

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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive

Santa Fe, NM 87505

CONFIDENTIAL

Submit one copy to
Appropriate District Office

☒ AMENDED REPORT

☒ As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35440	*Pool Code 98080	*Pool Name NAGEEZI UNIT HZ (OIL)
*Property Code 313759	*Property Name NAGEEZI UNIT D34-2409	*Well Number 01H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 6857'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 1th	Feet from the	North/South line	Feet from the	East/West line	County
D	34	24N	9W		1109	NORTH	509	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

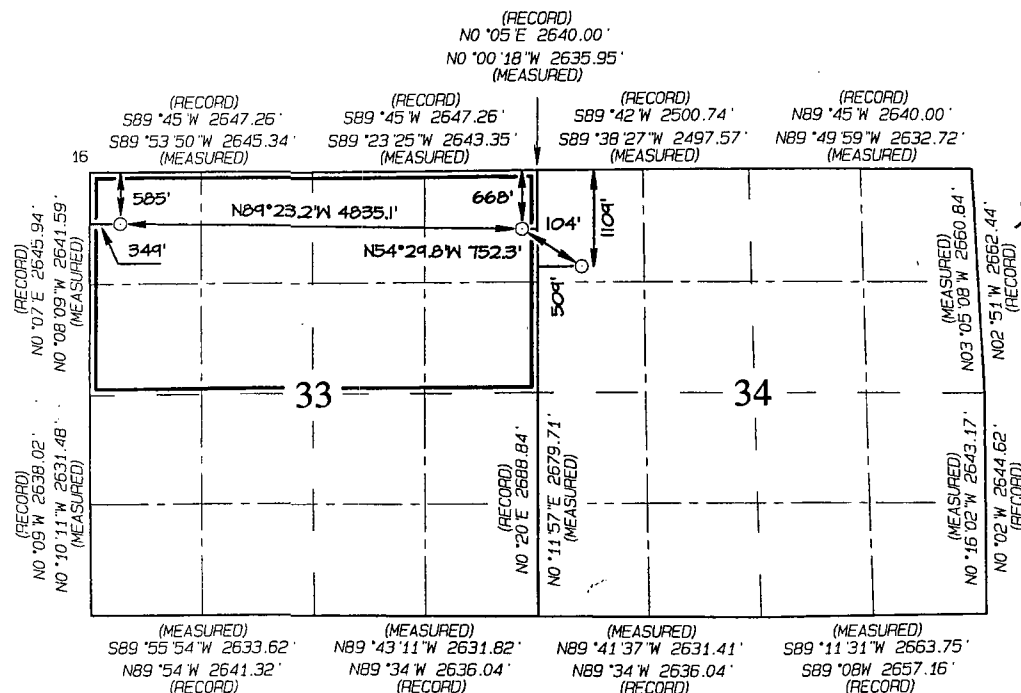
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	24N	9W		585	NORTH	349	WEST	SAN JUAN

¹² Dedicated Acres 320.0 Acres N/2 Section 33	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13856 9,135.51 Acres
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DATE REC'D 12-1-74

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.

1951. 23



END-OF-LATERAL
585' FNL 349' FWL
SECTION 33, T24N, R9W
LAT: 36.276131°N
LONG: 107.801495°W
DATUM: NAD1927

LAT: 36.276143°N
LONG: 107.802110°W
DATUM: NAD1983

POINT-OF-ENTRY
668' FNL 104' FEL
SECTION 33, T24N, R9W
LAT: 36.275983 °N
LONG: 107.785092 °W
DATUM: NAD1927

LAT: 36.275996 °N
LONG: 107.785707 °W
DATUM: NAD1983

SURFACE LOCATION
1109' FNL 509' FWL
SECTION 34, T24N, R9W
LAT: 36.274782°N
LONG: 107.783015°W
DATUM: NAD1927

LAT: 36.274794 °N
LONG: 107.783630 °W
DATUM: NAD1983

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 pooling agreement or an unleased mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Karen Wilson Date 10/15/14

Katie Wegner

Printed Name _____

Katie.Wegner@encana.com

E-mail Address

¹⁸ SURVEYOR CERTIFICATION

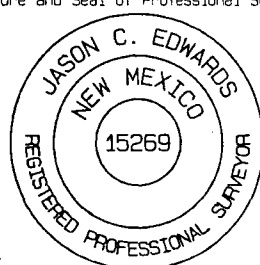
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: OCTOBER 1, 2014

Date of Survey: JULY 23, 2012

Signature and Seal of Professional Surveyor

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

24

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

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811 S. First Street, Artesia, NM 88210
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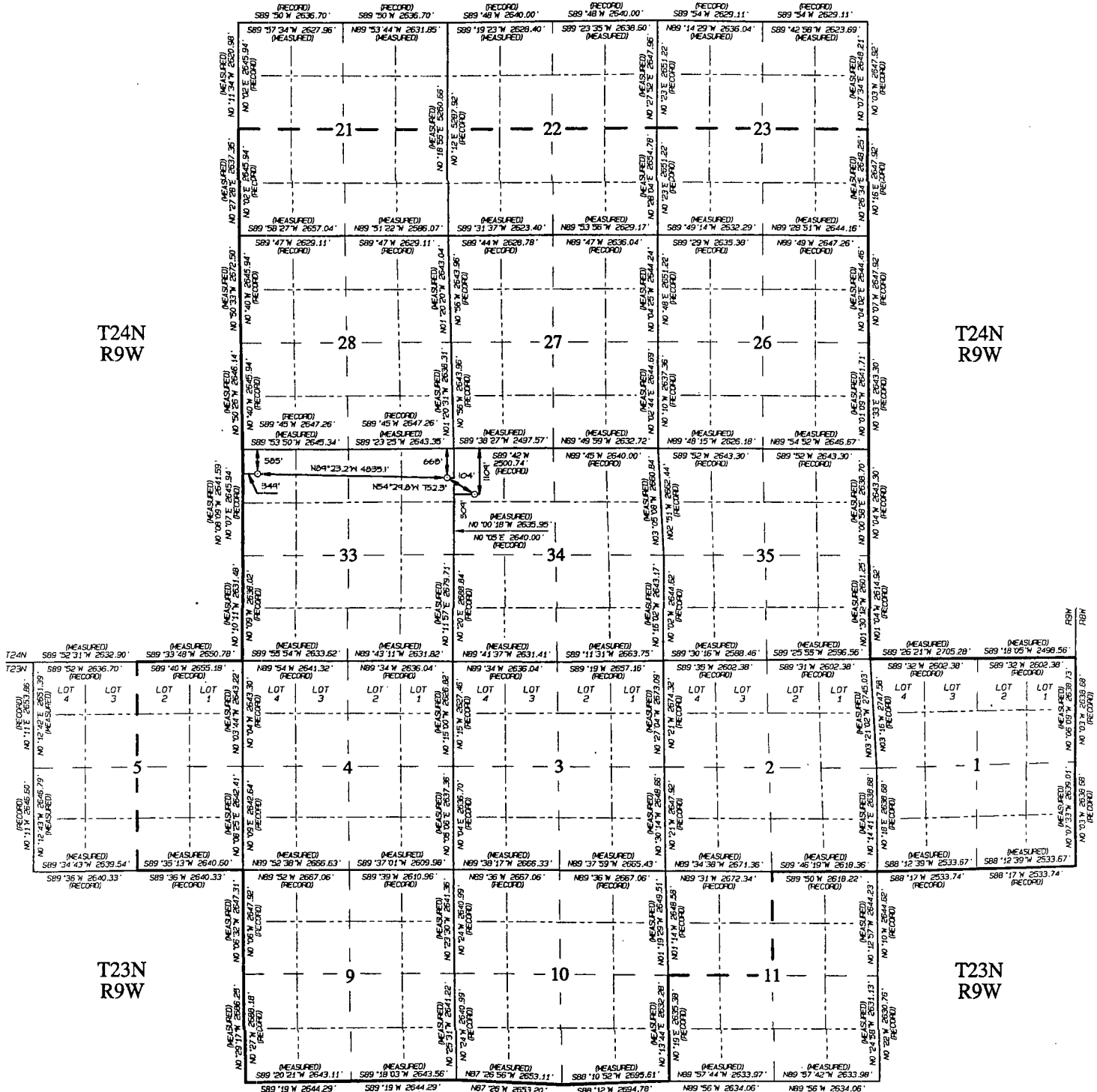
State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 South St. Francis Drive
Santa Fe, NM 87505

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT



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SECTION 33, T24N, R9W
LAT: 36.276131° N
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668' FNL 104' FEL
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LAT: 36.275983° N
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SURFACE LOCATION
1109' FNL 509' FNL
SECTION 34, T24N, R9W
LAT: 36.274782° N
LONG: 107.783015° W
DATUM: NAD1927

LAT: 36.274794° N
LONG: 107.783630° W
DATUM: NAD1983

DEVIATION SURVEYS
Well Name Nageezi Unit D34-2409 01H
API 30-045-35440

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
304'	0.50
662'	0.20
978'	0.50
1294'	1.10
1611'	0.70
1926'	1.30
2242'	0.50
2559'	1.00
2875'	1.60
3191'	0.80
3507'	5.80

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

10/6/14
Date

ACKNOWLEDGMENT

OIL CONS. DIV DIST. 3

State of Colorado
City and County of Denver

OCT 08 2014

This instrument was acknowledged before me on this 6th day of October, 2014 by Cristi Bauer as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said corporation.

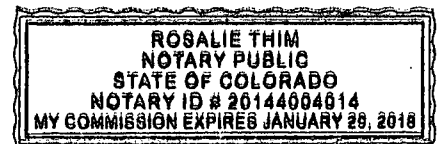
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

My Commission Expires:

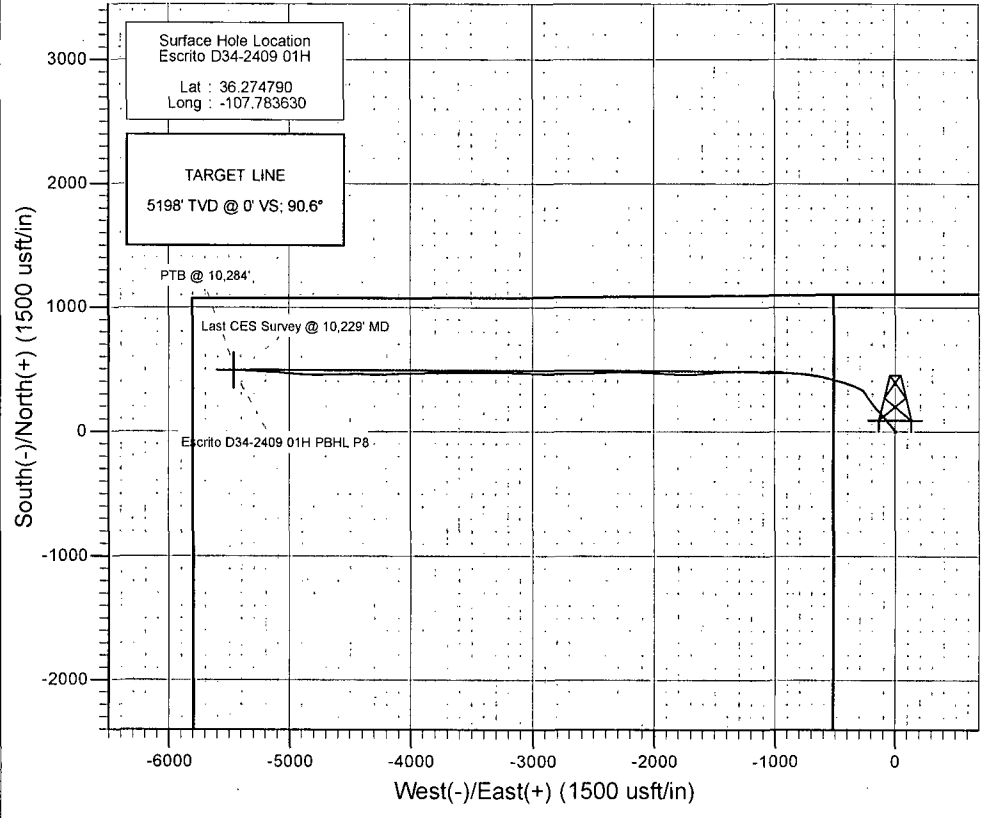
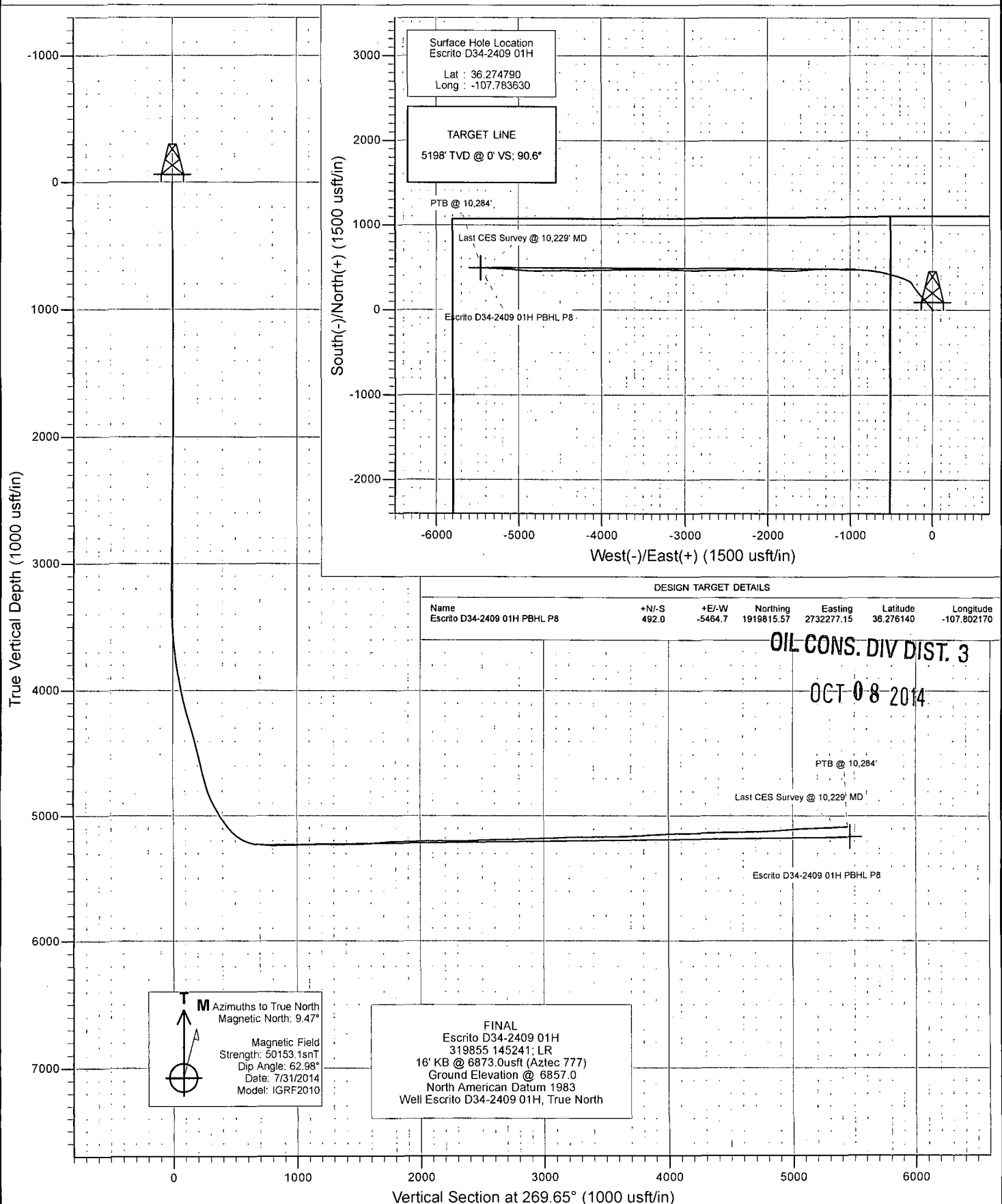
1/29/18



CONFIDENTIAL

encana.
natural gas

Project: San Juan County, NM
Site: S34-T24N-R9W (Escrito)
Well: Escrito D34-2409 01H
Wellbore: Hz
Design: FINAL



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Escrito D34-2409 01H PBHL P8	492.0	-5464.7	1919815.57	2732277.15	36.276140	-107.802170

OIL CONS. DIV DIST. 3
OCT 08 2014

M Azimuths to True North
Magnetic North: 9.47°

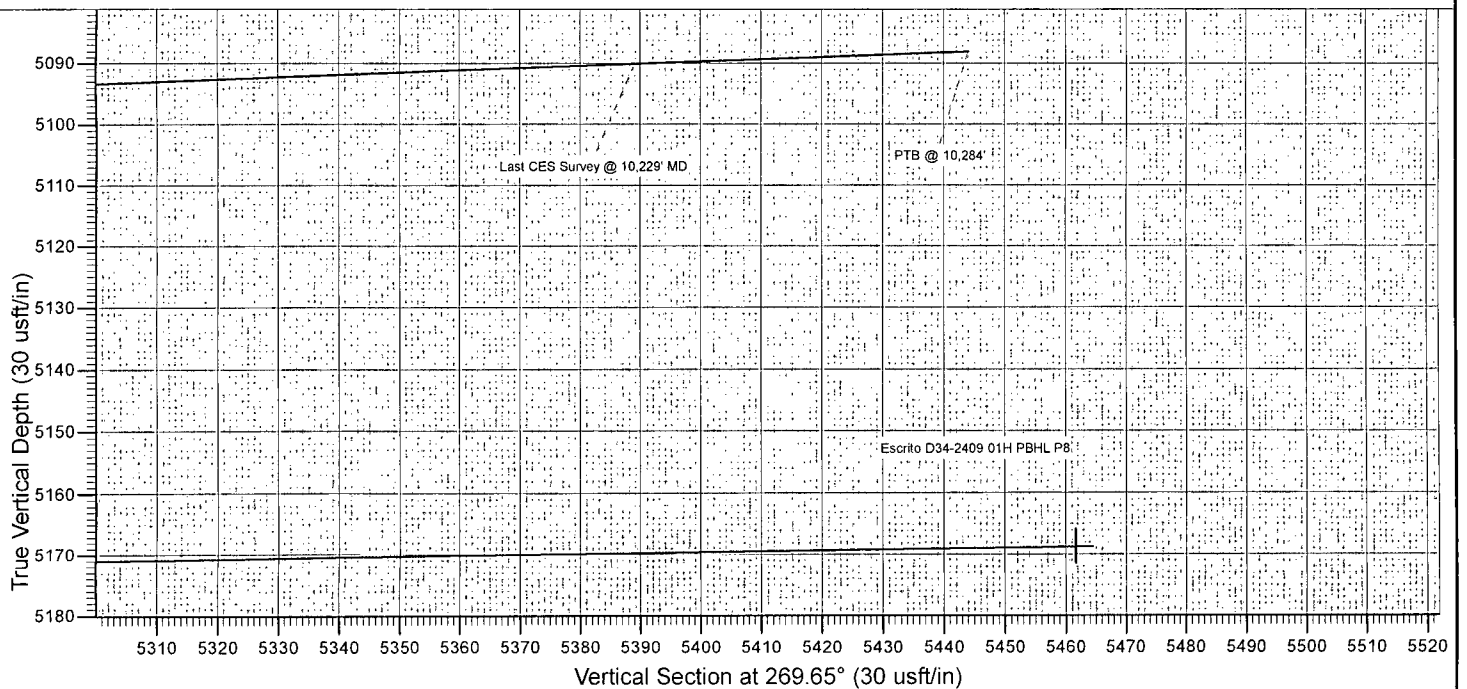
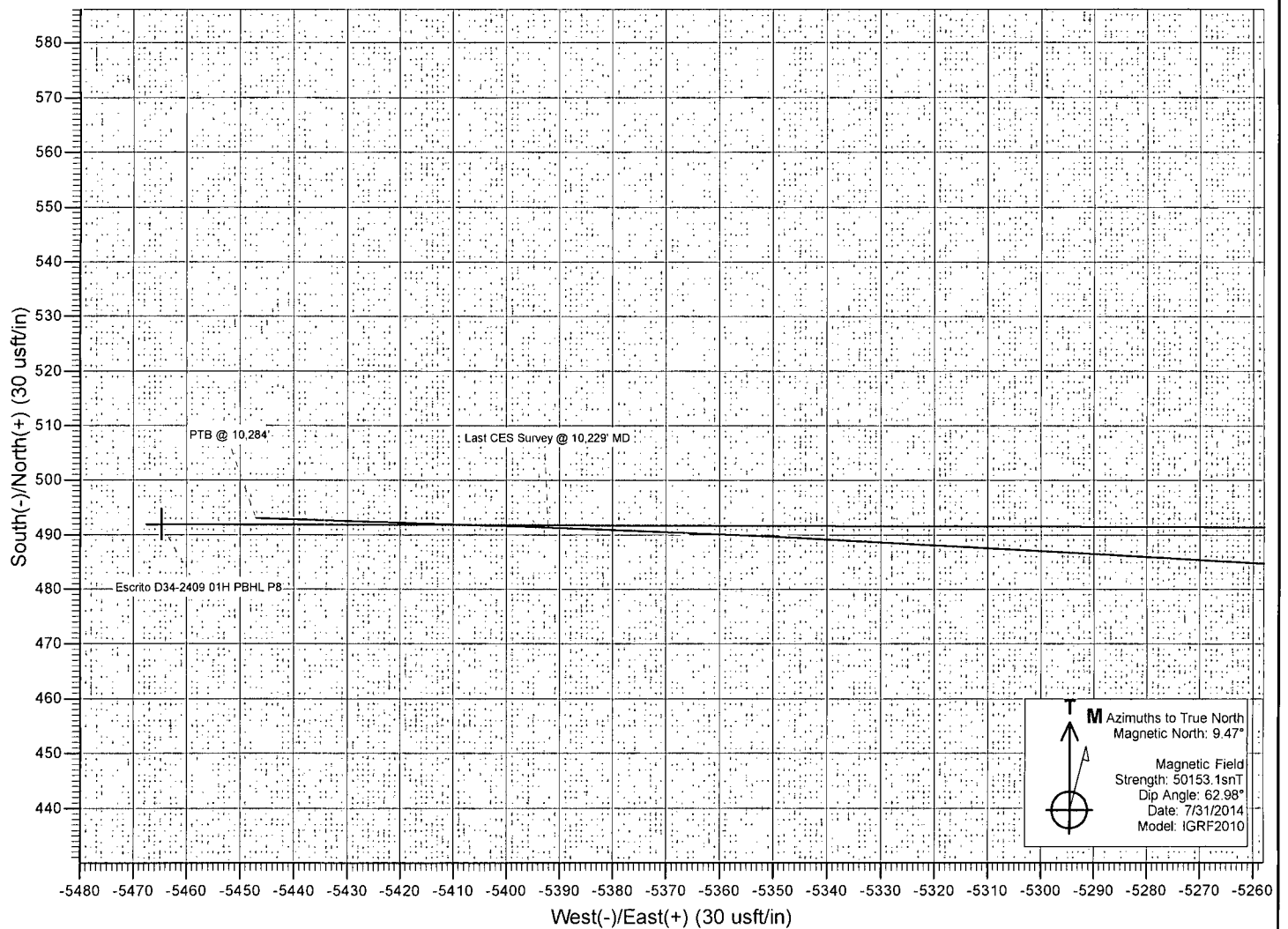
Magnetic Field
Strength: 50153.1snT
Dip Angle: 62.98°
Date: 7/31/2014
Model: IGRF2010

FINAL
Escrito D34-2409 01H
319855 145241; LR
16' KB @ 6873.0usft (Aztec 777)
Ground Elevation @ 6857.0
North American Datum 1983
Well Escrito D34-2409 01H, True North

Vertical Section at 269.65° (1000 usft/in)



Project: San Juan County, NM
Site: S34-T24N-R9W (Escrito)
Well: Escrito D34-2409 01H
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 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	S34-T24N-R9W (Escrito)		
Site Position:		Northing:	1,919,326.42 usft
From:	Lat/Long	Easting:	2,737,742.11 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36.274790
		Longitude:	-107.783630
		Grid Convergence:	0.03 °

Well	Escrito D34-2409 01H		
Well Position	+N/-S	0.0 usft	Northing: 1,919,326.42 usft
	+E/-W	0.0 usft	Easting: 2,737,742.11 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	36.274790
		Longitude:	-107.783630
		Ground Level:	6,857.0 usft

Wellbore	HZ		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	7/31/2014	9.47
			Dip Angle (°)
			62.98
			Field Strength (nT)
			50,153

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)
	0.0	0.0	0.0
			Direction (°)
			269.65

Survey Program	Date 8/12/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
115.0	10,284.0	Survey #1 (Hz)	Geolink MWD
			Description
			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	
115.0	0.30	208.00	115.0	-0.3	-0.1	0.1	0.26	0.26	
178.0	0.30	230.30	178.0	-0.5	-0.3	0.3	0.18	0.00	
241.0	0.30	291.10	241.0	-0.6	-0.6	0.6	0.48	0.00	
304.0	0.50	290.50	304.0	-0.4	-1.0	1.0	0.32	0.32	
367.0	0.60	281.70	367.0	-0.2	-1.6	1.6	0.21	0.16	
455.0	0.30	238.50	455.0	-0.3	-2.3	2.3	0.49	-0.34	
536.0	0.20	267.10	536.0	-0.4	-2.6	2.6	0.19	-0.12	
599.0	0.30	280.10	599.0	-0.4	-2.9	2.9	0.18	0.16	
662.0	0.20	242.30	662.0	-0.4	-3.1	3.1	0.30	-0.16	
726.0	0.40	243.90	726.0	-0.5	-3.4	3.4	0.31	0.31	
789.0	0.30	234.60	789.0	-0.7	-3.8	3.8	0.18	-0.16	
852.0	0.40	245.70	852.0	-0.9	-4.1	4.1	0.19	0.16	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	(Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	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
915.0	0.40	251.50	915.0	-1.1	-4.5	4.5	0.06	0.00	
978.0	0.50	248.00	978.0	-1.2	-5.0	5.0	0.16	0.16	
1,041.0	0.50	242.70	1,041.0	-1.5	-5.5	5.5	0.07	0.00	
1,105.0	0.60	227.90	1,105.0	-1.8	-6.0	6.0	0.27	0.16	
1,168.0	0.50	244.50	1,168.0	-2.2	-6.4	6.5	0.30	-0.16	
1,231.0	1.00	206.80	1,231.0	-2.8	-6.9	7.0	1.08	0.79	
1,294.0	1.10	209.40	1,294.0	-3.8	-7.5	7.5	0.18	0.16	
1,358.0	0.10	29.20	1,358.0	-4.3	-7.8	7.8	1.87	-1.56	
1,421.0	0.40	42.10	1,421.0	-4.1	-7.6	7.6	0.48	0.48	
1,484.0	0.70	353.00	1,484.0	-3.5	-7.5	7.5	0.84	0.48	
1,547.0	0.70	349.40	1,546.9	-2.8	-7.6	7.6	0.07	0.00	
1,611.0	0.70	331.70	1,610.9	-2.0	-7.9	7.9	0.34	0.00	
1,674.0	0.70	343.80	1,673.9	-1.3	-8.2	8.2	0.23	0.00	
1,737.0	1.10	39.40	1,736.9	-0.5	-7.9	7.9	1.45	0.63	
1,800.0	1.20	44.70	1,799.9	0.4	-7.0	7.0	0.23	0.16	
1,863.0	1.40	36.50	1,862.9	1.5	-6.1	6.1	0.43	0.32	
1,926.0	1.30	41.00	1,925.9	2.7	-5.2	5.2	0.23	-0.16	
1,990.0	1.30	45.10	1,989.9	3.7	-4.2	4.2	0.15	0.00	
2,053.0	1.30	39.30	2,052.9	4.8	-3.2	3.2	0.21	0.00	
2,116.0	0.80	32.90	2,115.8	5.7	-2.5	2.5	0.81	-0.79	
2,179.0	0.90	52.00	2,178.8	6.4	-1.9	1.9	0.47	0.16	
2,242.0	0.50	35.20	2,241.8	6.9	-1.4	1.3	0.71	-0.63	
2,306.0	0.40	340.00	2,305.8	7.4	-1.3	1.2	0.67	-0.16	
2,369.0	0.60	340.60	2,368.8	7.9	-1.5	1.4	0.32	0.32	
2,432.0	0.50	99.50	2,431.8	8.2	-1.3	1.3	1.51	-0.16	
2,495.0	1.20	110.80	2,494.8	7.9	-0.4	0.4	1.14	1.11	
2,559.0	1.00	104.70	2,558.8	7.5	0.8	-0.8	0.36	-0.31	
2,622.0	1.00	102.50	2,621.8	7.2	1.8	-1.9	0.06	0.00	
2,685.0	1.30	141.20	2,684.8	6.6	2.8	-2.8	1.29	0.48	
2,748.0	1.50	153.20	2,747.8	5.3	3.6	-3.7	0.56	0.32	
2,811.0	1.50	150.50	2,810.7	3.8	4.4	-4.4	0.11	0.00	
2,875.0	1.60	157.70	2,874.7	2.3	5.2	-5.2	0.34	0.16	
2,938.0	1.70	153.60	2,937.7	0.6	5.9	-5.9	0.25	0.16	
3,001.0	1.80	148.30	3,000.7	-1.1	6.8	-6.8	0.30	0.16	
3,064.0	1.10	151.20	3,063.6	-2.4	7.7	-7.6	1.12	-1.11	
3,127.0	0.70	170.90	3,126.6	-3.4	8.0	-8.0	0.79	-0.63	
3,191.0	0.80	181.60	3,190.6	-4.2	8.1	-8.0	0.27	0.16	
3,254.0	0.80	187.90	3,253.6	-5.1	8.0	-8.0	0.14	0.00	
3,317.0	1.10	288.40	3,316.6	-5.3	7.3	-7.3	2.34	0.48	
3,380.0	3.00	318.20	3,379.6	-3.9	5.7	-5.7	3.36	3.02	
3,443.0	4.20	324.70	3,442.5	-0.8	3.2	-3.2	2.01	1.90	
3,507.0	5.80	321.90	3,506.2	3.7	-0.1	0.1	2.53	2.50	
3,570.0	7.70	319.70	3,568.8	9.4	-4.8	4.7	3.04	3.02	
3,633.0	9.10	325.50	3,631.1	16.7	-10.4	10.3	2.59	2.22	
3,696.0	10.30	319.00	3,693.2	25.1	-16.9	16.7	2.58	1.90	
3,759.0	11.70	319.10	3,755.0	34.2	-24.7	24.5	2.22	2.22	
3,823.0	13.60	316.30	3,817.5	44.5	-34.2	33.9	3.12	2.97	
3,886.0	14.90	315.20	3,878.5	55.6	-45.0	44.7	2.11	2.06	
3,949.0	16.20	317.90	3,939.2	67.9	-56.6	56.2	2.36	2.06	
4,012.0	18.10	322.30	3,999.4	82.2	-68.5	68.0	3.65	3.02	
4,075.0	20.20	322.30	4,058.9	98.5	-81.1	80.5	3.33	3.33	
4,139.0	21.80	319.60	4,118.7	116.3	-95.6	94.9	2.92	2.50	
4,202.0	23.20	316.50	4,176.9	134.2	-111.7	110.9	2.91	2.22	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
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Well:	Escrito D34-2409 01H	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
4,265.0	22.90	315.30	4,234.9	151.9	-128.9	128.0	0.88	-0.48	
4,328.0	22.60	314.60	4,293.0	169.1	-146.1	145.1	0.64	-0.48	
4,391.0	23.30	318.10	4,351.0	186.9	-163.1	161.9	2.43	1.11	
4,454.0	24.50	323.50	4,408.6	206.7	-179.2	177.9	3.96	1.90	
4,518.0	23.00	321.40	4,467.2	227.1	-194.9	193.5	2.69	-2.34	
4,581.0	21.70	322.00	4,525.4	245.9	-209.7	208.2	2.10	-2.06	
4,644.0	21.30	322.80	4,584.0	264.2	-223.8	222.2	0.79	-0.63	
4,707.0	22.50	325.50	4,642.5	283.3	-237.5	235.8	2.49	1.90	
4,771.0	23.30	324.10	4,701.5	303.6	-251.9	250.0	1.51	1.25	
4,834.0	21.90	316.00	4,759.6	322.2	-267.4	265.4	5.41	-2.22	
4,897.0	23.20	300.20	4,817.9	336.9	-286.3	284.2	9.81	2.06	
4,960.0	27.30	293.50	4,874.8	348.9	-310.3	308.1	7.92	6.51	
4,992.0	29.60	291.20	4,903.0	354.7	-324.4	322.2	7.96	7.19	
5,023.0	30.50	291.00	4,929.8	360.3	-338.9	336.6	2.92	2.90	
5,055.0	30.60	291.40	4,957.4	366.1	-354.0	351.8	0.71	0.31	
5,087.0	31.40	287.60	4,984.8	371.6	-369.5	367.3	6.61	2.50	
5,118.0	32.60	290.20	5,011.1	377.0	-385.1	382.8	5.89	3.87	
5,150.0	34.50	289.40	5,037.8	382.9	-401.7	399.4	6.10	5.94	
5,182.0	36.70	288.30	5,063.8	389.0	-419.4	417.0	7.16	6.87	
5,213.0	39.40	285.50	5,088.2	394.5	-437.6	435.2	10.34	8.71	
5,245.0	42.70	286.20	5,112.3	400.2	-457.8	455.4	10.41	10.31	
5,277.0	46.10	284.80	5,135.2	406.2	-479.4	476.9	11.06	10.62	
5,308.0	50.90	285.20	5,155.7	412.2	-501.8	499.3	15.51	15.48	
5,340.0	56.20	284.40	5,174.7	418.8	-526.7	524.1	16.68	16.56	
5,372.0	61.30	283.60	5,191.3	425.4	-553.3	550.6	16.08	15.94	
5,403.0	66.10	283.00	5,205.0	431.8	-580.3	577.6	15.58	15.48	
5,435.0	71.90	282.10	5,216.5	438.3	-609.4	606.7	18.31	18.12	
5,463.0	77.10	280.70	5,224.0	443.6	-635.9	633.2	19.19	18.57	
5,500.0	83.00	278.90	5,230.4	449.8	-671.8	669.0	16.65	15.95	
5,531.0	86.60	277.90	5,233.2	454.3	-702.3	699.5	12.05	11.61	
5,561.0	86.00	276.70	5,235.1	458.1	-732.0	729.2	4.46	-2.00	
5,592.0	85.80	275.60	5,237.3	461.4	-762.7	759.9	3.60	-0.65	
5,622.0	87.00	275.30	5,239.2	464.3	-792.6	789.7	4.12	4.00	
5,652.0	90.20	272.50	5,240.0	466.3	-822.5	819.6	14.17	10.67	
5,682.0	92.00	272.00	5,239.4	467.5	-852.4	849.6	6.23	6.00	
5,742.0	92.40	271.80	5,237.1	469.5	-912.4	909.5	0.75	0.67	
5,803.0	91.50	271.70	5,235.0	471.3	-973.3	970.4	1.48	-1.48	
5,863.0	92.10	272.80	5,233.1	473.7	-1,033.2	1,030.3	2.09	1.00	
5,924.0	91.10	272.50	5,231.4	476.5	-1,094.1	1,091.2	1.71	-1.64	
5,984.0	90.10	272.00	5,230.8	478.9	-1,154.1	1,151.1	1.86	-1.67	
6,045.0	89.30	270.80	5,231.1	480.3	-1,215.1	1,212.1	2.36	-1.31	
6,106.0	89.50	269.90	5,231.7	480.7	-1,276.1	1,273.1	1.51	0.33	
6,167.0	90.40	268.40	5,231.8	479.8	-1,337.0	1,334.1	2.87	1.48	
6,228.0	91.60	267.70	5,230.7	477.7	-1,398.0	1,395.1	2.28	1.97	
6,289.0	91.40	266.20	5,229.1	474.5	-1,458.9	1,456.0	2.48	-0.33	
6,349.0	91.60	265.40	5,227.6	470.1	-1,518.7	1,515.8	1.37	0.33	
6,409.0	93.00	265.40	5,225.2	465.3	-1,578.5	1,575.6	2.33	2.33	
6,470.0	95.20	266.00	5,220.8	460.7	-1,639.1	1,636.3	3.74	3.61	
6,531.0	94.70	268.80	5,215.5	458.0	-1,699.8	1,697.0	4.65	-0.82	
6,591.0	94.80	271.30	5,210.6	458.0	-1,759.6	1,756.8	4.16	0.17	
6,652.0	92.10	272.40	5,206.9	460.0	-1,820.5	1,817.6	4.78	-4.43	
6,712.0	90.00	272.40	5,205.8	462.5	-1,880.4	1,877.5	3.50	-3.50	
6,775.0	90.00	272.40	5,205.8	465.1	-1,943.4	1,940.5	0.00	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	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
6,838.0	92.20	273.60	5,204.6	468.4	-2,006.2	2,003.4	3.98	3.49	
6,901.0	90.80	274.00	5,202.9	472.6	-2,069.1	2,066.2	2.31	-2.22	
6,965.0	90.30	273.50	5,202.3	476.8	-2,132.9	2,130.0	1.10	-0.78	
7,028.0	87.80	270.10	5,203.4	478.8	-2,195.9	2,192.9	6.70	-3.97	
7,091.0	89.50	269.40	5,204.8	478.5	-2,258.9	2,255.9	2.92	2.70	
7,154.0	91.30	268.70	5,204.4	477.5	-2,321.9	2,318.9	3.07	2.86	
7,217.0	92.20	267.30	5,202.5	475.3	-2,384.8	2,381.8	2.64	1.43	
7,280.0	92.10	266.70	5,200.1	472.0	-2,447.7	2,444.7	0.96	-0.16	
7,344.0	91.20	267.10	5,198.3	468.5	-2,511.5	2,508.6	1.54	-1.41	
7,407.0	92.00	268.80	5,196.5	466.3	-2,574.5	2,571.6	2.98	1.27	
7,470.0	92.40	269.60	5,194.1	465.4	-2,637.4	2,634.5	1.42	0.63	
7,533.0	92.20	269.80	5,191.6	465.0	-2,700.4	2,697.5	0.45	-0.32	
7,596.0	91.20	269.20	5,189.7	464.5	-2,763.3	2,760.4	1.85	-1.59	
7,660.0	91.40	270.30	5,188.3	464.2	-2,827.3	2,824.4	1.75	0.31	
7,723.0	91.30	270.30	5,186.8	464.5	-2,890.3	2,887.4	0.16	-0.16	
7,786.0	92.50	271.30	5,184.7	465.4	-2,953.3	2,950.4	2.48	1.90	
7,849.0	93.00	272.80	5,181.7	467.7	-3,016.1	3,013.2	2.51	0.79	
7,912.0	93.20	272.50	5,178.2	470.6	-3,079.0	3,076.0	0.57	0.32	
7,976.0	92.50	271.70	5,175.1	472.9	-3,142.9	3,139.9	1.66	-1.09	
8,039.0	90.80	270.80	5,173.3	474.3	-3,205.8	3,202.9	3.05	-2.70	
8,102.0	90.90	270.10	5,172.3	474.8	-3,268.8	3,265.8	1.12	0.16	
8,165.0	91.20	270.60	5,171.2	475.2	-3,331.8	3,328.8	0.93	0.48	
8,228.0	90.90	269.40	5,170.0	475.2	-3,394.8	3,391.8	1.96	-0.48	
8,291.0	90.80	269.50	5,169.1	474.6	-3,457.8	3,454.8	0.22	-0.16	
8,354.0	89.80	268.40	5,168.7	473.4	-3,520.8	3,517.8	2.36	-1.59	
8,418.0	91.20	268.80	5,168.2	471.9	-3,584.7	3,581.8	2.28	2.19	
8,481.0	91.60	269.40	5,166.6	470.9	-3,647.7	3,644.8	1.14	0.63	
8,544.0	93.40	270.10	5,163.9	470.6	-3,710.6	3,707.7	3.07	2.86	
8,607.0	93.90	270.00	5,159.9	470.7	-3,773.5	3,770.6	0.81	0.79	
8,670.0	93.80	269.30	5,155.7	470.3	-3,836.4	3,833.4	1.12	-0.16	
8,733.0	94.30	269.40	5,151.2	469.6	-3,899.2	3,896.3	0.81	0.79	
8,797.0	92.60	269.70	5,147.4	469.1	-3,963.1	3,960.2	2.70	-2.66	
8,860.0	91.70	268.00	5,145.0	467.8	-4,026.0	4,023.1	3.05	-1.43	
8,923.0	90.80	267.20	5,143.6	465.2	-4,089.0	4,086.0	1.91	-1.43	
8,986.0	91.00	267.30	5,142.6	462.1	-4,151.9	4,149.0	0.35	0.32	
9,049.0	92.90	268.40	5,140.5	459.8	-4,214.8	4,211.9	3.48	3.02	
9,112.0	92.40	270.00	5,137.6	458.9	-4,277.7	4,274.8	2.66	-0.79	
9,176.0	90.90	271.20	5,135.7	459.6	-4,341.7	4,338.8	3.00	-2.34	
9,239.0	90.70	270.90	5,134.9	460.7	-4,404.7	4,401.8	0.57	-0.32	
9,302.0	91.50	270.60	5,133.6	461.5	-4,467.6	4,464.7	1.36	1.27	
9,365.0	91.10	269.00	5,132.2	461.3	-4,530.6	4,527.7	2.62	-0.63	
9,428.0	93.00	270.10	5,130.0	460.8	-4,593.6	4,590.7	3.48	3.02	
9,492.0	90.10	268.00	5,128.2	459.8	-4,657.5	4,654.6	5.59	-4.53	
9,555.0	90.70	267.30	5,127.8	457.2	-4,720.5	4,717.6	1.46	0.95	
9,618.0	92.70	270.80	5,125.9	456.1	-4,783.4	4,780.6	6.40	3.17	
9,681.0	93.30	271.80	5,122.6	457.6	-4,846.3	4,843.4	1.85	0.95	
9,745.0	93.40	273.00	5,118.9	460.2	-4,910.2	4,907.3	1.88	0.16	
9,808.0	95.00	275.20	5,114.3	464.7	-4,972.8	4,969.9	4.31	2.54	
9,871.0	95.50	275.20	5,108.5	470.4	-5,035.3	5,032.3	0.79	0.79	
9,934.0	93.50	274.10	5,103.6	475.5	-5,097.9	5,094.9	3.62	-3.17	
9,998.0	93.20	273.30	5,099.8	479.6	-5,161.7	5,158.6	1.33	-0.47	
10,061.0	92.50	272.80	5,096.7	483.0	-5,224.5	5,221.4	1.36	-1.11	
10,124.0	92.30	273.50	5,094.0	486.4	-5,287.3	5,284.3	1.15	-0.32	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	North Reference:	True
Wellbore:	H ₂	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
10,187.0	92.10	272.60	5,091.6	489.8	-5,350.2	5,347.1	1.46	-0.32	
10,229.0	92.10	271.80	5,090.1	491.4	-5,392.1	5,389.0	1.90	0.00	Last CES Survey @ 10,229' MD
10,284.0	92.10	271.80	5,088.1	493.1	-5,447.1	5,444.0	0.00	0.00	PTB @ 10,284'

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 D34-2409 01H P			0.00	0.00	5,162.8	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
	- survey misses target center by 76.8usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,161.7	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
	- survey misses target center by 75.7usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,140.8	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
	- survey misses target center by 55.6usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,226.3	480.6	-840.0	1,919,806.59	2,736,901.82	36.276110	-107.786480
	- survey misses target center by 19.1usft at 5670.4usft MD (5239.7 TVD, 467.1 N, -840.8 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,211.2	520.6	-840.0	1,919,846.55	2,736,901.80	36.276220	-107.786480
	- survey misses target center by 60.6usft at 5672.2usft MD (5239.7 TVD, 467.1 N, -842.7 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,189.2	520.6	-840.0	1,919,846.55	2,736,901.80	36.276220	-107.786480
	- survey misses target center by 73.6usft at 5672.7usft MD (5239.7 TVD, 467.1 N, -843.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,189.2	480.6	-840.0	1,919,806.59	2,736,901.82	36.276110	-107.786480
	- survey misses target center by 52.3usft at 5671.1usft MD (5239.7 TVD, 467.1 N, -841.5 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,168.7	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
	- survey misses target center by 82.5usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,151.7	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
	- survey misses target center by 66.0usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)	- Point									
Escrito D34-2409 01H P			0.00	0.00	5,216.3	480.6	-840.0	1,919,806.59	2,736,901.82	36.276110	-107.786480
	- survey misses target center by 27.1usft at 5670.6usft MD (5239.7 TVD, 467.1 N, -841.0 E)	- Point									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
10,229.0	5,090.1	491.4	-5,392.1	Last CES Survey @ 10,229' MD
10,284.0	5,088.1	493.1	-5,447.1	PTB @ 10,284'

Checked By: _____

Approved By: _____

Date: _____

EnCana Oil & Gas (USA) Inc

San Juan County, NM

S34-T24N-R9W (Escrito)

Escrito D34-2409 01H

Hz

Survey: Survey #1

Survey Report - Geographic

12 August, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 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		S34-T24N-R9W (Escrito)			
Site Position:		Northing:	1,919,326.42 usft	Latitude:	36.274790
From:	Lat/Long	Easting:	2,737,742.12 usft	Longitude:	-107.783630
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.03 °

Well	Escrito D34-2409 01H					
Well Position	+N/-S	0.0 usft	Northing:	1,919,326.42 usft	Latitude:	36.274790
	+E/-W	0.0 usft	Easting:	2,737,742.12 usft	Longitude:	-107.783630
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	6,857.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/31/2014	9.47	62.98	50,153

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	269.65	

Survey Program	Date	8/12/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
115.0	10,284.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,919,326.42	2,737,742.12	36.274790	-107.783630
115.0	0.30	208.00	115.0	-0.3	-0.1	1,919,326.16	2,737,741.97	36.274789	-107.783631
178.0	0.30	230.30	178.0	-0.5	-0.3	1,919,325.90	2,737,741.77	36.274789	-107.783631
241.0	0.30	291.10	241.0	-0.6	-0.6	1,919,325.86	2,737,741.49	36.274789	-107.783632
304.0	0.50	290.50	304.0	-0.4	-1.0	1,919,326.01	2,737,741.08	36.274789	-107.783634
367.0	0.60	281.70	367.0	-0.2	-1.6	1,919,326.18	2,737,740.50	36.274789	-107.783636
455.0	0.30	238.50	455.0	-0.3	-2.3	1,919,326.15	2,737,739.85	36.274789	-107.783638
536.0	0.20	267.10	536.0	-0.4	-2.6	1,919,326.03	2,737,739.53	36.274789	-107.783639
599.0	0.30	280.10	599.0	-0.4	-2.9	1,919,326.05	2,737,739.26	36.274789	-107.783640
662.0	0.20	242.30	662.0	-0.4	-3.1	1,919,326.03	2,737,739.00	36.274789	-107.783641
726.0	0.40	243.90	726.0	-0.5	-3.4	1,919,325.88	2,737,738.70	36.274789	-107.783642
789.0	0.30	234.60	789.0	-0.7	-3.8	1,919,325.69	2,737,738.36	36.274788	-107.783643

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	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
852.0	0.40	245.70	852.0	-0.9	-4.1	1,919,325.50	2,737,738.03	36.274788	-107.783644
915.0	0.40	251.50	915.0	-1.1	-4.5	1,919,325.34	2,737,737.62	36.274787	-107.783646
978.0	0.50	248.00	978.0	-1.2	-5.0	1,919,325.17	2,737,737.16	36.274787	-107.783647
1,041.0	0.50	242.70	1,041.0	-1.5	-5.5	1,919,324.94	2,737,736.66	36.274786	-107.783649
1,105.0	0.60	227.90	1,105.0	-1.8	-6.0	1,919,324.59	2,737,736.16	36.274785	-107.783650
1,168.0	0.50	244.50	1,168.0	-2.2	-6.4	1,919,324.25	2,737,735.67	36.274784	-107.783652
1,231.0	1.00	206.80	1,231.0	-2.8	-6.9	1,919,323.64	2,737,735.17	36.274782	-107.783654
1,294.0	1.10	209.40	1,294.0	-3.8	-7.5	1,919,322.62	2,737,734.63	36.274780	-107.783656
1,358.0	0.10	29.20	1,358.0	-4.3	-7.8	1,919,322.13	2,737,734.36	36.274778	-107.783657
1,421.0	0.40	42.10	1,421.0	-4.1	-7.6	1,919,322.34	2,737,734.53	36.274779	-107.783656
1,484.0	0.70	353.00	1,484.0	-3.5	-7.5	1,919,322.89	2,737,734.63	36.274780	-107.783656
1,547.0	0.70	349.40	1,546.9	-2.8	-7.6	1,919,323.65	2,737,734.51	36.274782	-107.783656
1,611.0	0.70	331.70	1,610.9	-2.0	-7.9	1,919,324.38	2,737,734.25	36.274784	-107.783657
1,674.0	0.70	343.80	1,673.9	-1.3	-8.2	1,919,325.09	2,737,733.96	36.274786	-107.783658
1,737.0	1.10	39.40	1,736.9	-0.5	-7.9	1,919,325.92	2,737,734.24	36.274789	-107.783657
1,800.0	1.20	44.70	1,799.9	0.4	-7.0	1,919,326.86	2,737,735.09	36.274791	-107.783654
1,863.0	1.40	36.50	1,862.9	1.5	-6.1	1,919,327.95	2,737,736.01	36.274794	-107.783651
1,926.0	1.30	41.00	1,925.9	2.7	-5.2	1,919,329.11	2,737,736.93	36.274797	-107.783648
1,990.0	1.30	45.10	1,989.9	3.7	-4.2	1,919,330.17	2,737,737.92	36.274800	-107.783644
2,053.0	1.30	39.30	2,052.9	4.8	-3.2	1,919,331.23	2,737,738.88	36.274803	-107.783641
2,116.0	0.80	32.90	2,115.8	5.7	-2.5	1,919,332.15	2,737,739.57	36.274806	-107.783639
2,179.0	0.90	52.00	2,178.8	6.4	-1.9	1,919,332.82	2,737,740.20	36.274808	-107.783637
2,242.0	0.50	35.20	2,241.8	6.9	-1.4	1,919,333.35	2,737,740.75	36.274809	-107.783635
2,306.0	0.40	340.00	2,305.8	7.4	-1.3	1,919,333.79	2,737,740.83	36.274810	-107.783635
2,369.0	0.60	340.60	2,368.8	7.9	-1.5	1,919,334.31	2,737,740.65	36.274812	-107.783635
2,432.0	0.50	99.50	2,431.8	8.2	-1.3	1,919,334.57	2,737,740.81	36.274812	-107.783635
2,495.0	1.20	110.80	2,494.8	7.9	-0.4	1,919,334.29	2,737,741.70	36.274812	-107.783632
2,559.0	1.00	104.70	2,558.8	7.5	0.8	1,919,333.92	2,737,742.87	36.274811	-107.783628
2,622.0	1.00	102.50	2,621.8	7.2	1.8	1,919,333.66	2,737,743.93	36.274810	-107.783624
2,685.0	1.30	141.20	2,684.8	6.6	2.8	1,919,332.98	2,737,744.92	36.274808	-107.783621
2,748.0	1.50	153.20	2,747.8	5.3	3.6	1,919,331.69	2,737,745.74	36.274805	-107.783618
2,811.0	1.50	150.50	2,810.7	3.8	4.4	1,919,330.24	2,737,746.52	36.274801	-107.783615
2,875.0	1.60	157.70	2,874.7	2.3	5.2	1,919,328.68	2,737,747.27	36.274796	-107.783613
2,938.0	1.70	153.60	2,937.7	0.6	5.9	1,919,327.03	2,737,748.02	36.274792	-107.783610
3,001.0	1.80	148.30	3,000.7	-1.1	6.8	1,919,325.35	2,737,748.96	36.274787	-107.783607
3,064.0	1.10	151.20	3,063.6	-2.4	7.7	1,919,323.98	2,737,749.77	36.274783	-107.783604
3,127.0	0.70	170.90	3,126.6	-3.4	8.0	1,919,323.07	2,737,750.12	36.274781	-107.783603
3,191.0	0.80	181.60	3,190.6	-4.2	8.1	1,919,322.24	2,737,750.17	36.274779	-107.783603
3,254.0	0.80	187.90	3,253.6	-5.1	8.0	1,919,321.36	2,737,750.10	36.274776	-107.783603
3,317.0	1.10	288.40	3,316.6	-5.3	7.3	1,919,321.12	2,737,749.46	36.274776	-107.783605
3,380.0	3.00	318.20	3,379.6	-3.9	5.7	1,919,322.54	2,737,747.79	36.274779	-107.783611
3,443.0	4.20	324.70	3,442.5	-0.8	3.2	1,919,325.65	2,737,745.36	36.274788	-107.783619
3,507.0	5.80	321.90	3,506.2	3.7	-0.1	1,919,330.10	2,737,742.01	36.274800	-107.783631
3,570.0	7.70	319.70	3,568.8	9.4	-4.8	1,919,335.83	2,737,737.31	36.274816	-107.783647
3,633.0	9.10	325.50	3,631.1	16.7	-10.4	1,919,343.15	2,737,731.75	36.274836	-107.783665
3,696.0	10.30	319.00	3,693.2	25.1	-16.9	1,919,351.50	2,737,725.23	36.274859	-107.783688
3,759.0	11.70	319.10	3,755.0	34.2	-24.7	1,919,360.58	2,737,717.35	36.274884	-107.783714
3,823.0	13.60	316.30	3,817.5	44.5	-34.2	1,919,370.92	2,737,707.89	36.274912	-107.783746
3,886.0	14.90	315.20	3,878.5	55.6	-45.0	1,919,382.02	2,737,697.06	36.274943	-107.783783
3,949.0	16.20	317.90	3,939.2	67.9	-56.6	1,919,394.28	2,737,685.46	36.274977	-107.783822
4,012.0	18.10	322.30	3,999.4	82.2	-68.5	1,919,408.54	2,737,673.57	36.275016	-107.783863
4,075.0	20.20	322.30	4,058.9	98.5	-81.1	1,919,424.88	2,737,660.93	36.275061	-107.783906
4,139.0	21.80	319.60	4,118.7	116.3	-95.6	1,919,442.67	2,737,646.46	36.275110	-107.783955
4,202.0	23.20	316.50	4,176.9	134.2	-111.7	1,919,460.57	2,737,630.32	36.275159	-107.784009
4,265.0	22.90	315.30	4,234.9	151.9	-128.9	1,919,478.28	2,737,613.15	36.275207	-107.784068

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	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
4,328.0	22.60	314.60	4,293.0	169.1	-146.1	1,919,495.48	2,737,595.90	36.275255	-107.784126
4,391.0	23.30	318.10	4,351.0	186.9	-163.1	1,919,513.25	2,737,578.95	36.275304	-107.784184
4,454.0	24.50	323.50	4,408.6	206.7	-179.2	1,919,533.02	2,737,562.85	36.275358	-107.784238
4,518.0	23.00	321.40	4,467.2	227.1	-194.9	1,919,553.45	2,737,547.14	36.275414	-107.784291
4,581.0	21.70	322.00	4,525.4	245.9	-209.7	1,919,572.24	2,737,532.28	36.275466	-107.784342
4,644.0	21.30	322.80	4,584.0	264.2	-223.8	1,919,590.52	2,737,518.18	36.275516	-107.784390
4,707.0	22.50	325.50	4,642.5	283.3	-237.5	1,919,609.57	2,737,504.43	36.275568	-107.784436
4,771.0	23.30	324.10	4,701.5	303.6	-251.9	1,919,629.91	2,737,490.06	36.275624	-107.784485
4,834.0	21.90	316.00	4,759.6	322.2	-267.4	1,919,648.45	2,737,474.57	36.275675	-107.784537
4,897.0	23.20	300.20	4,817.9	336.9	-286.3	1,919,663.15	2,737,455.66	36.275715	-107.784602
4,960.0	27.30	293.50	4,874.8	348.9	-310.3	1,919,675.14	2,737,431.67	36.275748	-107.784683
4,992.0	29.60	291.20	4,903.0	354.7	-324.4	1,919,680.92	2,737,417.56	36.275764	-107.784731
5,023.0	30.50	291.00	4,929.8	360.3	-338.9	1,919,686.50	2,737,403.08	36.275780	-107.784780
5,055.0	30.60	291.40	4,957.4	366.1	-354.0	1,919,692.38	2,737,387.91	36.275796	-107.784831
5,087.0	31.40	287.60	4,984.8	371.6	-369.5	1,919,697.86	2,737,372.38	36.275811	-107.784884
5,118.0	32.60	290.20	5,011.1	377.0	-385.1	1,919,703.18	2,737,356.84	36.275826	-107.784937
5,150.0	34.50	289.40	5,037.8	382.9	-401.7	1,919,709.16	2,737,340.20	36.275842	-107.784993
5,182.0	36.70	288.30	5,063.8	389.0	-419.4	1,919,715.16	2,737,322.56	36.275859	-107.785053
5,213.0	39.40	285.50	5,088.2	394.5	-437.6	1,919,720.69	2,737,304.28	36.275874	-107.785115
5,245.0	42.70	286.20	5,112.3	400.2	-457.8	1,919,726.43	2,737,284.07	36.275890	-107.785184
5,277.0	46.10	284.80	5,135.2	406.2	-479.4	1,919,732.39	2,737,262.49	36.275906	-107.785257
5,308.0	50.90	285.20	5,155.7	412.2	-501.8	1,919,738.39	2,737,240.07	36.275922	-107.785333
5,340.0	56.20	284.40	5,174.7	418.8	-526.7	1,919,744.94	2,737,215.19	36.275941	-107.785417
5,372.0	61.30	283.60	5,191.3	425.4	-553.3	1,919,751.54	2,737,188.65	36.275959	-107.785507
5,403.0	66.10	283.00	5,205.0	431.8	-580.3	1,919,757.91	2,737,161.60	36.275976	-107.785599
5,435.0	71.90	282.10	5,216.5	438.3	-609.4	1,919,764.38	2,737,132.45	36.275994	-107.785698
5,463.0	77.10	280.70	5,224.0	443.6	-635.9	1,919,769.70	2,737,106.01	36.276009	-107.785788
5,500.0	83.00	278.90	5,230.4	449.8	-671.8	1,919,775.87	2,737,070.11	36.276026	-107.785909
5,531.0	86.60	277.90	5,233.2	454.3	-702.3	1,919,780.36	2,737,039.57	36.276038	-107.786013
5,561.0	86.00	276.70	5,235.1	458.1	-732.0	1,919,784.15	2,737,009.88	36.276049	-107.786114
5,592.0	85.80	275.60	5,237.3	461.4	-762.7	1,919,787.45	2,736,979.13	36.276058	-107.786218
5,622.0	87.00	275.30	5,239.2	464.3	-792.6	1,919,790.28	2,736,949.33	36.276065	-107.786319
5,652.0	90.20	272.50	5,240.0	466.3	-822.5	1,919,792.30	2,736,919.41	36.276071	-107.786421
5,682.0	92.00	272.00	5,239.4	467.5	-852.4	1,919,793.46	2,736,889.44	36.276074	-107.786522
5,742.0	92.40	271.80	5,237.1	469.5	-912.4	1,919,795.42	2,736,829.52	36.276080	-107.786726
5,803.0	91.50	271.70	5,235.0	471.3	-973.3	1,919,797.25	2,736,768.58	36.276085	-107.786932
5,863.0	92.10	272.80	5,233.1	473.7	-1,033.2	1,919,799.58	2,736,708.66	36.276091	-107.787136
5,924.0	91.10	272.50	5,231.4	476.5	-1,094.1	1,919,802.36	2,736,647.74	36.276099	-107.787342
5,984.0	90.10	272.00	5,230.8	478.9	-1,154.1	1,919,804.69	2,736,587.79	36.276105	-107.787546
6,045.0	89.30	270.80	5,231.1	480.3	-1,215.1	1,919,806.15	2,736,526.81	36.276110	-107.787753
6,106.0	89.50	269.90	5,231.7	480.7	-1,276.1	1,919,806.49	2,736,465.82	36.276111	-107.787959
6,167.0	90.40	268.40	5,231.8	479.8	-1,337.0	1,919,805.55	2,736,404.83	36.276108	-107.788166
6,228.0	91.60	267.70	5,230.7	477.7	-1,398.0	1,919,803.45	2,736,343.87	36.276102	-107.788373
6,289.0	91.40	266.20	5,229.1	474.5	-1,458.9	1,919,800.17	2,736,282.99	36.276093	-107.788580
6,349.0	91.60	265.40	5,227.6	470.1	-1,518.7	1,919,795.75	2,736,223.17	36.276081	-107.788783
6,409.0	93.00	265.40	5,225.2	465.3	-1,578.5	1,919,790.91	2,736,163.42	36.276068	-107.788985
6,470.0	95.20	266.00	5,220.8	460.7	-1,639.1	1,919,786.31	2,736,102.75	36.276056	-107.789191
6,531.0	94.70	268.80	5,215.5	458.0	-1,699.8	1,919,783.53	2,736,042.05	36.276048	-107.789397
6,591.0	94.80	271.30	5,210.6	458.0	-1,759.6	1,919,783.55	2,735,982.26	36.276048	-107.789600
6,652.0	92.10	272.40	5,206.9	460.0	-1,820.5	1,919,785.48	2,735,921.41	36.276054	-107.789807
6,712.0	90.00	272.40	5,205.8	462.5	-1,880.4	1,919,787.97	2,735,861.47	36.276060	-107.790010
6,775.0	90.00	272.40	5,205.8	465.1	-1,943.4	1,919,790.57	2,735,798.52	36.276068	-107.790223
6,838.0	92.20	273.60	5,204.6	468.4	-2,006.2	1,919,793.83	2,735,735.63	36.276077	-107.790437
6,901.0	90.80	274.00	5,202.9	472.6	-2,069.1	1,919,797.98	2,735,672.79	36.276088	-107.790650
6,965.0	90.30	273.50	5,202.3	476.8	-2,132.9	1,919,802.13	2,735,608.92	36.276100	-107.790867

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	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
7,028.0	87.80	270.10	5,203.4	478.8	-2,195.9	1,919,804.08	2,735,545.98	36.276105	-107.791080
7,091.0	89.50	269.40	5,204.8	478.5	-2,258.9	1,919,803.77	2,735,483.00	36.276104	-107.791294
7,154.0	91.30	268.70	5,204.4	477.5	-2,321.9	1,919,802.69	2,735,420.01	36.276101	-107.791508
7,217.0	92.20	267.30	5,202.5	475.3	-2,384.8	1,919,800.46	2,735,357.08	36.276095	-107.791721
7,280.0	92.10	266.70	5,200.1	472.0	-2,447.7	1,919,797.13	2,735,294.21	36.276086	-107.791934
7,344.0	91.20	267.10	5,198.3	468.5	-2,511.5	1,919,793.64	2,735,230.34	36.276077	-107.792151
7,407.0	92.00	268.80	5,196.5	466.3	-2,574.5	1,919,791.36	2,735,167.41	36.276071	-107.792365
7,470.0	92.40	269.60	5,194.1	465.4	-2,637.4	1,919,790.45	2,735,104.46	36.276068	-107.792578
7,533.0	92.20	269.80	5,191.6	465.0	-2,700.4	1,919,790.08	2,735,041.51	36.276067	-107.792792
7,596.0	91.20	269.20	5,189.7	464.5	-2,763.3	1,919,789.50	2,734,978.54	36.276066	-107.793005
7,660.0	91.40	270.30	5,188.3	464.2	-2,827.3	1,919,789.19	2,734,914.56	36.276065	-107.793222
7,723.0	91.30	270.30	5,186.8	464.5	-2,890.3	1,919,789.49	2,734,851.58	36.276066	-107.793436
7,786.0	92.50	271.30	5,184.7	465.4	-2,953.3	1,919,790.33	2,734,788.62	36.276068	-107.793650
7,849.0	93.00	272.80	5,181.7	467.7	-3,016.1	1,919,792.55	2,734,725.74	36.276074	-107.793863
7,912.0	93.20	272.50	5,178.2	470.6	-3,079.0	1,919,795.43	2,734,662.89	36.276082	-107.794076
7,976.0	92.50	271.70	5,175.1	472.9	-3,142.9	1,919,797.74	2,734,599.02	36.276089	-107.794293
8,039.0	90.80	270.80	5,173.3	474.3	-3,205.8	1,919,799.08	2,734,536.06	36.276093	-107.794507
8,102.0	90.90	270.10	5,172.3	474.8	-3,268.8	1,919,799.54	2,734,473.07	36.276094	-107.794720
8,165.0	91.20	270.60	5,171.2	475.2	-3,331.8	1,919,799.89	2,734,410.08	36.276095	-107.794934
8,228.0	90.90	269.40	5,170.0	475.2	-3,394.8	1,919,799.86	2,734,347.09	36.276095	-107.795148
8,291.0	90.80	269.50	5,169.1	474.6	-3,457.8	1,919,799.22	2,734,284.10	36.276093	-107.795361
8,354.0	89.80	268.40	5,168.7	473.4	-3,520.8	1,919,798.04	2,734,221.12	36.276090	-107.795575
8,418.0	91.20	268.80	5,168.2	471.9	-3,584.7	1,919,796.44	2,734,157.14	36.276086	-107.795792
8,481.0	91.60	269.40	5,166.6	470.9	-3,647.7	1,919,795.42	2,734,094.17	36.276083	-107.796006
8,544.0	93.40	270.10	5,163.9	470.6	-3,710.6	1,919,795.11	2,734,031.23	36.276082	-107.796219
8,607.0	93.90	270.00	5,159.9	470.7	-3,773.5	1,919,795.14	2,733,968.36	36.276082	-107.796433
8,670.0	93.80	269.30	5,155.7	470.3	-3,836.4	1,919,794.72	2,733,905.50	36.276081	-107.796646
8,733.0	94.30	269.40	5,151.2	469.6	-3,899.2	1,919,793.97	2,733,842.66	36.276079	-107.796859
8,797.0	92.60	269.70	5,147.4	469.1	-3,963.1	1,919,793.44	2,733,778.79	36.276078	-107.797076
8,860.0	91.70	268.00	5,145.0	467.8	-4,026.0	1,919,792.14	2,733,715.85	36.276074	-107.797289
8,923.0	90.80	267.20	5,143.6	465.2	-4,089.0	1,919,789.47	2,733,652.92	36.276067	-107.797503
8,986.0	91.00	267.30	5,142.6	462.1	-4,151.9	1,919,786.42	2,733,590.00	36.276059	-107.797716
9,049.0	92.90	268.40	5,140.5	459.8	-4,214.8	1,919,784.02	2,733,527.09	36.276052	-107.797930
9,112.0	92.40	270.00	5,137.6	458.9	-4,277.7	1,919,783.11	2,733,464.16	36.276050	-107.798143
9,176.0	90.90	271.20	5,135.7	459.6	-4,341.7	1,919,783.75	2,733,400.20	36.276052	-107.798360
9,239.0	90.70	270.90	5,134.9	460.7	-4,404.7	1,919,784.87	2,733,337.21	36.276055	-107.798574
9,302.0	91.50	270.60	5,133.6	461.5	-4,467.6	1,919,785.67	2,733,274.23	36.276057	-107.798788
9,365.0	91.10	269.00	5,132.2	461.3	-4,530.6	1,919,785.41	2,733,211.25	36.276056	-107.799001
9,428.0	93.00	270.10	5,130.0	460.8	-4,593.6	1,919,784.89	2,733,148.29	36.276055	-107.799215
9,492.0	90.10	268.00	5,128.2	459.8	-4,657.5	1,919,783.79	2,733,084.34	36.276052	-107.799432
9,555.0	90.70	267.30	5,127.8	457.2	-4,720.5	1,919,781.18	2,733,021.39	36.276045	-107.799645
9,618.0	92.70	270.80	5,125.9	456.1	-4,783.4	1,919,780.10	2,732,958.44	36.276042	-107.799859
9,681.0	93.30	271.80	5,122.6	457.6	-4,846.3	1,919,781.49	2,732,895.55	36.276046	-107.800072
9,745.0	93.40	273.00	5,118.9	460.2	-4,910.2	1,919,784.14	2,732,831.71	36.276053	-107.800289
9,808.0	95.00	275.20	5,114.3	464.7	-4,972.8	1,919,788.60	2,732,769.05	36.276066	-107.800501
9,871.0	95.50	275.20	5,108.5	470.4	-5,035.3	1,919,794.25	2,732,706.57	36.276081	-107.800713
9,934.0	93.50	274.10	5,103.6	475.5	-5,097.9	1,919,799.31	2,732,643.97	36.276095	-107.800926
9,998.0	93.20	273.30	5,099.8	479.6	-5,161.7	1,919,803.40	2,732,580.21	36.276106	-107.801142
10,061.0	92.50	272.80	5,096.7	483.0	-5,224.5	1,919,806.71	2,732,517.37	36.276116	-107.801355
10,124.0	92.30	273.50	5,094.0	486.4	-5,287.3	1,919,810.14	2,732,454.52	36.276125	-107.801568
10,187.0	92.10	272.60	5,091.6	489.8	-5,350.2	1,919,813.46	2,732,391.66	36.276134	-107.801782
10,229.0	92.10	271.80	5,090.1	491.4	-5,392.1	1,919,815.05	2,732,349.72	36.276139	-107.801924
Last CES Survey @ 10,229' MD									
10,284.0	92.10	271.80	5,088.1	493.1	-5,447.1	1,919,816.74	2,732,294.78	36.276143	-107.802110
PTB @ 10,284'									

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D34-2409 01H
Project:	San Juan County, NM	TVD Reference:	16' KB @ 6873.0usft (Aztec 777)
Site:	S34-T24N-R9W (Escrito)	MD Reference:	16' KB @ 6873.0usft (Aztec 777)
Well:	Escrito D34-2409 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Escrito D34-2409 01H P	0.00	0.00	5,168.7	492.0	-5,464.7	1,919,815.57	2,732,277.15	36.276140	-107.802170
- survey misses target center by 82.5usft at 10284.0usft MD (5088.1 TVD, 493.1 N, -5447.1 E)									
- Point									

Survey Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
10,229.0	5,090.1	491.4	-5,392.1	Last CES Survey @ 10,229' MD
10,284.0	5,088.1	493.1	-5,447.1	PTB @ 10,284'

Checked By: _____ Approved By: _____ Date: _____