

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, 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

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35390		*Pool Code 5890		*Pool Name BISTI LOWER - GALLUP	
*Property Code 39823		*Property Name ESCRITO A31-2409			*Well Number 01H
*GRID No. 282327		*Operator Name ENCANA OIL & GAS (USA) INC.			*Elevation 6864'

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
A	31	24N	9W		959	NORTH	300	EAST	SAN JUAN

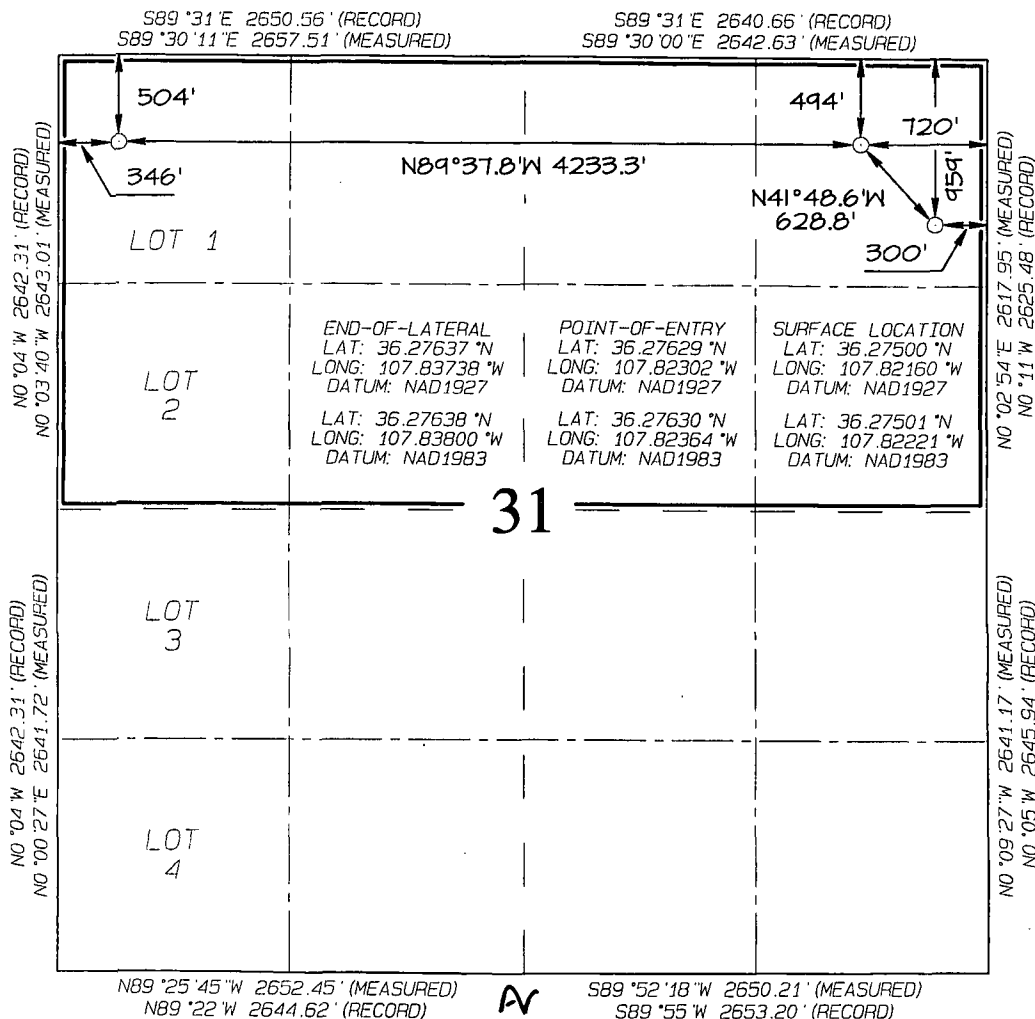
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	31	24N	9W	1	504	NORTH	346	WEST	SAN JUAN

¹² Dedicated Acres 320.84 Acres - (N/2)					¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No. RCVD JUL 17 '13 OIL CONS. DIV.	
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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

DIST. 3



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.

Signature: *Brenda Linster* Date: 7-10-13
Brenda Linster, Regulatory Lead
Printed Name: *Brenda Linster*
brenda.linster@encana.com
E-mail Address:

¹⁸ 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 Revised: JUNE 12, 2013
Survey Date: FEBRUARY 9, 2012
Signature and Seal of Professional Surveyor

Jason C. Edwards
JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269
Certificate Number 15269

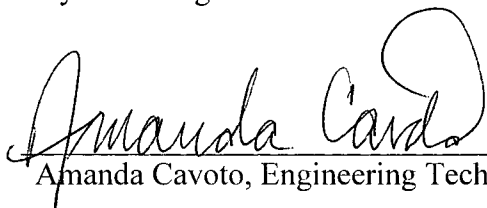
DEVIATION SURVEYS

MD (Feet)	Inclination (Degree)
553	1.5
798	0.9
1104	0.7
1287	0.4
1410	0.6
1725	0.5
2040	1.7
2354	1.4
2669	0.5
2984	1.1
3299	1.7
3615	0.8
3929	0.2
4119	1.5

RCVD JUL 17 '13
OIL CONS. DIV.
DIST. 3

OPERATOR CERTIFICATION

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


Amanda Cavoto, Engineering Technologist

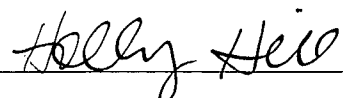
7/11/13

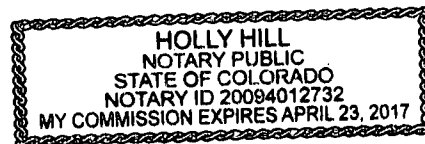
ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 11th day of July, 2013 by Amanda Cavoto as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said corporation.

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

Notary Public: 
My Commission Expires: April 23, 2017



Cathedral Energy Services

Survey Report

RCVD JUL 17 '13
OIL CONS. DIV.
DIST. 3

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito A31-2409 01H
Project:	San Juan County, NM	TVD Reference:	KB @ 6880.0ft (Aztec 950)
Site:	S31-T24N-R9W	MD Reference:	KB @ 6880.0ft (Aztec 950)
Well:	Escrito A31-2409 01H	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		S31-T24N-R9W			
Site Position:		Northing:	1,919,406.77 ft	Latitude:	36.275010
From:	Lat/Long	Easting:	2,726,375.80 ft	Longitude:	-107.822210
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.01 °

Well	Escrito A31-2409 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,919,406.77 ft	Latitude:	36.275010
	+E/-W	0.0 ft	Easting:	2,726,375.80 ft	Longitude:	-107.822210
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,864.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/23/2013	9.63	63.00	50,265

Design	FINAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	270.51

Survey Program		Date	6/3/2013		
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
553.0	9,615.0	Survey #1 (Hz)	MWD	Geolink MWD	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
553.0	1.50	262.70	552.9	-0.9	-7.2	7.2	0.27	0.27	
614.0	2.40	247.00	613.9	-1.5	-9.1	9.1	1.70	1.48	
676.0	1.40	247.90	675.9	-2.3	-11.0	11.0	1.61	-1.61	
737.0	0.70	197.70	736.9	-2.9	-11.8	11.8	1.79	-1.15	
798.0	0.90	172.70	797.9	-3.8	-11.9	11.9	0.65	0.33	
859.0	2.10	172.70	858.8	-5.4	-11.7	11.6	1.97	1.97	
920.0	1.10	163.80	919.8	-7.0	-11.4	11.3	1.68	-1.64	
981.0	0.50	352.10	980.8	-7.3	-11.3	11.2	2.62	-0.98	
1,042.0	1.50	14.90	1,041.8	-6.3	-11.1	11.0	1.73	1.64	
1,104.0	0.70	138.10	1,103.8	-5.8	-10.6	10.6	3.18	-1.29	
1,165.0	0.60	182.60	1,164.8	-6.4	-10.4	10.3	0.82	-0.16	
1,226.0	0.90	78.50	1,225.8	-6.6	-9.9	9.9	1.96	0.49	

Cathedral Energy Services

Survey Report

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Site:	S31-T24N-R9W	MD Reference:	KB @ 6880.0ft (Aztec 950)
Well:	Escrito A31-2409 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	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
1,287.0	0.40	255.10	1,286.8	-6.6	-9.7	9.6	2.13	-0.82	
1,349.0	0.90	70.50	1,348.8	-6.5	-9.4	9.4	2.10	0.81	
1,410.0	0.60	120.80	1,409.8	-6.5	-8.7	8.6	1.14	-0.49	
1,473.0	1.30	31.80	1,472.8	-6.0	-8.0	8.0	2.26	1.11	
1,536.0	1.10	68.10	1,535.8	-5.2	-7.1	7.1	1.22	-0.32	
1,599.0	1.00	90.10	1,598.7	-5.0	-6.0	6.0	0.65	-0.16	
1,662.0	0.60	267.50	1,661.7	-5.0	-5.8	5.7	2.54	-0.63	
1,725.0	0.50	89.20	1,724.7	-5.0	-5.8	5.8	1.75	-0.16	
1,787.0	1.20	175.70	1,786.7	-5.6	-5.5	5.5	2.05	1.13	
1,850.0	0.20	296.90	1,849.7	-6.3	-5.6	5.5	2.09	-1.59	
1,913.0	1.10	210.90	1,912.7	-6.7	-6.0	5.9	1.75	1.43	
1,977.0	1.40	142.30	1,976.7	-7.9	-5.8	5.7	2.23	0.47	
2,040.0	1.70	161.90	2,039.7	-9.4	-5.0	5.0	0.96	0.48	
2,102.0	0.90	139.60	2,101.7	-10.6	-4.4	4.4	1.50	-1.29	
2,165.0	1.60	163.00	2,164.7	-11.8	-3.9	3.8	1.35	1.11	
2,228.0	1.80	164.90	2,227.6	-13.6	-3.4	3.2	0.33	0.32	
2,292.0	1.10	177.20	2,291.6	-15.2	-3.1	2.9	1.19	-1.09	
2,354.0	1.40	231.80	2,353.6	-16.3	-3.6	3.5	1.90	0.48	
2,417.0	0.60	220.70	2,416.6	-17.0	-4.4	4.3	1.30	-1.27	
2,480.0	1.50	232.40	2,479.6	-17.7	-5.3	5.2	1.46	1.43	
2,543.0	2.60	204.80	2,542.5	-19.5	-6.6	6.4	2.30	1.75	
2,606.0	2.20	224.60	2,605.5	-21.7	-8.0	7.8	1.45	-0.63	
2,669.0	0.50	291.30	2,668.5	-22.5	-9.1	8.9	3.26	-2.70	
2,732.0	0.80	342.90	2,731.5	-21.9	-9.5	9.3	1.00	0.48	
2,795.0	0.90	74.10	2,794.5	-21.4	-9.2	9.0	1.93	0.16	
2,858.0	1.50	354.70	2,857.4	-20.4	-8.8	8.6	2.54	0.95	
2,921.0	1.70	31.20	2,920.4	-18.8	-8.4	8.2	1.62	0.32	
2,984.0	1.10	334.30	2,983.4	-17.5	-8.1	8.0	2.28	-0.95	
3,047.0	1.80	14.80	3,046.4	-16.0	-8.1	8.0	1.90	1.11	
3,110.0	0.60	321.00	3,109.4	-14.8	-8.1	8.0	2.42	-1.90	
3,173.0	1.70	43.70	3,172.4	-13.8	-7.7	7.5	2.75	1.75	
3,236.0	2.40	18.80	3,235.3	-11.9	-6.6	6.5	1.77	1.11	
3,299.0	1.70	30.50	3,298.3	-9.8	-5.7	5.6	1.29	-1.11	
3,362.0	1.30	343.20	3,361.3	-8.4	-5.4	5.3	2.00	-0.63	
3,425.0	1.30	350.10	3,424.2	-7.0	-5.7	5.7	0.25	0.00	
3,488.0	1.50	347.40	3,487.2	-5.5	-6.1	6.0	0.33	0.32	
3,551.0	1.80	339.40	3,550.2	-3.7	-6.6	6.5	0.60	0.48	
3,615.0	0.80	241.50	3,614.2	-3.0	-7.3	7.3	3.23	-1.56	
3,678.0	0.70	232.30	3,677.2	-3.4	-8.0	8.0	0.25	-0.16	
3,741.0	0.70	262.90	3,740.2	-3.7	-8.7	8.7	0.59	0.00	
3,803.0	0.70	134.10	3,802.2	-4.0	-8.8	8.8	2.04	0.00	
3,866.0	0.90	162.30	3,865.2	-4.8	-8.4	8.3	0.69	0.32	
3,929.0	0.20	341.70	3,928.2	-5.1	-8.3	8.2	1.75	-1.11	
3,992.0	0.50	196.80	3,991.2	-5.3	-8.4	8.3	1.07	0.48	
4,055.0	1.10	148.80	4,054.2	-6.1	-8.1	8.1	1.35	0.95	
4,119.0	1.50	152.20	4,118.1	-7.4	-7.4	7.4	0.64	0.62	
4,181.0	1.60	164.80	4,180.1	-8.9	-6.8	6.8	0.57	0.16	
4,236.0	0.10	335.10	4,235.1	-9.6	-6.6	6.6	3.09	-2.73	
4,267.0	6.20	1.10	4,266.1	-7.9	-6.6	6.6	19.71	19.68	
4,299.0	11.70	3.40	4,297.7	-2.9	-6.4	6.4	17.22	17.19	
4,330.0	16.30	4.30	4,327.7	4.5	-5.9	5.9	14.85	14.84	
4,362.0	18.20	3.00	4,358.3	14.0	-5.3	5.4	6.06	5.94	
4,393.0	20.40	0.50	4,387.5	24.3	-5.0	5.2	7.58	7.10	

Cathedral Energy Services

Survey Report

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Well:	Escrito A31-2409 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	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
4,425.0	22.80	359.80	4,417.3	36.0	-5.0	5.3	7.54	7.50	
4,456.0	24.60	359.30	4,445.7	48.5	-5.1	5.5	5.84	5.81	
4,488.0	26.50	359.20	4,474.5	62.3	-5.2	5.8	5.94	5.94	
4,519.0	28.50	358.80	4,502.0	76.6	-5.5	6.2	6.48	6.45	
4,551.0	29.00	358.10	4,530.1	92.0	-5.9	6.7	1.88	1.56	
4,582.0	28.50	356.70	4,557.3	106.9	-6.6	7.5	2.71	-1.61	
4,614.0	28.80	352.80	4,585.4	122.2	-8.0	9.1	5.92	0.94	
4,645.0	29.00	347.80	4,612.5	136.9	-10.5	11.7	7.82	0.65	
4,677.0	29.80	343.10	4,640.4	152.1	-14.5	15.8	7.63	2.50	
4,709.0	30.90	339.30	4,668.0	167.4	-19.7	21.2	6.91	3.44	
4,740.0	30.80	336.20	4,694.6	182.1	-25.7	27.3	5.14	-0.32	
4,772.0	32.20	331.80	4,721.9	197.1	-33.0	34.8	8.41	4.37	
4,803.0	33.80	327.40	4,747.9	211.7	-41.6	43.5	9.29	5.16	
4,835.0	35.60	323.10	4,774.2	226.6	-52.0	54.0	9.49	5.62	
4,866.0	38.20	321.00	4,799.0	241.3	-63.4	65.6	9.32	8.39	
4,898.0	40.60	319.20	4,823.7	256.9	-76.5	78.7	8.31	7.50	
4,929.0	42.80	316.80	4,846.9	272.2	-90.3	92.7	8.77	7.10	
4,961.0	45.80	314.60	4,869.8	288.2	-105.9	108.4	10.53	9.37	
4,992.0	48.80	313.90	4,890.8	304.1	-122.2	124.9	9.82	9.68	
5,024.0	52.10	313.20	4,911.2	321.0	-140.1	142.9	10.45	10.31	
5,055.0	55.20	311.30	4,929.5	337.8	-158.6	161.6	11.15	10.00	
5,087.0	58.50	307.70	4,947.0	354.8	-179.2	182.4	13.96	10.31	
5,118.0	62.20	305.00	4,962.4	370.8	-200.9	204.2	14.13	11.94	
5,150.0	64.90	301.00	4,976.6	386.4	-225.0	228.4	14.01	8.44	
5,181.0	68.00	299.00	4,989.0	400.6	-249.6	253.1	11.62	10.00	
5,213.0	71.10	297.40	5,000.2	414.8	-276.0	279.7	10.76	9.69	
5,244.0	72.90	294.90	5,009.8	427.7	-302.5	306.3	9.62	5.81	
5,276.0	74.80	292.90	5,018.7	440.2	-330.6	334.5	8.44	5.94	
5,310.0	75.50	287.10	5,027.4	451.4	-361.4	365.4	16.62	2.06	
5,341.0	76.40	286.80	5,034.9	460.2	-390.2	394.3	3.05	2.90	
5,372.0	78.50	285.80	5,041.7	468.7	-419.2	423.4	7.47	6.77	
5,402.0	80.70	284.90	5,047.1	476.5	-447.7	451.9	7.90	7.33	
5,433.0	83.10	283.90	5,051.5	484.1	-477.4	481.7	8.37	7.74	
5,464.0	85.30	282.80	5,054.6	491.2	-507.4	511.8	7.93	7.10	
5,494.0	87.30	281.40	5,056.5	497.5	-536.7	541.1	8.13	6.67	
5,525.0	88.70	279.40	5,057.6	503.1	-567.2	571.6	7.87	4.52	
5,556.0	90.20	277.80	5,057.9	507.7	-597.8	602.3	7.07	4.84	
5,586.0	91.40	275.50	5,057.5	511.2	-627.6	632.1	8.65	4.00	
5,617.0	92.10	274.10	5,056.5	513.8	-658.5	663.0	5.05	2.26	
5,648.0	91.90	272.00	5,055.5	515.5	-689.4	694.0	6.80	-0.65	
5,709.0	90.40	268.10	5,054.2	515.5	-750.4	754.9	6.85	-2.46	
5,770.0	89.80	265.70	5,054.1	512.2	-811.3	815.8	4.06	-0.98	
5,831.0	90.30	265.10	5,054.1	507.3	-872.1	876.6	1.28	0.82	
5,893.0	89.30	264.10	5,054.3	501.5	-933.8	938.2	2.28	-1.61	
5,954.0	89.70	263.60	5,054.8	495.0	-994.5	998.8	1.05	0.66	
6,015.0	90.40	263.50	5,054.8	488.1	-1,055.1	1,059.4	1.16	1.15	
6,077.0	90.00	264.70	5,054.5	481.7	-1,116.7	1,121.0	2.04	-0.65	
6,138.0	89.50	264.90	5,054.8	476.2	-1,177.5	1,181.7	0.88	-0.82	
6,199.0	89.50	266.50	5,055.3	471.6	-1,238.3	1,242.5	2.62	0.00	
6,261.0	89.60	267.30	5,055.8	468.3	-1,300.2	1,304.3	1.30	0.16	
6,323.0	89.80	268.20	5,056.2	465.8	-1,362.2	1,366.3	1.49	0.32	
6,386.0	89.80	271.20	5,056.4	465.5	-1,425.2	1,429.3	4.76	0.00	
6,449.0	90.00	271.20	5,056.5	466.8	-1,488.2	1,492.2	0.32	0.32	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito A31-2409 01H
Project:	San Juan County, NM	TVD Reference:	KB @ 6880.0ft (Aztec 950)
Site:	S31-T24N-R9W	MD Reference:	KB @ 6880.0ft (Aztec 950)
Well:	Escrito A31-2409 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	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
6,513.0	90.90	271.30	5,056.0	468.2	-1,552.1	1,556.2	1.41	1.41	
6,576.0	91.50	271.00	5,054.7	469.5	-1,615.1	1,619.2	1.06	0.95	
6,639.0	91.20	272.00	5,053.2	471.1	-1,678.1	1,682.2	1.66	-0.48	
6,702.0	91.00	272.30	5,052.0	473.5	-1,741.0	1,745.2	0.57	-0.32	
6,764.0	91.00	272.30	5,050.9	476.0	-1,803.0	1,807.1	0.00	0.00	
6,827.0	90.00	272.10	5,050.3	478.4	-1,865.9	1,870.1	1.62	-1.59	
6,890.0	90.00	271.30	5,050.3	480.3	-1,928.9	1,933.1	1.27	0.00	
6,954.0	90.00	272.30	5,050.3	482.3	-1,992.8	1,997.1	1.56	0.00	
7,017.0	89.90	273.80	5,050.4	485.6	-2,055.8	2,060.0	2.39	-0.16	
7,080.0	90.50	273.90	5,050.2	489.9	-2,118.6	2,122.9	0.97	0.95	
7,143.0	90.80	274.10	5,049.5	494.3	-2,181.5	2,185.8	0.57	0.48	
7,206.0	90.80	273.70	5,048.6	498.5	-2,244.3	2,248.6	0.63	0.00	
7,269.0	90.80	272.90	5,047.7	502.2	-2,307.2	2,311.6	1.27	0.00	
7,332.0	90.40	272.10	5,047.0	504.9	-2,370.1	2,374.5	1.42	-0.63	
7,395.0	90.70	271.80	5,046.4	507.1	-2,433.1	2,437.5	0.67	0.48	
7,458.0	90.40	271.30	5,045.8	508.8	-2,496.1	2,500.5	0.93	-0.48	
7,520.0	89.70	270.70	5,045.8	509.8	-2,558.0	2,562.5	1.49	-1.13	
7,583.0	90.10	271.00	5,045.9	510.8	-2,621.0	2,625.5	0.79	0.63	
7,646.0	90.70	270.10	5,045.4	511.4	-2,684.0	2,688.5	1.72	0.95	
7,709.0	90.40	270.60	5,044.8	511.8	-2,747.0	2,751.5	0.93	-0.48	
7,773.0	90.40	270.10	5,044.4	512.2	-2,811.0	2,815.5	0.78	0.00	
7,836.0	90.20	270.00	5,044.1	512.2	-2,874.0	2,878.5	0.35	-0.32	
7,899.0	90.20	270.30	5,043.8	512.4	-2,937.0	2,941.5	0.48	0.00	
7,962.0	90.00	270.30	5,043.7	512.7	-3,000.0	3,004.5	0.32	-0.32	
8,025.0	90.50	270.20	5,043.5	513.0	-3,063.0	3,067.5	0.81	0.79	
8,088.0	91.00	270.10	5,042.6	513.2	-3,126.0	3,130.5	0.81	0.79	
8,151.0	90.60	270.40	5,041.8	513.4	-3,189.0	3,193.5	0.79	-0.63	
8,214.0	90.80	271.40	5,041.0	514.4	-3,252.0	3,256.4	1.62	0.32	
8,277.0	90.70	271.50	5,040.2	516.0	-3,315.0	3,319.4	0.22	-0.16	
8,340.0	89.70	270.10	5,039.9	516.9	-3,378.0	3,382.4	2.73	-1.59	
8,403.0	90.10	270.10	5,040.1	517.0	-3,441.0	3,445.4	0.63	0.63	
8,466.0	90.00	271.00	5,040.0	517.6	-3,504.0	3,508.4	1.44	-0.16	
8,529.0	90.10	270.80	5,039.9	518.6	-3,567.0	3,571.4	0.35	0.16	
8,592.0	90.20	270.90	5,039.8	519.5	-3,629.9	3,634.4	0.22	0.16	
8,655.0	89.90	270.60	5,039.7	520.4	-3,692.9	3,697.4	0.67	-0.48	
8,718.0	90.10	270.40	5,039.7	520.9	-3,755.9	3,760.4	0.45	0.32	
8,781.0	89.50	269.50	5,039.9	520.9	-3,818.9	3,823.4	1.72	-0.95	
8,844.0	89.80	269.90	5,040.3	520.5	-3,881.9	3,886.4	0.79	0.48	
8,907.0	90.20	269.20	5,040.3	520.0	-3,944.9	3,949.4	1.28	0.63	
8,970.0	89.60	268.90	5,040.4	519.0	-4,007.9	4,012.4	1.06	-0.95	
9,033.0	89.60	268.30	5,040.9	517.4	-4,070.9	4,075.3	0.95	0.00	
9,096.0	90.40	268.90	5,040.9	515.9	-4,133.9	4,138.3	1.59	1.27	
9,159.0	90.40	267.00	5,040.4	513.6	-4,196.8	4,201.2	3.02	0.00	
9,222.0	91.10	267.80	5,039.6	510.8	-4,259.8	4,264.1	1.69	1.11	
9,285.0	90.20	267.20	5,038.9	508.0	-4,322.7	4,327.1	1.72	-1.43	
9,348.0	90.50	267.10	5,038.5	504.9	-4,385.6	4,389.9	0.50	0.48	
9,411.0	90.30	267.00	5,038.1	501.7	-4,448.5	4,452.8	0.35	-0.32	
9,474.0	89.90	268.30	5,038.0	499.1	-4,511.5	4,515.7	2.16	-0.63	
9,537.0	90.60	269.10	5,037.7	497.7	-4,574.5	4,578.7	1.69	1.11	
9,565.0	90.90	268.70	5,037.3	497.1	-4,602.5	4,606.7	1.79	1.07	Last Cathedral Survey @ 9,565' MD Projection to Bit @ 9,615'
9,615.0	90.90	268.70	5,036.5	496.0	-4,652.4	4,656.7	0.00	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito A31-2409 01H
Project:	San Juan County, NM	TVD Reference:	KB @ 6880.0ft (Aztec 950)
Site:	S31-T24N-R9W	MD Reference:	KB @ 6880.0ft (Aztec 950)
Well:	Escrito A31-2409 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Escrito A31-2409 01H P	0.00	0.00	5,036.5	502.7	-4,668.9	1,919,908.97	2,721,706.86	36.276390	-107.838050
- actual wellpath misses target center by 17.8ft at 9615.0ft MD (5036.5 TVD, 496.0 N, -4652.4 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
9,565.0	5,037.3	497.1	-4,602.5	Last Cathedral Survey @ 9,565' MD
9,615.0	5,036.5	496.0	-4,652.4	Projection to Bit @ 9,615'

Checked By: _____	Approved By: _____	Date: _____
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