

APR 29 2014

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II

811 S. First St., Artesia, N.M. 88210
Phone: (575) 746-1223 Fax: (575) 746-9720

DISTRICT III

1000 Edo Erazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV

1280 S. St. Francis Dr., Santa Fe, NM 87506
Phone: (505) 476-3460 Fax: (505) 476-3460State of New Mexico
Energy, Minerals & Natural Resources DepartmentForm C-102
Revised August 1, 2011Submit one copy to appropriate
District OfficeOIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87506☐ AMENDED REPORT
☒ AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35487		*Pool Code 5890	*Pool Name BISTI LOWER-GALLUP
*Property Code 40267	*Property Name ESCRITO L17-2409		*Well Number 01H
*OGRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 8792'

10 Surface Location

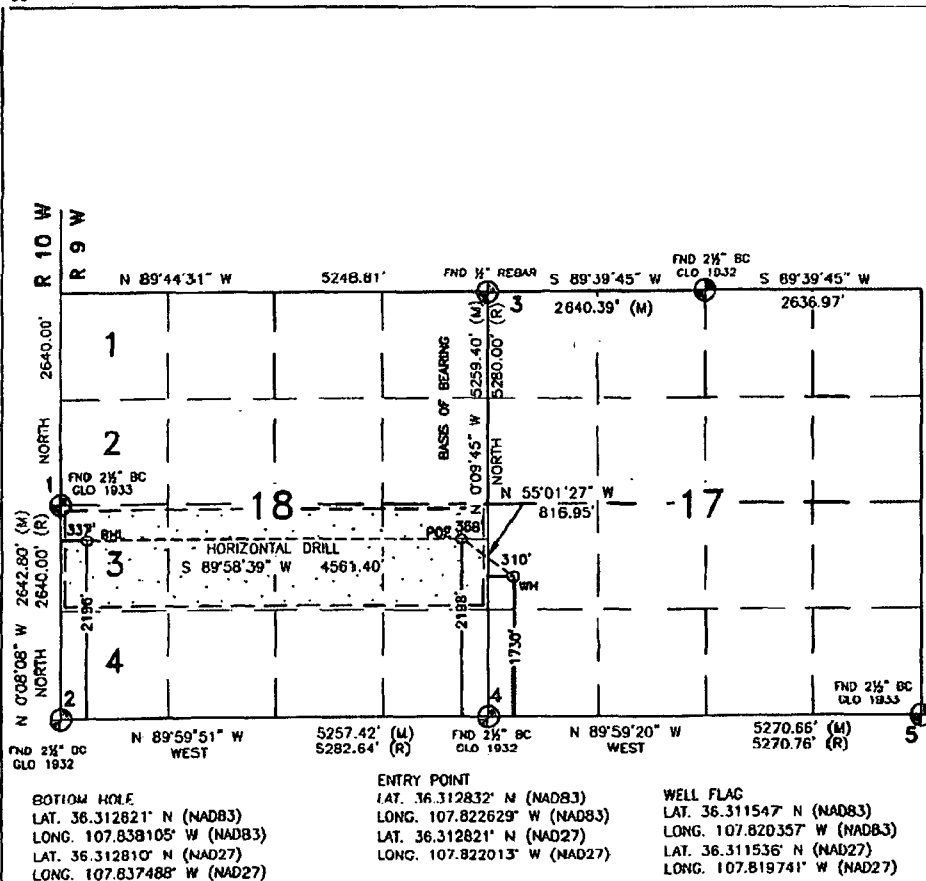
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	17	24N	9W		1730'	SOUTH	310'	WEST	SAN JUAN

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	18	24N	9W	3	2196'	SOUTH	337'	WEST	SAN JUAN
Dedicated Acres PROJECT AREA 160.00 ACRES N/2 S/2 SEC. 18			Joint or Infill		Consolidation Code		Order No.		

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



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 undivided 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 R. Linster*
Printed Name: Brenda R. Linster

brenda.linster@encana.com

E-mail Address

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.

AS-BUILT - APRIL 14, 2014
SURVEYED - MARCH 15, 2013

Date of Survey

Signature and Seal of Professional Surveyor:

Signature: *David R. Russell*
Seal: DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
10201

Certificate Number 10201

PV

15

DEVIATION SURVEYS

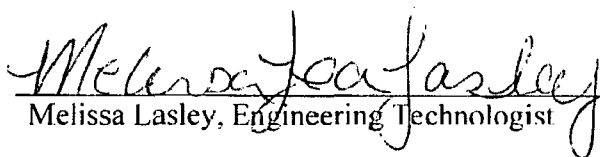
MD (Feet)	Inclination (Degree)
742	1.2
1047	.7
1352	.9
1663	.5
1979	.2
2294	1
2608	1.3
2923	.8
3239	.3
3554	.6
3869	1.1
4184	.4
4499	.1
4701	4.8
4859	21.4

OIL CONS. DIV DIST. 3

APR 29 2014

OPERATOR CERTIFICATION

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


 Melissa Lasley, Engineering Technologist

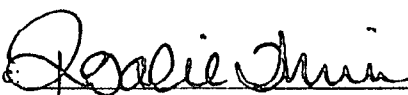
04/28/2014

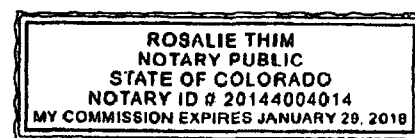
ACKNOWLEDGMENT

State of Colorado
 City and County of Denver

This instrument was acknowledged before me on this 28th day of April, 2014 by Melissa Lasley 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: 1/29/18



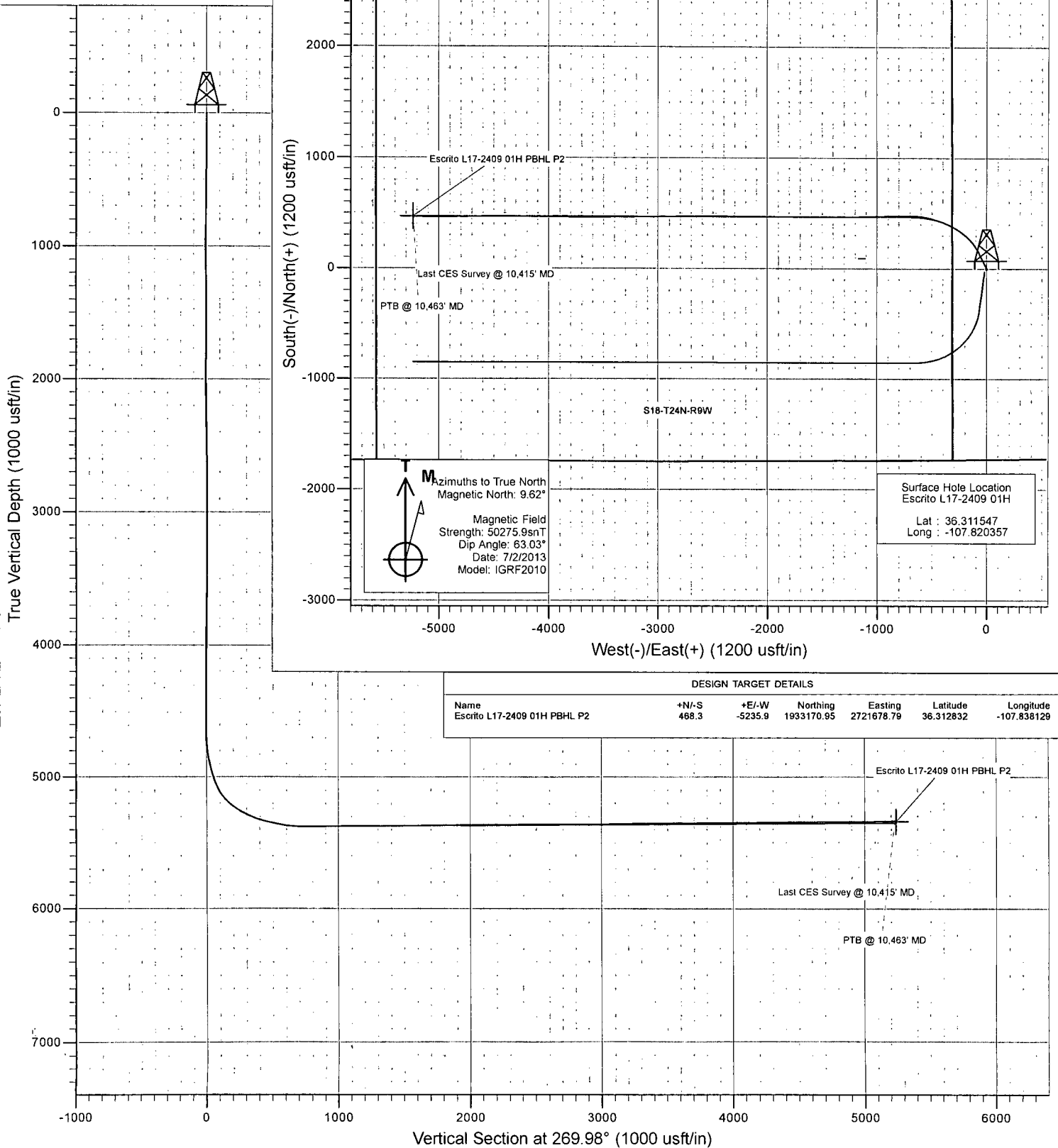


Project: San Juan County, NM
 Site: S17-T24N-R9W (Escrito)
 Well: Escrito L17-2409 01H
 Wellbore: Hz
 Design: FINAL

OIL CONS. DIV DIST. 3 CATHEDRAL

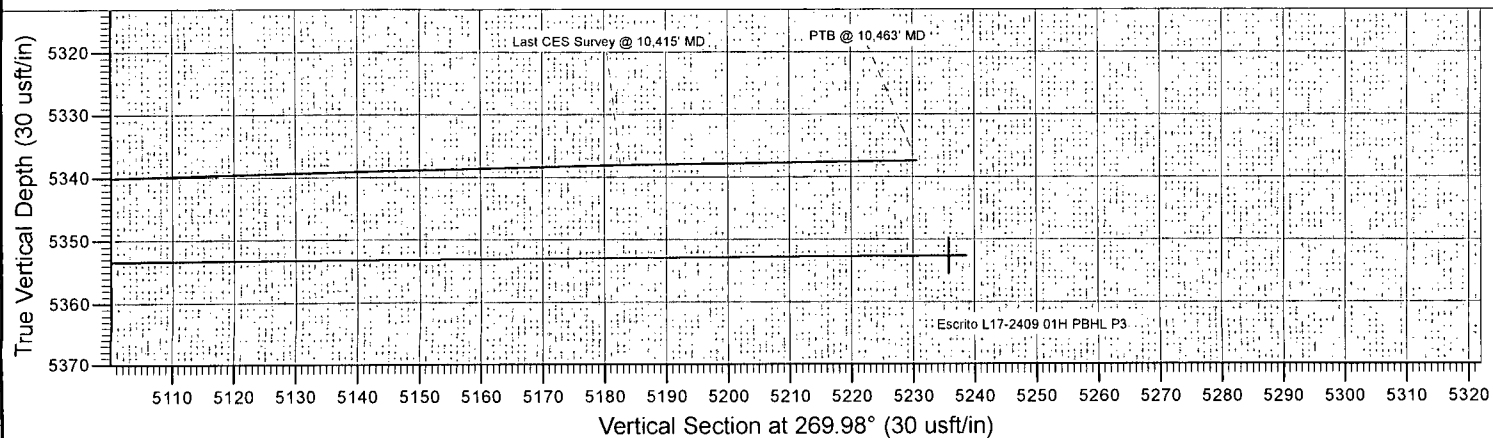
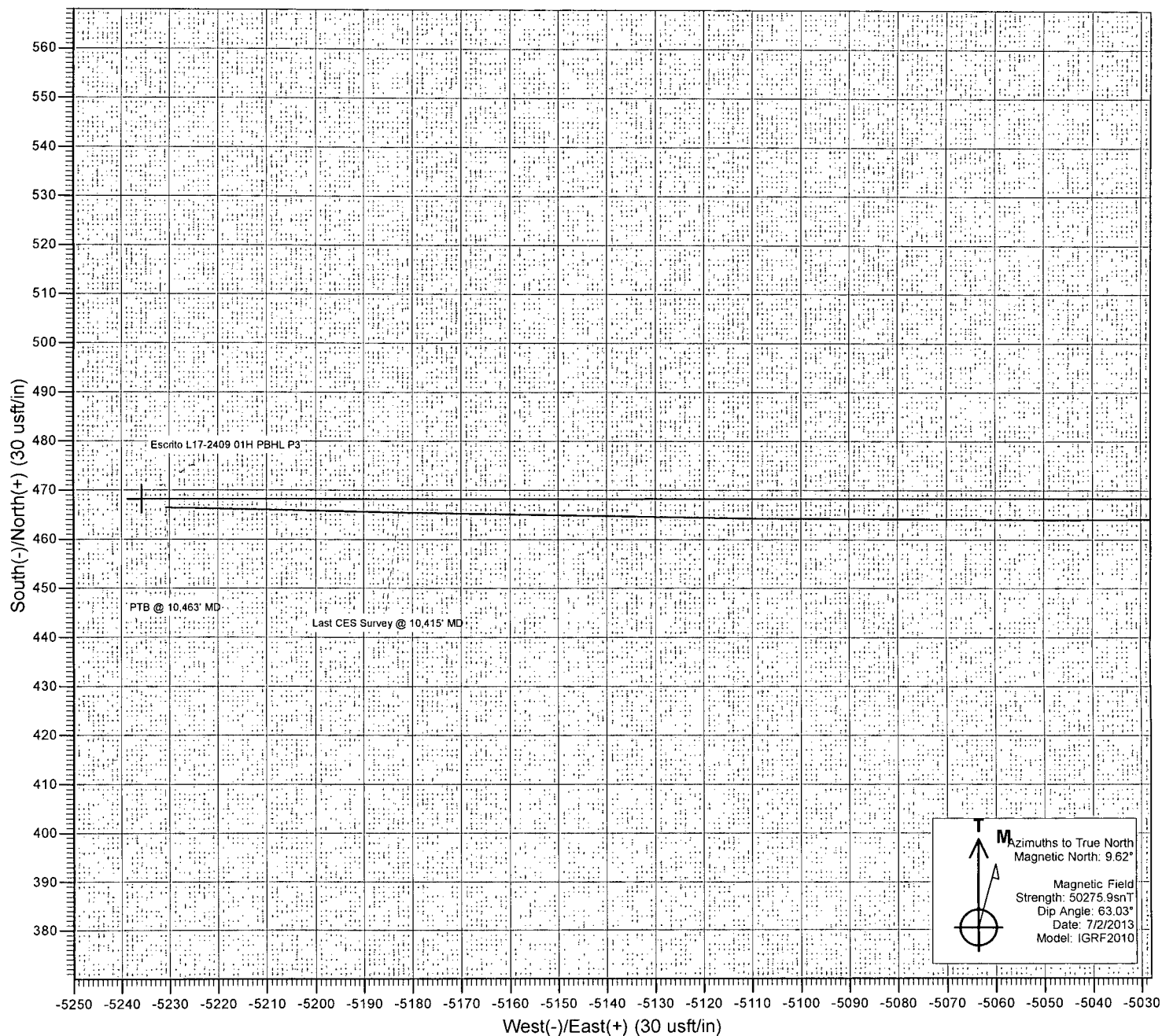
APR 29 2014

FINAL
 Escrito L17-2409 01H
 145084/307555; SC
 WELL @ 6808.0usft (Aztec 950)
 Ground Elevation @ 6792.0
 North American Datum 1983
 Well Escrito L17-2409 01H, True North





Project: San Juan County, NM
Site: S17-T24N-R9W (Escrito)
Well: Escrito L17-2409 01H
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L17-2409 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6808.0usft (Aztec 950)
Site:	S17-T24N-R9W (Escrito)	MD Reference:	WELL @ 6808.0usft (Aztec 950)
Well:	Escrito L17-2409 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		S17-T24N-R9W (Escrito)			
Site Position:		Northing:	1,932,703.40 usft	Latitude:	36.311547
From:	Lat/Long	Easting:	2,726,914.75 usft	Longitude:	-107.820357
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.01 °

Well	Escrito L17-2409 01H					
Well Position	+N/-S	0.0 usft	Northing:	1,932,703.40 usft	Latitude:	36.311547
	+E/-W	0.0 usft	Easting:	2,726,914.75 usft	Longitude:	-107.820357
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	6,792.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/2/2013	9.62	63.03	50,276

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	269.98	

Survey Program	Date	3/24/2014
From	To	
(usft)	(usft)	
558.0	10,463.0	Survey #1 (Hz)
Tool Name	Description	
Geolink MWD	Geolink MWD	

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Formations / Comments
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usf)	(°/100u)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
558.0	0.60	137.80	558.0	-2.2	2.0	-2.0	0.11	0.11	
619.0	0.60	150.80	619.0	-2.7	2.3	-2.3	0.22	0.00	
680.0	0.80	158.10	680.0	-3.4	2.6	-2.6	0.36	0.33	
742.0	1.20	147.00	742.0	-4.3	3.2	-3.2	0.71	0.65	
803.0	0.70	65.20	803.0	-4.7	3.8	-3.8	2.13	-0.82	
864.0	1.00	43.80	864.0	-4.1	4.6	-4.6	0.71	0.49	
925.0	0.90	40.70	924.9	-3.4	5.2	-5.2	0.18	-0.16	
986.0	0.70	333.30	985.9	-2.7	5.4	-5.4	1.48	-0.33	
1,047.0	0.70	302.50	1,046.9	-2.2	4.9	-4.9	0.61	0.00	
1,108.0	0.70	309.30	1,107.9	-1.7	4.3	-4.3	0.14	0.00	
1,169.0	0.80	283.50	1,168.9	-1.4	3.6	-3.6	0.57	0.16	
1,230.0	0.90	275.90	1,229.9	-1.2	2.7	-2.7	0.25	0.16	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
 Project: San Juan County, NM
 Site: S17-T24N-R9W (Escrito)
 Well: Escrito L17-2409 01H
 Wellbore: Hz
 Design: FINAL

Local Co-ordinate Reference: Well Escrito L17-2409 01H
 TVD Reference: WELL @ 6808.0usft (Aztec 950)
 MD Reference: WELL @ 6808.0usft (Aztec 950)
 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
1,291.0	1.20	245.10	1,290.9	-1.5	1.6	-1.6	1.03	0.49	
1,352.0	0.90	240.40	1,351.9	-2.0	0.7	-0.7	0.51	-0.49	
1,413.0	0.70	37.30	1,412.9	-1.9	0.5	-0.5	2.57	-0.33	
1,474.0	1.00	42.00	1,473.9	-1.2	1.0	-1.0	0.50	0.49	
1,537.0	0.80	36.80	1,536.9	-0.5	1.7	-1.7	0.34	-0.32	
1,600.0	0.50	36.40	1,599.9	0.1	2.1	-2.1	0.48	-0.48	
1,663.0	0.50	35.80	1,662.9	0.6	2.4	-2.4	0.01	0.00	
1,726.0	0.50	58.30	1,725.9	0.9	2.8	-2.8	0.31	0.00	
1,789.0	0.30	24.00	1,788.9	1.2	3.1	-3.1	0.48	-0.32	
1,853.0	0.20	334.30	1,852.9	1.5	3.1	-3.1	0.36	-0.16	
1,916.0	0.10	126.83	1,915.9	1.5	3.1	-3.1	0.46	-0.16	
1,979.0	0.20	89.50	1,978.9	1.5	3.3	-3.3	0.21	0.16	
2,042.0	0.50	241.20	2,041.9	1.4	3.2	-3.2	1.08	0.48	
2,105.0	0.60	248.60	2,104.9	1.1	2.6	-2.6	0.19	0.16	
2,168.0	0.50	243.80	2,167.9	0.9	2.1	-2.1	0.17	-0.16	
2,231.0	0.60	249.60	2,230.9	0.7	1.5	-1.5	0.18	0.16	
2,294.0	1.00	269.00	2,293.9	0.5	0.6	-0.6	0.76	0.63	
2,356.0	0.80	268.90	2,355.8	0.5	-0.3	0.3	0.32	-0.32	
2,419.0	0.80	254.50	2,418.8	0.4	-1.2	1.2	0.32	0.00	
2,482.0	0.80	257.60	2,481.8	0.2	-2.0	2.0	0.07	0.00	
2,545.0	1.10	264.80	2,544.8	0.0	-3.1	3.1	0.51	0.48	
2,608.0	1.30	262.00	2,607.8	-0.1	-4.4	4.4	0.33	0.32	
2,671.0	1.40	258.10	2,670.8	-0.4	-5.8	5.8	0.22	0.16	
2,734.0	0.70	245.80	2,733.8	-0.7	-7.0	7.0	1.16	-1.11	
2,798.0	0.50	203.10	2,797.8	-1.1	-7.4	7.4	0.74	-0.31	
2,860.0	0.40	149.80	2,859.8	-1.6	-7.4	7.4	0.67	-0.16	
2,923.0	0.80	135.40	2,922.8	-2.1	-7.0	7.0	0.67	0.63	
2,986.0	0.60	143.40	2,985.8	-2.6	-6.5	6.5	0.35	-0.32	
3,049.0	0.40	103.50	3,048.8	-3.0	-6.1	6.1	0.62	-0.32	
3,113.0	0.30	41.30	3,112.8	-2.9	-5.8	5.8	0.58	-0.16	
3,176.0	0.60	78.90	3,175.8	-2.7	-5.3	5.3	0.64	0.48	
3,239.0	0.30	57.80	3,238.8	-2.5	-4.9	4.9	0.54	-0.48	
3,302.0	0.10	117.70	3,301.8	-2.5	-4.7	4.7	0.42	-0.32	
3,365.0	0.20	142.70	3,364.8	-2.6	-4.6	4.6	0.19	0.16	
3,427.0	0.40	134.80	3,426.8	-2.8	-4.3	4.3	0.33	0.32	
3,491.0	0.50	119.30	3,490.8	-3.1	-3.9	3.9	0.24	0.16	
3,554.0	0.60	128.40	3,553.8	-3.5	-3.4	3.4	0.21	0.16	
3,617.0	0.80	123.80	3,616.8	-3.9	-2.8	2.8	0.33	0.32	
3,680.0	0.80	154.60	3,679.7	-4.6	-2.3	2.3	0.67	0.00	
3,743.0	1.00	155.90	3,742.7	-5.5	-1.8	1.8	0.32	0.32	
3,806.0	0.90	87.10	3,805.7	-5.9	-1.1	1.1	1.71	-0.16	
3,869.0	1.10	74.70	3,868.7	-5.8	0.0	0.0	0.47	0.32	
3,932.0	0.90	84.80	3,931.7	-5.5	1.0	-1.0	0.42	-0.32	
3,995.0	0.50	66.10	3,994.7	-5.4	1.8	-1.8	0.72	-0.63	
4,058.0	0.60	20.80	4,057.7	-5.0	2.1	-2.1	0.69	0.16	
4,121.0	0.80	7.30	4,120.7	-4.2	2.3	-2.3	0.41	0.32	
4,184.0	0.40	7.00	4,183.7	-3.6	2.4	-2.4	0.63	-0.63	
4,247.0	0.30	18.40	4,246.7	-3.2	2.5	-2.5	0.19	-0.16	
4,309.0	0.30	347.40	4,308.7	-2.9	2.5	-2.5	0.26	0.00	
4,372.0	0.20	309.10	4,371.7	-2.7	2.4	-2.4	0.30	-0.16	
4,436.0	0.10	19.90	4,435.7	-2.5	2.3	-2.3	0.30	-0.16	
4,499.0	0.10	17.20	4,498.7	-2.4	2.3	-2.3	0.01	0.00	
4,562.0	0.20	249.20	4,561.7	-2.4	2.3	-2.2	0.43	0.16	

Cathedral Energy Services

Survey Report

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 Site: S17-T24N-R9W (Escrito)
 Well: Escrito L17-2409 01H
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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
4,611.0	0.40	153.90	4,610.7	-2.6	2.2	-2.2	0.95	0.41	
4,638.0	0.30	188.60	4,637.7	-2.8	2.3	-2.3	0.85	-0.37	
4,670.0	0.90	331.80	4,669.7	-2.6	2.1	-2.1	3.61	1.88	
4,701.0	4.80	339.20	4,700.7	-1.2	1.6	-1.6	12.61	12.58	
4,733.0	9.10	336.60	4,732.4	2.4	0.1	-0.1	13.47	13.44	
4,764.0	12.00	335.80	4,762.9	7.6	-2.2	2.2	9.37	9.35	
4,796.0	16.30	335.10	4,793.9	14.7	-5.5	5.5	13.45	13.44	
4,827.0	18.70	332.20	4,823.5	23.0	-9.6	9.6	8.23	7.74	
4,859.0	21.40	329.20	4,853.5	32.6	-15.0	15.0	9.03	8.44	
4,890.0	24.00	330.30	4,882.1	42.9	-21.0	21.0	8.50	8.39	
4,922.0	26.50	332.80	4,911.1	54.9	-27.5	27.5	8.49	7.81	
4,953.0	28.80	333.70	4,938.5	67.8	-34.0	34.0	7.54	7.42	
4,985.0	31.50	333.60	4,966.2	82.2	-41.1	41.1	8.44	8.44	
5,016.0	34.70	332.80	4,992.2	97.3	-48.7	48.7	10.42	10.32	
5,047.0	38.10	333.50	5,017.1	113.7	-57.0	57.0	11.05	10.97	
5,079.0	40.60	333.50	5,041.9	131.9	-66.1	66.1	7.81	7.81	
5,111.0	43.00	333.30	5,065.7	150.9	-75.7	75.6	7.51	7.50	
5,142.0	46.00	332.20	5,087.8	170.2	-85.6	85.5	9.99	9.68	
5,173.0	48.30	328.40	5,108.9	190.0	-96.9	96.8	11.65	7.42	
5,205.0	50.80	324.20	5,129.7	210.2	-110.4	110.3	12.68	7.81	
5,236.0	51.90	322.00	5,149.0	229.6	-124.9	124.8	6.58	3.55	
5,267.0	54.00	319.90	5,167.7	248.8	-140.5	140.4	8.67	6.77	
5,298.0	55.60	316.20	5,185.6	267.6	-157.5	157.4	11.03	5.16	
5,330.0	57.50	313.10	5,203.2	286.3	-176.4	176.3	10.03	5.94	
5,362.0	59.60	310.70	5,219.9	304.6	-196.8	196.7	9.16	6.56	
5,393.0	61.40	308.10	5,235.2	321.7	-217.6	217.5	9.33	5.81	
5,424.0	62.60	305.30	5,249.7	338.0	-239.6	239.4	8.86	3.87	
5,455.0	63.90	302.40	5,263.7	353.5	-262.5	262.4	9.35	4.19	
5,487.0	65.40	300.10	5,277.4	368.5	-287.3	287.1	8.01	4.69	
5,518.0	67.50	298.20	5,289.8	382.3	-312.1	312.0	8.80	6.77	
5,550.0	69.60	296.30	5,301.5	395.9	-338.6	338.4	8.58	6.56	
5,582.0	70.40	293.10	5,312.4	408.5	-365.9	365.7	9.72	2.50	
5,613.0	72.10	290.60	5,322.4	419.4	-393.1	393.0	9.40	5.48	
5,644.0	74.20	288.60	5,331.4	429.4	-421.1	420.9	9.17	6.77	
5,676.0	76.70	286.60	5,339.4	438.7	-450.6	450.4	9.88	7.81	
5,710.0	77.60	284.20	5,347.0	447.5	-482.5	482.4	7.37	2.65	
5,748.0	78.50	279.60	5,354.9	455.2	-518.9	518.7	12.08	2.37	
5,779.0	79.00	277.40	5,360.9	459.7	-549.0	548.8	7.14	1.61	
5,809.0	80.00	275.60	5,366.4	463.0	-578.3	578.1	6.78	3.33	
5,839.0	81.70	273.60	5,371.1	465.4	-607.8	607.6	8.68	5.67	
5,870.0	84.90	272.40	5,374.8	467.0	-638.5	638.4	11.02	10.32	
5,901.0	87.00	272.40	5,376.9	468.3	-669.4	669.3	6.77	6.77	
5,933.0	87.40	272.30	5,378.5	469.6	-701.4	701.2	1.29	1.25	
5,964.0	89.30	271.70	5,379.4	470.7	-732.3	732.2	6.43	6.13	
5,996.0	89.90	271.10	5,379.6	471.5	-764.3	764.2	2.65	1.88	
6,059.0	91.10	270.70	5,379.1	472.4	-827.3	827.1	2.01	1.90	
6,122.0	90.80	270.20	5,378.0	472.9	-890.3	890.1	0.93	-0.48	
6,185.0	90.80	270.20	5,377.2	473.2	-953.3	953.1	0.00	0.00	
6,248.0	90.70	269.70	5,376.3	473.1	-1,016.3	1,016.1	0.81	-0.16	
6,311.0	90.30	269.70	5,375.8	472.8	-1,079.3	1,079.1	0.63	-0.63	
6,374.0	90.60	269.60	5,375.3	472.4	-1,142.3	1,142.1	0.50	0.48	
6,437.0	90.40	269.40	5,374.7	471.8	-1,205.3	1,205.1	0.45	-0.32	
6,500.0	90.50	269.50	5,374.2	471.2	-1,268.3	1,268.1	0.22	0.16	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S17-T24N-R9W (Escrito)
Well: Escrito L17-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito L17-2409 01H
TVD Reference: WELL @ 6808.0usft (Aztec 950)
MD Reference: WELL @ 6808.0usft (Aztec 950)
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 (°/100usf)	Build Rate (°/100u)	Formations / Comments
6,563.0	90.20	269.80	5,373.9	470.9	-1,331.3	1,331.1	0.67	-0.48	
6,626.0	90.00	270.10	5,373.7	470.8	-1,394.3	1,394.1	0.57	-0.32	
6,689.0	90.30	269.70	5,373.6	470.7	-1,457.3	1,457.1	0.79	0.48	
6,752.0	90.90	269.40	5,372.9	470.2	-1,520.3	1,520.1	1.06	0.95	
6,815.0	91.00	270.20	5,371.9	470.0	-1,583.3	1,583.1	1.28	0.16	
6,878.0	90.60	270.50	5,371.0	470.4	-1,646.2	1,646.1	0.79	-0.63	
6,942.0	90.80	270.00	5,370.2	470.6	-1,710.2	1,710.1	0.84	0.31	
7,004.0	90.40	270.30	5,369.6	470.8	-1,772.2	1,772.1	0.81	-0.65	
7,067.0	90.20	270.60	5,369.2	471.3	-1,835.2	1,835.1	0.57	-0.32	
7,130.0	90.30	270.30	5,369.0	471.8	-1,898.2	1,898.1	0.50	0.16	
7,193.0	90.70	270.40	5,368.4	472.2	-1,961.2	1,961.1	0.65	0.63	
7,256.0	90.70	270.50	5,367.6	472.7	-2,024.2	2,024.1	0.16	0.00	
7,319.0	89.70	270.30	5,367.4	473.1	-2,087.2	2,087.1	1.62	-1.59	
7,381.0	90.00	270.50	5,367.6	473.5	-2,149.2	2,149.1	0.58	0.48	
7,444.0	90.30	270.60	5,367.4	474.1	-2,212.2	2,212.0	0.50	0.48	
7,507.0	90.80	270.90	5,366.8	475.0	-2,275.2	2,275.0	0.93	0.79	
7,570.0	90.60	270.20	5,366.0	475.6	-2,338.2	2,338.0	1.16	-0.32	
7,632.0	90.60	270.40	5,365.4	475.9	-2,400.2	2,400.0	0.32	0.00	
7,695.0	91.00	270.30	5,364.5	476.3	-2,463.2	2,463.0	0.65	0.63	
7,758.0	90.20	269.60	5,363.9	476.2	-2,526.2	2,526.0	1.69	-1.27	
7,821.0	90.60	269.70	5,363.4	475.8	-2,589.2	2,589.0	0.65	0.63	
7,884.0	91.10	269.70	5,362.5	475.5	-2,652.2	2,652.0	0.79	0.79	
7,948.0	90.40	269.40	5,361.6	475.0	-2,716.2	2,716.0	1.19	-1.09	
8,010.0	90.20	269.00	5,361.3	474.1	-2,778.2	2,778.0	0.72	-0.32	
8,073.0	90.60	268.50	5,360.9	472.8	-2,841.1	2,841.0	1.02	0.63	
8,137.0	90.20	269.40	5,360.4	471.6	-2,905.1	2,905.0	1.54	-0.63	
8,199.0	89.80	268.30	5,360.4	470.4	-2,967.1	2,966.9	1.89	-0.65	
8,262.0	90.40	269.30	5,360.3	469.0	-3,030.1	3,029.9	1.85	0.95	
8,325.0	91.10	270.20	5,359.5	468.8	-3,093.1	3,092.9	1.81	1.11	
8,388.0	90.70	270.00	5,358.5	468.9	-3,156.1	3,155.9	0.71	-0.63	
8,452.0	90.90	269.90	5,357.6	468.8	-3,220.1	3,219.9	0.35	0.31	
8,515.0	90.50	270.10	5,356.8	468.8	-3,283.1	3,282.9	0.71	-0.63	
8,577.0	90.40	269.00	5,356.4	468.3	-3,345.1	3,344.9	1.78	-0.16	
8,640.0	90.80	268.50	5,355.7	467.0	-3,408.0	3,407.9	1.02	0.63	
8,704.0	90.90	268.70	5,354.7	465.4	-3,472.0	3,471.9	0.35	0.16	
8,767.0	90.80	269.70	5,353.8	464.5	-3,535.0	3,534.8	1.60	-0.16	
8,830.0	90.50	270.10	5,353.1	464.4	-3,598.0	3,597.8	0.79	-0.48	
8,893.0	89.90	269.80	5,352.9	464.3	-3,661.0	3,660.8	1.06	-0.95	
8,956.0	90.50	270.00	5,352.7	464.2	-3,724.0	3,723.8	1.00	0.95	
9,019.0	90.50	270.60	5,352.1	464.6	-3,787.0	3,786.8	0.95	0.00	
9,082.0	90.00	271.10	5,351.8	465.5	-3,850.0	3,849.8	1.12	-0.79	
9,145.0	90.30	271.00	5,351.7	466.7	-3,913.0	3,912.8	0.50	0.48	
9,208.0	90.80	270.60	5,351.1	467.5	-3,976.0	3,975.8	1.02	0.79	
9,271.0	90.00	270.50	5,350.6	468.1	-4,039.0	4,038.8	1.28	-1.27	
9,334.0	90.70	270.50	5,350.2	468.7	-4,102.0	4,101.8	1.11	1.11	
9,397.0	90.50	270.70	5,349.6	469.3	-4,165.0	4,164.8	0.45	-0.32	
9,460.0	90.20	270.30	5,349.2	469.9	-4,228.0	4,227.8	0.79	-0.48	
9,523.0	90.80	270.30	5,348.6	470.2	-4,291.0	4,290.8	0.95	0.95	
9,587.0	90.70	270.50	5,347.8	470.7	-4,355.0	4,354.8	0.35	-0.16	
9,650.0	90.50	269.80	5,347.1	470.8	-4,417.9	4,417.8	1.16	-0.32	
9,712.0	90.20	269.70	5,346.8	470.6	-4,479.9	4,479.8	0.51	-0.48	
9,775.0	90.80	269.70	5,346.2	470.2	-4,542.9	4,542.8	0.95	0.95	
9,838.0	89.80	268.90	5,345.9	469.5	-4,605.9	4,605.8	2.03	-1.59	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: San Juan County, NM
Site: S17-T24N-R9W (Escrito)
Well: Escrito L17-2409 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Escrito L17-2409 01H
TVD Reference: WELL @ 6808.0usft (Aztec 950)
MD Reference: WELL @ 6808.0usft (Aztec 950)
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 (°/100usf)	Build Rate (°/100u)	Formations / Comments
9,901.0	90.40	268.70	5,345.8	468.2	-4,668.9	4,668.8	1.00	0.95	
9,964.0	90.30	268.30	5,345.4	466.5	-4,731.9	4,731.7	0.65	-0.16	
10,027.0	90.40	269.00	5,345.0	465.0	-4,794.9	4,794.7	1.12	0.16	
10,090.0	91.50	269.80	5,344.0	464.4	-4,857.9	4,857.7	2.16	1.75	
10,153.0	90.40	270.10	5,342.9	464.3	-4,920.9	4,920.7	1.81	-1.75	
10,216.0	90.50	269.80	5,342.4	464.2	-4,983.9	4,983.7	0.50	0.16	
10,279.0	91.20	269.80	5,341.5	464.0	-5,046.8	5,046.7	1.11	1.11	
10,342.0	91.90	270.80	5,339.8	464.4	-5,109.8	5,109.7	1.94	1.11	
10,415.0	90.80	271.10	5,338.1	465.6	-5,182.8	5,182.6	1.56	-1.51	Last CES Survey @ 10,415' MD
10,463.0	90.80	271.10	5,337.4	466.5	-5,230.8	5,230.6	0.00	0.00	PTB @ 10,463' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Escrito L17-2409 01H PI - actual wellpath misses target center by 16.1usft at 10463.0usft MD (5337.4 TVD, 466.5 N, -5230.8 E) - Point	0.00	0.00	5,352.6	468.3	-5,235.9	1,933,170.95	2,721,678.79	36.312832	-107.838129
Escrito L17-2409 01H PI - actual wellpath misses target center by 7.9usft at 5872.4usft MD (5375.0 TVD, 467.1 N, -641.0 E) - Point	0.00	0.00	5,367.6	470.0	-641.4	1,933,173.28	2,726,273.31	36.312838	-107.822534
Escrito L17-2409 01H PI - actual wellpath misses target center by 8.2usft at 10463.0usft MD (5337.4 TVD, 466.5 N, -5230.8 E) - Point	0.00	0.00	5,343.6	468.3	-5,235.9	1,933,170.95	2,721,678.79	36.312832	-107.838129
Escrito L17-2409 01H PI - actual wellpath misses target center by 8.9usft at 5873.6usft MD (5375.1 TVD, 467.1 N, -642.1 E) - Point	0.00	0.00	5,383.5	470.0	-641.4	1,933,173.28	2,726,273.31	36.312838	-107.822534
Escrito L17-2409 01H PI - actual wellpath misses target center by 15.0usft at 10463.0usft MD (5337.4 TVD, 466.5 N, -5230.8 E) - Point	0.00	0.00	5,351.4	468.3	-5,235.9	1,933,170.95	2,721,678.79	36.312832	-107.838129

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
10,415.0	5,338.1	465.6	-5,182.8	Last CES Survey @ 10,415' MD
10,463.0	5,337.4	466.5	-5,230.8	PTB @ 10,463' MD

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

**San Juan County, NM
S17-T24N-R9W (Escrito)
Escrito L17-2409 01H**

Hz

OIL CONS. DIV DIST. 3

APR 29 2014

Design: FINAL

Survey Report - Geographic

24 March, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito L17-2409 01H
Project:	San Juan County, NM	TVD Reference:	WELL @ 6808.0usft (Aztec 950)
Site:	S17-T24N-R9W (Escrito)	MD Reference:	WELL @ 6808.0usft (Aztec 950)
Well:	Escrito L17-2409 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		S17-T24N-R9W (Escrito)			
Site Position:		Northing:	1,932,703.40 usft	Latitude:	36.311547
From:	Lat/Long	Easting:	2,726,914.75 usft	Longitude:	-107.820357
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.01 °

Well	Escrito L17-2409 01H					
Well Position	+N/-S	0.0 usft	Northing:	1,932,703.40 usft	Latitude:	36.311547
	+E/-W	0.0 usft	Easting:	2,726,914.75 usft	Longitude:	-107.820357
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,792.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	7/2/2013	9.62	63.03	50,276

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	269.98

Survey Program	Date 3/24/2014				
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
558.0	10,463.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map			
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude	
(usft)			(usft)			(usft)	(usft)			
0.0	0.00	0.00	0.0	0.0	0.0	1,932,703.40	2,726,914.75	36.311547	-107.820357	
558.0	0.60	137.80	558.0	-2.2	2.0	1,932,701.24	2,726,916.71	36.311541	-107.820351	
619.0	0.60	150.80	619.0	-2.7	2.3	1,932,700.72	2,726,917.08	36.311540	-107.820349	
680.0	0.80	158.10	680.0	-3.4	2.6	1,932,700.05	2,726,917.40	36.311538	-107.820348	
742.0	1.20	147.00	742.0	-4.3	3.2	1,932,699.10	2,726,917.91	36.311535	-107.820347	
803.0	0.70	65.20	803.0	-4.7	3.8	1,932,698.73	2,726,918.60	36.311534	-107.820344	
864.0	1.00	43.80	864.0	-4.1	4.6	1,932,699.27	2,726,919.31	36.311536	-107.820342	
925.0	0.90	40.70	924.9	-3.4	5.2	1,932,700.01	2,726,919.99	36.311538	-107.820339	
986.0	0.70	333.30	985.9	-2.7	5.4	1,932,700.71	2,726,920.13	36.311540	-107.820339	
1,047.0	0.70	302.50	1,046.9	-2.2	4.9	1,932,701.24	2,726,919.65	36.311541	-107.820341	
1,108.0	0.70	309.30	1,107.9	-1.7	4.3	1,932,701.68	2,726,919.05	36.311542	-107.820343	
1,169.0	0.80	283.50	1,168.9	-1.4	3.6	1,932,702.01	2,726,918.34	36.311543	-107.820345	

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
 Project: San Juan County, NM
 Site: S17-T24N-R9W (Escrito)
 Well: Escrito L17-2409 01H
 Wellbore: Hz
 Design: FINAL

Local Co-ordinate Reference: Well Escrito L17-2409 01H
 TVD Reference: WELL @ 6808.0usft (Aztec 950)
 MD Reference: WELL @ 6808.0usft (Aztec 950)
 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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,230.0	0.90	275.90	1,229.9	-1.2	2.7	1,932,702.16	2,726,917.45	36.311544	-107.820348
1,291.0	1.20	245.10	1,290.9	-1.5	1.6	1,932,701.94	2,726,916.40	36.311543	-107.820352
1,352.0	0.90	240.40	1,351.9	-2.0	0.7	1,932,701.44	2,726,915.40	36.311542	-107.820355
1,413.0	0.70	37.30	1,412.9	-1.9	0.5	1,932,701.50	2,726,915.21	36.311542	-107.820356
1,474.0	1.00	42.00	1,473.9	-1.2	1.0	1,932,702.19	2,726,915.79	36.311544	-107.820354
1,537.0	0.80	36.80	1,536.9	-0.5	1.7	1,932,702.95	2,726,916.42	36.311546	-107.820352
1,600.0	0.50	36.40	1,599.9	0.1	2.1	1,932,703.52	2,726,916.85	36.311547	-107.820350
1,663.0	0.50	35.80	1,662.9	0.6	2.4	1,932,703.97	2,726,917.17	36.311549	-107.820349
1,726.0	0.50	58.30	1,725.9	0.9	2.8	1,932,704.33	2,726,917.57	36.311550	-107.820348
1,789.0	0.30	24.00	1,788.9	1.2	3.1	1,932,704.63	2,726,917.87	36.311550	-107.820347
1,853.0	0.20	334.30	1,852.9	1.5	3.1	1,932,704.88	2,726,917.89	36.311551	-107.820347
1,916.0	0.10	126.83	1,915.9	1.5	3.1	1,932,704.95	2,726,917.89	36.311551	-107.820347
1,979.0	0.20	89.50	1,978.9	1.5	3.3	1,932,704.92	2,726,918.04	36.311551	-107.820346
2,042.0	0.50	241.20	2,041.9	1.4	3.2	1,932,704.79	2,726,917.91	36.311551	-107.820347
2,105.0	0.60	248.60	2,104.9	1.1	2.6	1,932,704.53	2,726,917.36	36.311550	-107.820348
2,168.0	0.50	243.80	2,167.9	0.9	2.1	1,932,704.29	2,726,916.81	36.311550	-107.820350
2,231.0	0.60	249.60	2,230.9	0.7	1.5	1,932,704.06	2,726,916.25	36.311549	-107.820352
2,294.0	1.00	269.00	2,293.9	0.5	0.6	1,932,703.93	2,726,915.39	36.311549	-107.820355
2,356.0	0.80	268.90	2,355.8	0.5	-0.3	1,932,703.91	2,726,914.42	36.311548	-107.820358
2,419.0	0.80	254.50	2,418.8	0.4	-1.2	1,932,703.79	2,726,913.56	36.311548	-107.820361
2,482.0	0.80	257.60	2,481.8	0.2	-2.0	1,932,703.57	2,726,912.70	36.311548	-107.820364
2,545.0	1.10	264.80	2,544.8	0.0	-3.1	1,932,703.42	2,726,911.67	36.311547	-107.820368
2,608.0	1.30	262.00	2,607.8	-0.1	-4.4	1,932,703.27	2,726,910.36	36.311547	-107.820372
2,671.0	1.40	258.10	2,670.8	-0.4	-5.8	1,932,703.01	2,726,908.90	36.311546	-107.820377
2,734.0	0.70	245.80	2,733.8	-0.7	-7.0	1,932,702.70	2,726,907.80	36.311545	-107.820381
2,798.0	0.50	203.10	2,797.8	-1.1	-7.4	1,932,702.28	2,726,907.33	36.311544	-107.820382
2,860.0	0.40	149.80	2,859.8	-1.6	-7.4	1,932,701.84	2,726,907.33	36.311543	-107.820382
2,923.0	0.80	135.40	2,922.8	-2.1	-7.0	1,932,701.34	2,726,907.75	36.311541	-107.820381
2,986.0	0.60	143.40	2,985.8	-2.6	-6.5	1,932,700.76	2,726,908.26	36.311540	-107.820379
3,049.0	0.40	103.50	3,048.8	-3.0	-6.1	1,932,700.45	2,726,908.67	36.311539	-107.820378
3,113.0	0.30	41.30	3,112.8	-2.9	-5.8	1,932,700.52	2,726,909.00	36.311539	-107.820377
3,176.0	0.60	78.90	3,175.8	-2.7	-5.3	1,932,700.71	2,726,909.43	36.311540	-107.820375
3,239.0	0.30	57.80	3,238.8	-2.5	-4.9	1,932,700.86	2,726,909.89	36.311540	-107.820374
3,302.0	0.10	117.70	3,301.8	-2.5	-4.7	1,932,700.92	2,726,910.08	36.311540	-107.820373
3,365.0	0.20	142.70	3,364.8	-2.6	-4.6	1,932,700.81	2,726,910.20	36.311540	-107.820373
3,427.0	0.40	134.80	3,426.8	-2.8	-4.3	1,932,700.57	2,726,910.41	36.311539	-107.820372
3,491.0	0.50	119.30	3,490.8	-3.1	-3.9	1,932,700.27	2,726,910.82	36.311538	-107.820371
3,554.0	0.60	128.40	3,553.8	-3.5	-3.4	1,932,699.94	2,726,911.31	36.311538	-107.820369
3,617.0	0.80	123.80	3,616.8	-3.9	-2.8	1,932,699.49	2,726,911.94	36.311536	-107.820367
3,680.0	0.80	154.60	3,679.7	-4.6	-2.3	1,932,698.84	2,726,912.49	36.311535	-107.820365
3,743.0	1.00	155.90	3,742.7	-5.5	-1.8	1,932,697.95	2,726,912.91	36.311532	-107.820364
3,806.0	0.90	87.10	3,805.7	-5.9	-1.1	1,932,697.47	2,726,913.63	36.311531	-107.820361
3,869.0	1.10	74.70	3,868.7	-5.8	0.0	1,932,697.65	2,726,914.70	36.311531	-107.820357
3,932.0	0.90	84.80	3,931.7	-5.5	1.0	1,932,697.86	2,726,915.78	36.311532	-107.820354
3,995.0	0.50	66.10	3,994.7	-5.4	1.8	1,932,698.01	2,726,916.52	36.311532	-107.820351
4,058.0	0.60	20.80	4,057.7	-5.0	2.1	1,932,698.43	2,726,916.89	36.311533	-107.820350
4,121.0	0.80	7.30	4,120.7	-4.2	2.3	1,932,699.18	2,726,917.06	36.311535	-107.820349
4,184.0	0.40	7.00	4,183.7	-3.6	2.4	1,932,699.83	2,726,917.15	36.311537	-107.820349
4,247.0	0.30	18.40	4,246.7	-3.2	2.5	1,932,700.21	2,726,917.23	36.311538	-107.820349
4,309.0	0.30	347.40	4,308.7	-2.9	2.5	1,932,700.52	2,726,917.24	36.311539	-107.820349
4,372.0	0.20	309.10	4,371.7	-2.7	2.4	1,932,700.75	2,726,917.12	36.311540	-107.820349
4,436.0	0.10	19.90	4,435.7	-2.5	2.3	1,932,700.87	2,726,917.05	36.311540	-107.820349
4,499.0	0.10	17.20	4,498.7	-2.4	2.3	1,932,700.98	2,726,917.09	36.311540	-107.820349
4,562.0	0.20	249.20	4,561.7	-2.4	2.3	1,932,700.99	2,726,917.00	36.311540	-107.820350
4,611.0	0.40	153.90	4,610.7	-2.6	2.2	1,932,700.81	2,726,917.00	36.311540	-107.820350

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
 Project: San Juan County, NM
 Site: S17-T24N-R9W (Escrito)
 Well: Escrito L17-2409 01H
 Wellbore: Hz
 Design: FINAL

Local Co-ordinate Reference: Well Escrito L17-2409 01H
 TVD Reference: WELL @ 6808.0usft (Aztec 950)
 MD Reference: WELL @ 6808.0usft (Aztec 950)
 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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,638.0	0.30	188.60	4,637.7	-2.8	2.3	1,932,700.65	2,726,917.03	36.311540	-107.820350
4,670.0	0.90	331.80	4,669.7	-2.6	2.1	1,932,700.79	2,726,916.90	36.311540	-107.820350
4,701.0	4.80	339.20	4,700.7	-1.2	1.6	1,932,702.22	2,726,916.32	36.311544	-107.820352
4,733.0	9.10	336.60	4,732.4	2.4	0.1	1,932,705.79	2,726,914.84	36.311554	-107.820357
4,764.0	12.00	335.80	4,762.9	7.6	-2.2	1,932,710.98	2,726,912.54	36.311568	-107.820365
4,796.0	16.30	335.10	4,793.9	14.7	-5.5	1,932,718.10	2,726,909.28	36.311587	-107.820376
4,827.0	18.70	332.20	4,823.5	23.0	-9.6	1,932,726.44	2,726,905.13	36.311610	-107.820390
4,859.0	21.40	329.20	4,853.5	32.6	-15.0	1,932,735.99	2,726,899.75	36.311637	-107.820408
4,890.0	24.00	330.30	4,882.1	42.9	-21.0	1,932,746.33	2,726,893.73	36.311665	-107.820429
4,922.0	26.50	332.80	4,911.1	54.9	-27.5	1,932,758.33	2,726,887.24	36.311698	-107.820451
4,953.0	28.80	333.70	4,938.5	67.8	-34.0	1,932,771.18	2,726,880.76	36.311733	-107.820473
4,985.0	31.50	333.60	4,966.2	82.2	-41.1	1,932,785.58	2,726,873.63	36.311773	-107.820497
5,016.0	34.70	332.80	4,992.2	97.3	-48.7	1,932,800.68	2,726,865.99	36.311814	-107.820523
5,047.0	38.10	333.50	5,017.1	113.7	-57.0	1,932,817.09	2,726,857.69	36.311859	-107.820551
5,079.0	40.60	333.50	5,041.9	131.9	-66.1	1,932,835.25	2,726,848.63	36.311909	-107.820582
5,111.0	43.00	333.30	5,065.7	150.9	-75.7	1,932,854.32	2,726,839.08	36.311962	-107.820614
5,142.0	46.00	332.20	5,087.8	170.2	-85.6	1,932,873.63	2,726,829.12	36.312015	-107.820648
5,173.0	48.30	328.40	5,108.9	190.0	-96.9	1,932,893.35	2,726,817.85	36.312069	-107.820686
5,205.0	50.80	324.20	5,129.7	210.2	-110.4	1,932,913.59	2,726,804.33	36.312125	-107.820732
5,236.0	51.90	322.00	5,149.0	229.6	-124.9	1,932,932.94	2,726,789.79	36.312178	-107.820781
5,267.0	54.00	319.90	5,167.7	248.8	-140.5	1,932,952.15	2,726,774.20	36.312230	-107.820834
5,298.0	55.60	316.20	5,185.6	267.6	-157.5	1,932,970.97	2,726,757.26	36.312282	-107.820892
5,330.0	57.50	313.10	5,203.2	286.3	-176.4	1,932,989.73	2,726,738.26	36.312334	-107.820956
5,362.0	59.60	310.70	5,219.9	304.6	-196.8	1,933,007.95	2,726,717.94	36.312384	-107.821025
5,393.0	61.40	308.10	5,235.2	321.7	-217.6	1,933,025.06	2,726,697.09	36.312431	-107.821096
5,424.0	62.60	305.30	5,249.7	338.0	-239.6	1,933,041.41	2,726,675.14	36.312476	-107.821170
5,455.0	63.90	302.40	5,263.7	353.5	-262.5	1,933,056.82	2,726,652.15	36.312518	-107.821248
5,487.0	65.40	300.10	5,277.4	368.5	-287.3	1,933,071.82	2,726,627.43	36.312559	-107.821332
5,518.0	67.50	298.20	5,289.8	382.3	-312.1	1,933,085.65	2,726,602.61	36.312597	-107.821417
5,550.0	69.60	296.30	5,301.5	395.9	-338.6	1,933,099.28	2,726,576.13	36.312635	-107.821506
5,582.0	70.40	293.10	5,312.4	408.5	-365.9	1,933,111.84	2,726,548.81	36.312669	-107.821599
5,613.0	72.10	290.60	5,322.4	419.4	-393.1	1,933,122.75	2,726,521.57	36.312699	-107.821692
5,644.0	74.20	288.60	5,331.4	429.4	-421.1	1,933,132.70	2,726,493.62	36.312727	-107.821786
5,676.0	76.70	286.60	5,339.4	438.7	-450.6	1,933,142.06	2,726,464.10	36.312752	-107.821887
5,710.0	77.60	284.20	5,347.0	447.5	-482.5	1,933,150.85	2,726,432.14	36.312776	-107.821995
5,748.0	78.50	279.60	5,354.9	455.2	-518.9	1,933,158.51	2,726,395.78	36.312797	-107.822119
5,779.0	79.00	277.40	5,360.9	459.7	-549.0	1,933,163.00	2,726,365.72	36.312810	-107.822221
5,809.0	80.00	275.60	5,366.4	463.0	-578.3	1,933,166.33	2,726,336.41	36.312819	-107.822320
5,839.0	81.70	273.60	5,371.1	465.4	-607.8	1,933,168.70	2,726,306.89	36.312825	-107.822420
5,870.0	84.90	272.40	5,374.8	467.0	-638.5	1,933,170.31	2,726,276.15	36.312830	-107.822525
5,901.0	87.00	272.40	5,376.9	468.3	-669.4	1,933,171.60	2,726,245.25	36.312833	-107.822630
5,933.0	87.40	272.30	5,378.5	469.6	-701.4	1,933,172.90	2,726,213.32	36.312837	-107.822738
5,964.0	89.30	271.70	5,379.4	470.7	-732.3	1,933,173.98	2,726,182.35	36.312840	-107.822843
5,996.0	89.90	271.10	5,379.6	471.5	-764.3	1,933,174.76	2,726,150.36	36.312842	-107.822952
6,059.0	91.10	270.70	5,379.1	472.4	-827.3	1,933,175.74	2,726,087.37	36.312845	-107.823165
6,122.0	90.80	270.20	5,378.0	472.9	-890.3	1,933,176.23	2,726,024.38	36.312846	-107.823379
6,185.0	90.80	270.20	5,377.2	473.2	-953.3	1,933,176.44	2,725,961.39	36.312847	-107.823593
6,248.0	90.70	269.70	5,376.3	473.1	-1,016.3	1,933,176.37	2,725,898.40	36.312847	-107.823807
6,311.0	90.30	269.70	5,375.8	472.8	-1,079.3	1,933,176.04	2,725,835.40	36.312846	-107.824021
6,374.0	90.60	269.60	5,375.3	472.4	-1,142.3	1,933,175.64	2,725,772.40	36.312845	-107.824234
6,437.0	90.40	269.40	5,374.7	471.8	-1,205.3	1,933,175.08	2,725,709.41	36.312843	-107.824448
6,500.0	90.50	269.50	5,374.2	471.2	-1,268.3	1,933,174.47	2,725,646.41	36.312842	-107.824662
6,563.0	90.20	269.80	5,373.9	470.9	-1,331.3	1,933,174.08	2,725,583.42	36.312840	-107.824876
6,626.0	90.00	270.10	5,373.7	470.8	-1,394.3	1,933,174.01	2,725,520.42	36.312840	-107.825090
6,689.0	90.30	269.70	5,373.6	470.7	-1,457.3	1,933,173.90	2,725,457.42	36.312840	-107.825304

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc

Project: San Juan County, NM

Site: S17-T24N-R9W (Escrito)

Well: Escrito L17-2409 01H

Wellbore: Hz

Design: FINAL

Local Co-ordinate Reference:

Well Escrito L17-2409 01H

TVD Reference:

WELL @ 6808.0usft (Aztec 950)

MD Reference:

WELL @ 6808.0usft (Aztec 950)

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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,752.0	90.90	269.40	5,372.9	470.2	-1,520.3	1,933,173.39	2,725,394.42	36.312839	-107.825517
6,815.0	91.00	270.20	5,371.9	470.0	-1,583.3	1,933,173.16	2,725,331.43	36.312838	-107.825731
6,878.0	90.60	270.50	5,371.0	470.4	-1,646.2	1,933,173.54	2,725,268.44	36.312839	-107.825945
6,942.0	90.80	270.00	5,370.2	470.6	-1,710.2	1,933,173.81	2,725,204.45	36.312840	-107.826162
7,004.0	90.40	270.30	5,369.6	470.8	-1,772.2	1,933,173.96	2,725,142.45	36.312840	-107.826373
7,067.0	90.20	270.60	5,369.2	471.3	-1,835.2	1,933,174.45	2,725,079.45	36.312842	-107.826587
7,130.0	90.30	270.30	5,369.0	471.8	-1,898.2	1,933,174.94	2,725,016.46	36.312843	-107.826800
7,193.0	90.70	270.40	5,368.4	472.2	-1,961.2	1,933,175.31	2,724,953.46	36.312844	-107.827014
7,256.0	90.70	270.50	5,367.6	472.7	-2,024.2	1,933,175.80	2,724,890.47	36.312845	-107.827228
7,319.0	89.70	270.30	5,367.4	473.1	-2,087.2	1,933,176.23	2,724,827.47	36.312847	-107.827442
7,381.0	90.00	270.50	5,367.6	473.5	-2,149.2	1,933,176.66	2,724,765.47	36.312848	-107.827652
7,444.0	90.30	270.60	5,367.4	474.1	-2,212.2	1,933,177.25	2,724,702.47	36.312849	-107.827866
7,507.0	90.80	270.90	5,366.8	475.0	-2,275.2	1,933,178.07	2,724,639.48	36.312852	-107.828080
7,570.0	90.60	270.20	5,366.0	475.6	-2,338.2	1,933,178.66	2,724,576.49	36.312853	-107.828294
7,632.0	90.60	270.40	5,365.4	475.9	-2,400.2	1,933,178.98	2,724,514.49	36.312854	-107.828504
7,695.0	91.00	270.30	5,364.5	476.3	-2,463.2	1,933,179.36	2,724,451.50	36.312855	-107.828718
7,758.0	90.20	269.60	5,363.9	476.2	-2,526.2	1,933,179.29	2,724,388.51	36.312855	-107.828932
7,821.0	90.60	269.70	5,363.4	475.8	-2,589.2	1,933,178.90	2,724,325.51	36.312854	-107.829146
7,884.0	91.10	269.70	5,362.5	475.5	-2,652.2	1,933,178.56	2,724,262.52	36.312853	-107.829359
7,948.0	90.40	269.40	5,361.6	475.0	-2,716.2	1,933,178.05	2,724,198.53	36.312852	-107.829577
8,010.0	90.20	269.00	5,361.3	474.1	-2,778.2	1,933,177.18	2,724,136.53	36.312849	-107.829787
8,073.0	90.60	268.50	5,360.9	472.8	-2,841.1	1,933,175.79	2,724,073.55	36.312845	-107.830001
8,137.0	90.20	269.40	5,360.4	471.6	-2,905.1	1,933,174.61	2,724,009.56	36.312842	-107.830218
8,199.0	89.80	268.30	5,360.4	470.4	-2,967.1	1,933,173.36	2,723,947.58	36.312839	-107.830428
8,262.0	90.40	269.30	5,360.3	469.0	-3,030.1	1,933,172.03	2,723,884.59	36.312835	-107.830642
8,325.0	91.10	270.20	5,359.5	468.8	-3,093.1	1,933,171.75	2,723,821.60	36.312834	-107.830856
8,388.0	90.70	270.00	5,358.5	468.9	-3,156.1	1,933,171.85	2,723,758.61	36.312835	-107.831070
8,452.0	90.90	269.90	5,357.6	468.8	-3,220.1	1,933,171.79	2,723,694.61	36.312834	-107.831287
8,515.0	90.50	270.10	5,356.8	468.8	-3,283.1	1,933,171.78	2,723,631.62	36.312834	-107.831501
8,577.0	90.40	269.00	5,356.4	468.3	-3,345.1	1,933,171.28	2,723,569.62	36.312833	-107.831711
8,640.0	90.80	268.50	5,355.7	467.0	-3,408.0	1,933,169.90	2,723,506.64	36.312829	-107.831925
8,704.0	90.90	268.70	5,354.7	465.4	-3,472.0	1,933,168.33	2,723,442.67	36.312825	-107.832142
8,767.0	90.80	269.70	5,353.8	464.5	-3,535.0	1,933,167.44	2,723,379.68	36.312823	-107.832356
8,830.0	90.50	270.10	5,353.1	464.4	-3,598.0	1,933,167.32	2,723,316.69	36.312822	-107.832570
8,893.0	89.90	269.80	5,352.9	464.3	-3,661.0	1,933,167.26	2,723,253.69	36.312822	-107.832784
8,956.0	90.50	270.00	5,352.7	464.2	-3,724.0	1,933,167.14	2,723,190.69	36.312822	-107.832997
9,019.0	90.50	270.60	5,352.1	464.6	-3,787.0	1,933,167.46	2,723,127.69	36.312823	-107.833211
9,082.0	90.00	271.10	5,351.8	465.5	-3,850.0	1,933,168.39	2,723,064.70	36.312825	-107.833425
9,145.0	90.30	271.00	5,351.7	466.7	-3,913.0	1,933,169.53	2,723,001.70	36.312828	-107.833639
9,208.0	90.80	270.60	5,351.1	467.5	-3,976.0	1,933,170.40	2,722,938.70	36.312831	-107.833853
9,271.0	90.00	270.50	5,350.6	468.1	-4,039.0	1,933,171.00	2,722,875.71	36.312832	-107.834067
9,334.0	90.70	270.50	5,350.2	468.7	-4,102.0	1,933,171.54	2,722,812.71	36.312834	-107.834280
9,397.0	90.50	270.70	5,349.6	469.3	-4,165.0	1,933,172.19	2,722,749.72	36.312836	-107.834494
9,460.0	90.20	270.30	5,349.2	469.9	-4,228.0	1,933,172.73	2,722,686.72	36.312837	-107.834708
9,523.0	90.80	270.30	5,348.6	470.2	-4,291.0	1,933,173.06	2,722,623.73	36.312838	-107.834922
9,587.0	90.70	270.50	5,347.8	470.7	-4,355.0	1,933,173.49	2,722,559.73	36.312839	-107.835139
9,650.0	90.50	269.80	5,347.1	470.8	-4,417.9	1,933,173.65	2,722,496.74	36.312840	-107.835353
9,712.0	90.20	269.70	5,346.8	470.6	-4,479.9	1,933,173.37	2,722,434.74	36.312839	-107.835563
9,775.0	90.80	269.70	5,346.2	470.2	-4,542.9	1,933,173.03	2,722,371.74	36.312838	-107.835777
9,838.0	89.80	268.90	5,345.9	469.5	-4,605.9	1,933,172.26	2,722,308.75	36.312836	-107.835991
9,901.0	90.40	268.70	5,345.8	468.2	-4,668.9	1,933,170.93	2,722,245.77	36.312832	-107.836205
9,964.0	90.30	268.30	5,345.4	466.5	-4,731.9	1,933,169.27	2,722,182.79	36.312828	-107.836419
10,027.0	90.40	269.00	5,345.0	465.0	-4,794.9	1,933,167.78	2,722,119.81	36.312823	-107.836632
10,090.0	91.50	269.80	5,344.0	464.4	-4,857.9	1,933,167.11	2,722,056.82	36.312822	-107.836846
10,153.0	90.40	270.10	5,342.9	464.3	-4,920.9	1,933,167.05	2,721,993.83	36.312821	-107.837060

Cathedral Energy Services

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc

Project: San Juan County, NM

Site: S17-T24N-R9W (Escrito)

Well: Escrito L17-2409 01H

Wellbore: Hz

Design: FINAL

Local Co-ordinate Reference:

Well Escrito L17-2409 01H

TVD Reference:

WELL @ 6808.0usft (Aztec 950)

MD Reference:

WELL @ 6808.0usft (Aztec 950)

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)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,216.0	90.50	269.80	5,342.4	464.2	-4,983.9	1,933,166.98	2,721,930.83	36.312821	-107.837274
10,279.0	91.20	269.80	5,341.5	464.0	-5,046.8	1,933,166.75	2,721,867.84	36.312821	-107.837488
10,342.0	91.90	270.80	5,339.8	464.4	-5,109.8	1,933,167.08	2,721,804.87	36.312821	-107.837701
10,415.0	90.80	271.10	5,338.1	465.6	-5,182.8	1,933,168.28	2,721,731.92	36.312825	-107.837949
Last CES Survey @ 10,415' MD									
10,463.0	90.80	271.10	5,337.4	466.5	-5,230.8	1,933,169.19	2,721,683.93	36.312827	-107.838112
PTB @ 10,463' MD									

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 L17-2409 01H PI	0.00	0.00	5,352.6	468.3	-5,235.9	1,933,170.96	2,721,678.79	36.312832	-107.838129
- actual wellpath misses target center by 16.1usft at 10463.0usft MD (5337.4 TVD, 466.5 N, -5230.8 E)									
- Point									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,415.0	5,338.1	465.6	-5,182.8	Last CES Survey @ 10,415' MD
10,463.0	5,337.4	466.5	-5,230.8	PTB @ 10,463' MD

Checked By: _____

Approved By: _____

Date: _____