

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

1 API Number 30-043-21176		2 Pool Code 42289		3 Pool Name LYBROOK GALLUP	
4 Property Code 40321		5 Property Name LYBROOK P28-2306			6 Well Number 01H
7 OGRID No. 282327		8 Operator Name ENCANA OIL & GAS (USA) INC.			9 Elevation 7211'

10 Surface Location

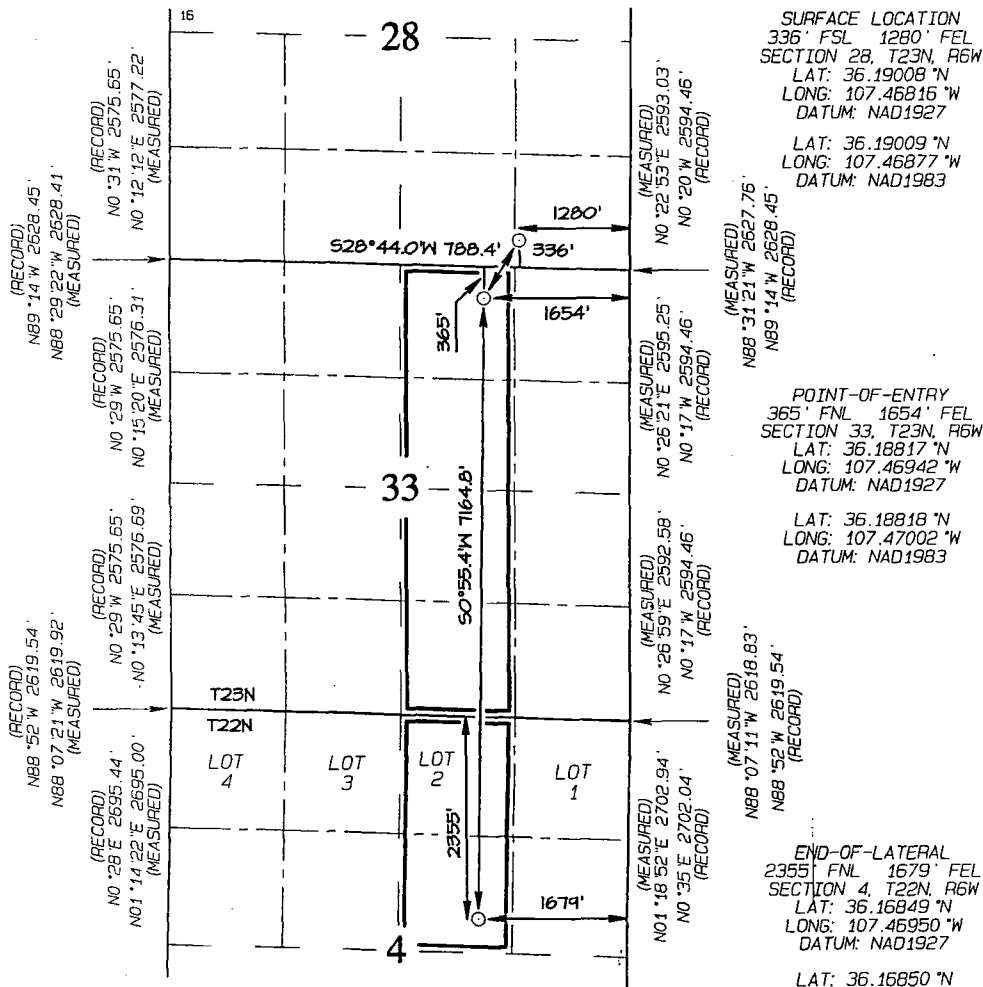
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	23N	6W		336	SOUTH	1280	EAST	SANDOVAL

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
G	4	22N	6W		2355	NORTH	1679	EAST	SANDOVAL

12 Dedicated Acres W/2 E/2 - Section 33 240.81 Acres W/2 NE/4 - Section 4		13 Joint or Infill	14 Consolidation Code	15 Order No. RCVD SEP 17'14 OIL CONS. DIV. DIST. 3
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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



SURFACE LOCATION
336' FSL 1280' FEL
SECTION 28, T23N, R6W
LAT: 36.19008°N
LONG: 107.46816°W
DATUM: NAD1927

LAT: 36.19009°N
LONG: 107.46877°W
DATUM: NAD1983

POINT-OF-ENTRY
365' FNL 1654' FEL
SECTION 33, T23N, R6W
LAT: 36.18817°N
LONG: 107.46942°W
DATUM: NAD1927

LAT: 36.18818°N
LONG: 107.47002°W
DATUM: NAD1983

END-OF-LATERAL
2355' FNL 1679' FEL
SECTION 4, T22N, R6W
LAT: 36.16849°N
LONG: 107.46950°W
DATUM: NAD1927

LAT: 36.16850°N
LONG: 107.47011°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 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* Date: 09-02-14
Printed Name: Brenda R. Linster
E-mail Address: Brenda.Linster@encana.com

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: AUGUST 18, 2014
Survey Date: OCTOBER 2, 2012
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

AV

DEVIATION SURVEYS
Well Name: Lybrook P28-2306 01H
API: 30-043-21176

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
751'	0.40
1066'	0.70
1381'	1.60
1696'	1.90
2010'	3.00
2323'	2.70
2637'	1.90
2951'	1.90
3264'	1.80
3578'	1.70
3893'	1.70
4207'	2.50
4521'	1.90
4804'	4.20
4996'	16.90

RCVD SEP 17 '14
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.

Cristi Bauer

Cristi Bauer, Operations Technician

9/2/14

Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 2 day of September, 2014 by Cristi Bauer as Attorney in Fact of Encana Oil & Gas (USA) Inc., on behalf of said corporation.

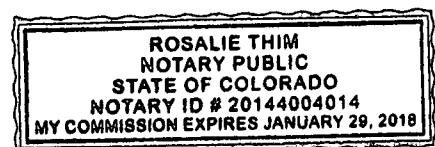
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

My Commission Expires:

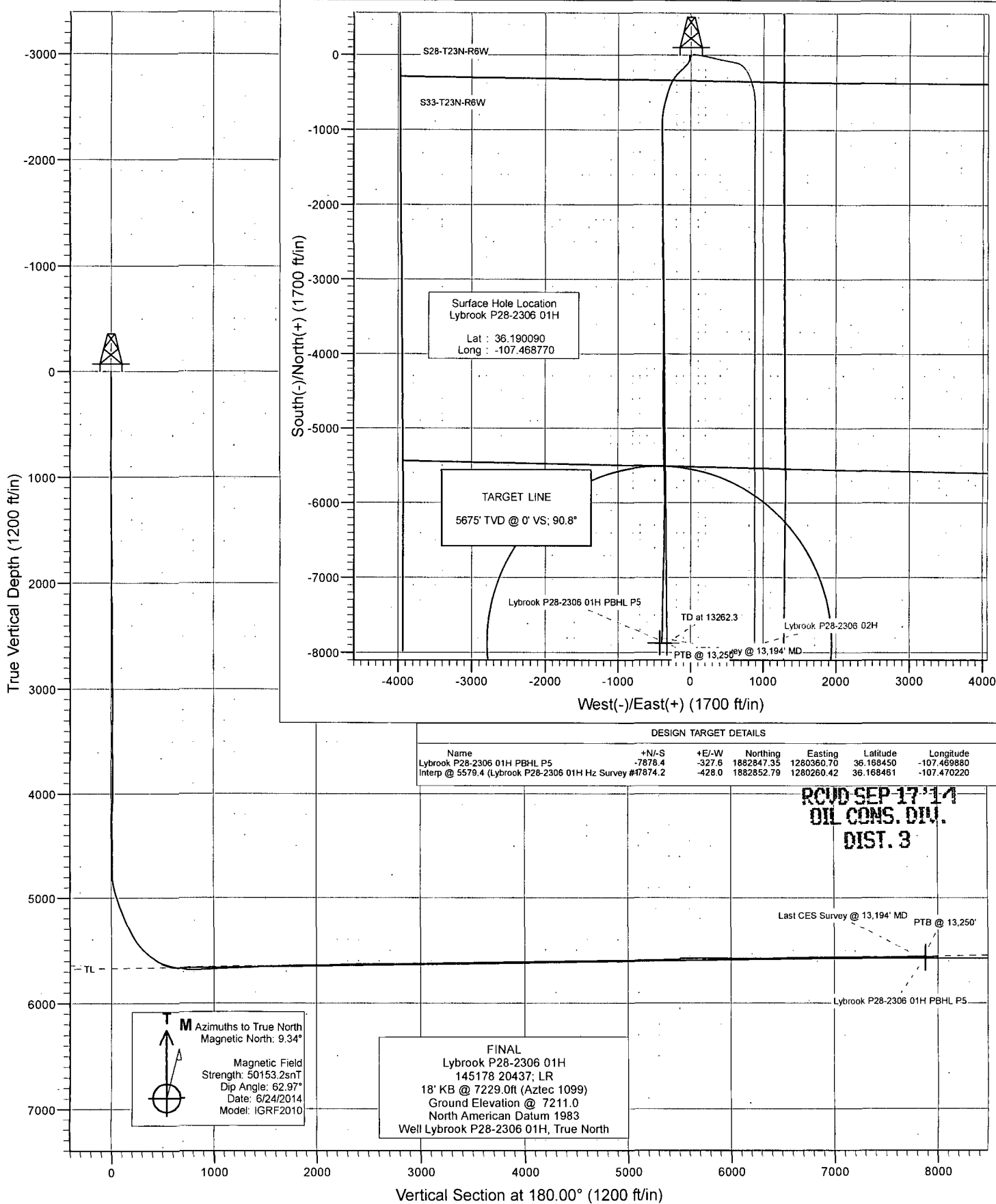
1/29/18



encana™

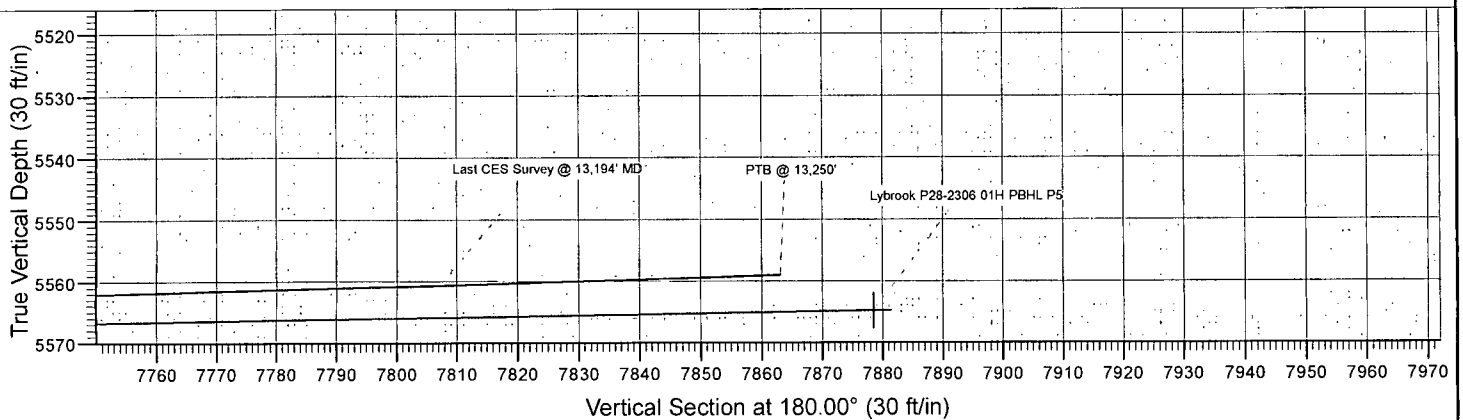
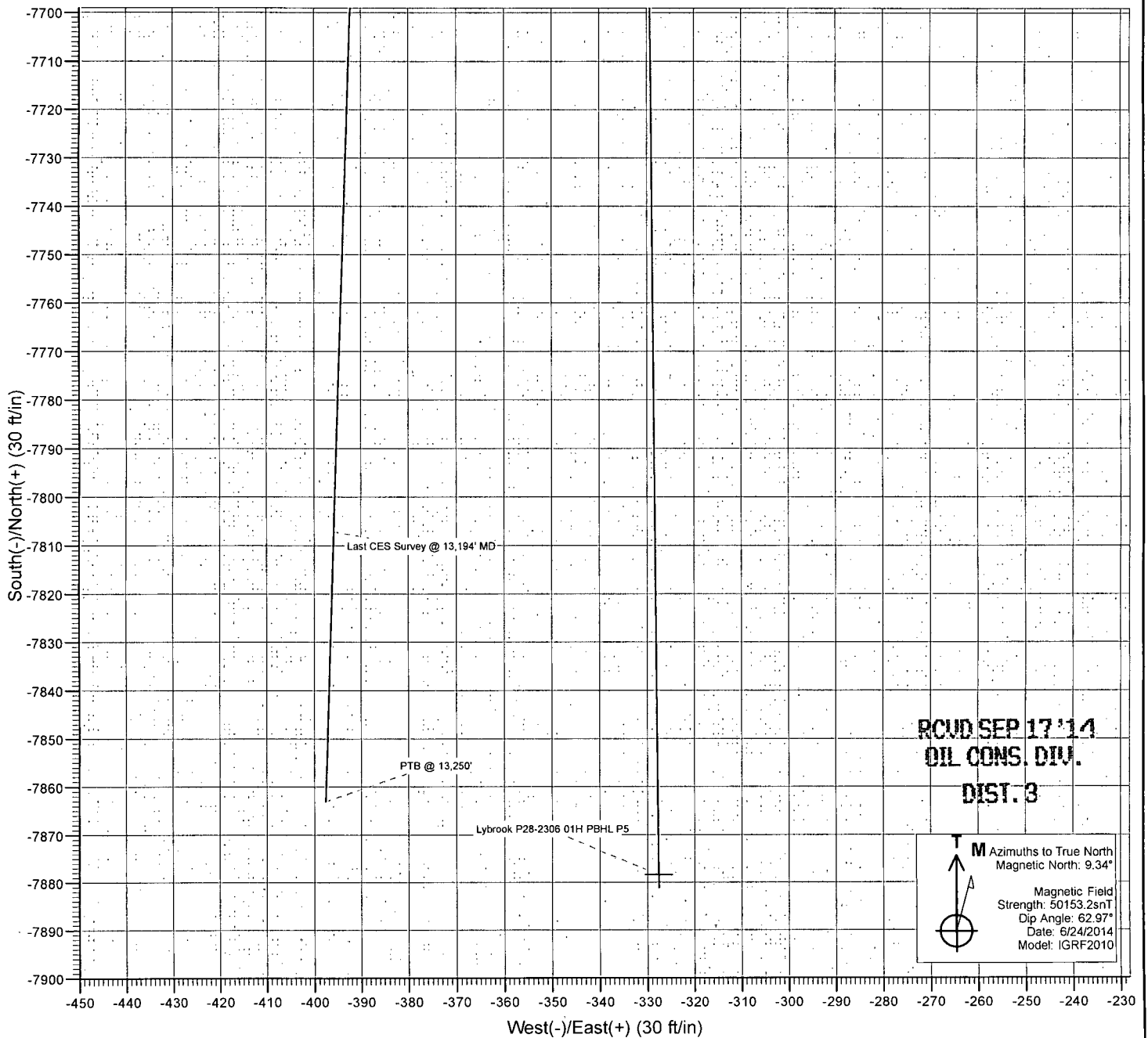
natural gas

Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook P28-2306 01H
 Wellbore: Hz
 Design: FINAL





Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL



Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

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

Site	Lybrook				
Site Position:		Northing:	1,882,676.45 ft	Latitude:	36.168210
From:	Lat/Long	Easting:	1,287,068.90 ft	Longitude:	-107.447150
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.71 °

Well	Lybrook P28-2306 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,890,721.03 ft	Latitude:	36.190090
	+E/-W	0.0 ft	Easting:	1,280,787.28 ft	Longitude:	-107.468770
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,211.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2014	9.34	62.97	50,153

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	180.00	

Survey Program		Date	7/9/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
562.0	13,250.0	Survey #1 (Hz)	Geolink 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	
562.0	0.10	266.70	562.0	0.0	-0.5	0.0	0.02	0.02	
625.0	0.20	272.40	625.0	0.0	-0.7	0.0	0.16	0.16	
688.0	0.40	267.10	688.0	0.0	-1.0	0.0	0.32	0.32	
751.0	0.40	279.30	751.0	0.0	-1.4	0.0	0.13	0.00	
814.0	0.50	284.40	814.0	0.1	-1.9	-0.1	0.17	0.16	
877.0	0.60	297.10	877.0	0.3	-2.5	-0.3	0.25	0.16	
940.0	0.50	288.00	940.0	0.5	-3.0	-0.5	0.21	-0.16	
1,003.0	0.50	264.20	1,003.0	0.6	-3.6	-0.6	0.33	0.00	
1,066.0	0.70	256.20	1,066.0	0.5	-4.2	-0.5	0.34	0.32	
1,129.0	0.90	253.20	1,129.0	0.3	-5.0	-0.3	0.32	0.32	
1,192.0	0.80	249.60	1,192.0	0.0	-5.9	0.0	0.18	-0.16	
1,255.0	1.00	231.10	1,255.0	-0.5	-6.8	0.5	0.56	0.32	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
1,317.0	1.40	244.50	1,316.9	-1.2	-7.9	1.2	0.78	0.65	
1,381.0	1.60	241.20	1,380.9	-2.0	-9.4	2.0	0.34	0.31	
1,443.0	1.60	240.30	1,442.9	-2.8	-10.9	2.8	0.04	0.00	
1,506.0	1.80	221.70	1,505.9	-4.0	-12.3	4.0	0.93	0.32	
1,570.0	1.90	222.50	1,569.8	-5.5	-13.7	5.5	0.16	0.16	
1,633.0	2.40	217.00	1,632.8	-7.4	-15.2	7.4	0.86	0.79	
1,696.0	1.90	246.00	1,695.8	-8.8	-16.9	8.8	1.87	-0.79	
1,759.0	1.80	279.30	1,758.7	-9.1	-18.9	9.1	1.69	-0.16	
1,822.0	1.40	338.40	1,821.7	-8.2	-20.1	8.2	2.56	-0.63	
1,885.0	3.00	40.60	1,884.7	-6.3	-19.3	6.3	4.21	2.54	
1,947.0	4.00	54.10	1,946.5	-3.8	-16.5	3.8	2.08	1.61	
2,010.0	3.00	78.70	2,009.4	-2.1	-13.1	2.1	2.83	-1.59	
2,072.0	3.00	140.20	2,071.4	-3.1	-10.5	3.1	4.95	0.00	
2,135.0	4.30	166.30	2,134.2	-6.6	-8.9	6.6	3.30	2.06	
2,197.0	3.80	190.50	2,196.1	-10.9	-8.7	10.9	2.85	-0.81	
2,260.0	2.10	267.60	2,259.0	-13.0	-10.2	13.0	6.20	-2.70	
2,323.0	2.70	324.10	2,322.0	-11.9	-12.3	11.9	3.70	0.95	
2,386.0	1.90	359.20	2,384.9	-9.6	-13.2	9.6	2.51	-1.27	
2,449.0	1.60	92.60	2,447.9	-8.6	-12.3	8.6	4.06	-0.48	
2,512.0	1.90	99.60	2,510.9	-8.8	-10.4	8.8	0.58	0.48	
2,574.0	1.80	107.30	2,572.8	-9.3	-8.4	9.3	0.43	-0.16	
2,637.0	1.90	107.50	2,635.8	-9.9	-6.5	9.9	0.16	0.16	
2,700.0	1.50	109.20	2,698.8	-10.5	-4.7	10.5	0.64	-0.63	
2,763.0	1.90	108.80	2,761.8	-11.1	-3.0	11.1	0.64	0.63	
2,826.0	1.80	105.80	2,824.7	-11.7	-1.0	11.7	0.22	-0.16	
2,889.0	1.80	108.70	2,887.7	-12.3	0.9	12.3	0.14	0.00	
2,951.0	1.90	110.80	2,949.7	-13.0	2.8	13.0	0.19	0.16	
3,013.0	1.00	173.30	3,011.6	-13.9	3.8	13.9	2.73	-1.45	
3,076.0	1.60	234.80	3,074.6	-14.9	3.1	14.9	2.26	0.95	
3,138.0	1.70	226.00	3,136.6	-16.0	1.8	16.0	0.44	0.16	
3,201.0	1.40	266.80	3,199.6	-16.7	0.3	16.7	1.77	-0.48	
3,264.0	1.80	288.70	3,262.6	-16.5	-1.4	16.5	1.15	0.63	
3,326.0	2.00	325.60	3,324.5	-15.3	-2.9	15.3	1.96	0.32	
3,390.0	2.10	20.10	3,388.5	-13.2	-3.1	13.2	2.94	0.16	
3,452.0	2.60	68.50	3,450.4	-11.7	-1.4	11.7	3.19	0.81	
3,515.0	1.80	121.50	3,513.4	-11.6	0.7	11.6	3.32	-1.27	
3,578.0	1.70	168.60	3,576.4	-13.1	1.8	13.1	2.22	-0.16	
3,641.0	2.00	170.30	3,639.3	-15.1	2.1	15.1	0.48	0.48	
3,703.0	2.00	228.70	3,701.3	-16.9	1.5	16.9	3.15	0.00	
3,767.0	1.90	274.10	3,765.3	-17.5	-0.4	17.5	2.36	-0.16	
3,830.0	1.70	298.00	3,828.2	-17.0	-2.3	17.0	1.22	-0.32	
3,893.0	1.70	281.80	3,891.2	-16.4	-4.0	16.4	0.76	0.00	
3,955.0	1.70	289.10	3,953.2	-15.9	-5.8	15.9	0.35	0.00	
4,018.0	1.80	286.60	4,016.2	-15.3	-7.6	15.3	0.20	0.16	
4,081.0	2.40	314.50	4,079.1	-14.1	-9.5	14.1	1.85	0.95	
4,144.0	2.90	350.60	4,142.1	-11.6	-10.7	11.6	2.71	0.79	
4,207.0	2.50	30.60	4,205.0	-8.8	-10.3	8.8	2.99	-0.63	
4,270.0	2.30	86.60	4,268.0	-7.6	-8.3	7.6	3.59	-0.32	
4,332.0	1.50	132.70	4,329.9	-8.1	-6.5	8.1	2.68	-1.29	
4,396.0	1.90	210.40	4,393.9	-9.5	-6.4	9.5	3.37	0.62	
4,458.0	1.60	253.00	4,455.9	-10.7	-7.7	10.7	2.10	-0.48	
4,521.0	1.90	301.10	4,518.9	-10.4	-9.5	10.4	2.31	0.48	
4,584.0	1.90	291.50	4,581.8	-9.5	-11.3	9.5	0.50	0.00	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
4,647.0	1.80	290.00	4,644.8	-8.8	-13.2	8.8	0.18	-0.16	
4,710.0	1.50	295.60	4,707.8	-8.1	-14.9	8.1	0.54	-0.48	
4,773.0	1.90	237.00	4,770.7	-8.3	-16.5	8.3	2.70	0.63	
4,804.0	4.20	195.90	4,801.7	-9.6	-17.3	9.6	9.80	7.42	
4,836.0	6.80	192.10	4,833.5	-12.6	-18.0	12.6	8.20	8.12	
4,899.0	12.70	178.00	4,895.6	-23.2	-18.5	23.2	10.04	9.37	
4,932.0	15.60	172.40	4,927.6	-31.2	-17.8	31.2	9.71	8.79	
4,964.0	16.80	173.90	4,958.3	-40.1	-16.8	40.1	3.97	3.75	
4,996.0	16.90	184.30	4,989.0	-49.3	-16.6	49.3	9.41	0.31	
5,027.0	18.00	191.50	5,018.5	-58.5	-17.9	58.5	7.81	3.55	
5,059.0	19.70	199.00	5,048.8	-68.5	-20.6	68.5	9.24	5.31	
5,090.0	21.10	204.40	5,077.9	-78.5	-24.7	78.5	7.56	4.52	
5,122.0	23.00	210.50	5,107.5	-89.1	-30.2	89.1	9.29	5.94	
5,153.0	24.60	214.00	5,135.9	-99.7	-36.9	99.7	6.88	5.16	
5,184.0	25.80	218.10	5,164.0	-110.4	-44.7	110.4	6.83	3.87	
5,215.0	27.80	220.20	5,191.6	-121.2	-53.5	121.2	7.14	6.45	
5,247.0	30.10	222.70	5,219.6	-132.8	-63.8	132.8	8.12	7.19	
5,278.0	32.30	223.50	5,246.1	-144.5	-74.7	144.5	7.22	7.10	
5,309.0	34.90	224.70	5,272.0	-156.8	-86.7	156.8	8.66	8.39	
5,341.0	36.30	225.60	5,298.0	-170.0	-99.9	170.0	4.67	4.37	
5,372.0	37.90	227.70	5,322.7	-182.8	-113.5	182.8	6.58	5.16	
5,404.0	40.30	226.50	5,347.5	-196.5	-128.3	196.5	7.86	7.50	
5,435.0	41.50	229.00	5,371.0	-210.2	-143.3	210.2	6.55	3.87	
5,466.0	42.80	227.20	5,394.0	-224.1	-158.8	224.1	5.72	4.19	
5,498.0	44.80	226.30	5,417.1	-239.2	-174.9	239.2	6.55	6.25	
5,529.0	45.90	223.10	5,438.8	-254.9	-190.4	254.9	8.16	3.55	
5,561.0	47.60	219.20	5,460.8	-272.5	-205.7	272.5	10.34	5.31	
5,592.0	49.40	218.20	5,481.3	-290.6	-220.2	290.6	6.29	5.81	
5,624.0	51.60	214.10	5,501.7	-310.5	-234.8	310.5	12.04	6.87	
5,655.0	53.30	211.80	5,520.6	-331.1	-248.1	331.1	8.04	5.48	
5,687.0	55.00	209.40	5,539.3	-353.5	-261.3	353.5	8.07	5.31	
5,718.0	55.80	205.80	5,556.9	-376.1	-273.1	376.1	9.90	2.58	
5,749.0	57.30	203.10	5,574.0	-399.6	-283.8	399.6	8.73	4.84	
5,781.0	59.30	201.70	5,590.8	-424.8	-294.2	424.8	7.27	6.25	
5,806.0	62.20	199.90	5,603.0	-445.2	-302.0	445.2	13.19	11.60	
5,838.0	65.10	198.50	5,617.2	-472.3	-311.4	472.3	9.87	9.06	
5,869.0	70.70	196.40	5,628.9	-499.7	-320.0	499.7	19.12	18.06	
5,901.0	74.60	195.20	5,638.4	-529.0	-328.3	529.0	12.70	12.19	
5,932.0	79.70	192.90	5,645.3	-558.3	-335.6	558.3	17.97	16.45	
5,971.0	76.20	196.20	5,653.5	-595.3	-345.2	595.3	12.21	-8.97	
6,002.0	76.30	196.30	5,660.8	-624.2	-353.6	624.2	0.45	0.32	
6,033.0	77.70	194.90	5,667.8	-653.3	-361.7	653.3	6.31	4.52	
6,065.0	80.40	192.60	5,673.9	-683.8	-369.2	683.8	11.00	8.44	
6,096.0	82.80	190.80	5,678.4	-713.8	-375.4	713.8	9.64	7.74	
6,127.0	85.00	189.60	5,681.7	-744.1	-380.9	744.1	8.07	7.10	
6,159.0	88.90	188.20	5,683.4	-775.7	-385.8	775.7	12.95	12.19	
6,190.0	91.90	186.80	5,683.2	-806.4	-389.9	806.4	10.68	9.68	
6,222.0	93.30	185.10	5,681.7	-838.2	-393.2	838.2	6.88	4.37	
6,253.0	92.90	183.10	5,680.1	-869.1	-395.4	869.1	6.57	-1.29	
6,284.0	91.50	181.30	5,678.9	-900.0	-396.6	900.0	7.35	-4.52	
6,315.0	90.20	179.00	5,678.4	-931.0	-396.7	931.0	8.52	-4.19	
6,347.0	91.10	178.80	5,678.1	-963.0	-396.0	963.0	2.88	2.81	
6,378.0	91.70	179.10	5,677.3	-994.0	-395.5	994.0	2.16	1.94	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
6,410.0	93.30	179.00	5,675.9	-1,026.0	-395.0	1,026.0	5.01	5.00	
6,441.0	93.80	178.40	5,674.0	-1,056.9	-394.2	1,056.9	2.52	1.61	
6,472.0	92.40	179.50	5,672.3	-1,087.9	-393.7	1,087.9	5.74	-4.52	
6,504.0	92.60	179.50	5,670.9	-1,119.8	-393.4	1,119.8	0.62	0.62	
6,535.0	93.00	179.60	5,669.4	-1,150.8	-393.2	1,150.8	1.33	1.29	
6,598.0	92.00	179.00	5,666.7	-1,213.7	-392.4	1,213.7	1.85	-1.59	
6,661.0	91.20	178.10	5,664.9	-1,276.7	-390.8	1,276.7	1.91	-1.27	
6,723.0	93.00	178.10	5,662.6	-1,338.6	-388.7	1,338.6	2.90	2.90	
6,786.0	93.90	178.40	5,658.8	-1,401.5	-386.8	1,401.5	1.51	1.43	
6,849.0	93.50	178.90	5,654.8	-1,464.3	-385.3	1,464.3	1.02	-0.63	
6,912.0	91.60	179.50	5,652.0	-1,527.2	-384.5	1,527.2	3.16	-3.02	
6,975.0	91.80	179.70	5,650.1	-1,590.2	-384.0	1,590.2	0.45	0.32	
7,037.0	92.40	179.50	5,647.8	-1,652.2	-383.6	1,652.2	1.02	0.97	
7,100.0	91.50	179.80	5,645.7	-1,715.1	-383.2	1,715.1	1.51	-1.43	
7,164.0	91.50	179.90	5,644.0	-1,779.1	-383.0	1,779.1	0.16	0.00	
7,226.0	92.20	180.00	5,642.0	-1,841.1	-383.0	1,841.1	1.14	1.13	
7,289.0	91.40	180.00	5,640.0	-1,904.0	-383.0	1,904.0	1.27	-1.27	
7,352.0	89.80	179.90	5,639.4	-1,967.0	-382.9	1,967.0	2.54	-2.54	
7,414.0	90.40	179.80	5,639.3	-2,029.0	-382.8	2,029.0	0.98	0.97	
7,477.0	91.10	180.00	5,638.4	-2,092.0	-382.7	2,092.0	1.16	1.11	
7,540.0	91.60	179.60	5,636.9	-2,155.0	-382.4	2,155.0	1.02	0.79	
7,602.0	92.30	180.00	5,634.8	-2,217.0	-382.2	2,217.0	1.30	1.13	
7,665.0	91.80	180.70	5,632.6	-2,279.9	-382.6	2,279.9	1.36	-0.79	
7,727.0	92.00	180.90	5,630.5	-2,341.9	-383.5	2,341.9	0.46	0.32	
7,790.0	90.50	180.20	5,629.2	-2,404.9	-384.1	2,404.9	2.63	-2.38	
7,853.0	90.00	179.70	5,628.9	-2,467.9	-384.0	2,467.9	1.12	-0.79	
7,916.0	91.10	180.80	5,628.3	-2,530.9	-384.3	2,530.9	2.47	1.75	
7,979.0	91.00	180.80	5,627.1	-2,593.9	-385.2	2,593.9	0.16	-0.16	
8,042.0	89.70	181.50	5,626.7	-2,656.8	-386.4	2,656.8	2.34	-2.06	
8,104.0	88.90	179.90	5,627.5	-2,718.8	-387.2	2,718.8	2.89	-1.29	
8,167.0	90.20	178.60	5,628.0	-2,781.8	-386.4	2,781.8	2.92	2.06	
8,230.0	90.90	177.90	5,627.4	-2,844.8	-384.4	2,844.8	1.57	1.11	
8,293.0	91.00	179.00	5,626.3	-2,907.7	-382.7	2,907.7	1.75	0.16	
8,356.0	89.90	179.30	5,625.8	-2,970.7	-381.8	2,970.7	1.81	-1.75	
8,419.0	90.10	179.40	5,625.8	-3,033.7	-381.1	3,033.7	0.35	0.32	
8,481.0	90.70	179.20	5,625.4	-3,095.7	-380.3	3,095.7	1.02	0.97	
8,541.0	91.10	179.10	5,624.5	-3,155.7	-379.4	3,155.7	0.69	0.67	
8,602.0	91.80	179.20	5,622.9	-3,216.7	-378.5	3,216.7	1.16	1.15	
8,663.0	90.80	180.00	5,621.5	-3,277.7	-378.1	3,277.7	2.10	-1.64	
8,723.0	90.20	180.20	5,621.0	-3,337.7	-378.2	3,337.7	1.05	-1.00	
8,783.0	90.70	180.20	5,620.5	-3,397.7	-378.4	3,397.7	0.83	0.83	
8,844.0	90.50	179.40	5,619.9	-3,458.6	-378.2	3,458.6	1.35	-0.33	
8,906.0	90.70	179.00	5,619.3	-3,520.6	-377.4	3,520.6	0.72	0.32	
8,967.0	91.10	178.60	5,618.3	-3,581.6	-376.1	3,581.6	0.93	0.66	
9,027.0	91.60	178.50	5,616.9	-3,641.6	-374.6	3,641.6	0.85	0.83	
9,088.0	92.00	179.80	5,615.0	-3,702.5	-373.7	3,702.5	2.23	0.66	
9,149.0	90.30	180.60	5,613.7	-3,763.5	-373.9	3,763.5	3.08	-2.79	
9,210.0	90.00	180.70	5,613.6	-3,824.5	-374.6	3,824.5	0.52	-0.49	
9,271.0	90.60	180.90	5,613.3	-3,885.5	-375.4	3,885.5	1.04	0.98	
9,332.0	91.00	180.40	5,612.4	-3,946.5	-376.1	3,946.5	1.05	0.66	
9,393.0	91.40	180.20	5,611.1	-4,007.5	-376.4	4,007.5	0.73	0.66	
9,454.0	90.20	180.20	5,610.3	-4,068.5	-376.6	4,068.5	1.97	-1.97	
9,515.0	90.30	180.40	5,610.0	-4,129.5	-377.0	4,129.5	0.37	0.16	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
9,575.0	90.60	180.20	5,609.5	-4,189.5	-377.3	4,189.5	0.60	0.50	
9,636.0	91.10	180.30	5,608.6	-4,250.5	-377.5	4,250.5	0.84	0.82	
9,697.0	91.40	179.90	5,607.3	-4,311.5	-377.6	4,311.5	0.82	0.49	
9,758.0	91.90	179.80	5,605.6	-4,372.4	-377.5	4,372.4	0.84	0.82	
9,819.0	91.30	180.00	5,603.8	-4,433.4	-377.4	4,433.4	1.04	-0.98	
9,881.0	90.70	179.90	5,602.8	-4,495.4	-377.3	4,495.4	0.98	-0.97	
9,945.0	91.30	180.00	5,601.6	-4,559.4	-377.3	4,559.4	0.95	0.94	
10,007.0	90.70	179.90	5,600.6	-4,621.4	-377.2	4,621.4	0.98	-0.97	
10,070.0	90.40	179.80	5,600.0	-4,684.4	-377.0	4,684.4	0.50	-0.48	
10,132.0	90.00	179.10	5,599.7	-4,746.4	-376.4	4,746.4	1.30	-0.65	
10,195.0	90.30	178.40	5,599.6	-4,809.4	-375.1	4,809.4	1.21	0.48	
10,258.0	90.90	178.50	5,598.9	-4,872.3	-373.4	4,872.3	0.97	0.95	
10,320.0	90.60	179.10	5,598.1	-4,934.3	-372.1	4,934.3	1.08	-0.48	
10,383.0	90.70	179.70	5,597.4	-4,997.3	-371.4	4,997.3	0.97	0.16	
10,447.0	91.50	180.20	5,596.2	-5,061.3	-371.4	5,061.3	1.47	1.25	
10,509.0	90.60	179.30	5,595.0	-5,123.3	-371.1	5,123.3	2.05	-1.45	
10,573.0	90.40	179.30	5,594.5	-5,187.3	-370.3	5,187.3	0.31	-0.31	
10,635.0	91.10	179.80	5,593.7	-5,249.3	-369.8	5,249.3	1.39	1.13	
10,699.0	91.70	179.40	5,592.1	-5,313.3	-369.4	5,313.3	1.13	0.94	
10,761.0	92.20	178.60	5,590.0	-5,375.2	-368.3	5,375.2	1.52	0.81	
10,824.0	91.20	178.40	5,588.1	-5,438.2	-366.6	5,438.2	1.62	-1.59	
10,887.0	89.60	179.10	5,587.7	-5,501.1	-365.3	5,501.1	2.77	-2.54	
10,949.0	89.70	179.60	5,588.1	-5,563.1	-364.6	5,563.1	0.82	0.16	
11,013.0	89.80	179.90	5,588.3	-5,627.1	-364.3	5,627.1	0.49	0.16	
11,075.0	89.90	180.20	5,588.5	-5,689.1	-364.3	5,689.1	0.51	0.16	
11,138.0	91.30	179.70	5,587.8	-5,752.1	-364.3	5,752.1	2.36	2.22	
11,201.0	91.60	179.50	5,586.2	-5,815.1	-363.8	5,815.1	0.57	0.48	
11,264.0	91.80	178.60	5,584.4	-5,878.1	-362.8	5,878.1	1.46	0.32	
11,327.0	91.00	178.90	5,582.8	-5,941.0	-361.4	5,941.0	1.36	-1.27	
11,390.0	90.40	180.80	5,582.1	-6,004.0	-361.3	6,004.0	3.16	-0.95	
11,453.0	89.90	181.30	5,581.9	-6,067.0	-362.4	6,067.0	1.12	-0.79	
11,516.0	90.40	181.20	5,581.7	-6,130.0	-363.8	6,130.0	0.81	0.79	
11,579.0	90.90	181.30	5,581.0	-6,193.0	-365.2	6,193.0	0.81	0.79	
11,642.0	90.70	180.50	5,580.1	-6,256.0	-366.2	6,256.0	1.31	-0.32	
11,705.0	90.80	180.10	5,579.3	-6,318.9	-366.5	6,318.9	0.65	0.16	
11,768.0	91.10	179.50	5,578.3	-6,381.9	-366.3	6,381.9	1.06	0.48	
11,831.0	91.90	179.70	5,576.6	-6,444.9	-365.8	6,444.9	1.31	1.27	
11,894.0	92.40	180.00	5,574.3	-6,507.9	-365.7	6,507.9	0.93	0.79	
11,957.0	92.40	180.70	5,571.6	-6,570.8	-366.0	6,570.8	1.11	0.00	
12,020.0	91.30	182.20	5,569.6	-6,633.8	-367.6	6,633.8	2.95	-1.75	
12,083.0	89.50	182.80	5,569.1	-6,696.7	-370.4	6,696.7	3.01	-2.86	
12,146.0	90.10	182.00	5,569.4	-6,759.6	-373.0	6,759.6	1.59	0.95	
12,209.0	90.80	181.40	5,568.9	-6,822.6	-374.9	6,822.6	1.46	1.11	
12,271.0	90.50	180.50	5,568.2	-6,884.6	-375.9	6,884.6	1.53	-0.48	
12,334.0	90.40	180.70	5,567.7	-6,947.6	-376.6	6,947.6	0.35	-0.16	
12,397.0	90.60	181.40	5,567.1	-7,010.6	-377.7	7,010.6	1.16	0.32	
12,460.0	91.10	181.70	5,566.2	-7,073.5	-379.4	7,073.5	0.93	0.79	
12,523.0	90.90	181.80	5,565.1	-7,136.5	-381.4	7,136.5	0.35	-0.32	
12,586.0	88.60	182.20	5,565.4	-7,199.5	-383.6	7,199.5	3.71	-3.65	
12,648.0	88.00	182.00	5,567.2	-7,261.4	-385.8	7,261.4	1.02	-0.97	
12,711.0	89.30	180.80	5,568.7	-7,324.4	-387.4	7,324.4	2.81	2.06	
12,774.0	90.10	180.30	5,569.0	-7,387.3	-388.0	7,387.3	1.50	1.27	
12,837.0	90.70	180.40	5,568.6	-7,450.3	-388.4	7,450.3	0.97	0.95	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook P28-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
North Reference: True
Survey Calculation Method: Minimum Curvature
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
12,900.0	91.40	180.10	5,567.4	-7,513.3	-388.6	7,513.3	1.21	1.11	
12,963.0	92.00	180.70	5,565.6	-7,576.3	-389.1	7,576.3	1.35	0.95	
13,026.0	90.70	181.70	5,564.1	-7,639.3	-390.4	7,639.3	2.60	-2.06	
13,089.0	91.00	182.00	5,563.1	-7,702.2	-392.4	7,702.2	0.67	0.48	
13,194.0	91.70	181.80	5,560.7	-7,807.1	-395.9	7,807.1	0.69	0.67	Last CES Survey @ 13,194' MD
13,250.0	91.70	181.80	5,559.0	-7,863.1	-397.7	7,863.1	0.00	0.00	PTB @ 13,250'

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook P28-2306 01H
Project:	Sandoval County, NM	TVD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Site:	Lybrook	MD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Well:	Lybrook P28-2306 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)		
Lybrook P28-2306 01H f	0.00	0.00	5,653.7	-655.3	-776.2	1,890,075.51	1,280,002.94	36.188290	-107.471400
- actual wellpath misses target center by 405.5ft at 6106.7ft MD (5679.7 TVD, -724.2 N, -377.4 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,530.5	-7,878.4	-327.6	1,882,847.35	1,280,360.70	36.168450	-107.469880
- actual wellpath misses target center by 77.2ft at 13250.0ft MD (5559.0 TVD, -7863.1 N, -397.7 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,563.9	-7,878.4	-327.6	1,882,847.35	1,280,360.70	36.168450	-107.469880
- actual wellpath misses target center by 71.9ft at 13250.0ft MD (5559.0 TVD, -7863.1 N, -397.7 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,628.7	-7,827.4	-776.3	1,882,903.96	1,279,912.68	36.168590	-107.471400
- actual wellpath misses target center by 385.8ft at 13224.2ft MD (5559.8 TVD, -7837.3 N, -396.9 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,665.7	-659.0	-324.6	1,890,066.19	1,280,454.39	36.188280	-107.469870
- actual wellpath misses target center by 37.3ft at 6028.2ft MD (5666.8 TVD, -648.7 N, -360.5 E)									
- Point									
Interp @ 5579.4 (Lybroo	0.00	0.00	5,579.4	-7,874.2	-428.0	1,882,852.79	1,280,260.42	36.168461	-107.470220
- actual wellpath misses target center by 38.2ft at 13250.0ft MD (5559.0 TVD, -7863.1 N, -397.7 E)									
- Circle (radius 2,365.0)									
Lybrook P28-2306 01H f	0.00	0.00	5,656.5	-659.0	-324.6	1,890,066.19	1,280,454.39	36.188280	-107.469870
- actual wellpath misses target center by 38.7ft at 6026.1ft MD (5666.3 TVD, -646.7 N, -360.0 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,664.8	-659.0	-324.6	1,890,066.19	1,280,454.39	36.188280	-107.469870
- actual wellpath misses target center by 37.4ft at 6028.0ft MD (5666.7 TVD, -648.5 N, -360.5 E)									
- Point									
Lybrook P28-2306 01H f	0.00	0.00	5,564.9	-7,878.4	-327.6	1,882,847.35	1,280,360.70	36.168450	-107.469880
- actual wellpath misses target center by 71.9ft at 13250.0ft MD (5559.0 TVD, -7863.1 N, -397.7 E)									
- Point									

Formations					
Measured Depth	Vertical Depth			Dip	Dip Direction
(ft)	(ft)	Name	Lithology	(°)	(°)
5,991.8	5,667.0	TL		-0.80	180.00

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
13,194.0	5,560.7	-7,807.1	-395.9	Last CES Survey @ 13,194' MD
13,250.0	5,559.0	-7,863.1	-397.7	PTB @ 13,250'

Checked By: _____	Approved By: _____	Date: _____
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EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook P28-2306 01H

Hz

Design: FINAL

Survey Report - Geographic

09 July, 2014

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook P28-2306 01H
Project:	Sandoval County, NM	TVD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Site:	Lybrook	MD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Well:	Lybrook P28-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

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

Site	Lybrook				
Site Position:		Northing:	1,882,676.45 ft	Latitude:	36.168210
From:	Lat/Long	Easting:	1,287,068.90 ft	Longitude:	-107.447150
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.71 °

Well	Lybrook P28-2306 01H					
Well Position	+N-S	0.0 ft	Northing:	1,890,721.03 ft	Latitude:	36.190090
	+E-W	0.0 ft	Easting:	1,280,787.28 ft	Longitude:	-107.468770
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,211.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2014	9.34	62.97	50,153

Design		FINAL	
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)
			Direction (°)
	0.0	0.0	0.0
			180.00

Survey Program		Date	7/9/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
562.0	13,250.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,890,721.03	1,280,787.28	36.190090	-107.468770	
562.0	0.10	266.70	562.0	0.0	-0.5	1,890,721.01	1,280,786.79	36.190090	-107.468772	
625.0	0.20	272.40	625.0	0.0	-0.7	1,890,721.01	1,280,786.62	36.190090	-107.468772	
688.0	0.40	267.10	688.0	0.0	-1.0	1,890,721.01	1,280,786.29	36.190090	-107.468774	
751.0	0.40	279.30	751.0	0.0	-1.4	1,890,721.04	1,280,785.86	36.190090	-107.468775	
814.0	0.50	284.40	814.0	0.1	-1.9	1,890,721.15	1,280,785.38	36.190090	-107.468777	
877.0	0.60	297.10	877.0	0.3	-2.5	1,890,721.37	1,280,784.82	36.190091	-107.468779	
940.0	0.50	288.00	940.0	0.5	-3.0	1,890,721.61	1,280,784.27	36.190092	-107.468781	
1,003.0	0.50	264.20	1,003.0	0.6	-3.6	1,890,721.68	1,280,783.73	36.190092	-107.468782	
1,066.0	0.70	256.20	1,066.0	0.5	-4.2	1,890,721.57	1,280,783.08	36.190091	-107.468785	
1,129.0	0.90	253.20	1,129.0	0.3	-5.0	1,890,721.34	1,280,782.23	36.190091	-107.468787	
1,192.0	0.80	249.60	1,192.0	0.0	-5.9	1,890,721.06	1,280,781.34	36.190090	-107.468790	

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Site:	Lybrook	MD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Well:	Lybrook P28-2306 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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,255.0	1.00	231.10	1,255.0	-0.5	-6.8	1,890,720.57	1,280,780.50	36.190089	-107.468793
1,317.0	1.40	244.50	1,316.9	-1.2	-7.9	1,890,719.92	1,280,779.39	36.190087	-107.468797
1,381.0	1.60	241.20	1,380.9	-2.0	-9.4	1,890,719.17	1,280,777.89	36.190085	-107.468802
1,443.0	1.60	240.30	1,442.9	-2.8	-10.9	1,890,718.34	1,280,776.37	36.190082	-107.468807
1,506.0	1.80	221.70	1,505.9	-4.0	-12.3	1,890,717.19	1,280,774.93	36.190079	-107.468812
1,570.0	1.90	222.50	1,569.8	-5.5	-13.7	1,890,715.67	1,280,773.52	36.190075	-107.468817
1,633.0	2.40	217.00	1,632.8	-7.4	-15.2	1,890,713.87	1,280,772.00	36.190070	-107.468822
1,696.0	1.90	246.00	1,695.8	-8.8	-16.9	1,890,712.41	1,280,770.24	36.190066	-107.468828
1,759.0	1.80	279.30	1,758.7	-9.1	-18.9	1,890,712.17	1,280,768.30	36.190065	-107.468834
1,822.0	1.40	338.40	1,821.7	-8.2	-20.1	1,890,713.06	1,280,767.05	36.190068	-107.468838
1,885.0	3.00	40.60	1,884.7	-6.3	-19.3	1,890,715.02	1,280,767.87	36.190073	-107.468836
1,947.0	4.00	54.10	1,946.5	-3.8	-16.5	1,890,717.48	1,280,770.71	36.190080	-107.468826
2,010.0	3.00	78.70	2,009.4	-2.1	-13.1	1,890,719.05	1,280,774.12	36.190084	-107.468815
2,072.0	3.00	140.20	2,071.4	-3.1	-10.5	1,890,718.09	1,280,776.74	36.190082	-107.468806
2,135.0	4.30	166.30	2,134.2	-6.6	-8.9	1,890,714.51	1,280,778.31	36.190072	-107.468800
2,197.0	3.80	190.50	2,196.1	-10.9	-8.7	1,890,710.23	1,280,778.43	36.190060	-107.468800
2,260.0	2.10	267.60	2,259.0	-13.0	-10.2	1,890,708.15	1,280,776.87	36.190054	-107.468805
2,323.0	2.70	324.10	2,322.0	-11.9	-12.3	1,890,709.32	1,280,774.86	36.190058	-107.468812
2,386.0	1.90	359.20	2,384.9	-9.6	-13.2	1,890,711.58	1,280,774.01	36.190064	-107.468815
2,449.0	1.60	92.60	2,447.9	-8.6	-12.3	1,890,712.58	1,280,774.88	36.190066	-107.468812
2,512.0	1.90	99.60	2,510.9	-8.8	-10.4	1,890,712.34	1,280,776.79	36.190066	-107.468805
2,574.0	1.80	107.30	2,572.8	-9.3	-8.4	1,890,711.85	1,280,778.73	36.190065	-107.468799
2,637.0	1.90	107.50	2,635.8	-9.9	-6.5	1,890,711.22	1,280,780.66	36.190063	-107.468792
2,700.0	1.50	109.20	2,698.8	-10.5	-4.7	1,890,710.61	1,280,782.43	36.190061	-107.468786
2,763.0	1.90	108.80	2,761.8	-11.1	-3.0	1,890,709.98	1,280,784.19	36.190060	-107.468780
2,826.0	1.80	105.80	2,824.7	-11.7	-1.0	1,890,709.35	1,280,786.12	36.190058	-107.468774
2,889.0	1.80	108.70	2,887.7	-12.3	0.9	1,890,708.74	1,280,788.00	36.190056	-107.468767
2,951.0	1.90	110.80	2,949.7	-13.0	2.8	1,890,708.04	1,280,789.88	36.190055	-107.468761
3,013.0	1.00	173.30	3,011.6	-13.9	3.8	1,890,707.13	1,280,790.89	36.190052	-107.468757
3,076.0	1.60	234.80	3,074.6	-14.9	3.1	1,890,706.08	1,280,790.22	36.190049	-107.468760
3,138.0	1.70	226.00	3,136.6	-16.0	1.8	1,890,704.96	1,280,788.84	36.190046	-107.468764
3,201.0	1.40	266.80	3,199.6	-16.7	0.3	1,890,704.29	1,280,787.39	36.190044	-107.468769
3,264.0	1.80	288.70	3,262.6	-16.5	-1.4	1,890,704.58	1,280,785.69	36.190045	-107.468775
3,326.0	2.00	325.60	3,324.5	-15.3	-2.9	1,890,705.81	1,280,784.17	36.190048	-107.468780
3,390.0	2.10	20.10	3,388.5	-13.2	-3.1	1,890,707.83	1,280,783.97	36.190054	-107.468781
3,452.0	2.60	68.50	3,450.4	-11.7	-1.4	1,890,709.39	1,280,785.68	36.190058	-107.468775
3,515.0	1.80	121.50	3,513.4	-11.6	0.7	1,890,709.37	1,280,787.86	36.190058	-107.468768
3,578.0	1.70	168.60	3,576.4	-13.1	1.8	1,890,707.93	1,280,788.87	36.190054	-107.468764
3,641.0	2.00	170.30	3,639.3	-15.1	2.1	1,890,705.92	1,280,789.21	36.190049	-107.468763
3,703.0	2.00	228.70	3,701.3	-16.9	1.5	1,890,704.15	1,280,788.56	36.190044	-107.468765
3,767.0	1.90	274.10	3,765.3	-17.5	-0.4	1,890,703.51	1,280,786.65	36.190042	-107.468772
3,830.0	1.70	298.00	3,828.2	-17.0	-2.3	1,890,704.05	1,280,784.79	36.190043	-107.468778
3,893.0	1.70	281.80	3,891.2	-16.4	-4.0	1,890,704.70	1,280,783.06	36.190045	-107.468784
3,955.0	1.70	289.10	3,953.2	-15.9	-5.8	1,890,705.21	1,280,781.30	36.190046	-107.468790
4,018.0	1.80	286.60	4,016.2	-15.3	-7.6	1,890,705.82	1,280,779.48	36.190048	-107.468796
4,081.0	2.40	314.50	4,079.1	-14.1	-9.5	1,890,707.05	1,280,777.60	36.190051	-107.468802
4,144.0	2.90	350.60	4,142.1	-11.6	-10.7	1,890,709.57	1,280,776.43	36.190058	-107.468807
4,207.0	2.50	30.60	4,205.0	-8.8	-10.3	1,890,712.31	1,280,776.91	36.190066	-107.468805
4,270.0	2.30	86.60	4,268.0	-7.6	-8.3	1,890,713.55	1,280,778.88	36.190069	-107.468798
4,332.0	1.50	132.70	4,329.9	-8.1	-6.5	1,890,713.05	1,280,780.72	36.190068	-107.468792
4,396.0	1.90	210.40	4,393.9	-9.5	-6.4	1,890,711.56	1,280,780.78	36.190064	-107.468792
4,458.0	1.60	253.00	4,455.9	-10.7	-7.7	1,890,710.44	1,280,779.41	36.190061	-107.468796
4,521.0	1.90	301.10	4,518.9	-10.4	-9.5	1,890,710.75	1,280,777.68	36.190062	-107.468802
4,584.0	1.90	291.50	4,581.8	-9.5	-11.3	1,890,711.69	1,280,775.83	36.190064	-107.468809
4,647.0	1.80	290.00	4,644.8	-8.8	-13.2	1,890,712.44	1,280,773.94	36.190066	-107.468815

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 Well: Lybrook P28-2306 01H
 Wellbore: Hz
 Design: FINAL

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 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,710.0	1.50	295.60	4,707.8	-8.1	-14.9	1,890,713.15	1,280,772.27	36.190068	-107.468821
4,773.0	1.90	237.00	4,770.7	-8.3	-16.5	1,890,712.96	1,280,770.65	36.190067	-107.468826
4,804.0	4.20	195.90	4,801.7	-9.6	-17.3	1,890,711.60	1,280,769.89	36.190064	-107.468829
4,836.0	6.80	192.10	4,833.5	-12.6	-18.0	1,890,708.63	1,280,769.13	36.190055	-107.468831
4,899.0	12.70	178.00	4,895.6	-23.2	-18.5	1,890,698.06	1,280,768.46	36.190026	-107.468833
4,932.0	15.60	172.40	4,927.6	-31.2	-17.8	1,890,690.02	1,280,769.07	36.190004	-107.468831
4,964.0	16.80	173.90	4,958.3	-40.1	-16.8	1,890,681.15	1,280,770.02	36.189980	-107.468827
4,996.0	16.90	184.30	4,989.0	-49.3	-16.6	1,890,671.91	1,280,770.05	36.189955	-107.468827
5,027.0	18.00	191.50	5,018.5	-58.5	-17.9	1,890,662.74	1,280,768.64	36.189929	-107.468831
5,059.0	19.70	199.00	5,048.8	-68.5	-20.6	1,890,652.83	1,280,765.77	36.189902	-107.468840
5,090.0	21.10	204.40	5,077.9	-78.5	-24.7	1,890,642.85	1,280,761.64	36.189875	-107.468854
5,122.0	23.00	210.50	5,107.5	-89.1	-30.2	1,890,632.29	1,280,755.95	36.189845	-107.468873
5,153.0	24.60	214.00	5,135.9	-99.7	-36.9	1,890,621.81	1,280,749.14	36.189816	-107.468895
5,184.0	25.80	218.10	5,164.0	-110.4	-44.7	1,890,611.24	1,280,741.23	36.189787	-107.468922
5,215.0	27.80	220.20	5,191.6	-121.2	-53.5	1,890,600.52	1,280,732.27	36.189757	-107.468952
5,247.0	30.10	222.70	5,219.6	-132.8	-63.8	1,890,589.06	1,280,721.86	36.189725	-107.468986
5,278.0	32.30	223.50	5,246.1	-144.5	-74.7	1,890,577.47	1,280,710.74	36.189693	-107.469023
5,309.0	34.90	224.70	5,272.0	-156.8	-86.7	1,890,565.31	1,280,698.65	36.189659	-107.469064
5,341.0	36.30	225.60	5,298.0	-170.0	-99.9	1,890,552.34	1,280,685.28	36.189623	-107.469109
5,372.0	37.90	227.70	5,322.7	-182.8	-113.5	1,890,539.68	1,280,671.52	36.189588	-107.469155
5,404.0	40.30	226.50	5,347.5	-196.5	-128.3	1,890,526.13	1,280,656.57	36.189550	-107.469205
5,435.0	41.50	229.00	5,371.0	-210.2	-143.3	1,890,512.68	1,280,641.37	36.189513	-107.469256
5,466.0	42.80	227.20	5,394.0	-224.1	-158.8	1,890,498.98	1,280,625.72	36.189475	-107.469308
5,498.0	44.80	226.30	5,417.1	-239.2	-174.9	1,890,484.01	1,280,609.40	36.189433	-107.469363
5,529.0	45.90	223.10	5,438.8	-254.9	-190.4	1,890,468.53	1,280,593.70	36.189390	-107.469415
5,561.0	47.60	219.20	5,460.8	-272.5	-205.7	1,890,451.17	1,280,578.16	36.189342	-107.469467
5,592.0	49.40	218.20	5,481.3	-290.6	-220.2	1,890,433.23	1,280,563.42	36.189292	-107.469517
5,624.0	51.60	214.10	5,501.7	-310.5	-234.8	1,890,413.48	1,280,548.62	36.189237	-107.469566
5,655.0	53.30	211.80	5,520.6	-331.1	-248.1	1,890,393.03	1,280,535.00	36.189181	-107.469611
5,687.0	55.00	209.40	5,539.3	-353.5	-261.3	1,890,370.87	1,280,521.53	36.189119	-107.469656
5,718.0	55.80	205.80	5,556.9	-376.1	-273.1	1,890,348.41	1,280,509.43	36.189057	-107.469696
5,749.0	57.30	203.10	5,574.0	-399.6	-283.8	1,890,325.00	1,280,498.43	36.188992	-107.469732
5,781.0	59.30	201.70	5,590.8	-424.8	-294.2	1,890,299.96	1,280,487.75	36.188923	-107.469767
5,806.0	62.20	199.90	5,603.0	-445.2	-302.0	1,890,279.67	1,280,479.75	36.188867	-107.469793
5,838.0	65.10	198.50	5,617.2	-472.3	-311.4	1,890,252.72	1,280,469.99	36.188793	-107.469825
5,869.0	70.70	196.40	5,628.9	-499.7	-320.0	1,890,225.44	1,280,461.05	36.188718	-107.469855
5,901.0	74.60	195.20	5,638.4	-529.0	-328.3	1,890,196.16	1,280,452.37	36.188637	-107.469883
5,932.0	79.70	192.90	5,645.3	-558.3	-335.6	1,890,166.94	1,280,444.67	36.188556	-107.469908
5,971.0	76.20	196.20	5,653.5	-595.3	-345.2	1,890,130.16	1,280,434.64	36.188455	-107.469940
6,002.0	76.30	196.30	5,660.8	-624.2	-353.6	1,890,101.36	1,280,425.85	36.188376	-107.469968
6,033.0	77.70	194.90	5,667.8	-653.3	-361.7	1,890,072.37	1,280,417.36	36.188296	-107.469996
6,065.0	80.40	192.60	5,673.9	-683.8	-369.2	1,890,041.95	1,280,409.51	36.188212	-107.470021
6,096.0	82.80	190.80	5,678.4	-713.8	-375.4	1,890,012.01	1,280,402.92	36.188129	-107.470042
6,127.0	85.00	189.60	5,681.7	-744.1	-380.9	1,889,981.74	1,280,397.08	36.188046	-107.470061
6,159.0	88.90	188.20	5,683.4	-775.7	-385.8	1,889,950.25	1,280,391.74	36.187959	-107.470078
6,190.0	91.90	186.80	5,683.2	-806.4	-389.9	1,889,919.57	1,280,387.31	36.187875	-107.470091
6,222.0	93.30	185.10	5,681.7	-838.2	-393.2	1,889,887.82	1,280,383.60	36.187788	-107.470103
6,253.0	92.90	183.10	5,680.1	-869.1	-395.4	1,889,856.98	1,280,381.00	36.187703	-107.470110
6,284.0	91.50	181.30	5,678.9	-900.0	-396.6	1,889,826.04	1,280,379.42	36.187618	-107.470114
6,315.0	90.20	179.00	5,678.4	-931.0	-396.7	1,889,795.05	1,280,378.95	36.187533	-107.470114
6,347.0	91.10	178.80	5,678.1	-963.0	-396.0	1,889,763.05	1,280,379.16	36.187445	-107.470112
6,378.0	91.70	179.10	5,677.3	-994.0	-395.5	1,889,732.06	1,280,379.34	36.187360	-107.470110
6,410.0	93.30	179.00	5,675.9	-1,026.0	-395.0	1,889,700.10	1,280,379.47	36.187272	-107.470109
6,441.0	93.80	178.40	5,674.0	-1,056.9	-394.2	1,889,669.16	1,280,379.78	36.187187	-107.470106
6,472.0	92.40	179.50	5,672.3	-1,087.9	-393.7	1,889,638.20	1,280,379.96	36.187102	-107.470104

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook P28-2306 01H
Project:	Sandoval County, NM	TVD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Site:	Lybrook	MD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Well:	Lybrook P28-2306 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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,504.0	92.60	179.50	5,670.9	-1,119.8	-393.4	1,889,606.24	1,280,379.84	36.187014	-107.470103
6,535.0	93.00	179.60	5,669.4	-1,150.8	-393.2	1,889,575.27	1,280,379.69	36.186929	-107.470102
6,598.0	92.00	179.00	5,666.7	-1,213.7	-392.4	1,889,512.33	1,280,379.67	36.186756	-107.470100
6,661.0	91.20	178.10	5,664.9	-1,276.7	-390.8	1,889,449.36	1,280,380.48	36.186583	-107.470094
6,723.0	93.00	178.10	5,662.6	-1,338.6	-388.7	1,889,387.42	1,280,381.75	36.186413	-107.470087
6,786.0	93.90	178.40	5,658.8	-1,401.5	-386.8	1,889,324.55	1,280,382.88	36.186241	-107.470081
6,849.0	93.50	178.90	5,654.8	-1,464.3	-385.3	1,889,261.68	1,280,383.57	36.186068	-107.470076
6,912.0	91.60	179.50	5,652.0	-1,527.2	-384.5	1,889,198.75	1,280,383.66	36.185895	-107.470073
6,975.0	91.80	179.70	5,650.1	-1,590.2	-384.0	1,889,135.78	1,280,383.31	36.185722	-107.470071
7,037.0	92.40	179.50	5,647.8	-1,652.2	-383.6	1,889,073.82	1,280,382.96	36.185552	-107.470070
7,100.0	91.50	179.80	5,645.7	-1,715.1	-383.2	1,889,010.86	1,280,382.56	36.185379	-107.470069
7,164.0	91.50	179.90	5,644.0	-1,779.1	-383.0	1,888,946.88	1,280,381.92	36.185203	-107.470068
7,226.0	92.20	180.00	5,642.0	-1,841.1	-383.0	1,888,884.92	1,280,381.20	36.185033	-107.470068
7,289.0	91.40	180.00	5,640.0	-1,904.0	-383.0	1,888,821.96	1,280,380.41	36.184860	-107.470068
7,352.0	89.80	179.90	5,639.4	-1,967.0	-382.9	1,888,758.97	1,280,379.67	36.184687	-107.470068
7,414.0	90.40	179.80	5,639.3	-2,029.0	-382.8	1,888,696.97	1,280,379.05	36.184517	-107.470067
7,477.0	91.10	180.00	5,638.4	-2,092.0	-382.7	1,888,633.96	1,280,378.37	36.184344	-107.470067
7,540.0	91.60	179.60	5,636.9	-2,155.0	-382.4	1,888,570.98	1,280,377.80	36.184171	-107.470066
7,602.0	92.30	180.00	5,634.8	-2,217.0	-382.2	1,888,509.02	1,280,377.24	36.184001	-107.470065
7,665.0	91.80	180.70	5,632.6	-2,279.9	-382.6	1,888,446.08	1,280,376.06	36.183828	-107.470067
7,727.0	92.00	180.90	5,630.5	-2,341.9	-383.5	1,888,384.13	1,280,374.42	36.183657	-107.470070
7,790.0	90.50	180.20	5,629.1	-2,404.9	-384.1	1,888,321.16	1,280,373.02	36.183485	-107.470072
7,853.0	90.00	179.70	5,628.9	-2,467.9	-384.0	1,888,258.17	1,280,372.29	36.183311	-107.470071
7,916.0	91.10	180.80	5,628.3	-2,530.9	-384.3	1,888,195.18	1,280,371.22	36.183138	-107.470072
7,979.0	91.00	180.80	5,627.1	-2,593.9	-385.2	1,888,132.22	1,280,369.55	36.182965	-107.470075
8,042.0	89.70	181.50	5,626.7	-2,656.8	-386.4	1,888,069.27	1,280,367.50	36.182792	-107.470080
8,104.0	88.90	179.90	5,627.5	-2,718.8	-387.2	1,888,007.29	1,280,365.96	36.182622	-107.470082
8,167.0	90.20	178.60	5,628.0	-2,781.8	-386.4	1,887,944.30	1,280,365.99	36.182449	-107.470079
8,230.0	90.90	177.90	5,627.4	-2,844.8	-384.4	1,887,881.31	1,280,367.13	36.182276	-107.470073
8,293.0	91.00	179.00	5,626.3	-2,907.7	-382.7	1,887,818.33	1,280,368.04	36.182103	-107.470067
8,356.0	89.90	179.30	5,625.8	-2,970.7	-381.8	1,887,755.33	1,280,368.18	36.181930	-107.470064
8,419.0	90.10	179.40	5,625.8	-3,033.7	-381.1	1,887,692.33	1,280,368.11	36.181757	-107.470061
8,481.0	90.70	179.20	5,625.4	-3,095.7	-380.3	1,887,630.33	1,280,368.08	36.181587	-107.470059
8,541.0	91.10	179.10	5,624.5	-3,155.7	-379.4	1,887,570.34	1,280,368.22	36.181422	-107.470056
8,602.0	91.80	179.20	5,622.9	-3,216.7	-378.5	1,887,509.36	1,280,368.36	36.181255	-107.470053
8,663.0	90.80	180.00	5,621.5	-3,277.7	-378.1	1,887,448.38	1,280,368.02	36.181087	-107.470051
8,723.0	90.20	180.20	5,621.0	-3,337.7	-378.2	1,887,388.39	1,280,367.16	36.180922	-107.470052
8,783.0	90.70	180.20	5,620.5	-3,397.7	-378.4	1,887,328.40	1,280,366.20	36.180758	-107.470052
8,844.0	90.50	179.40	5,619.9	-3,458.6	-378.2	1,887,267.40	1,280,365.64	36.180590	-107.470052
8,906.0	90.70	179.00	5,619.3	-3,520.6	-377.4	1,887,205.41	1,280,365.73	36.180420	-107.470049
8,967.0	91.10	178.60	5,618.3	-3,581.6	-376.1	1,887,144.42	1,280,366.24	36.180252	-107.470044
9,027.0	91.60	178.50	5,616.9	-3,641.6	-374.6	1,887,084.44	1,280,367.01	36.180088	-107.470039
9,088.0	92.00	179.80	5,615.0	-3,702.5	-373.7	1,887,023.47	1,280,367.14	36.179920	-107.470036
9,149.0	90.30	180.60	5,613.7	-3,763.5	-373.9	1,886,962.49	1,280,366.17	36.179753	-107.470037
9,210.0	90.00	180.70	5,613.6	-3,824.5	-374.6	1,886,901.51	1,280,364.71	36.179585	-107.470039
9,271.0	90.60	180.90	5,613.3	-3,885.5	-375.4	1,886,840.53	1,280,363.09	36.179418	-107.470042
9,332.0	91.00	180.40	5,612.4	-3,946.5	-376.1	1,886,779.56	1,280,361.63	36.179250	-107.470045
9,393.0	91.40	180.20	5,611.1	-4,007.5	-376.4	1,886,718.58	1,280,360.55	36.179083	-107.470046
9,454.0	90.20	180.20	5,610.3	-4,068.5	-376.6	1,886,657.60	1,280,359.57	36.178915	-107.470046
9,515.0	90.30	180.40	5,610.0	-4,129.5	-377.0	1,886,596.61	1,280,358.48	36.178747	-107.470047
9,575.0	90.60	180.20	5,609.5	-4,189.5	-377.3	1,886,536.62	1,280,357.41	36.178583	-107.470048
9,636.0	91.10	180.30	5,608.6	-4,250.5	-377.5	1,886,475.63	1,280,356.38	36.178415	-107.470049
9,697.0	91.40	179.90	5,607.3	-4,311.5	-377.6	1,886,414.65	1,280,355.51	36.178248	-107.470050
9,758.0	91.90	179.80	5,605.6	-4,372.4	-377.5	1,886,353.68	1,280,354.90	36.178080	-107.470049
9,819.0	91.30	180.00	5,603.8	-4,433.4	-377.4	1,886,292.69	1,280,354.24	36.177913	-107.470049

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook P28-2306 01H
Project:	Sandoval County, NM	TVD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Site:	Lybrook	MD Reference:	18' KB @ 7229.0ft (Aztec 1099)
Well:	Lybrook P28-2306 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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
9,881.0	90.70	179.90	5,602.8	-4,495.4	-377.3	1,886,230.70	1,280,353.52	36.177742	-107.470049
9,945.0	91.30	180.00	5,601.6	-4,559.4	-377.3	1,886,166.72	1,280,352.77	36.177567	-107.470048
10,007.0	90.70	179.90	5,600.6	-4,621.4	-377.2	1,886,104.73	1,280,352.05	36.177396	-107.470048
10,070.0	90.40	179.80	5,600.0	-4,684.4	-377.0	1,886,041.74	1,280,351.42	36.177223	-107.470048
10,132.0	90.00	179.10	5,599.7	-4,746.4	-376.4	1,885,979.74	1,280,351.24	36.177053	-107.470046
10,195.0	90.30	178.40	5,599.6	-4,809.4	-375.1	1,885,916.74	1,280,351.82	36.176880	-107.470041
10,258.0	90.90	178.50	5,598.9	-4,872.3	-373.4	1,885,853.75	1,280,352.73	36.176707	-107.470035
10,320.0	90.60	179.10	5,598.1	-4,934.3	-372.1	1,885,791.76	1,280,353.25	36.176537	-107.470031
10,383.0	90.70	179.70	5,597.4	-4,997.3	-371.4	1,885,728.77	1,280,353.12	36.176364	-107.470029
10,447.0	91.50	180.20	5,596.2	-5,061.3	-371.4	1,885,664.78	1,280,352.37	36.176188	-107.470028
10,509.0	90.60	179.30	5,595.0	-5,123.3	-371.1	1,885,602.80	1,280,351.86	36.176018	-107.470028
10,573.0	90.40	179.30	5,594.5	-5,187.3	-370.3	1,885,538.80	1,280,351.84	36.175842	-107.470025
10,635.0	91.10	179.80	5,593.7	-5,249.3	-369.8	1,885,476.80	1,280,351.55	36.175672	-107.470023
10,699.0	91.70	179.40	5,592.1	-5,313.3	-369.4	1,885,412.83	1,280,351.19	36.175496	-107.470022
10,761.0	92.20	178.60	5,590.0	-5,375.2	-368.3	1,885,350.86	1,280,351.50	36.175326	-107.470018
10,824.0	91.20	178.40	5,588.1	-5,438.2	-366.6	1,885,287.90	1,280,352.35	36.175153	-107.470012
10,887.0	89.60	179.10	5,587.7	-5,501.1	-365.3	1,885,224.90	1,280,352.94	36.174980	-107.470008
10,949.0	89.70	179.60	5,588.1	-5,563.1	-364.6	1,885,162.90	1,280,352.86	36.174810	-107.470005
11,013.0	89.80	179.90	5,588.3	-5,627.1	-364.3	1,885,098.91	1,280,352.34	36.174634	-107.470004
11,075.0	89.90	180.20	5,588.5	-5,689.1	-364.3	1,885,036.91	1,280,351.50	36.174463	-107.470005
11,138.0	91.30	179.70	5,587.8	-5,752.1	-364.3	1,884,973.92	1,280,350.77	36.174290	-107.470004
11,201.0	91.60	179.50	5,586.2	-5,815.1	-363.8	1,884,910.94	1,280,350.41	36.174117	-107.470003
11,264.0	91.80	178.60	5,584.4	-5,878.1	-362.8	1,884,847.97	1,280,350.67	36.173945	-107.469999
11,327.0	91.00	178.90	5,582.8	-5,941.0	-361.4	1,884,785.02	1,280,351.25	36.173772	-107.469995
11,390.0	90.40	180.80	5,582.1	-6,004.0	-361.3	1,884,722.03	1,280,350.62	36.173599	-107.469994
11,453.0	89.90	181.30	5,581.9	-6,067.0	-362.4	1,884,659.06	1,280,348.68	36.173426	-107.469998
11,516.0	90.40	181.20	5,581.7	-6,130.0	-363.8	1,884,596.10	1,280,346.51	36.173253	-107.470003
11,579.0	90.90	181.30	5,581.0	-6,193.0	-365.2	1,884,533.14	1,280,344.35	36.173080	-107.470007
11,642.0	90.70	180.50	5,580.1	-6,256.0	-366.2	1,884,470.17	1,280,342.57	36.172907	-107.470011
11,705.0	90.80	180.10	5,579.3	-6,318.9	-366.5	1,884,407.19	1,280,341.45	36.172734	-107.470012
11,768.0	91.10	179.50	5,578.3	-6,381.9	-366.3	1,884,344.20	1,280,340.87	36.172561	-107.470011
11,831.0	91.90	179.70	5,576.6	-6,444.9	-365.8	1,884,281.22	1,280,340.52	36.172388	-107.470010
11,894.0	92.40	180.00	5,574.3	-6,507.9	-365.7	1,884,218.27	1,280,339.90	36.172215	-107.470009
11,957.0	92.40	180.70	5,571.6	-6,570.8	-366.0	1,884,155.33	1,280,338.72	36.172042	-107.470010
12,020.0	91.30	182.20	5,569.6	-6,633.8	-367.6	1,884,092.41	1,280,336.34	36.171869	-107.470016
12,083.0	89.50	182.80	5,569.1	-6,696.7	-370.4	1,884,029.52	1,280,332.80	36.171696	-107.470025
12,146.0	90.10	182.00	5,569.4	-6,759.6	-373.0	1,883,966.61	1,280,329.37	36.171523	-107.470034
12,209.0	90.80	181.40	5,568.9	-6,822.6	-374.9	1,883,903.67	1,280,326.71	36.171350	-107.470040
12,271.0	90.50	180.50	5,568.2	-6,884.6	-375.9	1,883,841.70	1,280,324.90	36.171180	-107.470044
12,334.0	90.40	180.70	5,567.7	-6,947.6	-376.6	1,883,778.72	1,280,323.45	36.171007	-107.470046
12,397.0	90.60	181.40	5,567.1	-7,010.6	-377.7	1,883,715.75	1,280,321.51	36.170834	-107.470050
12,460.0	91.10	181.70	5,566.2	-7,073.5	-379.4	1,883,652.81	1,280,319.01	36.170661	-107.470056
12,523.0	90.90	181.80	5,565.1	-7,136.5	-381.4	1,883,589.88	1,280,316.30	36.170488	-107.470062
12,586.0	88.60	182.20	5,565.4	-7,199.5	-383.6	1,883,526.96	1,280,313.31	36.170315	-107.470070
12,648.0	88.00	182.00	5,567.2	-7,261.4	-385.8	1,883,465.06	1,280,310.26	36.170145	-107.470077
12,711.0	89.30	180.80	5,568.7	-7,324.3	-387.4	1,883,402.12	1,280,307.93	36.169972	-107.470083
12,774.0	90.10	180.30	5,569.0	-7,387.3	-388.0	1,883,339.14	1,280,306.54	36.169799	-107.470085
12,837.0	90.70	180.40	5,568.6	-7,450.3	-388.4	1,883,276.15	1,280,305.36	36.169626	-107.470086
12,900.0	91.40	180.10	5,567.4	-7,513.3	-388.6	1,883,213.17	1,280,304.29	36.169453	-107.470087
12,963.0	92.00	180.70	5,565.6	-7,576.3	-389.1	1,883,150.21	1,280,303.06	36.169280	-107.470088
13,026.0	90.70	181.70	5,564.1	-7,639.3	-390.4	1,883,087.27	1,280,300.95	36.169107	-107.470093
13,089.0	91.00	182.00	5,563.1	-7,702.2	-392.4	1,883,024.34	1,280,298.13	36.168934	-107.470100
13,194.0	91.70	181.80	5,560.7	-7,807.1	-395.9	1,882,919.48	1,280,293.33	36.168646	-107.470112

Last CES Survey @ 13,194' MD

Survey Report - Geographic

Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Site: Lybrook
 Well: Lybrook P28-2306 01H
 Wellbore: Hz
 Design: FINAL

Local Co-ordinate Reference: Well Lybrook P28-2306 01H
 TVD Reference: 18' KB @ 7229.0ft (Aztec 1099)
 MD Reference: 18' KB @ 7229.0ft (Aztec 1099)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
13,250.0	91.70	181.80	5,559.0	-7,863.1	-397.7	1,882,863.56	1,280,290.87	36.168492	-107.470118
PTB @ 13,250'									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Lybrook P28-2306 01H {	0.00	0.00	5,564.9	-7,878.4	-327.6	1,882,847.35	1,280,360.70	36.168450	-107.469880
- actual wellpath misses target center by 71.9ft at 13250.0ft MD (5559.0 TVD, -7863.1 N, -397.7 E)									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,991.8	5,658.4	TL		-0.80	180.00

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
13,194.0	5,560.7	-7,807.1	-395.9	Last CES Survey @ 13,194' MD
13,250.0	5,559.0	-7,863.1	-397.7	PTB @ 13,250'

Checked By: _____ Approved By: _____ Date: _____