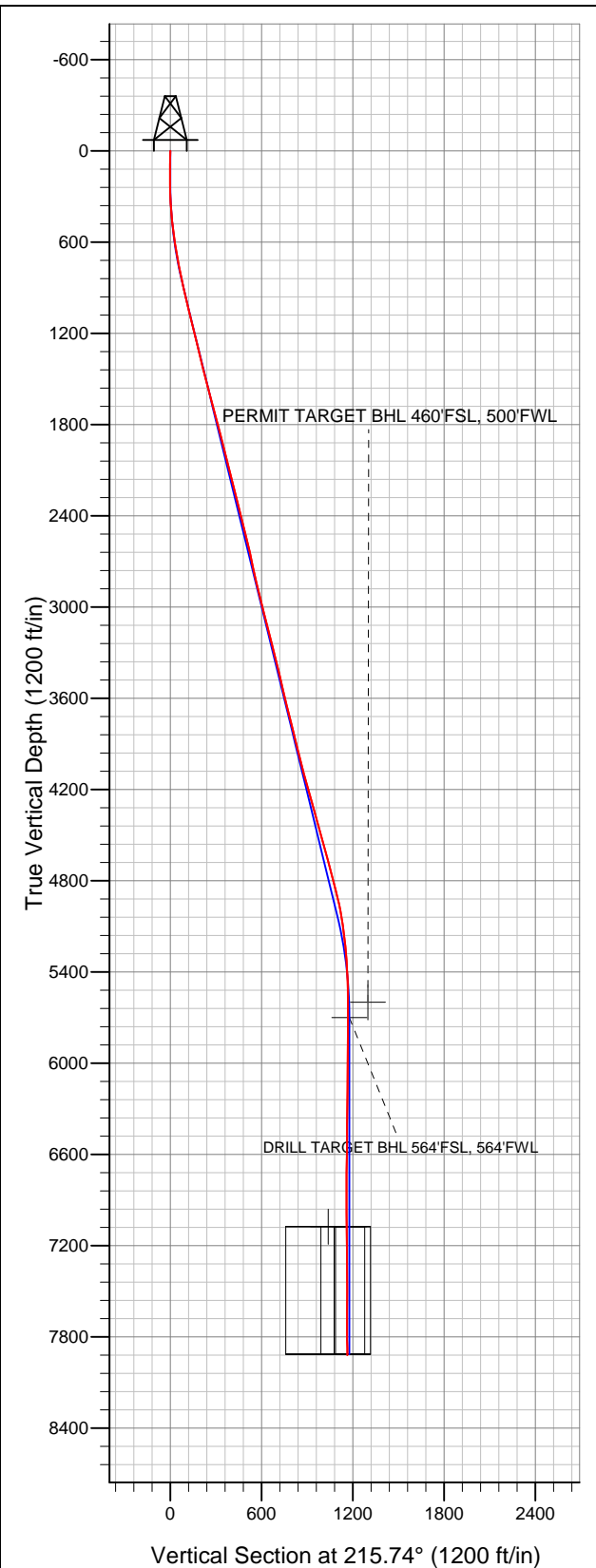


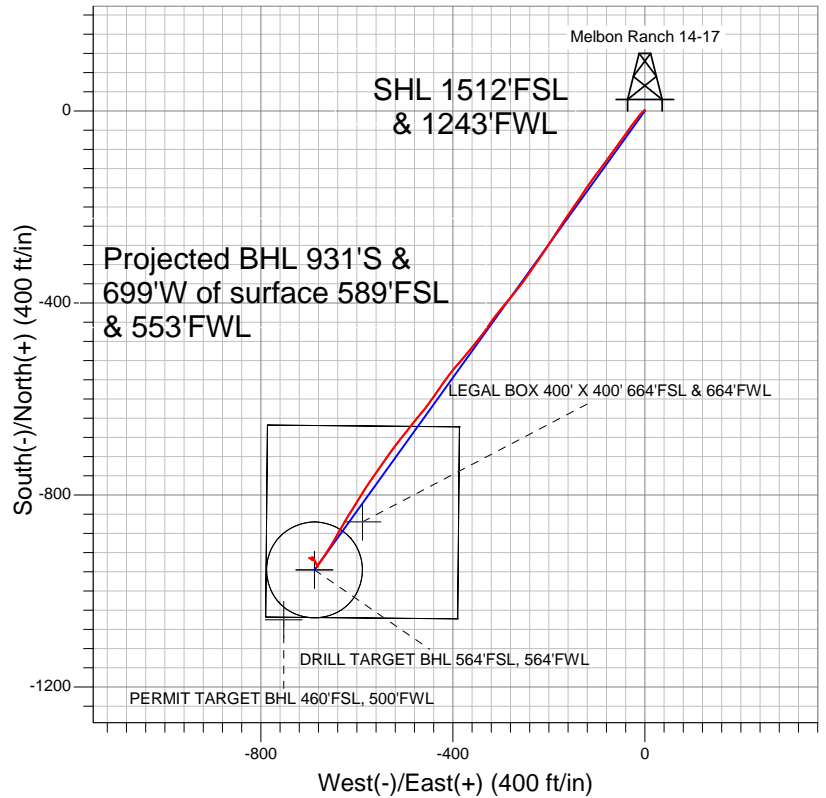
**Well Name: Melbon Ranch 14-17**

Surface Location: Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4940.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1293255.04	3225651.00	40.135560	-104.692930	
Original Well Elev			WELL @ 4952.0ft (Original Well Elev)			



**EnCana Oil & Gas Weld County CO**



- LEGEND**
- Wellbore #1
  - Melbon Ranch 14-17, Wellbore #1, Plan #1 (4-27-12) R V0
  - Survey #1

**Final Survey Plot**

Projected Final Survey -  
8060'MD & 7921'TVD @ 1164'VS  
1.10 deg Inc 295.90 deg AZ

Project: SEC.17-T2N-R65W  
Site: Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W  
Well: Melbon Ranch 14-17  
Plan: Wellbore #1



# **EnCana Oil & Gas Weld County CO**

**SEC.17-T2N-R65W**

**Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W**

**Melbon Ranch 14-17**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**08 May, 2012**

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Melbon Ranch 14-17
<b>Project:</b>	SEC.17-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4952.0ft (Original Well Elev)
<b>Site:</b>	Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W	<b>MD Reference:</b>	WELL @ 4952.0ft (Original Well Elev)
<b>Well:</b>	Melbon Ranch 14-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.17-T2N-R65W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W				
Site Position:		Northing:	1,293,284.19ft	Latitude:	40.135640
From:	Lat/Long	Easting:	3,225,650.74ft	Longitude:	-104.692930
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.52 °

Well	Melbon Ranch 14-17					
Well Position	+N-S	0.0 ft	Northing:	1,293,255.04 ft	Latitude:	40.135560
	+E-W	0.0 ft	Easting:	3,225,651.00 ft	Longitude:	-104.692930
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,940.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	4/27/2012	8.69	66.82	52,908

<b>Design</b>	Wellbore #1				
<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>	
	5,700.0	0.0	0.0	215.74	

<b>Survey Program</b>	<b>Date</b>	5/8/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
89.0	8,060.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<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>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
89.0	0.90	4.60	89.0	0.7	0.1	-0.6	1.01	1.01	0.00	
180.0	0.40	308.70	180.0	1.6	-0.1	-1.2	0.83	-0.55	-61.43	
272.0	1.90	222.80	272.0	0.7	-1.4	0.3	2.08	1.63	-93.37	
364.0	3.70	230.70	363.9	-2.3	-4.8	4.7	2.00	1.96	8.59	
455.0	5.70	219.60	454.6	-7.7	-9.9	12.0	2.40	2.20	-12.20	
547.0	7.40	217.70	545.9	-15.9	-16.4	22.5	1.86	1.85	-2.07	
639.0	8.90	216.50	637.0	-26.3	-24.3	35.5	1.64	1.63	-1.30	
732.0	10.50	214.90	728.7	-39.0	-33.4	51.2	1.74	1.72	-1.72	
826.0	12.50	215.60	820.8	-54.3	-44.3	69.9	2.13	2.13	0.74	
845.0	12.30	216.30	839.3	-57.6	-46.6	74.0	1.32	-1.05	3.68	
923.0	12.80	214.70	915.5	-71.4	-56.5	91.0	0.78	0.64	-2.05	
1,016.0	13.30	217.20	1,006.1	-88.4	-68.8	111.9	0.81	0.54	2.69	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Melbon Ranch 14-17
<b>Project:</b>	SEC.17-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4952.0ft (Original Well Elev)
<b>Site:</b>	Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W	<b>MD Reference:</b>	WELL @ 4952.0ft (Original Well Elev)
<b>Well:</b>	Melbon Ranch 14-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
1,110.0	13.90	215.90	1,097.4	-106.2	-82.0	134.0	0.72	0.64	-1.38	
1,204.0	13.80	217.10	1,188.7	-124.2	-95.4	156.5	0.32	-0.11	1.28	
1,297.0	14.20	215.60	1,279.0	-142.4	-108.7	179.0	0.58	0.43	-1.61	
1,391.0	13.00	213.80	1,370.3	-160.5	-121.3	201.1	1.35	-1.28	-1.91	
1,485.0	14.20	214.00	1,461.7	-178.9	-133.6	223.2	1.28	1.28	0.21	
1,578.0	14.80	214.50	1,551.7	-198.1	-146.7	246.5	0.66	0.65	0.54	
1,672.0	14.70	214.90	1,642.6	-217.8	-160.3	270.4	0.15	-0.11	0.43	
1,766.0	14.90	214.20	1,733.5	-237.6	-174.0	294.4	0.29	0.21	-0.74	
1,859.0	14.60	212.40	1,823.4	-257.4	-187.0	318.1	0.59	-0.32	-1.94	
1,953.0	14.50	212.40	1,914.4	-277.3	-199.6	341.7	0.11	-0.11	0.00	
2,047.0	14.90	214.20	2,005.3	-297.2	-212.7	365.5	0.65	0.43	1.91	
2,140.0	14.50	215.10	2,095.3	-316.6	-226.1	389.1	0.50	-0.43	0.97	
2,234.0	13.50	213.70	2,186.5	-335.4	-239.0	411.8	1.12	-1.06	-1.49	
2,328.0	13.60	218.60	2,277.9	-353.2	-252.0	433.8	1.23	0.11	5.21	
2,421.0	13.90	216.60	2,368.2	-370.7	-265.4	455.9	0.60	0.32	-2.15	
2,515.0	14.60	219.50	2,459.3	-388.9	-279.7	479.0	1.06	0.74	3.09	
2,609.0	13.60	219.60	2,550.5	-406.5	-294.3	501.9	1.06	-1.06	0.11	
2,702.0	12.80	219.80	2,641.0	-422.9	-307.9	523.1	0.86	-0.86	0.22	
2,796.0	11.90	213.70	2,732.9	-438.9	-319.9	543.1	1.68	-0.96	-6.49	
2,890.0	12.60	214.90	2,824.7	-455.4	-331.1	563.1	0.79	0.74	1.28	
2,983.0	13.80	218.40	2,915.3	-472.4	-343.8	584.3	1.55	1.29	3.76	
3,077.0	14.60	218.90	3,006.4	-490.4	-358.2	607.3	0.86	0.85	0.53	
3,171.0	14.50	220.70	3,097.4	-508.6	-373.4	630.9	0.49	-0.11	1.91	
3,264.0	14.40	219.80	3,187.4	-526.3	-388.4	654.0	0.26	-0.11	-0.97	
3,358.0	13.70	219.30	3,278.6	-543.9	-402.9	676.8	0.76	-0.74	-0.53	
3,452.0	14.00	215.20	3,369.9	-561.8	-416.5	699.3	1.09	0.32	-4.36	
3,545.0	13.30	215.10	3,460.3	-579.7	-429.1	721.2	0.75	-0.75	-0.11	
3,639.0	13.40	214.50	3,551.7	-597.6	-441.5	742.9	0.18	0.11	-0.64	
3,733.0	13.40	217.70	3,643.2	-615.1	-454.3	764.7	0.79	0.00	3.40	
3,826.0	14.20	219.30	3,733.5	-632.5	-468.2	786.8	0.95	0.86	1.72	
3,920.0	14.20	218.60	3,824.6	-650.4	-482.7	809.9	0.18	0.00	-0.74	
4,014.0	13.90	217.30	3,915.8	-668.4	-496.7	832.7	0.46	-0.32	-1.38	
4,107.0	14.30	217.90	4,006.0	-686.4	-510.5	855.3	0.46	0.43	0.65	
4,201.0	14.80	219.50	4,097.0	-704.8	-525.3	878.9	0.68	0.53	1.70	
4,295.0	15.90	213.50	4,187.6	-724.8	-540.0	903.7	2.05	1.17	-6.38	
4,388.0	15.90	214.00	4,277.1	-746.0	-554.2	929.2	0.15	0.00	0.54	
4,482.0	15.80	216.00	4,367.5	-767.0	-568.9	954.9	0.59	-0.11	2.13	
4,575.0	15.10	212.90	4,457.2	-787.4	-582.9	979.6	1.16	-0.75	-3.33	
4,669.0	15.40	211.00	4,547.8	-808.4	-596.0	1,004.3	0.62	0.32	-2.02	
4,763.0	14.70	211.20	4,638.6	-829.3	-608.6	1,028.6	0.75	-0.74	0.21	
4,856.0	15.50	211.70	4,728.4	-850.0	-621.3	1,052.8	0.87	0.86	0.54	
4,950.0	14.60	210.70	4,819.2	-870.8	-633.9	1,077.1	1.00	-0.96	-1.06	
5,044.0	13.10	208.70	4,910.4	-890.4	-645.1	1,099.5	1.67	-1.60	-2.13	
5,137.0	11.30	211.70	5,001.3	-907.4	-654.9	1,119.0	2.05	-1.94	3.23	
5,231.0	8.10	212.90	5,094.0	-920.8	-663.4	1,134.8	3.41	-3.40	1.28	
5,325.0	6.20	215.40	5,187.3	-930.5	-669.9	1,146.5	2.05	-2.02	2.66	
5,418.0	4.90	220.00	5,279.8	-937.6	-675.4	1,155.5	1.48	-1.40	4.95	
5,512.0	3.40	214.70	5,373.6	-943.0	-679.5	1,162.3	1.65	-1.60	-5.64	
5,606.0	1.80	210.50	5,467.5	-946.5	-681.9	1,166.6	1.71	-1.70	-4.47	
5,699.0	0.60	161.60	5,560.4	-948.3	-682.4	1,168.3	1.59	-1.29	-52.58	
5,738.9	0.47	145.04	5,600.3	-948.6	-682.3	1,168.5	0.50	-0.33	-41.51	
PERMIT TARGET BHL 460'FSL, 500'FWL										
5,793.0	0.40	109.60	5,654.4	-948.8	-682.0	1,168.5	0.50	-0.13	-65.50	
5,838.6	0.07	88.13	5,700.0	-948.9	-681.8	1,168.4	0.74	-0.73	-47.14	

<b>Company:</b>	EnCana Oil & Gas Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Melbon Ranch 14-17
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<b>Site:</b>	Melbon Ranch 2-4-17 Pad Sec.17-T2N-R65W	<b>MD Reference:</b>	WELL @ 4952.0ft (Original Well Elev)
<b>Well:</b>	Melbon Ranch 14-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
<b>DRILL TARGET BHL 564'FSL, 564'FWL</b>									
5,887.0	0.30	299.40	5,748.4	-948.8	-681.9	1,168.4	0.74	0.48	-306.98
5,980.0	0.70	325.30	5,841.4	-948.2	-682.4	1,168.3	0.48	0.43	27.85
6,074.0	0.80	344.60	5,935.4	-947.1	-682.9	1,167.7	0.29	0.11	20.53
6,168.0	0.90	355.00	6,029.4	-945.8	-683.2	1,166.7	0.20	0.11	11.06
6,261.0	1.20	331.20	6,122.4	-944.2	-683.7	1,165.7	0.56	0.32	-25.59
6,355.0	1.20	325.80	6,216.4	-942.5	-684.7	1,165.0	0.12	0.00	-5.74
6,449.0	1.00	335.60	6,310.4	-941.0	-685.6	1,164.2	0.29	-0.21	10.43
6,543.0	1.10	334.80	6,404.4	-939.4	-686.3	1,163.4	0.11	0.11	-0.85
6,637.0	1.10	329.50	6,498.3	-937.8	-687.2	1,162.6	0.11	0.00	-5.64
6,732.0	1.10	332.10	6,593.3	-936.2	-688.1	1,161.8	0.05	0.00	2.74
6,826.0	1.50	336.30	6,687.3	-934.3	-689.0	1,160.8	0.44	0.43	4.47
6,920.0	1.30	317.40	6,781.3	-932.4	-690.2	1,159.9	0.53	-0.21	-20.11
7,015.0	0.80	327.40	6,876.2	-931.0	-691.3	1,159.5	0.56	-0.53	10.53
7,109.0	0.90	325.30	6,970.2	-929.9	-692.1	1,159.0	0.11	0.11	-2.23
7,203.0	0.30	324.40	7,064.2	-929.1	-692.6	1,158.7	0.64	-0.64	-0.96
7,213.9	0.18	295.24	7,075.1	-929.0	-692.7	1,158.7	1.52	-1.06	-267.42
<b>LEGAL BOX 400' X 400' 664'FSL &amp; 664'FWL</b>									
7,215.0	0.18	290.40	7,076.3	-929.0	-692.7	1,158.7	1.52	-0.65	-433.40
<b>TARGET CIRCLE 564'FSL &amp; 564'FWL</b>									
7,298.0	1.20	185.20	7,159.2	-929.8	-692.9	1,159.4	1.52	1.23	-126.78
7,392.0	1.90	175.30	7,253.2	-932.4	-692.8	1,161.5	0.79	0.74	-10.53
7,486.0	1.20	165.50	7,347.2	-934.9	-692.5	1,163.3	0.79	-0.74	-10.43
7,580.0	0.30	252.50	7,441.1	-935.9	-692.4	1,164.1	1.30	-0.96	92.55
7,675.0	0.90	328.60	7,536.1	-935.3	-693.1	1,164.0	0.92	0.63	80.11
7,769.0	1.20	314.20	7,630.1	-934.0	-694.2	1,163.6	0.42	0.32	-15.32
7,863.0	1.30	312.40	7,724.1	-932.6	-695.6	1,163.3	0.11	0.11	-1.91
7,958.0	1.10	292.80	7,819.1	-931.5	-697.3	1,163.4	0.48	-0.21	-20.63
8,015.0	1.10	295.90	7,876.1	-931.1	-698.3	1,163.6	0.10	0.00	5.44
8,060.0	1.10	295.90	7,921.1	-930.7	-699.1	1,163.8	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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