

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-8161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-8178 Fax: (505) 334-8170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

CONFIDENTIAL

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT
☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35534	² Pool Code 19859	³ Pool Name DUFER'S POINT GALLUP DAKOTA
⁴ Property Code 313514	⁵ Property Name ESCRITO L14-2408	⁶ Well Number 04H
⁷ GRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 6893'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	14	24N	8W		1423'	SOUTH	23'	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	15	24N	8W		1769'	SOUTH	352'	WEST	SAN JUAN

¹² Dedicated Acres 320.00 ACRES - S/2 SEC. 15	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

ALL CORNERS FND 2.5" BC GLO 1947 OIL CONS. DIV DIST. 3 NOV 19 2014		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Katie Wegner</i> 11/18/14 Signature Date Katie Wegner Printed Name Katie.Wegner@encana.com E-mail Address
ASB - BOTTOM HOLE LAT. 36.311902° N (NAD83) LONG. 107.677084° W (NAD83) LAT. 36.311890° N (NAD27) LONG. 107.676472° W (NAD27) ASB - ENTRY POINT LAT. 36.311619° N (NAD83) LONG. 107.661769° W (NAD83) LAT. 36.311607° N (NAD27) LONG. 107.661159° W (NAD27)		SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Asbuilt Survey - OCTOBER 31, 2014 Date of Survey - DECEMBER 3, 2013 Signature and Seal of Professional Surveyor: <i>David R. Russell</i> DAVID R. RUSSELL Certificate Number 10201

DEVIATION SURVEYS
Escrito L14-2408 04H
30-045-35534

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
290'	0.20
620'	0.70
936'	0.40
1248'	0.80
1555'	0.04
1863'	0.40
2169'	0.50
2476'	0.70
2790'	0.50
3106'	0.40
3422'	0.10
3738'	0.20
4054'	5.50

OIL CONS. DIV DIST. 3

NOV 19 2014

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Cristi Bauer

Cristi Bauer, Operations Technician

11/18/14
Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this *18th* day of *November*, 2014 by Cristi Bauer as Operations Technician of Encana Oil & Gas (USA) Inc., authorized agent for Encana Oil & Gas (USA) Inc., on behalf of said corporation.

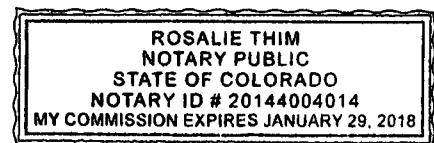
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

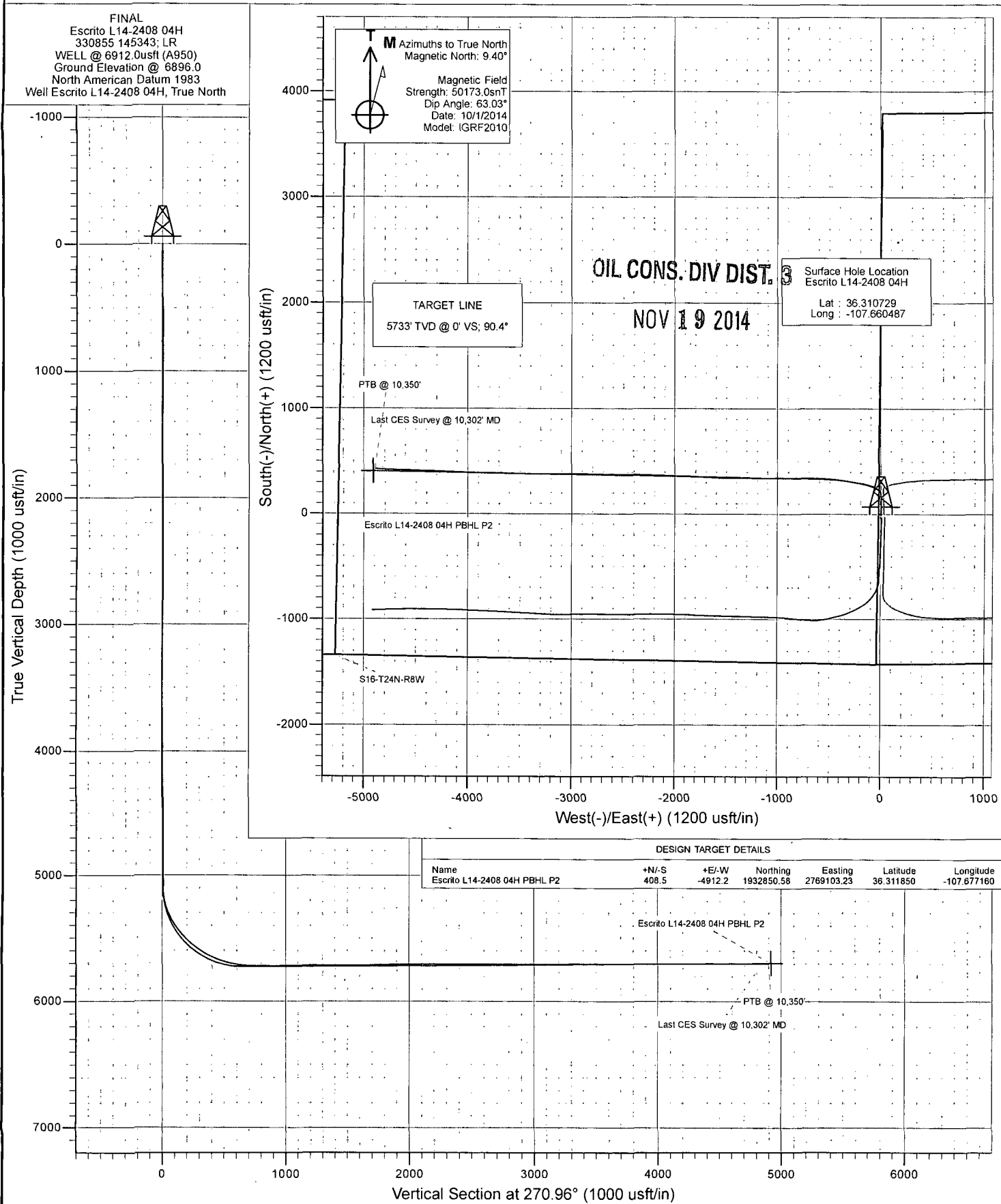
My Commission Expires:

1/29/18





Project: San Juan County, NM
 Site: S14-T24N-R8W
 Well: Escrito L14-2408 04H
 Wellbore: HZ
 Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	San Juan County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	S14-T24N-R8W				
Site Position:		Northing:	1,932,458.55 usft	Latitude:	36.310750
From:	Lat/Long	Easting:	2,774,044.70 usft	Longitude:	-107.660390
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.10 °

Well	Escrito L14-2408 04H					
Well Position	+N/-S	0.0 usft	Northing:	1,932,450.86 usft	Latitude:	36.310729
	+E/-W	0.0 usft	Easting:	2,774,016.14 usft	Longitude:	-107.660487
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,896.0 usft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/1/2014	9.40	63.03	50,173

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	270.96	

Survey Program	Date 10/14/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
108.0	10,350.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
108.0	0.10	64.00	108.0	0.0	0.1	-0.1	0.09	0.09	
168.0	0.04	318.40	168.0	0.1	0.1	-0.1	0.20	-0.10	
226.0	0.10	226.80	226.0	0.1	0.1	-0.1	0.19	0.10	
290.0	0.20	220.40	290.0	-0.1	0.0	0.0	0.16	0.16	
354.0	0.01	173.00	354.0	-0.2	-0.1	0.1	0.30	-0.30	
417.0	0.40	71.50	417.0	-0.1	0.1	-0.1	0.64	0.62	
450.0	0.70	89.70	450.0	-0.1	0.4	-0.4	1.04	0.91	
557.0	0.70	86.10	557.0	0.0	1.7	-1.7	0.04	0.00	
620.0	0.70	83.80	620.0	0.1	2.5	-2.5	0.04	0.00	
683.0	0.90	4.00	683.0	0.6	2.9	-2.9	1.65	0.32	
746.0	1.30	5.40	746.0	1.8	3.0	-3.0	0.64	0.63	
809.0	0.80	339.10	809.0	2.9	2.9	-2.9	1.08	-0.79	

Cathedral Energy Services

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Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
872.0	0.30	347.60	872.0	3.5	2.7	-2.7	0.80	-0.79	
936.0	0.40	342.50	936.0	3.9	2.6	-2.5	0.16	0.16	
999.0	0.10	242.60	999.0	4.1	2.5	-2.4	0.68	-0.48	
1,062.0	0.40	267.10	1,062.0	4.0	2.2	-2.2	0.49	0.48	
1,125.0	0.40	303.00	1,124.9	4.1	1.8	-1.8	0.39	0.00	
1,187.0	0.50	329.10	1,186.9	4.5	1.5	-1.4	0.36	0.16	
1,248.0	0.80	319.00	1,247.9	5.0	1.1	-1.0	0.52	0.49	
1,310.0	1.00	309.40	1,309.9	5.7	0.4	-0.3	0.40	0.32	
1,371.0	0.30	0.80	1,370.9	6.2	0.0	0.1	1.39	-1.15	
1,433.0	0.20	340.20	1,432.9	6.5	-0.1	0.2	0.21	-0.16	
1,494.0	0.30	337.70	1,493.9	6.7	-0.2	0.3	0.16	0.16	
1,555.0	0.04	229.70	1,554.9	6.8	-0.2	0.3	0.52	-0.43	
1,617.0	0.50	177.50	1,616.9	6.6	-0.2	0.3	0.77	0.74	
1,678.0	0.80	176.00	1,677.9	5.9	-0.2	0.3	0.49	0.49	
1,740.0	0.50	164.00	1,739.9	5.2	-0.1	0.2	0.53	-0.48	
1,801.0	0.60	147.70	1,800.9	4.7	0.2	-0.1	0.30	0.16	
1,863.0	0.40	154.00	1,862.9	4.2	0.4	-0.3	0.33	-0.32	
1,924.0	0.20	162.60	1,923.9	3.9	0.5	-0.5	0.34	-0.33	
1,985.0	0.20	345.70	1,984.9	3.9	0.6	-0.5	0.66	0.00	
2,047.0	0.50	316.20	2,046.9	4.2	0.3	-0.3	0.55	0.48	
2,108.0	0.40	295.70	2,107.9	4.5	0.0	0.1	0.31	-0.16	
2,169.0	0.50	296.50	2,168.9	4.7	-0.5	0.5	0.16	0.16	
2,231.0	0.50	266.00	2,230.9	4.8	-1.0	1.1	0.42	0.00	
2,292.0	0.60	261.00	2,291.9	4.7	-1.6	1.6	0.18	0.16	
2,354.0	0.40	268.30	2,353.9	4.7	-2.1	2.2	0.34	-0.32	
2,415.0	0.90	261.40	2,414.9	4.6	-2.8	2.9	0.83	0.82	
2,476.0	0.70	260.00	2,475.9	4.4	-3.6	3.7	0.33	-0.33	
2,538.0	0.80	257.10	2,537.9	4.3	-4.4	4.5	0.17	0.16	
2,601.0	0.50	250.40	2,600.9	4.1	-5.1	5.2	0.49	-0.48	
2,664.0	0.40	213.30	2,663.9	3.8	-5.5	5.6	0.48	-0.16	
2,727.0	0.40	76.10	2,726.9	3.7	-5.4	5.5	1.18	0.00	
2,790.0	0.50	88.30	2,789.9	3.8	-4.9	5.0	0.22	0.16	
2,854.0	0.40	86.20	2,853.9	3.8	-4.4	4.5	0.16	-0.16	
2,917.0	0.40	89.10	2,916.9	3.8	-4.0	4.0	0.03	0.00	
2,980.0	0.50	94.20	2,979.9	3.8	-3.5	3.5	0.17	0.16	
3,043.0	0.40	88.00	3,042.9	3.8	-3.0	3.0	0.18	-0.16	
3,106.0	0.40	89.30	3,105.9	3.8	-2.5	2.6	0.01	0.00	
3,170.0	0.30	99.40	3,169.9	3.7	-2.2	2.2	0.18	-0.16	
3,233.0	0.30	28.70	3,232.9	3.9	-1.9	2.0	0.55	0.00	
3,296.0	0.04	119.30	3,295.9	4.0	-1.8	1.9	0.48	-0.41	
3,359.0	0.10	223.10	3,358.9	3.9	-1.8	1.9	0.18	0.10	
3,422.0	0.10	176.70	3,421.9	3.9	-1.9	1.9	0.13	0.00	
3,485.0	0.10	169.10	3,484.9	3.7	-1.8	1.9	0.02	0.00	
3,548.0	0.20	217.30	3,547.9	3.6	-1.9	2.0	0.24	0.16	
3,612.0	0.30	225.40	3,611.9	3.4	-2.1	2.1	0.17	0.16	
3,675.0	0.20	271.70	3,674.9	3.3	-2.3	2.4	0.34	-0.16	
3,738.0	0.20	289.70	3,737.9	3.3	-2.5	2.6	0.10	0.00	
3,801.0	0.60	325.50	3,800.9	3.6	-2.8	2.9	0.72	0.63	
3,864.0	1.80	340.00	3,863.8	4.8	-3.3	3.4	1.95	1.90	
3,927.0	3.30	342.70	3,926.8	7.5	-4.2	4.4	2.39	2.38	
3,991.0	4.10	352.40	3,990.7	11.5	-5.1	5.3	1.58	1.25	
4,054.0	5.50	0.30	4,053.4	16.8	-5.4	5.6	2.45	2.22	
4,117.0	6.20	0.10	4,116.1	23.2	-5.3	5.7	1.11	1.11	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
4,180.0	7.50	0.60	4,178.7	30.7	-5.3	5.8	2.07	2.06	
4,243.0	8.50	357.50	4,241.0	39.5	-5.4	6.1	1.73	1.59	
4,306.0	8.90	351.30	4,303.3	48.9	-6.4	7.2	1.62	0.63	
4,369.0	10.20	353.60	4,365.4	59.3	-7.7	8.7	2.15	2.06	
4,433.0	12.00	1.00	4,428.2	71.6	-8.3	9.5	3.58	2.81	
4,496.0	12.20	4.70	4,489.8	84.8	-7.6	9.0	1.27	0.32	
4,559.0	12.30	2.50	4,551.4	98.1	-6.8	8.4	0.76	0.16	
4,623.0	11.20	1.30	4,614.1	111.1	-6.3	8.2	1.76	-1.72	
4,686.0	10.90	2.20	4,675.9	123.2	-6.0	8.0	0.55	-0.48	
4,749.0	11.20	4.40	4,737.7	135.3	-5.3	7.5	0.82	0.48	
4,812.0	10.10	2.80	4,799.6	146.9	-4.5	7.0	1.81	-1.75	
4,876.0	10.10	2.10	4,862.7	158.1	-4.0	6.7	0.19	0.00	
4,939.0	10.50	1.90	4,924.6	169.3	-3.6	6.5	0.64	0.63	
5,002.0	10.30	2.40	4,986.6	180.7	-3.2	6.3	0.35	-0.32	
5,034.0	9.60	4.00	5,018.1	186.2	-2.9	6.0	2.35	-2.19	
5,065.0	10.50	3.30	5,048.6	191.6	-2.6	5.8	2.93	2.90	
5,097.0	11.10	0.00	5,080.1	197.6	-2.4	5.7	2.69	1.87	
5,128.0	12.70	349.20	5,110.4	204.0	-3.0	6.5	8.82	5.16	
5,160.0	14.80	338.90	5,141.5	211.2	-5.2	8.7	10.06	6.56	
5,192.0	16.80	329.80	5,172.3	219.0	-9.0	12.6	9.93	6.25	
5,223.0	18.80	322.50	5,201.8	226.9	-14.3	18.1	9.66	6.45	
5,255.0	20.70	315.10	5,231.9	235.0	-21.4	25.3	9.80	5.94	
5,286.0	22.70	309.00	5,260.7	242.6	-29.9	34.0	9.72	6.45	
5,318.0	24.70	302.60	5,290.0	250.1	-40.4	44.5	10.17	6.25	
5,350.0	27.10	297.50	5,318.8	257.1	-52.5	56.8	10.23	7.50	
5,381.0	29.10	293.10	5,346.2	263.3	-65.7	70.1	9.29	6.45	
5,413.0	31.80	288.90	5,373.8	269.1	-80.8	85.3	10.74	8.44	
5,444.0	34.80	286.30	5,399.7	274.2	-97.0	101.6	10.72	9.68	
5,476.0	37.80	284.60	5,425.5	279.2	-115.3	119.9	9.89	9.37	
5,508.0	40.00	283.70	5,450.4	284.2	-134.8	139.5	7.10	6.87	
5,539.0	41.60	282.10	5,473.8	288.7	-154.5	159.3	6.17	5.16	
5,571.0	44.10	280.60	5,497.3	292.9	-175.8	180.7	8.44	7.82	
5,602.0	47.00	279.30	5,519.0	296.8	-197.6	202.6	9.82	9.35	
5,634.0	49.00	279.20	5,540.4	300.6	-221.1	226.1	6.25	6.25	
5,666.0	51.70	278.80	5,560.8	304.4	-245.4	250.5	8.49	8.44	
5,697.0	54.70	278.60	5,579.4	308.2	-270.0	275.1	9.69	9.68	
5,729.0	57.80	278.20	5,597.2	312.1	-296.3	301.5	9.74	9.69	
5,760.0	59.90	278.30	5,613.2	315.9	-322.5	327.8	6.78	6.77	
5,778.0	60.80	277.80	5,622.1	318.1	-338.0	343.3	5.55	5.00	
5,823.0	64.10	279.30	5,642.9	324.0	-377.5	382.9	7.90	7.33	
5,854.0	66.20	277.80	5,655.9	328.2	-405.3	410.7	8.07	6.77	
5,886.0	69.00	276.90	5,668.1	332.0	-434.6	440.1	9.13	8.75	
5,918.0	71.20	275.20	5,679.0	335.1	-464.6	470.1	8.50	6.87	
5,949.0	73.00	274.50	5,688.6	337.6	-493.9	499.5	6.19	5.81	
5,981.0	75.30	272.90	5,697.3	339.6	-524.7	530.3	8.65	7.19	
6,013.0	77.30	272.00	5,704.9	340.9	-555.7	561.4	6.82	6.25	
6,044.0	79.40	271.70	5,711.1	341.9	-586.1	591.7	6.84	6.77	
6,076.0	82.00	271.00	5,716.3	342.7	-617.6	623.3	8.41	8.12	
6,107.0	84.80	271.00	5,719.9	343.2	-648.4	654.1	9.03	9.03	
6,139.0	88.00	271.40	5,721.9	343.9	-680.3	686.0	10.08	10.00	
6,171.0	90.00	271.20	5,722.4	344.6	-712.3	718.0	6.28	6.25	
6,234.0	90.50	270.70	5,722.2	345.6	-775.3	781.0	1.12	0.79	
6,297.0	90.00	270.40	5,721.9	346.3	-838.3	844.0	0.93	-0.79	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
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Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,360.0	91.50	270.80	5,721.1	346.9	-901.3	907.0	2.46	2.38	
6,423.0	90.50	268.70	5,720.0	346.6	-964.3	970.0	3.69	-1.59	
6,487.0	90.40	268.90	5,719.5	345.3	-1,028.3	1,033.9	0.35	-0.16	
6,550.0	89.90	270.40	5,719.3	344.9	-1,091.3	1,096.9	2.51	-0.79	
6,613.0	89.70	269.10	5,719.5	344.6	-1,154.3	1,159.9	2.09	-0.32	
6,676.0	90.20	270.80	5,719.6	344.6	-1,217.3	1,222.9	2.81	0.79	
6,739.0	90.60	270.80	5,719.1	345.5	-1,280.3	1,285.9	0.63	0.63	
6,802.0	90.70	270.90	5,718.4	346.4	-1,343.2	1,348.9	0.22	0.16	
6,866.0	90.50	269.90	5,717.7	346.8	-1,407.2	1,412.9	1.59	-0.31	
6,929.0	90.30	270.60	5,717.3	347.1	-1,470.2	1,475.9	1.16	-0.32	
6,992.0	89.00	269.70	5,717.7	347.3	-1,533.2	1,538.8	2.51	-2.06	
7,056.0	91.30	273.30	5,717.5	349.0	-1,597.2	1,602.8	6.67	3.59	
7,119.0	91.30	273.30	5,716.1	352.6	-1,660.1	1,665.8	0.00	0.00	
7,182.0	91.50	272.50	5,714.6	355.8	-1,723.0	1,728.7	1.31	0.32	
7,245.0	91.70	272.60	5,712.8	358.6	-1,785.9	1,791.7	0.35	0.32	
7,309.0	90.80	272.90	5,711.4	361.6	-1,849.8	1,855.6	1.48	-1.41	
7,372.0	91.00	271.80	5,710.4	364.2	-1,912.7	1,918.6	1.77	0.32	
7,435.0	90.20	272.50	5,709.8	366.6	-1,975.7	1,981.6	1.69	-1.27	
7,498.0	90.80	272.30	5,709.2	369.2	-2,038.6	2,044.5	1.00	0.95	
7,562.0	90.20	271.80	5,708.6	371.5	-2,102.6	2,108.5	1.22	-0.94	
7,625.0	90.70	270.90	5,708.2	373.0	-2,165.6	2,171.5	1.63	0.79	
7,688.0	90.00	270.60	5,707.8	373.8	-2,228.6	2,234.5	1.21	-1.11	
7,751.0	89.90	271.80	5,707.8	375.1	-2,291.5	2,297.5	1.91	-0.16	
7,815.0	89.20	271.10	5,708.3	376.8	-2,355.5	2,361.5	1.55	-1.09	
7,877.0	89.60	270.90	5,709.0	377.8	-2,417.5	2,423.5	0.72	0.65	
7,941.0	90.00	271.00	5,709.2	378.9	-2,481.5	2,487.5	0.64	0.62	
8,005.0	90.20	271.00	5,709.1	380.0	-2,545.5	2,551.5	0.31	0.31	
8,068.0	90.00	270.40	5,709.0	380.8	-2,608.5	2,614.5	1.00	-0.32	
8,131.0	90.90	271.10	5,708.5	381.6	-2,671.5	2,677.5	1.81	1.43	
8,194.0	89.40	270.50	5,708.3	382.5	-2,734.5	2,740.5	2.56	-2.38	
8,257.0	90.60	270.50	5,708.3	383.0	-2,797.5	2,803.5	1.90	1.90	
8,320.0	90.60	271.60	5,707.7	384.2	-2,860.5	2,866.5	1.75	0.00	
8,384.0	89.60	270.80	5,707.5	385.5	-2,924.4	2,930.5	2.00	-1.56	
8,447.0	89.40	270.10	5,708.1	386.0	-2,987.4	2,993.5	1.16	-0.32	
8,510.0	89.30	269.10	5,708.8	385.6	-3,050.4	3,056.5	1.60	-0.16	
8,573.0	89.90	269.90	5,709.2	385.0	-3,113.4	3,119.4	1.59	0.95	
8,636.0	90.00	269.60	5,709.3	384.8	-3,176.4	3,182.4	0.50	0.16	
8,700.0	90.70	270.10	5,708.9	384.6	-3,240.4	3,246.4	1.34	1.09	
8,763.0	90.60	269.70	5,708.2	384.5	-3,303.4	3,309.4	0.65	-0.16	
8,826.0	90.90	269.80	5,707.4	384.2	-3,366.4	3,372.4	0.50	0.48	
8,889.0	90.80	270.70	5,706.4	384.5	-3,429.4	3,435.4	1.44	-0.16	
8,952.0	90.00	269.90	5,706.0	384.8	-3,492.4	3,498.4	1.80	-1.27	
9,016.0	89.70	271.00	5,706.2	385.3	-3,556.4	3,562.4	1.78	-0.47	
9,079.0	90.20	271.00	5,706.2	386.4	-3,619.4	3,625.4	0.79	0.79	
9,142.0	90.60	271.50	5,705.8	387.8	-3,682.4	3,688.3	1.02	0.63	
9,206.0	90.00	271.30	5,705.4	389.4	-3,746.3	3,752.3	0.99	-0.94	
9,269.0	89.90	272.10	5,705.5	391.2	-3,809.3	3,815.3	1.28	-0.16	
9,332.0	90.00	272.10	5,705.6	393.5	-3,872.3	3,878.3	0.16	0.16	
9,395.0	90.50	271.40	5,705.3	395.5	-3,935.2	3,941.3	1.37	0.79	
9,459.0	89.40	272.20	5,705.3	397.5	-3,999.2	4,005.3	2.13	-1.72	
9,522.0	89.60	271.40	5,705.9	399.5	-4,062.2	4,068.3	1.31	0.32	
9,585.0	90.60	272.60	5,705.8	401.7	-4,125.1	4,131.3	2.48	1.59	
9,648.0	89.80	272.50	5,705.6	404.5	-4,188.1	4,194.3	1.28	-1.27	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S14-T24N-R8W
Well: Escrito L14-2408 04H
Wellbore: HZ
Design: FINAL

Local Co-ordinate Reference: Well Escrito L14-2408 04H
TVD Reference: WELL @ 6912.0usft (A950)
MD Reference: WELL @ 6912.0usft (A950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Formations / Comments
9,712.0	90.50	271.90	5,705.4	406.9	-4,252.0	4,258.2	1.44	1.09	
9,775.0	90.30	272.10	5,704.9	409.1	-4,315.0	4,321.2	0.45	-0.32	
9,838.0	89.90	271.50	5,704.8	411.1	-4,378.0	4,384.2	1.14	-0.63	
9,901.0	90.10	271.10	5,704.8	412.5	-4,440.9	4,447.2	0.71	0.32	
9,964.0	90.60	271.70	5,704.5	414.1	-4,503.9	4,510.2	1.24	0.79	
10,028.0	90.80	271.80	5,703.7	416.0	-4,567.9	4,574.2	0.35	0.31	
10,091.0	91.10	271.80	5,702.6	418.0	-4,630.8	4,637.2	0.48	0.48	
10,154.0	90.80	272.50	5,701.6	420.4	-4,693.8	4,700.2	1.21	-0.48	
10,217.0	89.60	272.60	5,701.4	423.2	-4,756.7	4,763.1	1.91	-1.90	
10,280.0	89.70	272.30	5,701.7	425.9	-4,819.7	4,826.1	0.50	0.16	
10,302.0	89.70	271.00	5,701.9	426.5	-4,841.7	4,848.1	5.91	0.00	Last CES Survey @ 10,302' MD
10,350.0	89.70	271.00	5,702.1	427.3	-4,889.6	4,896.1	0.00	0.00	PTB @ 10,350'

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
Escrito L14-2407 04H PI	0.00	0.00	5,746.5	331.6	-348.5	1,932,781.86	2,773,667.01	36.311640	-107.661670
- actual wellpath misses target center by 106.0usft at 5841.6usft MD (5650.9 TVD, 326.6 N, -394.1 E)									
- Point									
Escrito L14-2408 04H PI	0.00	0.00	5,714.7	408.5	-4,912.2	1,932,850.58	2,769,103.23	36.311850	-107.677160
- actual wellpath misses target center by 31.9usft at 10350.0usft MD (5702.1 TVD, 427.3 N, -4889.6 E)									
- Point									
Escrito L14-2408 04H PI	0.00	0.00	5,698.7	408.5	-4,912.2	1,932,850.58	2,769,103.23	36.311850	-107.677160
- actual wellpath misses target center by 29.6usft at 10350.0usft MD (5702.1 TVD, 427.3 N, -4889.6 E)									
- Point									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,302.0	5,701.9	426.5	-4,841.7	Last CES Survey @ 10,302' MD
10,350.0	5,702.1	427.3	-4,889.6	PTB @ 10,350'

Checked By: _____

Approved By: _____

Date: _____

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S14-T24N-R8W

Escrito L14-2408 04H

HZ

Design: FINAL

Survey Report - Geographic

14 October, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	San Juan County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	S14-T24N-R8W				
Site Position:		Northing:	1,932,458.56 usft	Latitude:	36.310750
From:	Lat/Long	Easting:	2,774,044.71 usft	Longitude:	-107.660390
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	Escrito L14-2408 04H					
Well Position	+N/-S	0.0 usft	Northing:	1,932,450.86 usft	Latitude:	36.310729
	+E/-W	0.0 usft	Easting:	2,774,016.14 usft	Longitude:	-107.660487
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,896.0 usft	

Wellbore	1 HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/1/2014	9.40	63.03	50,173

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	270.96	

Survey Program		Date	10/14/2014		
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
108.0	10,350.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD	

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
0.0	0.00	0.00	0.0	0.0	0.0	1,932,450.86	2,774,016.14	36.310729	-107.660487
108.0	0.10	64.00	108.0	0.0	0.1	1,932,450.90	2,774,016.23	36.310729	-107.660487
168.0	0.04	318.40	168.0	0.1	0.1	1,932,450.94	2,774,016.26	36.310729	-107.660487
226.0	0.10	226.80	226.0	0.1	0.1	1,932,450.92	2,774,016.21	36.310729	-107.660487
290.0	0.20	220.40	290.0	-0.1	0.0	1,932,450.80	2,774,016.10	36.310729	-107.660487
354.0	0.01	173.00	354.0	-0.2	-0.1	1,932,450.71	2,774,016.02	36.310729	-107.660488
417.0	0.40	71.50	417.0	-0.1	0.1	1,932,450.77	2,774,016.23	36.310729	-107.660487
450.0	0.70	89.70	450.0	-0.1	0.4	1,932,450.81	2,774,016.54	36.310729	-107.660486
557.0	0.70	86.10	557.0	0.0	1.7	1,932,450.86	2,774,017.85	36.310729	-107.660481
620.0	0.70	83.80	620.0	0.1	2.5	1,932,450.93	2,774,018.62	36.310729	-107.660479
683.0	0.90	4.00	683.0	0.6	2.9	1,932,451.46	2,774,019.03	36.310731	-107.660477
746.0	1.30	5.40	746.0	1.8	3.0	1,932,452.67	2,774,019.13	36.310734	-107.660477

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
809.0	0.80	339.10	809.0	2.9	2.9	1,932,453.79	2,774,019.04	36.310737	-107.660477
872.0	0.30	347.60	872.0	3.5	2.7	1,932,454.36	2,774,018.85	36.310739	-107.660478
936.0	0.40	342.50	936.0	3.9	2.6	1,932,454.74	2,774,018.74	36.310740	-107.660478
999.0	0.10	242.60	999.0	4.1	2.5	1,932,454.92	2,774,018.63	36.310740	-107.660479
1,062.0	0.40	267.10	1,062.0	4.0	2.2	1,932,454.89	2,774,018.36	36.310740	-107.660480
1,125.0	0.40	303.00	1,124.9	4.1	1.8	1,932,454.99	2,774,017.96	36.310740	-107.660481
1,187.0	0.50	329.10	1,186.9	4.5	1.5	1,932,455.34	2,774,017.63	36.310741	-107.660482
1,248.0	0.80	319.00	1,247.9	5.0	1.1	1,932,455.89	2,774,017.22	36.310743	-107.660484
1,310.0	1.00	309.40	1,309.9	5.7	0.4	1,932,456.56	2,774,016.51	36.310745	-107.660486
1,371.0	0.30	0.80	1,370.9	6.2	0.0	1,932,457.06	2,774,016.10	36.310746	-107.660487
1,433.0	0.20	340.20	1,432.9	6.5	-0.1	1,932,457.32	2,774,016.07	36.310747	-107.660487
1,494.0	0.30	337.70	1,493.9	6.7	-0.2	1,932,457.57	2,774,015.97	36.310748	-107.660488
1,555.0	0.04	229.70	1,554.9	6.8	-0.2	1,932,457.70	2,774,015.90	36.310748	-107.660488
1,617.0	0.50	177.50	1,616.9	6.6	-0.2	1,932,457.42	2,774,015.89	36.310747	-107.660488
1,678.0	0.80	176.00	1,677.9	5.9	-0.2	1,932,456.73	2,774,015.93	36.310745	-107.660488
1,740.0	0.50	164.00	1,739.9	5.2	-0.1	1,932,456.04	2,774,016.04	36.310743	-107.660488
1,801.0	0.60	147.70	1,800.9	4.7	0.2	1,932,455.51	2,774,016.28	36.310742	-107.660487
1,863.0	0.40	154.00	1,862.9	4.2	0.4	1,932,455.04	2,774,016.55	36.310741	-107.660486
1,924.0	0.20	162.60	1,923.9	3.9	0.5	1,932,454.75	2,774,016.68	36.310740	-107.660485
1,985.0	0.20	345.70	1,984.9	3.9	0.6	1,932,454.75	2,774,016.68	36.310740	-107.660485
2,047.0	0.50	316.20	2,046.9	4.2	0.3	1,932,455.05	2,774,016.47	36.310741	-107.660486
2,108.0	0.40	295.70	2,107.9	4.5	0.0	1,932,455.34	2,774,016.09	36.310741	-107.660487
2,169.0	0.50	296.50	2,168.9	4.7	-0.5	1,932,455.55	2,774,015.66	36.310742	-107.660489
2,231.0	0.50	266.00	2,230.9	4.8	-1.0	1,932,455.65	2,774,015.15	36.310742	-107.660491
2,292.0	0.60	261.00	2,291.9	4.7	-1.6	1,932,455.58	2,774,014.57	36.310742	-107.660493
2,354.0	0.40	268.30	2,353.9	4.7	-2.1	1,932,455.52	2,774,014.03	36.310742	-107.660494
2,415.0	0.90	261.40	2,414.9	4.6	-2.8	1,932,455.44	2,774,013.35	36.310742	-107.660497
2,476.0	0.70	260.00	2,475.9	4.4	-3.6	1,932,455.30	2,774,012.51	36.310741	-107.660500
2,538.0	0.80	257.10	2,537.9	4.3	-4.4	1,932,455.14	2,774,011.71	36.310741	-107.660502
2,601.0	0.50	250.40	2,600.9	4.1	-5.1	1,932,454.95	2,774,011.02	36.310740	-107.660505
2,664.0	0.40	213.30	2,663.9	3.8	-5.5	1,932,454.67	2,774,010.65	36.310740	-107.660506
2,727.0	0.40	76.10	2,726.9	3.7	-5.4	1,932,454.54	2,774,010.74	36.310739	-107.660506
2,790.0	0.50	88.30	2,789.9	3.8	-4.9	1,932,454.60	2,774,011.23	36.310739	-107.660504
2,854.0	0.40	86.20	2,853.9	3.8	-4.4	1,932,454.63	2,774,011.73	36.310739	-107.660502
2,917.0	0.40	89.10	2,916.9	3.8	-4.0	1,932,454.64	2,774,012.17	36.310740	-107.660501
2,980.0	0.50	94.20	2,979.9	3.8	-3.5	1,932,454.63	2,774,012.66	36.310739	-107.660499
3,043.0	0.40	88.00	3,042.9	3.8	-3.0	1,932,454.62	2,774,013.16	36.310739	-107.660497
3,106.0	0.40	89.30	3,105.9	3.8	-2.5	1,932,454.63	2,774,013.60	36.310739	-107.660496
3,170.0	0.30	99.40	3,169.9	3.7	-2.2	1,932,454.60	2,774,013.98	36.310739	-107.660495
3,233.0	0.30	28.70	3,232.9	3.9	-1.9	1,932,454.72	2,774,014.23	36.310740	-107.660494
3,296.0	0.04	119.30	3,295.9	4.0	-1.8	1,932,454.86	2,774,014.32	36.310740	-107.660493
3,359.0	0.10	223.10	3,358.9	3.9	-1.8	1,932,454.81	2,774,014.31	36.310740	-107.660493
3,422.0	0.10	176.70	3,421.9	3.9	-1.9	1,932,454.71	2,774,014.27	36.310740	-107.660494
3,485.0	0.10	169.10	3,484.9	3.7	-1.8	1,932,454.60	2,774,014.29	36.310739	-107.660494
3,548.0	0.20	217.30	3,547.9	3.6	-1.9	1,932,454.46	2,774,014.23	36.310739	-107.660494
3,612.0	0.30	225.40	3,611.9	3.4	-2.1	1,932,454.25	2,774,014.04	36.310738	-107.660494
3,675.0	0.20	271.70	3,674.9	3.3	-2.3	1,932,454.14	2,774,013.82	36.310738	-107.660495
3,738.0	0.20	289.70	3,737.9	3.3	-2.5	1,932,454.18	2,774,013.60	36.310738	-107.660496
3,801.0	0.60	325.50	3,800.9	3.6	-2.8	1,932,454.49	2,774,013.31	36.310739	-107.660497
3,864.0	1.80	340.00	3,863.8	4.8	-3.3	1,932,455.69	2,774,012.78	36.310742	-107.660499
3,927.0	3.30	342.70	3,926.8	7.5	-4.2	1,932,458.35	2,774,011.90	36.310750	-107.660502
3,991.0	4.10	352.40	3,990.7	11.5	-5.1	1,932,462.37	2,774,011.04	36.310761	-107.660505
4,054.0	5.50	0.30	4,053.4	16.8	-5.4	1,932,467.63	2,774,010.75	36.310775	-107.660505
4,117.0	6.20	0.10	4,116.1	23.2	-5.3	1,932,474.05	2,774,010.76	36.310793	-107.660505
4,180.0	7.50	0.60	4,178.7	30.7	-5.3	1,932,481.56	2,774,010.80	36.310813	-107.660505

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,243.0	8.50	357.50	4,241.0	39.5	-5.4	1,932,490.32	2,774,010.62	36.310838	-107.660506
4,306.0	8.90	351.30	4,303.3	48.9	-6.4	1,932,499.79	2,774,009.67	36.310864	-107.660509
4,369.0	10.20	353.60	4,365.4	59.3	-7.7	1,932,510.15	2,774,008.29	36.310892	-107.660514
4,433.0	12.00	1.00	4,428.2	71.6	-8.3	1,932,522.43	2,774,007.75	36.310926	-107.660515
4,496.0	12.20	4.70	4,489.8	84.8	-7.6	1,932,535.62	2,774,008.39	36.310962	-107.660513
4,559.0	12.30	2.50	4,551.4	98.1	-6.8	1,932,548.96	2,774,009.20	36.310999	-107.660510
4,623.0	11.20	1.30	4,614.1	111.1	-6.3	1,932,561.98	2,774,009.62	36.311034	-107.660509
4,686.0	10.90	2.20	4,675.9	123.2	-6.0	1,932,574.05	2,774,009.96	36.311068	-107.660507
4,749.0	11.20	4.40	4,737.7	135.3	-5.3	1,932,586.11	2,774,010.64	36.311101	-107.660505
4,812.0	10.10	2.80	4,799.6	146.9	-4.5	1,932,597.73	2,774,011.36	36.311133	-107.660503
4,876.0	10.10	2.10	4,862.7	158.1	-4.0	1,932,608.94	2,774,011.82	36.311163	-107.660501
4,939.0	10.50	1.90	4,924.6	169.3	-3.6	1,932,620.20	2,774,012.19	36.311194	-107.660500
5,002.0	10.30	2.40	4,986.6	180.7	-3.2	1,932,631.56	2,774,012.60	36.311226	-107.660498
5,034.0	9.60	4.00	5,018.1	186.2	-2.9	1,932,637.09	2,774,012.89	36.311241	-107.660497
5,065.0	10.50	3.30	5,048.6	191.6	-2.6	1,932,642.48	2,774,013.22	36.311256	-107.660496
5,097.0	11.10	0.00	5,080.1	197.6	-2.4	1,932,648.48	2,774,013.38	36.311272	-107.660495
5,128.0	12.70	349.20	5,110.4	204.0	-3.0	1,932,654.81	2,774,012.73	36.311289	-107.660498
5,160.0	14.80	338.90	5,141.5	211.2	-5.2	1,932,662.07	2,774,010.59	36.311309	-107.660505
5,192.0	16.80	329.80	5,172.3	219.0	-9.0	1,932,669.88	2,774,006.78	36.311331	-107.660518
5,223.0	18.80	322.50	5,201.8	226.9	-14.3	1,932,677.71	2,774,001.47	36.311352	-107.660536
5,255.0	20.70	315.10	5,231.9	235.0	-21.4	1,932,685.79	2,773,994.32	36.311375	-107.660560
5,286.0	22.70	309.00	5,260.7	242.6	-29.9	1,932,693.42	2,773,985.79	36.311396	-107.660589
5,318.0	24.70	302.60	5,290.0	250.1	-40.4	1,932,700.90	2,773,975.34	36.311416	-107.660624
5,350.0	27.10	297.50	5,318.8	257.1	-52.5	1,932,707.84	2,773,963.23	36.311435	-107.660665
5,381.0	29.10	293.10	5,346.2	263.3	-65.7	1,932,714.04	2,773,950.02	36.311452	-107.660710
5,413.0	31.80	288.90	5,373.8	269.1	-80.8	1,932,719.80	2,773,934.87	36.311468	-107.660762
5,444.0	34.80	286.30	5,399.7	274.2	-97.0	1,932,724.90	2,773,918.63	36.311482	-107.660817
5,476.0	37.80	284.60	5,425.5	279.2	-115.3	1,932,729.90	2,773,900.37	36.311496	-107.660879
5,508.0	40.00	283.70	5,450.4	284.2	-134.8	1,932,734.78	2,773,880.87	36.311510	-107.660945
5,539.0	41.60	282.10	5,473.8	288.7	-154.5	1,932,739.26	2,773,861.12	36.311522	-107.661012
5,571.0	44.10	280.60	5,497.3	292.9	-175.8	1,932,743.49	2,773,839.79	36.311534	-107.661084
5,602.0	47.00	279.30	5,519.0	296.8	-197.6	1,932,747.27	2,773,817.99	36.311544	-107.661158
5,634.0	49.00	279.20	5,540.4	300.6	-221.1	1,932,751.05	2,773,794.51	36.311555	-107.661238
5,666.0	51.70	278.80	5,560.8	304.4	-245.4	1,932,754.86	2,773,770.17	36.311565	-107.661320
5,697.0	54.70	278.60	5,579.4	308.2	-270.0	1,932,758.57	2,773,745.63	36.311576	-107.661404
5,729.0	57.80	278.20	5,597.2	312.1	-296.3	1,932,762.41	2,773,719.30	36.311586	-107.661493
5,760.0	59.90	278.30	5,613.2	315.9	-322.5	1,932,766.17	2,773,693.04	36.311597	-107.661582
5,778.0	60.80	277.80	5,622.1	318.1	-338.0	1,932,768.33	2,773,677.55	36.311603	-107.661635
5,823.0	64.10	279.30	5,642.9	324.0	-377.5	1,932,774.20	2,773,638.08	36.311619	-107.661769
5,854.0	66.20	277.80	5,655.9	328.2	-405.3	1,932,778.33	2,773,610.26	36.311631	-107.661863
5,886.0	69.00	276.90	5,668.1	332.0	-434.6	1,932,782.06	2,773,580.91	36.311641	-107.661963
5,918.0	71.20	275.20	5,679.0	335.1	-464.6	1,932,785.17	2,773,550.99	36.311650	-107.662064
5,949.0	73.00	274.50	5,688.6	337.6	-493.9	1,932,787.61	2,773,521.59	36.311657	-107.662164
5,981.0	75.30	272.90	5,697.3	339.6	-524.7	1,932,789.54	2,773,490.87	36.311662	-107.662268
6,013.0	77.30	272.00	5,704.9	340.9	-555.7	1,932,790.81	2,773,459.81	36.311666	-107.662374
6,044.0	79.40	271.70	5,711.1	341.9	-586.1	1,932,791.74	2,773,429.47	36.311668	-107.662477
6,076.0	82.00	271.00	5,716.3	342.7	-617.6	1,932,792.43	2,773,397.90	36.311670	-107.662584
6,107.0	84.80	271.00	5,719.9	343.2	-648.4	1,932,792.91	2,773,367.11	36.311672	-107.662688
6,139.0	88.00	271.40	5,721.9	343.9	-680.3	1,932,793.52	2,773,335.18	36.311674	-107.662797
6,171.0	90.00	271.20	5,722.4	344.6	-712.3	1,932,794.19	2,773,303.20	36.311676	-107.662905
6,234.0	90.50	270.70	5,722.2	345.6	-775.3	1,932,795.12	2,773,240.20	36.311679	-107.663119
6,297.0	90.00	270.40	5,721.9	346.3	-838.3	1,932,795.61	2,773,177.21	36.311680	-107.663333
6,360.0	91.50	270.80	5,721.1	346.9	-901.3	1,932,796.16	2,773,114.22	36.311682	-107.663546
6,423.0	90.50	268.70	5,720.0	346.6	-964.3	1,932,795.77	2,773,051.23	36.311681	-107.663760
6,487.0	90.40	268.90	5,719.5	345.3	-1,028.3	1,932,794.32	2,772,987.25	36.311678	-107.663977

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,550.0	89.90	270.40	5,719.3	344.9	-1,091.3	1,932,793.82	2,772,924.25	36.311677	-107.664191
6,613.0	89.70	269.10	5,719.5	344.6	-1,154.3	1,932,793.43	2,772,861.26	36.311676	-107.664405
6,676.0	90.20	270.80	5,719.6	344.6	-1,217.3	1,932,793.27	2,772,798.26	36.311676	-107.664619
6,739.0	90.60	270.80	5,719.1	345.5	-1,280.3	1,932,794.03	2,772,735.27	36.311678	-107.664833
6,802.0	90.70	270.90	5,718.4	346.4	-1,343.2	1,932,794.86	2,772,672.27	36.311681	-107.665047
6,866.0	90.50	269.90	5,717.7	346.8	-1,407.2	1,932,795.19	2,772,608.28	36.311682	-107.665264
6,929.0	90.30	270.60	5,717.3	347.1	-1,470.2	1,932,795.35	2,772,545.28	36.311683	-107.665478
6,992.0	89.00	269.70	5,717.7	347.3	-1,533.2	1,932,795.40	2,772,482.29	36.311683	-107.665691
7,056.0	91.30	273.30	5,717.5	349.0	-1,597.2	1,932,796.96	2,772,418.32	36.311688	-107.665908
7,119.0	91.30	273.30	5,716.1	352.6	-1,660.1	1,932,800.48	2,772,355.43	36.311698	-107.666122
7,182.0	91.50	272.50	5,714.6	355.8	-1,723.0	1,932,803.55	2,772,292.53	36.311706	-107.666335
7,245.0	91.70	272.60	5,712.8	358.6	-1,785.9	1,932,806.24	2,772,229.61	36.311714	-107.666549
7,309.0	90.80	272.90	5,711.4	361.6	-1,849.8	1,932,809.20	2,772,165.69	36.311722	-107.666766
7,372.0	91.00	271.80	5,710.4	364.2	-1,912.7	1,932,811.67	2,772,102.75	36.311729	-107.666980
7,435.0	90.20	272.50	5,709.8	366.6	-1,975.7	1,932,813.92	2,772,039.80	36.311736	-107.667193
7,498.0	90.80	272.30	5,709.2	369.2	-2,038.6	1,932,816.44	2,771,976.85	36.311743	-107.667407
7,562.0	90.20	271.80	5,708.6	371.5	-2,102.6	1,932,818.62	2,771,912.89	36.311749	-107.667624
7,625.0	90.70	270.90	5,708.1	373.0	-2,165.6	1,932,819.99	2,771,849.91	36.311754	-107.667838
7,688.0	90.00	270.60	5,707.8	373.8	-2,228.6	1,932,820.70	2,771,786.91	36.311756	-107.668051
7,751.0	89.90	271.80	5,707.8	375.1	-2,291.5	1,932,821.91	2,771,723.93	36.311759	-107.668265
7,815.0	89.20	271.10	5,708.3	376.8	-2,355.5	1,932,823.41	2,771,659.95	36.311764	-107.668482
7,877.0	89.60	270.90	5,709.0	377.8	-2,417.5	1,932,824.39	2,771,597.96	36.311767	-107.668693
7,941.0	90.00	271.00	5,709.2	378.9	-2,481.5	1,932,825.33	2,771,533.96	36.311770	-107.668910
8,005.0	90.20	271.00	5,709.1	380.0	-2,545.5	1,932,826.33	2,771,469.97	36.311773	-107.669127
8,068.0	90.00	270.40	5,709.0	380.8	-2,608.5	1,932,826.99	2,771,406.98	36.311775	-107.669341
8,131.0	90.90	271.10	5,708.5	381.6	-2,671.5	1,932,827.70	2,771,343.98	36.311777	-107.669555
8,194.0	89.40	270.50	5,708.3	382.5	-2,734.5	1,932,828.47	2,771,280.99	36.311779	-107.669769
8,257.0	90.60	270.50	5,708.3	383.0	-2,797.5	1,932,828.91	2,771,217.99	36.311781	-107.669982
8,320.0	90.60	271.60	5,707.7	384.2	-2,860.5	1,932,829.95	2,771,155.01	36.311784	-107.670196
8,384.0	89.60	270.80	5,707.5	385.5	-2,924.4	1,932,831.18	2,771,091.02	36.311788	-107.670413
8,447.0	89.40	270.10	5,708.1	386.0	-2,987.4	1,932,831.56	2,771,028.02	36.311789	-107.670627
8,510.0	89.30	269.10	5,708.8	385.6	-3,050.4	1,932,831.01	2,770,965.03	36.311788	-107.670841
8,573.0	89.90	269.90	5,709.2	385.0	-3,113.4	1,932,830.34	2,770,902.04	36.311786	-107.671055
8,636.0	90.00	269.60	5,709.3	384.8	-3,176.4	1,932,829.96	2,770,839.04	36.311786	-107.671269
8,700.0	90.70	270.10	5,708.9	384.6	-3,240.4	1,932,829.67	2,770,775.04	36.311785	-107.671486
8,763.0	90.60	269.70	5,708.2	384.5	-3,303.4	1,932,829.45	2,770,712.04	36.311785	-107.671700
8,826.0	90.90	269.80	5,707.4	384.2	-3,366.4	1,932,829.06	2,770,649.05	36.311784	-107.671914
8,889.0	90.80	270.70	5,706.4	384.5	-3,429.4	1,932,829.23	2,770,586.06	36.311785	-107.672127
8,952.0	90.00	269.90	5,706.0	384.8	-3,492.4	1,932,829.44	2,770,523.06	36.311786	-107.672341
9,016.0	89.70	271.00	5,706.2	385.3	-3,556.4	1,932,829.83	2,770,459.06	36.311787	-107.672558
9,079.0	90.20	271.00	5,706.2	386.4	-3,619.4	1,932,830.82	2,770,396.07	36.311790	-107.672772
9,142.0	90.60	271.50	5,705.8	387.8	-3,682.4	1,932,832.08	2,770,333.09	36.311794	-107.672986
9,206.0	90.00	271.30	5,705.4	389.4	-3,746.3	1,932,833.53	2,770,269.10	36.311798	-107.673203
9,269.0	89.90	272.10	5,705.5	391.2	-3,809.3	1,932,835.29	2,770,206.13	36.311803	-107.673417
9,332.0	90.00	272.10	5,705.6	393.5	-3,872.3	1,932,837.48	2,770,143.17	36.311809	-107.673631
9,395.0	90.50	271.40	5,705.3	395.5	-3,935.2	1,932,839.29	2,770,080.20	36.311815	-107.673844
9,459.0	89.40	272.20	5,705.3	397.5	-3,999.2	1,932,841.19	2,770,016.23	36.311820	-107.674061
9,522.0	89.60	271.40	5,705.9	399.5	-4,062.2	1,932,843.06	2,769,953.26	36.311826	-107.674275
9,585.0	90.60	272.60	5,705.8	401.7	-4,125.1	1,932,845.14	2,769,890.29	36.311832	-107.674489
9,648.0	89.80	272.50	5,705.6	404.5	-4,188.1	1,932,847.83	2,769,827.35	36.311839	-107.674702
9,712.0	90.50	271.90	5,705.4	406.9	-4,252.0	1,932,850.18	2,769,763.39	36.311846	-107.674920
9,775.0	90.30	272.10	5,704.9	409.1	-4,315.0	1,932,852.26	2,769,700.43	36.311852	-107.675133
9,838.0	89.90	271.50	5,704.8	411.1	-4,378.0	1,932,854.13	2,769,637.46	36.311857	-107.675347
9,901.0	90.10	271.10	5,704.8	412.5	-4,440.9	1,932,855.44	2,769,574.47	36.311861	-107.675561
9,964.0	90.60	271.70	5,704.5	414.1	-4,503.9	1,932,856.87	2,769,511.49	36.311866	-107.675775

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L14-2408 04H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6912.0usft (A950)
Site:	S14-T24N-R8W	MD Reference:	WELL @ 6912.0usft (A950)
Well:	Escrito L14-2408 04H	North Reference:	True
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,028.0	90.80	271.80	5,703.7	416.0	-4,567.9	1,932,858.71	2,769,447.52	36.311871	-107.675992
10,091.0	91.10	271.80	5,702.6	418.0	-4,630.8	1,932,860.58	2,769,384.56	36.311876	-107.676205
10,154.0	90.80	272.50	5,701.6	420.4	-4,693.8	1,932,862.83	2,769,321.61	36.311883	-107.676419
10,217.0	89.60	272.60	5,701.4	423.2	-4,756.7	1,932,865.52	2,769,258.67	36.311890	-107.676633
10,280.0	89.70	272.30	5,701.7	425.9	-4,819.7	1,932,868.10	2,769,195.72	36.311898	-107.676846
10,302.0	89.70	271.00	5,701.9	426.5	-4,841.7	1,932,868.69	2,769,173.73	36.311900	-107.676921
Last CES Survey @ 10,302' MD									
10,350.0	89.70	271.00	5,702.1	427.3	-4,889.6	1,932,869.45	2,769,125.74	36.311902	-107.677084
PTB @ 10,350'									

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
Escrito L14-2408 04H PI	0.00	0.00	5,698.7	408.5	-4,912.2	1,932,850.58	2,769,103.23	36.311850	-107.677160
- actual wellpath misses target center by 29.6usft at 10350.0usft MD (5702.1 TVD, 427.3 N, -4889.6 E)									
- Point									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
10,302.0	5,701.9	426.5	-4,841.7	Last CES Survey @ 10,302' MD
10,350.0	5,702.1	427.3	-4,889.6	PTB @ 10,350'

Checked By: _____ Approved By: _____ Date: _____