098.0	0.40	27.50	5,787.9	1,403.6	-1,009.8	1,729.1	2.03	-1.63	88.26
6,210.1	0.37	355.75	5,900.0	1,404.3	-1,009.7	1,729.6	0.19	-0.03	-28.32
DRILL TARGET BHL 558'FNL & 764'FWL									
6,269.0	0.40	339.70	5,958.9	1,404.7	-1,009.8	1,730.0	0.19	0.05	-27.25
6,310.0	0.39	315.90	5,999.9	1,404.9	-1,009.9	1,730.3	0.40	-0.02	-58.01
PERMIT TARGET BHL 510'FNL & 800'FWL									
6,441.0	0.70	268.50	6,130.9	1,405.2	-1,011.0	1,731.1	0.40	0.24	-36.19
6,612.0	1.10	274.30	6,301.8	1,405.3	-1,013.7	1,732.8	0.24	0.23	3.39
6,784.0	1.70	267.30	6,473.8	1,405.3	-1,017.9	1,735.3	0.36	0.35	-4.07
6,955.0	2.00	267.50	6,644.7	1,405.1	-1,023.4	1,738.3	0.18	0.18	0.12
7,127.0	2.70	267.30	6,816.6	1,404.8	-1,030.5	1,742.1	0.41	0.41	-0.12
7,298.0	2.30	268.70	6,987.4	1,404.5	-1,037.9	1,746.3	0.24	-0.23	0.82
7,470.0	1.60	285.10	7,159.3	1,405.0	-1,043.7	1,750.1	0.52	-0.41	9.53
7,600.0	1.14	281.31	7,289.2	1,405.8	-1,046.7	1,752.5	0.36	-0.35	-2.91
TARGET CIRCLE 558'FNL & 764'FWL									
7,601.6	1.14	281.25	7,290.9	1,405.8	-1,046.8	1,752.5	0.36	-0.35	-4.10
LEGAL BOX 400' X 400', 658'FNL & 664'FWL									
7,641.0	1.00	279.40	7,330.2	1,405.9	-1,047.5	1,753.0	0.36	-0.35	-4.68
7,813.0	0.30	294.90	7,502.2	1,406.3	-1,049.4	1,754.5	0.42	-0.41	9.01
7,984.0	0.40	33.40	7,673.2	1,407.0	-1,049.4	1,755.1	0.31	0.06	57.60
8,156.0	0.40	88.50	7,845.2	1,407.5	-1,048.5	1,755.0	0.22	0.00	32.03
8,327.0	0.60	115.80	8,016.2	1,407.2	-1,047.1	1,753.8	0.18	0.12	15.96
8,398.0	0.40	88.50	8,087.2	1,407.0	-1,046.5	1,753.4	0.43	-0.28	-38.45
8,446.0	0.26	70.04	8,135.2	1,407.1	-1,046.3	1,753.2	0.36	-0.29	-38.46

Checked By: _____ Approved By: _____ Date: _____