

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised August 1, 2011

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

WELL API NO. 30-043-21145
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Lybrook M31-2306
8. Well Number 03H
9. OGRID Number 282327
10. Pool name or Wildcat Lybrook Gallup
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 7173' GR

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Encana Oil & Gas (USA) Inc.

3. Address of Operator
370 17th Street, Suite 1700 Denver, CO 80202

4. Well Location

SHL: Unit Letter M: 1207 feet from the SOUTH line and 411 feet from the WEST line, Sec 31, T23N, R6W, Sandoval County

BHL: Unit Letter M: 400 feet from the SOUTH line and 330 feet from the WEST line, Sec 36, T23N, R7W, Sandoval County

CONFIDENTIAL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: Vertical Hole Size ☐
RCVD JUN 17 '13
OIL CONS. DIV.
DIST. 3

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

On March 20, 2013 Encana submitted an OCD APD for the Lybrook M31-2306 04H well. Encana would like to change the name of the well from Lybrook M31-2306 04H to the Lybrook M31-2306 03H well.

Encana would like to change the Surface Hole Location from original 1190' FSL, 386' FWL (Section 31, T23N, R6W) to 1207' FSL, 411' FWL (Section 31, T23N, R6W)

Encana would like to change the Bottom Hole Location from original 480' FSL, 330' FWL (Section 36, T23N, R6W) to 400' FSL, 330' FWL (Section 36, T23N, R6W)

This will change the depth of the well from 10705' MD/5456' TVD to 10835' MD/5458' TVD. Please see attached wellbore diagram and directional survey. Estimated spud date is July 6, 2013.

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

SIGNATURE Catherine Anadu TITLE Regulatory Analyst DATE June 14, 2013
Type or print name Catherine Anadu E-mail address: catherine.anadu@encana.com PHONE: 720-876-3567

For State Use Only

APPROVED BY: Charles P. ... TITLE SUPERVISOR DISTRICT # 3 DATE JUN 18 2013
Conditions of Approval (if any): AV

Hold C104

for Directional Survey
and "As Drilled" plat

Hold C104
for Directional Survey
and "As Drilled" plat

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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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21145		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 39785	*Property Name LYBROOK M31-2306		*Well Number 03H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 7173'

¹⁰ Surface Location

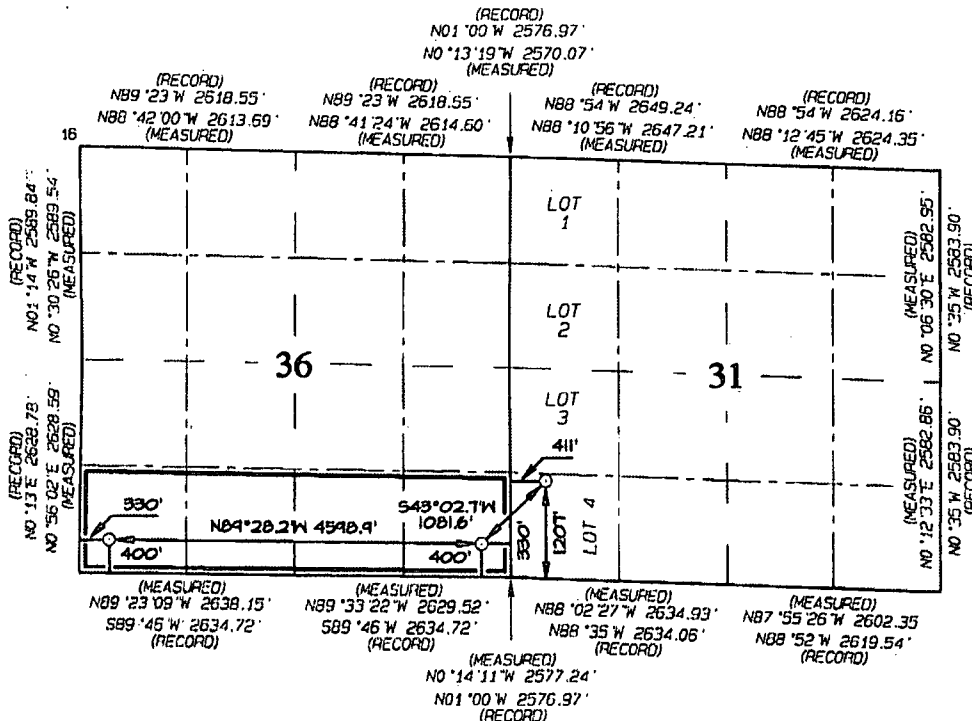
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
M	31	23N	6W	4	1207	SOUTH	411	WEST	SANDOVAL

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
M	36	23N	7W		400	SOUTH	330	WEST	SANDOVAL

¹² Dedicated Acres 150.0 Acres S/2 S/2 - Section 36	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



END-OF-LATERAL
400' FSL 330' FWL
SECTION 36, T23N, R7W
LAT: 36.17680°N
LONG: 107.53369°W
DATUM: NAD1927

LAT: 36.17681°N
LONG: 107.53430°W
DATUM: NAD1983

POINT-OF-ENTRY
400' FSL 330' FWL
SECTION 36, T23N, R7W
LAT: 36.17685°N
LONG: 107.51811°W
DATUM: NAD1927

LAT: 36.17686°N
LONG: 107.51872°W
DATUM: NAD1983

SURFACE LOCATION
1207' FSL 411' FWL
SECTION 31, T23N, R6W
LAT: 36.17905°N
LONG: 107.51565°W
DATUM: NAD1927

LAT: 36.17906°N
LONG: 107.51625°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.

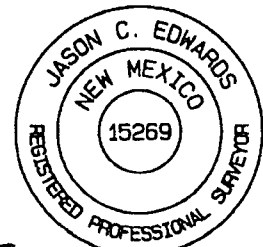
Signature: *Brenda R. Linster* Date: 08.17.13
Printed Name: Brenda R. Linster
E-mail Address: brenda.linster@encana.com

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: MAY 29, 2013
Date of Survey: MARCH 23, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to Encana Oil & Gas (USA) Inc. Lybrook M31-2306 03H

1207' FSL & 411' FWL, Section 31, T23N, R6W, N.M.P.M., Sandoval County, NM

Latitude: 36.17906°N Longitude: 107.51625°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 53.6 miles to Mile Marker 97.7;

Go right (South-easterly) for 4.3 miles to fork in road;

Go left (South-westerly) for 0.2 miles to 4-way intersection;

Go right (North-westerly) for 0.6 miles to 4-way intersection;

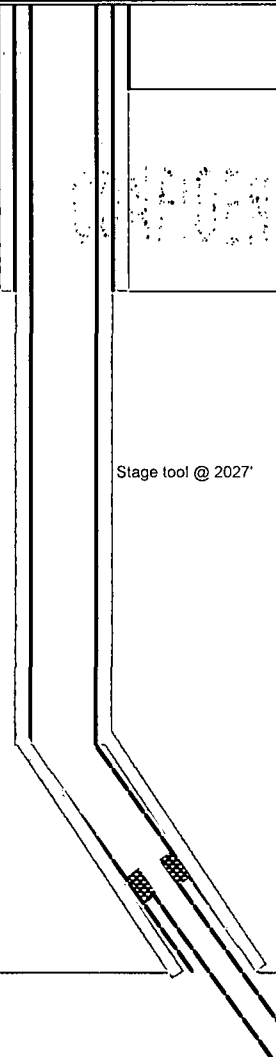
Go straight (Westerly) for 0.2 miles to 4-way intersection;

Go straight (Westerly) for 0.6 miles to fork in road;

Go right (North-westerly) for 1.4 miles to fork in road;

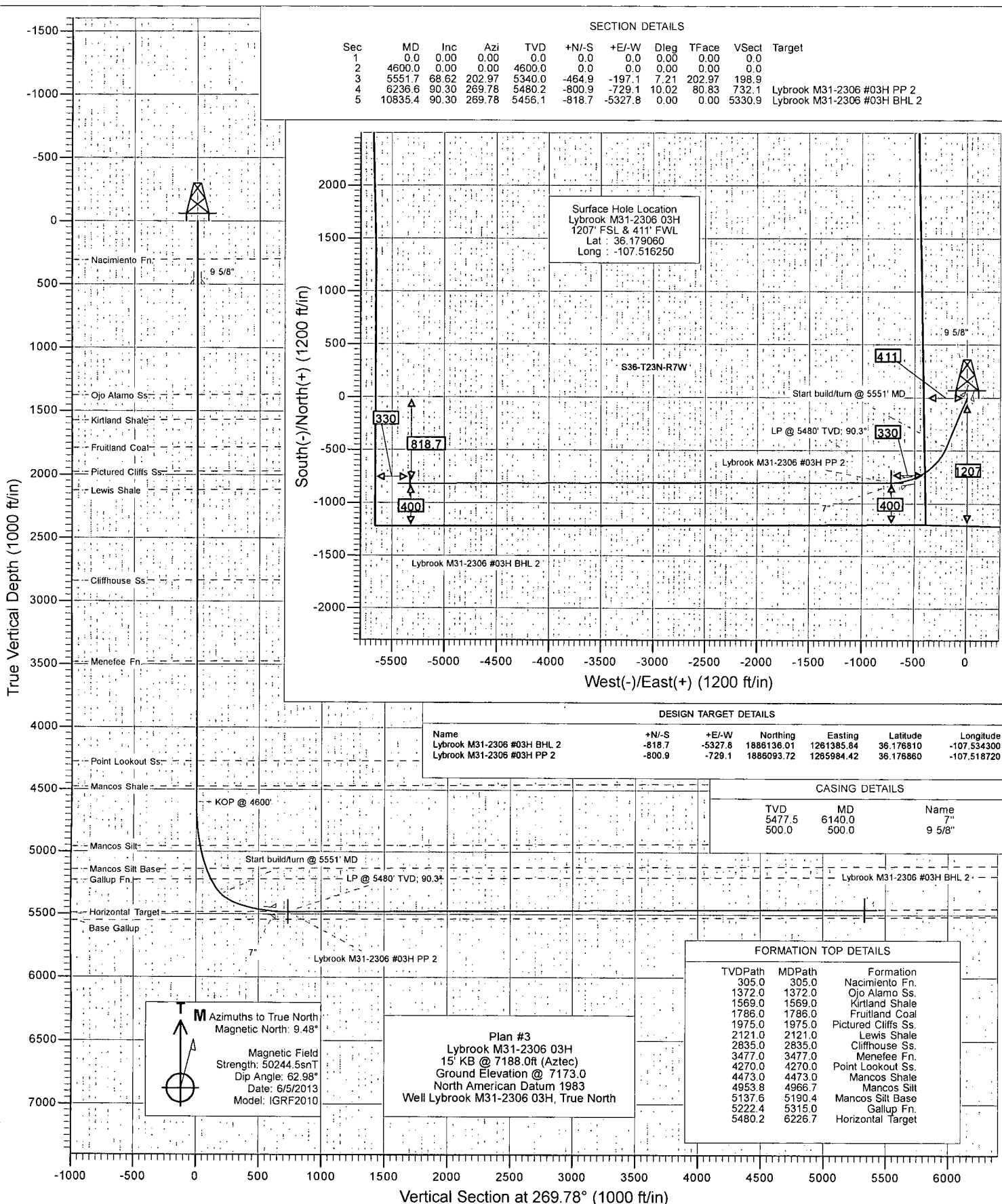
Go right (North-westerly) for 0.9 miles to fork in road;

Go right (North-easterly) for 0.7 miles to new access on left-hand side of existing roadway which continues for 258' to Encana Lybrook M31-2306 03H location.

LOC: Sec 31-T23N-R6W County: Sandoval WELL: Lybrook M31-2306 03H			Encana Natural Gas WELL SUMMARY			encana™ natural gas		ENG: 6/13/13 RIG: GLE: 7173 RKBE: 7188	
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH			HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			TVD	MD					
			60	60'		30	20" 94# 100sx Type I Neat 48.8ppg cmt	Fresh wtr 8.3-9.2	
Surveys After csg is run	None		500	500		12 1/4	9 5/8" 36ppf J55 STC TOC @ surface 178 sks Type III Cmt	Fresh wtr 8.4-8.6	Vertical <1°
Surveys every 500'	No OH logs Mud logger onsite	Ojo Alamo Kirtland Fruitland Coal Pictured Cliffs Ss Lewis Shale Cliffhouse Ss Menefee Fn Point Lookout Ss Mancos Sh KICK OFF PT Mancos Silt Gallup Top 7" csg depth	1374 1571 1788 1977 2123 2837 3479 4272 4475 4600 4956 5225 5478	6140		8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 624 sksTotal. Stage 1 Lead: 264sks Stage 1 Tail: 181sks. Stage 2 Lead: 179sks	Fresh Wtr 8.5-8.8	Vertical <1° KOP 4600 10 deg/100'
Surveys every 500' Gyro at CP MWD Gamma Directional	No OH Logs	Horizontal Target Base Gallup	5480 5548	6237		6 1/8	200' overlap at liner top 4598' Lateral	8.6-9.0 OBM Switch to OBM 8.6-9.0	.25deg updip 5458'TVD TD = 10835' MD
							4 1/2" 11.6ppf SB80 LTC Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe		

NOTES:

- 1) Drill with 30" bit to 60', set 20" 94# conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 4600' , 8 3/4" hole size,
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 6140' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 4598' lateral to 10835', run 4 1/2" liner with external swellable csg packers



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Project:	Sandoval County, NM	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site:	Lybrook	North Reference:	True
Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Project	Sandoval County, NM	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
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 M31-2306 03H					
Well Position	+N/-S	0.0 ft	Northing:	1,886,885.09 ft	Latitude:	36.179060
	+E/-W	0.0 ft	Easting:	1,266,723.88 ft	Longitude:	-107.516250
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,173.0 ft	

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2013	9.48	62.98	50,245

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	269.78	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,551.7	68.62	202.97	5,340.0	-464.9	-197.1	7.21	7.21	0.00	202.97	
6,236.6	90.30	269.78	5,480.2	-800.9	-729.1	10.02	3.17	9.76	80.83	Lybrook M31-2306 #0
10,835.4	90.30	269.78	5,456.1	-818.7	-5,327.8	0.00	0.00	0.00	0.00	Lybrook M31-2306 #0

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Project:	Sandoval County, NM	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site:	Lybrook	North Reference:	True
Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
305.0	0.00	0.00	305.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8"
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,372.0	0.00	0.00	1,372.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,569.0	0.00	0.00	1,569.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,786.0	0.00	0.00	1,786.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
1,975.0	0.00	0.00	1,975.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,121.0	0.00	0.00	2,121.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,835.0	0.00	0.00	2,835.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,477.0	0.00	0.00	3,477.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,270.0	0.00	0.00	4,270.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Project:	Sandoval County, NM	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site:	Lybrook	North Reference:	True
Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,473.0	0.00	0.00	4,473.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 4600'
4,700.0	7.21	202.97	4,699.7	-5.8	-2.5	2.5	7.21	7.21	
4,800.0	14.42	202.97	4,797.9	-23.0	-9.8	9.9	7.21	7.21	
4,900.0	21.63	202.97	4,892.9	-51.5	-21.8	22.0	7.21	7.21	
4,966.7	26.44	202.97	4,953.8	-76.5	-32.4	32.7	7.21	7.21	Mancos Silt
5,000.0	28.84	202.97	4,983.3	-90.7	-38.5	38.8	7.21	7.21	
5,100.0	36.05	202.97	5,067.7	-140.1	-59.4	59.9	7.21	7.21	
5,190.4	42.57	202.97	5,137.6	-192.8	-81.7	82.5	7.21	7.21	Mancos Silt Base
5,200.0	43.26	202.97	5,144.6	-198.8	-84.3	85.0	7.21	7.21	
5,300.0	50.47	202.97	5,212.9	-266.0	-112.7	113.8	7.21	7.21	
5,315.0	51.55	202.97	5,222.4	-276.7	-117.3	118.4	7.21	7.21	Gallup Fn.
5,400.0	57.68	202.97	5,271.6	-340.5	-144.3	145.6	7.21	7.21	
5,500.0	64.89	202.97	5,319.6	-421.2	-178.5	180.1	7.21	7.21	
5,551.7	68.62	202.97	5,340.0	-464.9	-197.1	198.8	7.21	7.21	Start build/turn @ 5551' MD
5,600.0	69.47	208.07	5,357.3	-505.6	-216.5	218.4	10.01	1.76	
5,700.0	71.68	218.43	5,390.6	-584.3	-268.2	270.4	10.02	2.21	
5,800.0	74.44	228.50	5,419.8	-653.5	-333.9	336.4	10.02	2.76	
5,900.0	77.64	238.29	5,444.0	-711.3	-411.7	414.5	10.02	3.20	
6,000.0	81.18	247.82	5,462.4	-755.7	-499.3	502.2	10.02	3.54	
6,100.0	84.95	257.17	5,474.5	-785.5	-593.8	596.8	10.02	3.78	
6,140.0	86.50	260.88	5,477.5	-793.1	-633.0	636.0	10.02	3.88	7"
6,200.0	88.86	266.41	5,479.9	-799.7	-692.5	695.6	10.02	3.92	
6,226.7	89.91	268.87	5,480.2	-800.8	-719.2	722.3	10.02	3.94	Horizontal Target
6,236.6	90.30	269.78	5,480.2	-800.9	-729.1	732.1	10.02	3.94	LP @ 5480' TVD; 90.3°
6,300.0	90.30	269.78	5,479.9	-801.2	-792.5	795.6	0.00	0.00	
6,400.0	90.30	269.78	5,479.3	-801.6	-892.5	895.6	0.00	0.00	
6,500.0	90.30	269.78	5,478.8	-802.0	-992.5	995.6	0.00	0.00	
6,600.0	90.30	269.78	5,478.3	-802.3	-1,092.5	1,095.6	0.00	0.00	
6,700.0	90.30	269.78	5,477.8	-802.7	-1,192.5	1,195.6	0.00	0.00	
6,800.0	90.30	269.78	5,477.2	-803.1	-1,292.5	1,295.6	0.00	0.00	
6,900.0	90.30	269.78	5,476.7	-803.5	-1,392.5	1,395.5	0.00	0.00	
7,000.0	90.30	269.78	5,476.2	-803.9	-1,492.5	1,495.5	0.00	0.00	
7,100.0	90.30	269.78	5,475.7	-804.3	-1,592.5	1,595.5	0.00	0.00	
7,200.0	90.30	269.78	5,475.2	-804.7	-1,692.5	1,695.5	0.00	0.00	
7,300.0	90.30	269.78	5,474.6	-805.0	-1,792.5	1,795.5	0.00	0.00	
7,400.0	90.30	269.78	5,474.1	-805.4	-1,892.5	1,895.5	0.00	0.00	
7,500.0	90.30	269.78	5,473.6	-805.8	-1,992.5	1,995.5	0.00	0.00	
7,600.0	90.30	269.78	5,473.1	-806.2	-2,092.5	2,095.5	0.00	0.00	
7,700.0	90.30	269.78	5,472.5	-806.6	-2,192.5	2,195.5	0.00	0.00	
7,800.0	90.30	269.78	5,472.0	-807.0	-2,292.5	2,295.5	0.00	0.00	
7,900.0	90.30	269.78	5,471.5	-807.4	-2,392.5	2,395.5	0.00	0.00	
8,000.0	90.30	269.78	5,471.0	-807.7	-2,492.5	2,495.5	0.00	0.00	
8,100.0	90.30	269.78	5,470.4	-808.1	-2,592.4	2,595.5	0.00	0.00	
8,200.0	90.30	269.78	5,469.9	-808.5	-2,692.4	2,695.5	0.00	0.00	
8,300.0	90.30	269.78	5,469.4	-808.9	-2,792.4	2,795.5	0.00	0.00	
8,400.0	90.30	269.78	5,468.9	-809.3	-2,892.4	2,895.5	0.00	0.00	
8,500.0	90.30	269.78	5,468.3	-809.7	-2,992.4	2,995.5	0.00	0.00	
8,600.0	90.30	269.78	5,467.8	-810.1	-3,092.4	3,095.5	0.00	0.00	

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: Lybrook
Well: Lybrook M31-2306 03H
Wellbore: HZ
Design: Plan #3

Local Co-ordinate Reference: Well Lybrook M31-2306 03H
TVD Reference: 15' KB @ 7188.0ft (Aztec)
MD Reference: 15' KB @ 7188.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,700.0	90.30	269.78	5,467.3	-810.4	-3,192.4	3,195.5	0.00	0.00	
8,800.0	90.30	269.78	5,466.8	-810.8	-3,292.4	3,295.5	0.00	0.00	
8,900.0	90.30	269.78	5,466.2	-811.2	-3,392.4	3,395.5	0.00	0.00	
9,000.0	90.30	269.78	5,465.7	-811.6	-3,492.4	3,495.5	0.00	0.00	
9,100.0	90.30	269.78	5,465.2	-812.0	-3,592.4	3,595.5	0.00	0.00	
9,200.0	90.30	269.78	5,464.7	-812.4	-3,692.4	3,695.5	0.00	0.00	
9,300.0	90.30	269.78	5,464.1	-812.8	-3,792.4	3,795.5	0.00	0.00	
9,400.0	90.30	269.78	5,463.6	-813.1	-3,892.4	3,895.5	0.00	0.00	
9,500.0	90.30	269.78	5,463.1	-813.5	-3,992.4	3,995.5	0.00	0.00	
9,600.0	90.30	269.78	5,462.6	-813.9	-4,092.4	4,095.5	0.00	0.00	
9,700.0	90.30	269.78	5,462.1	-814.3	-4,192.4	4,195.5	0.00	0.00	
9,800.0	90.30	269.78	5,461.5	-814.7	-4,292.4	4,295.5	0.00	0.00	
9,900.0	90.30	269.78	5,461.0	-815.1	-4,392.4	4,395.5	0.00	0.00	
10,000.0	90.30	269.78	5,460.5	-815.5	-4,492.4	4,495.5	0.00	0.00	
10,100.0	90.30	269.78	5,460.0	-815.8	-4,592.4	4,595.5	0.00	0.00	
10,200.0	90.30	269.78	5,459.4	-816.2	-4,692.4	4,695.5	0.00	0.00	
10,300.0	90.30	269.78	5,458.9	-816.6	-4,792.4	4,795.5	0.00	0.00	
10,400.0	90.30	269.78	5,458.4	-817.0	-4,892.4	4,895.5	0.00	0.00	
10,500.0	90.30	269.78	5,457.9	-817.4	-4,992.4	4,995.5	0.00	0.00	
10,600.0	90.30	269.78	5,457.3	-817.8	-5,092.4	5,095.5	0.00	0.00	
10,700.0	90.30	269.78	5,456.8	-818.2	-5,192.4	5,195.5	0.00	0.00	
10,800.0	90.30	269.78	5,456.3	-818.5	-5,292.4	5,295.5	0.00	0.00	
10,835.4	90.30	269.78	5,456.1	-818.7	-5,327.8	5,330.9	0.00	0.00	TD at 10835.4

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Lybrook M31-2306 #03H - hit/miss target - Shape - Point	0.00	0.00	5,466.8	-516.5	-5,327.7	1,886,438.16	1,261,389.84	36.177640	-107.534300
- plan misses target center by 302.4ft at 10834.1ft MD (5456.1 TVD, -818.7 N, -5326.5 E)									
Lybrook M31-2306 #03H - plan hits target center - Point	0.00	0.00	5,480.2	-800.9	-729.1	1,886,093.72	1,265,984.42	36.176860	-107.518720
Lybrook M31-2306 #03H - plan hits target center - Point	0.00	0.00	5,456.1	-818.7	-5,327.8	1,886,136.01	1,261,385.84	36.176810	-107.534300
Lybrook M31-2306 #03H - plan misses target center by 302.8ft at 6241.2ft MD (5480.2 TVD, -801.0 N, -733.7 E) - Point	0.00	0.00	5,498.8	-498.8	-735.0	1,886,395.96	1,265,982.47	36.177690	-107.518740

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.0	500.0	9 5/8"	9.625	12.250
6,140.0	5,477.5	7"	7.000	7.500

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Project:	Sandoval County, NM	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site:	Lybrook	North Reference:	True
Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
305.0	305.0	Nacimiento Fn.		-0.30	269.78
1,372.0	1,372.0	Ojo Alamo Ss.		-0.30	269.78
1,569.0	1,569.0	Kirtland Shale		-0.30	269.78
1,786.0	1,786.0	Fruitland Coal		-0.30	269.78
1,975.0	1,975.0	Pictured Cliffs Ss.		-0.30	269.78
2,121.0	2,121.0	Lewis Shale		-0.30	269.78
2,835.0	2,835.0	Cliffhouse Ss.		-0.30	269.78
3,477.0	3,477.0	Menefee Fn.		-0.30	269.78
4,270.0	4,270.0	Point Lookout Ss.		-0.30	269.78
4,473.0	4,473.0	Mancos Shale		-0.30	269.78
4,966.7	4,954.0	Mancos Silt		-0.30	269.78
5,190.4	5,138.0	Mancos Silt Base		-0.30	269.78
5,315.0	5,223.0	Gallup Fn.		-0.30	269.78
6,226.7	5,484.0	Horizontal Target		-0.30	269.78

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,600.0	4,600.0	0.0	0.0	KOP @ 4600'
5,551.7	5,340.0	-465.8	-195.0	Start build/turn @ 5551' MD
6,236.6	5,482.2	-800.9	-727.5	LP @ 5480' TVD; 90.3°
10,835.4	5,458.1	-818.7	-5,326.3	TD at 10835.4

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

Lybrook

Lybrook M31-2306 03H

HZ

Plan #3

Anticollision Report

12 June, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 500.0ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	Systematic Ellipse
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program **Date** 6/12/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,835.3	Plan #3 (HZ)	MWD	Geolink MWD

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lybrook						
Lybrook M31-2306 01H - Hz - Plan #1	4,600.0	4,598.0	59.9	43.9	3.744	CC, ES, SF
Lybrook M31-2306 02H - Hz - Plan #2	4,600.0	4,598.0	27.7	11.7	1.733	CC, ES, SF
Lybrook M31-2306 04H - Hz - Plan #1	4,500.0	4,498.0	30.3	14.6	1.935	CC
Lybrook M31-2306 04H - Hz - Plan #1	10,835.4	10,704.7	80.1	-180.5	0.307	Level 1, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook M31-2306 01H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	56.85	32.8	50.2	60.0					
100.0	100.0	98.0	98.0	0.1	0.1	56.85	32.8	50.2	59.9	59.6	0.30	201.636		
200.0	200.0	198.0	198.0	0.3	0.3	56.85	32.8	50.2	59.9	59.3	0.65	92.794		
300.0	300.0	298.0	298.0	0.5	0.5	56.85	32.8	50.2	59.9	58.9	0.99	60.236		
400.0	400.0	398.0	398.0	0.7	0.7	56.85	32.8	50.2	59.9	58.6	1.34	44.591		
500.0	500.0	498.0	498.0	0.8	0.8	56.85	32.8	50.2	59.9	58.2	1.69	35.397		
600.0	600.0	598.0	598.0	1.0	1.0	56.85	32.8	50.2	59.9	57.9	2.04	29.347		
700.0	700.0	698.0	698.0	1.2	1.2	56.85	32.8	50.2	59.9	57.5	2.39	25.062		
800.0	800.0	798.0	798.0	1.4	1.4	56.85	32.8	50.2	59.9	57.2	2.74	21.870		
900.0	900.0	898.0	898.0	1.5	1.5	56.85	32.8	50.2	59.9	56.8	3.09	19.399		
1,000.0	1,000.0	998.0	998.0	1.7	1.7	56.85	32.8	50.2	59.9	56.5	3.44	17.429		
1,100.0	1,100.0	1,098.0	1,098.0	1.9	1.9	56.85	32.8	50.2	59.9	56.1	3.79	15.823		
1,200.0	1,200.0	1,198.0	1,198.0	2.1	2.1	56.85	32.8	50.2	59.9	55.8	4.14	14.488		
1,300.0	1,300.0	1,298.0	1,298.0	2.2	2.2	56.85	32.8	50.2	59.9	55.4	4.49	13.360		
1,400.0	1,400.0	1,398.0	1,398.0	2.4	2.4	56.85	32.8	50.2	59.9	55.1	4.83	12.396		
1,500.0	1,500.0	1,498.0	1,498.0	2.6	2.6	56.85	32.8	50.2	59.9	54.7	5.18	11.561		
1,600.0	1,600.0	1,598.0	1,598.0	2.8	2.8	56.85	32.8	50.2	59.9	54.4	5.53	10.832		
1,700.0	1,700.0	1,698.0	1,698.0	2.9	2.9	56.85	32.8	50.2	59.9	54.0	5.88	10.189		
1,800.0	1,800.0	1,798.0	1,798.0	3.1	3.1	56.85	32.8	50.2	59.9	53.7	6.23	9.618		
1,900.0	1,900.0	1,898.0	1,898.0	3.3	3.3	56.85	32.8	50.2	59.9	53.3	6.58	9.108		
2,000.0	2,000.0	1,998.0	1,998.0	3.5	3.5	56.85	32.8	50.2	59.9	53.0	6.93	8.649		
2,100.0	2,100.0	2,098.0	2,098.0	3.6	3.6	56.85	32.8	50.2	59.9	52.7	7.28	8.234		
2,200.0	2,200.0	2,198.0	2,198.0	3.8	3.8	56.85	32.8	50.2	59.9	52.3	7.63	7.857		
2,300.0	2,300.0	2,298.0	2,298.0	4.0	4.0	56.85	32.8	50.2	59.9	52.0	7.98	7.513		
2,400.0	2,400.0	2,398.0	2,398.0	4.2	4.2	56.85	32.8	50.2	59.9	51.6	8.33	7.198		
2,500.0	2,500.0	2,498.0	2,498.0	4.3	4.3	56.85	32.8	50.2	59.9	51.3	8.67	6.909		
2,600.0	2,600.0	2,598.0	2,598.0	4.5	4.5	56.85	32.8	50.2	59.9	50.9	9.02	6.641		
2,700.0	2,700.0	2,698.0	2,698.0	4.7	4.7	56.85	32.8	50.2	59.9	50.6	9.37	6.394		
2,800.0	2,800.0	2,798.0	2,798.0	4.9	4.9	56.85	32.8	50.2	59.9	50.2	9.72	6.164		
2,900.0	2,900.0	2,898.0	2,898.0	5.0	5.0	56.85	32.8	50.2	59.9	49.9	10.07	5.951		
3,000.0	3,000.0	2,998.0	2,998.0	5.2	5.2	56.85	32.8	50.2	59.9	49.5	10.42	5.751		
3,100.0	3,100.0	3,098.0	3,098.0	5.4	5.4	56.85	32.8	50.2	59.9	49.2	10.77	5.565		
3,200.0	3,200.0	3,198.0	3,198.0	5.6	5.6	56.85	32.8	50.2	59.9	48.8	11.12	5.390		
3,300.0	3,300.0	3,298.0	3,298.0	5.7	5.7	56.85	32.8	50.2	59.9	48.5	11.47	5.226		
3,400.0	3,400.0	3,398.0	3,398.0	5.9	5.9	56.85	32.8	50.2	59.9	48.1	11.82	5.072		
3,500.0	3,500.0	3,498.0	3,498.0	6.1	6.1	56.85	32.8	50.2	59.9	47.8	12.16	4.926		
3,600.0	3,600.0	3,598.0	3,598.0	6.3	6.3	56.85	32.8	50.2	59.9	47.4	12.51	4.789		
3,700.0	3,700.0	3,698.0	3,698.0	6.4	6.4	56.85	32.8	50.2	59.9	47.1	12.86	4.659		
3,800.0	3,800.0	3,798.0	3,798.0	6.6	6.6	56.85	32.8	50.2	59.9	46.7	13.21	4.536		
3,900.0	3,900.0	3,898.0	3,898.0	6.8	6.8	56.85	32.8	50.2	59.9	46.4	13.56	4.419		
4,000.0	4,000.0	3,998.0	3,998.0	7.0	7.0	56.85	32.8	50.2	59.9	46.0	13.91	4.308		
4,100.0	4,100.0	4,098.0	4,098.0	7.1	7.1	56.85	32.8	50.2	59.9	45.7	14.26	4.203		
4,200.0	4,200.0	4,198.0	4,198.0	7.3	7.3	56.85	32.8	50.2	59.9	45.3	14.61	4.102		
4,300.0	4,300.0	4,298.0	4,298.0	7.5	7.5	56.85	32.8	50.2	59.9	45.0	14.96	4.007		
4,400.0	4,400.0	4,398.0	4,398.0	7.7	7.7	56.85	32.8	50.2	59.9	44.6	15.31	3.915		
4,500.0	4,500.0	4,498.0	4,498.0	7.8	7.8	56.85	32.8	50.2	59.9	44.3	15.66	3.828		
4,600.0	4,600.0	4,598.0	4,598.0	8.0	8.0	56.85	32.8	50.2	59.9	43.9	16.00	3.744 CC, ES, SF		
4,700.0	4,699.7	4,697.7	4,697.7	8.2	8.2	-148.99	32.8	50.2	65.2	48.9	16.29	4.005		
4,800.0	4,797.9	4,795.9	4,795.9	8.4	8.3	-155.24	32.8	50.2	81.9	65.5	16.42	4.989		
4,900.0	4,892.9	4,888.6	4,888.6	8.6	8.5	-161.42	33.4	49.9	111.2	94.8	16.35	6.800		
5,000.0	4,983.3	4,966.0	4,965.4	8.9	8.6	-168.43	41.7	46.1	157.9	141.9	16.05	9.837		
5,100.0	5,067.7	5,027.2	5,024.8	9.4	8.8	-174.18	54.8	40.1	222.6	207.0	15.58	14.291		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook M31-2306 01H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,144.6	5,072.3	5,067.4	10.0	8.9	-178.31	68.1	34.0	301.5	286.5	14.98	20.131		
5,300.0	5,212.9	5,100.0	5,093.0	10.7	8.9	178.77	77.8	29.6	390.3	376.0	14.30	27.291		
5,400.0	5,271.6	5,122.2	5,113.2	11.7	9.0	174.92	86.4	25.7	485.3	471.7	13.66	35.524		

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Reference Site: Lybrook
Site Error: 0.0ft
Reference Well: Lybrook M31-2306 03H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #3

Local Co-ordinate Reference: Well Lybrook M31-2306 03H
TVD Reference: 15' KB @ 7188.0ft (Aztec)
MD Reference: 15' KB @ 7188.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design Lybrook - Lybrook M31-2306 02H - Hz - Plan #2														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	58.34	14.6	23.6	27.8						
100.0	100.0	98.0	98.0	0.1	0.1	58.34	14.6	23.6	27.7	27.4	0.30	93.351			
200.0	200.0	198.0	198.0	0.3	0.3	58.34	14.6	23.6	27.7	27.1	0.65	42.958			
300.0	300.0	298.0	298.0	0.5	0.5	58.34	14.6	23.6	27.7	26.7	0.99	27.886			
400.0	400.0	398.0	398.0	0.7	0.7	58.34	14.6	23.6	27.7	26.4	1.34	20.643			
500.0	500.0	498.0	498.0	0.8	0.8	58.34	14.6	23.6	27.7	26.0	1.69	16.387			
600.0	600.0	598.0	598.0	1.0	1.0	58.34	14.6	23.6	27.7	25.7	2.04	13.585			
700.0	700.0	698.0	698.0	1.2	1.2	58.34	14.6	23.6	27.7	25.4	2.39	11.602			
800.0	800.0	798.0	798.0	1.4	1.4	58.34	14.6	23.6	27.7	25.0	2.74	10.124			
900.0	900.0	898.0	898.0	1.5	1.5	58.34	14.6	23.6	27.7	24.7	3.09	8.980			
1,000.0	1,000.0	998.0	998.0	1.7	1.7	58.34	14.6	23.6	27.7	24.3	3.44	8.069			
1,100.0	1,100.0	1,098.0	1,098.0	1.9	1.9	58.34	14.6	23.6	27.7	24.0	3.79	7.325			
1,200.0	1,200.0	1,198.0	1,198.0	2.1	2.1	58.34	14.6	23.6	27.7	23.6	4.14	6.707			
1,300.0	1,300.0	1,298.0	1,298.0	2.2	2.2	58.34	14.6	23.6	27.7	23.3	4.49	6.185			
1,400.0	1,400.0	1,398.0	1,398.0	2.4	2.4	58.34	14.6	23.6	27.7	22.9	4.83	5.738			
1,500.0	1,500.0	1,498.0	1,498.0	2.6	2.6	58.34	14.6	23.6	27.7	22.6	5.18	5.352			
1,600.0	1,600.0	1,598.0	1,598.0	2.8	2.8	58.34	14.6	23.6	27.7	22.2	5.53	5.014			
1,700.0	1,700.0	1,698.0	1,698.0	2.9	2.9	58.34	14.6	23.6	27.7	21.9	5.88	4.717			
1,800.0	1,800.0	1,798.0	1,798.0	3.1	3.1	58.34	14.6	23.6	27.7	21.5	6.23	4.452			
1,900.0	1,900.0	1,898.0	1,898.0	3.3	3.3	58.34	14.6	23.6	27.7	21.2	6.58	4.216			
2,000.0	2,000.0	1,998.0	1,998.0	3.5	3.5	58.34	14.6	23.6	27.7	20.8	6.93	4.004			
2,100.0	2,100.0	2,098.0	2,098.0	3.6	3.6	58.34	14.6	23.6	27.7	20.5	7.28	3.812			
2,200.0	2,200.0	2,198.0	2,198.0	3.8	3.8	58.34	14.6	23.6	27.7	20.1	7.63	3.637			
2,300.0	2,300.0	2,298.0	2,298.0	4.0	4.0	58.34	14.6	23.6	27.7	19.8	7.98	3.478			
2,400.0	2,400.0	2,398.0	2,398.0	4.2	4.2	58.34	14.6	23.6	27.7	19.4	8.33	3.332			
2,500.0	2,500.0	2,498.0	2,498.0	4.3	4.3	58.34	14.6	23.6	27.7	19.1	8.67	3.198			
2,600.0	2,600.0	2,598.0	2,598.0	4.5	4.5	58.34	14.6	23.6	27.7	18.7	9.02	3.075			
2,700.0	2,700.0	2,698.0	2,698.0	4.7	4.7	58.34	14.6	23.6	27.7	18.4	9.37	2.960			
2,800.0	2,800.0	2,798.0	2,798.0	4.9	4.9	58.34	14.6	23.6	27.7	18.0	9.72	2.854			
2,900.0	2,900.0	2,898.0	2,898.0	5.0	5.0	58.34	14.6	23.6	27.7	17.7	10.07	2.755			
3,000.0	3,000.0	2,998.0	2,998.0	5.2	5.2	58.34	14.6	23.6	27.7	17.3	10.42	2.663			
3,100.0	3,100.0	3,098.0	3,098.0	5.4	5.4	58.34	14.6	23.6	27.7	17.0	10.77	2.576			
3,200.0	3,200.0	3,198.0	3,198.0	5.6	5.6	58.34	14.6	23.6	27.7	16.6	11.12	2.495			
3,300.0	3,300.0	3,298.0	3,298.0	5.7	5.7	58.34	14.6	23.6	27.7	16.3	11.47	2.419			
3,400.0	3,400.0	3,398.0	3,398.0	5.9	5.9	58.34	14.6	23.6	27.7	15.9	11.82	2.348			
3,500.0	3,500.0	3,498.0	3,498.0	6.1	6.1	58.34	14.6	23.6	27.7	15.6	12.16	2.281			
3,600.0	3,600.0	3,598.0	3,598.0	6.3	6.3	58.34	14.6	23.6	27.7	15.2	12.51	2.217			
3,700.0	3,700.0	3,698.0	3,698.0	6.4	6.4	58.34	14.6	23.6	27.7	14.9	12.86	2.157			
3,800.0	3,800.0	3,798.0	3,798.0	6.6	6.6	58.34	14.6	23.6	27.7	14.5	13.21	2.100			
3,900.0	3,900.0	3,898.0	3,898.0	6.8	6.8	58.34	14.6	23.6	27.7	14.2	13.56	2.046			
4,000.0	4,000.0	3,998.0	3,998.0	7.0	7.0	58.34	14.6	23.6	27.7	13.8	13.91	1.994			
4,100.0	4,100.0	4,098.0	4,098.0	7.1	7.1	58.34	14.6	23.6	27.7	13.5	14.26	1.946			
4,200.0	4,200.0	4,198.0	4,198.0	7.3	7.3	58.34	14.6	23.6	27.7	13.1	14.61	1.899			
4,300.0	4,300.0	4,298.0	4,298.0	7.5	7.5	58.34	14.6	23.6	27.7	12.8	14.96	1.855			
4,400.0	4,400.0	4,398.0	4,398.0	7.7	7.7	58.34	14.6	23.6	27.7	12.4	15.31	1.812			
4,500.0	4,500.0	4,498.0	4,498.0	7.8	7.8	58.34	14.6	23.6	27.7	12.1	15.66	1.772			
4,600.0	4,600.0	4,598.0	4,598.0	8.0	8.0	58.34	14.6	23.6	27.7	11.7	16.00	1.733 CC, ES, SF			
4,700.0	4,699.7	4,696.9	4,696.7	8.2	8.2	-159.94	19.2	20.7	34.1	17.8	16.28	2.095			
4,800.0	4,797.9	4,789.4	4,787.8	8.4	8.3	178.74	32.5	12.4	60.4	44.0	16.35	3.692			
4,900.0	4,892.9	4,870.5	4,865.8	8.6	8.5	167.54	51.1	0.8	108.1	91.8	16.28	6.637			
5,000.0	4,983.3	4,937.7	4,928.7	8.9	8.7	161.32	71.4	-11.8	172.5	156.4	16.11	10.706			
5,100.0	5,067.7	4,990.7	4,976.7	9.4	8.9	156.42	90.3	-23.6	249.5	233.6	15.91	15.680			

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook M31-2306 02H - Hz - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis			
5,200.0	5,144.6	5,030.3	5,011.7	10.0	9.0	150.80	106.1	-33.5	335.7	319.9	15.86	21.166		
5,300.0	5,212.9	5,058.1	5,035.6	10.7	9.1	142.14	118.0	-40.9	428.2	411.8	16.38	26.133		

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Reference Site: Lybrook
Site Error: 0.0ft
Reference Well: Lybrook M31-2306 03H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #3

Local Co-ordinate Reference: Well Lybrook M31-2306 03H
TVD Reference: 15' KB @ 7188.0ft (Aztec)
MD Reference: 15' KB @ 7188.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design Lybrook - Lybrook M31-2306 04H - Hz - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
0.0	0.0	0.0	0.0	0.0	0.0	-118.73	-14.6	-26.6	30.4				
100.0	100.0	98.0	98.0	0.1	0.1	-118.73	-14.6	-26.6	30.3	30.0	0.30	101.937	
200.0	200.0	198.0	198.0	0.3	0.3	-118.73	-14.6	-26.6	30.3	29.6	0.65	46.910	
300.0	300.0	298.0	298.0	0.5	0.5	-118.73	-14.6	-26.6	30.3	29.3	0.99	30.451	
400.0	400.0	398.0	398.0	0.7	0.7	-118.73	-14.6	-26.6	30.3	29.0	1.34	22.542	
500.0	500.0	498.0	498.0	0.8	0.8	-118.73	-14.6	-26.6	30.3	28.6	1.69	17.894	
600.0	600.0	598.0	598.0	1.0	1.0	-118.73	-14.6	-26.6	30.3	28.3	2.04	14.835	
700.0	700.0	698.0	698.0	1.2	1.2	-118.73	-14.6	-26.6	30.3	27.9	2.39	12.669	
800.0	800.0	798.0	798.0	1.4	1.4	-118.73	-14.6	-26.6	30.3	27.6	2.74	11.056	
900.0	900.0	898.0	898.0	1.5	1.5	-118.73	-14.6	-26.6	30.3	27.2	3.09	9.806	
1,000.0	1,000.0	998.0	998.0	1.7	1.7	-118.73	-14.6	-26.6	30.3	26.9	3.44	8.811	
1,100.0	1,100.0	1,098.0	1,098.0	1.9	1.9	-118.73	-14.6	-26.6	30.3	26.5	3.79	7.999	
1,200.0	1,200.0	1,198.0	1,198.0	2.1	2.1	-118.73	-14.6	-26.6	30.3	26.2	4.14	7.324	
1,300.0	1,300.0	1,298.0	1,298.0	2.2	2.2	-118.73	-14.6	-26.6	30.3	25.8	4.49	6.754	
1,400.0	1,400.0	1,398.0	1,398.0	2.4	2.4	-118.73	-14.6	-26.6	30.3	25.5	4.83	6.266	
1,500.0	1,500.0	1,498.0	1,498.0	2.6	2.6	-118.73	-14.6	-26.6	30.3	25.1	5.18	5.844	
1,600.0	1,600.0	1,598.0	1,598.0	2.8	2.8	-118.73	-14.6	-26.6	30.3	24.8	5.53	5.475	
1,700.0	1,700.0	1,698.0	1,698.0	2.9	2.9	-118.73	-14.6	-26.6	30.3	24.4	5.88	5.151	
1,800.0	1,800.0	1,798.0	1,798.0	3.1	3.1	-118.73	-14.6	-26.6	30.3	24.1	6.23	4.862	
1,900.0	1,900.0	1,898.0	1,898.0	3.3	3.3	-118.73	-14.6	-26.6	30.3	23.7	6.58	4.604	
2,000.0	2,000.0	1,998.0	1,998.0	3.5	3.5	-118.73	-14.6	-26.6	30.3	23.4	6.93	4.372	
2,100.0	2,100.0	2,098.0	2,098.0	3.6	3.6	-118.73	-14.6	-26.6	30.3	23.0	7.28	4.162	
2,200.0	2,200.0	2,198.0	2,198.0	3.8	3.8	-118.73	-14.6	-26.6	30.3	22.7	7.63	3.972	
2,300.0	2,300.0	2,298.0	2,298.0	4.0	4.0	-118.73	-14.6	-26.6	30.3	22.3	7.98	3.798	
2,400.0	2,400.0	2,398.0	2,398.0	4.2	4.2	-118.73	-14.6	-26.6	30.3	22.0	8.33	3.639	
2,500.0	2,500.0	2,498.0	2,498.0	4.3	4.3	-118.73	-14.6	-26.6	30.3	21.6	8.67	3.492	
2,600.0	2,600.0	2,598.0	2,598.0	4.5	4.5	-118.73	-14.6	-26.6	30.3	21.3	9.02	3.357	
2,700.0	2,700.0	2,698.0	2,698.0	4.7	4.7	-118.73	-14.6	-26.6	30.3	20.9	9.37	3.232	
2,800.0	2,800.0	2,798.0	2,798.0	4.9	4.9	-118.73	-14.6	-26.6	30.3	20.6	9.72	3.116	
2,900.0	2,900.0	2,898.0	2,898.0	5.0	5.0	-118.73	-14.6	-26.6	30.3	20.2	10.07	3.008	
3,000.0	3,000.0	2,998.0	2,998.0	5.2	5.2	-118.73	-14.6	-26.6	30.3	19.9	10.42	2.907	
3,100.0	3,100.0	3,098.0	3,098.0	5.4	5.4	-118.73	-14.6	-26.6	30.3	19.5	10.77	2.813	
3,200.0	3,200.0	3,198.0	3,198.0	5.6	5.6	-118.73	-14.6	-26.6	30.3	19.2	11.12	2.725	
3,300.0	3,300.0	3,298.0	3,298.0	5.7	5.7	-118.73	-14.6	-26.6	30.3	18.8	11.47	2.642	
3,400.0	3,400.0	3,398.0	3,398.0	5.9	5.9	-118.73	-14.6	-26.6	30.3	18.5	11.82	2.564	
3,500.0	3,500.0	3,498.0	3,498.0	6.1	6.1	-118.73	-14.6	-26.6	30.3	18.1	12.16	2.490	
3,600.0	3,600.0	3,598.0	3,598.0	6.3	6.3	-118.73	-14.6	-26.6	30.3	17.8	12.51	2.421	
3,700.0	3,700.0	3,698.0	3,698.0	6.4	6.4	-118.73	-14.6	-26.6	30.3	17.4	12.86	2.355	
3,800.0	3,800.0	3,798.0	3,798.0	6.6	6.6	-118.73	-14.6	-26.6	30.3	17.1	13.21	2.293	
3,900.0	3,900.0	3,898.0	3,898.0	6.8	6.8	-118.73	-14.6	-26.6	30.3	16.7	13.56	2.234	
4,000.0	4,000.0	3,998.0	3,998.0	7.0	7.0	-118.73	-14.6	-26.6	30.3	16.4	13.91	2.178	
4,100.0	4,100.0	4,098.0	4,098.0	7.1	7.1	-118.73	-14.6	-26.6	30.3	16.0	14.26	2.125	
4,200.0	4,200.0	4,198.0	4,198.0	7.3	7.3	-118.73	-14.6	-26.6	30.3	15.7	14.61	2.074	
4,300.0	4,300.0	4,298.0	4,298.0	7.5	7.5	-118.73	-14.6	-26.6	30.3	15.3	14.96	2.025	
4,400.0	4,400.0	4,398.0	4,398.0	7.7	7.7	-118.73	-14.6	-26.6	30.3	15.0	15.31	1.979	
4,500.0	4,500.0	4,498.0	4,498.0	7.8	7.8	-118.73	-14.6	-26.6	30.3	14.6	15.66	1.935 CC	
4,600.0	4,600.0	4,594.9	4,594.6	8.0	8.0	-124.54	-19.7	-28.6	34.9	18.9	16.00	2.179	
4,700.0	4,699.7	4,690.2	4,688.5	8.2	8.2	24.32	-35.0	-34.6	44.5	28.2	16.27	2.732	
4,800.0	4,797.9	4,784.5	4,778.8	8.4	8.4	19.20	-60.1	-44.5	53.6	37.2	16.39	3.270	
4,900.0	4,892.9	4,877.8	4,864.5	8.6	8.7	15.66	-94.2	-58.0	61.9	45.5	16.36	3.784	
5,000.0	4,983.3	4,970.4	4,944.9	8.9	9.0	13.01	-136.8	-74.9	69.1	52.9	16.17	4.274	
5,100.0	5,067.7	5,062.2	5,019.1	9.4	9.5	10.90	-187.2	-94.8	75.1	59.3	15.86	4.737	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook M31-2306 04H - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)							
5,200.0	5,144.6	5,153.6	5,086.3	10.0	10.1	9.13	-244.7	-117.4	79.8	64.4	15.44	5.168			
5,300.0	5,212.9	5,244.6	5,146.1	10.7	10.9	7.58	-308.4	-142.6	83.1	68.1	14.95	5.557			
5,400.0	5,271.6	5,343.6	5,206.1	11.7	11.9	6.46	-381.7	-171.6	80.4	66.0	14.46	5.560			
5,500.0	5,319.6	5,439.5	5,263.5	12.9	13.0	9.23	-451.8	-203.0	66.8	52.5	14.26	4.686			
5,600.0	5,357.3	5,531.3	5,314.6	14.2	14.1	25.54	-514.4	-245.9	50.9	33.4	17.57	2.900			
5,696.4	5,389.5	5,618.5	5,358.6	15.7	15.2	47.78	-568.5	-298.3	45.2	20.1	25.07	1.803			
5,700.0	5,390.6	5,621.8	5,360.2	15.7	15.3	48.65	-570.4	-300.5	45.2	19.8	25.36	1.783			
5,800.0	5,419.8	5,712.0	5,399.5	17.3	16.6	69.21	-618.9	-365.4	50.3	18.8	31.49	1.596			
5,900.0	5,444.0	5,802.2	5,431.9	18.9	17.9	81.29	-659.0	-439.3	60.0	25.6	34.43	1.743			
6,000.0	5,462.4	5,892.4	5,456.4	20.6	19.4	87.40	-689.7	-520.4	69.5	33.4	36.06	1.927			
6,100.0	5,474.5	5,982.7	5,472.6	22.3	20.9	90.30	-710.2	-606.8	76.4	39.2	37.19	2.055			
6,200.0	5,479.9	6,073.1	5,479.9	23.9	22.4	91.41	-720.0	-696.3	79.8	41.9	37.93	2.105			
6,300.0	5,479.9	6,169.7	5,480.0	25.6	24.0	91.50	-721.1	-792.8	80.1	39.3	40.80	1.964			
6,400.0	5,479.3	6,269.7	5,479.4	27.3	25.8	91.50	-721.5	-892.8	80.1	35.0	45.17	1.774			
6,500.0	5,478.8	6,369.7	5,478.9	29.2	27.8	91.50	-721.9	-992.8	80.1	30.5	49.65	1.614			
6,600.0	5,478.3	6,469.7	5,478.4	31.2	29.8	91.50	-722.3	-1,092.8	80.1	25.9	54.21	1.478 Level 3			
6,700.0	5,477.8	6,569.7	5,477.9	33.2	31.9	91.50	-722.6	-1,192.8	80.1	21.3	58.84	1.362 Level 3			
6,800.0	5,477.2	6,669.7	5,477.3	35.3	34.0	91.50	-723.0	-1,292.8	80.1	16.6	63.51	1.262 Level 3			
6,900.0	5,476.7	6,769.7	5,476.8	37.4	36.2	91.50	-723.4	-1,392.8	80.1	11.9	68.23	1.174 Level 2			
7,000.0	5,476.2	6,869.7	5,476.3	39.6	38.4	91.50	-723.8	-1,492.8	80.1	7.2	72.97	1.098 Level 2			
7,100.0	5,475.7	6,969.7	5,475.8	41.8	40.7	91.50	-724.2	-1,592.8	80.1	2.4	77.74	1.031 Level 2			
7,200.0	5,475.2	7,069.7	5,475.3	44.0	42.9	91.50	-724.6	-1,692.8	80.1	-2.4	82.53	0.971 Level 1			
7,300.0	5,474.6	7,169.7	5,474.7	46.3	45.2	91.50	-725.0	-1,792.8	80.1	-7.2	87.33	0.917 Level 1			
7,400.0	5,474.1	7,269.7	5,474.2	48.6	47.5	91.50	-725.3	-1,892.8	80.1	-12.0	92.16	0.869 Level 1			
7,500.0	5,473.6	7,369.7	5,473.7	50.9	49.9	91.50	-725.7	-1,992.8	80.1	-16.9	96.99	0.826 Level 1			
7,600.0	5,473.1	7,469.7	5,473.2	53.2	52.2	91.50	-726.1	-2,092.8	80.1	-21.7	101.84	0.787 Level 1			
7,700.0	5,472.5	7,569.7	5,472.6	55.6	54.6	91.51	-726.5	-2,192.8	80.1	-26.6	106.69	0.751 Level 1			
7,800.0	5,472.0	7,669.7	5,472.1	57.9	56.9	91.51	-726.9	-2,292.8	80.1	-31.4	111.55	0.718 Level 1			
7,900.0	5,471.5	7,769.7	5,471.6	60.3	59.3	91.51	-727.3	-2,392.8	80.1	-36.3	116.42	0.688 Level 1			
8,000.0	5,471.0	7,869.7	5,471.1	62.6	61.7	91.51	-727.7	-2,492.8	80.1	-41.2	121.30	0.661 Level 1			
8,100.0	5,470.4	7,969.7	5,470.5	65.0	64.1	91.51	-728.0	-2,592.8	80.1	-46.1	126.18	0.635 Level 1			
8,200.0	5,469.9	8,069.7	5,470.0	67.4	66.5	91.51	-728.4	-2,692.8	80.1	-50.9	131.07	0.611 Level 1			
8,300.0	5,469.4	8,169.7	5,469.5	69.8	68.9	91.51	-728.8	-2,792.8	80.1	-55.8	135.96	0.589 Level 1			
8,400.0	5,468.9	8,269.7	5,469.0	72.2	71.3	91.51	-729.2	-2,892.8	80.1	-60.7	140.85	0.569 Level 1			
8,500.0	5,468.3	8,369.7	5,468.4	74.6	73.7	91.51	-729.6	-2,992.8	80.1	-65.6	145.75	0.550 Level 1			
8,600.0	5,467.8	8,469.7	5,467.9	77.0	76.1	91.51	-730.0	-3,092.8	80.1	-70.5	150.65	0.532 Level 1			
8,700.0	5,467.3	8,569.7	5,467.4	79.4	78.5	91.51	-730.3	-3,192.8	80.1	-75.4	155.56	0.515 Level 1			
8,800.0	5,466.8	8,669.7	5,466.9	81.8	81.0	91.51	-730.7	-3,292.8	80.1	-80.3	160.47	0.499 Level 1			
8,900.0	5,466.2	8,769.7	5,466.4	84.2	83.4	91.51	-731.1	-3,392.8	80.1	-85.3	165.38	0.484 Level 1			
9,000.0	5,465.7	8,869.7	5,465.8	86.6	85.8	91.51	-731.5	-3,492.7	80.1	-90.2	170.29	0.471 Level 1			
9,100.0	5,465.2	8,969.7	5,465.3	89.1	88.3	91.51	-731.9	-3,592.7	80.1	-95.1	175.20	0.457 Level 1			
9,200.0	5,464.7	9,069.7	5,464.8	91.5	90.7	91.51	-732.3	-3,692.7	80.1	-100.0	180.12	0.445 Level 1			
9,300.0	5,464.1	9,169.7	5,464.3	93.9	93.1	91.51	-732.7	-3,792.7	80.1	-104.9	185.03	0.433 Level 1			
9,400.0	5,463.6	9,269.7	5,463.7	96.3	95.6	91.51	-733.0	-3,892.7	80.1	-109.8	189.95	0.422 Level 1			
9,500.0	5,463.1	9,369.7	5,463.2	98.8	98.0	91.51	-733.4	-3,992.7	80.1	-114.7	194.87	0.411 Level 1			
9,600.0	5,462.6	9,469.7	5,462.7	101.2	100.4	91.51	-733.8	-4,092.7	80.1	-119.7	199.79	0.401 Level 1			
9,700.0	5,462.1	9,569.7	5,462.2	103.6	102.9	91.51	-734.2	-4,192.7	80.1	-124.6	204.72	0.391 Level 1			
9,800.0	5,461.5	9,669.7	5,461.6	106.1	105.3	91.51	-734.6	-4,292.7	80.1	-129.5	209.64	0.382 Level 1			
9,900.0	5,461.0	9,769.7	5,461.1	108.5	107.8	91.51	-735.0	-4,392.7	80.1	-134.4	214.57	0.373 Level 1			
10,000.0	5,460.5	9,869.7	5,460.6	111.0	110.2	91.51	-735.4	-4,492.7	80.1	-139.4	219.49	0.365 Level 1			
10,100.0	5,460.0	9,969.7	5,460.1	113.4	112.7	91.51	-735.7	-4,592.7	80.1	-144.3	224.42	0.357 Level 1			
10,200.0	5,459.4	10,069.7	5,459.5	115.9	115.1	91.51	-736.1	-4,692.7	80.1	-149.2	229.35	0.349 Level 1			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Lybrook M31-2306 03H
Project:	Sandoval County, NM	TVD Reference:	15' KB @ 7188.0ft (Aztec)
Reference Site:	Lybrook	MD Reference:	15' KB @ 7188.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Lybrook M31-2306 03H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design Lybrook - Lybrook M31-2306 04H - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
10,300.0	5,458.9	10,169.7	5,459.0	118.3	117.6	91.51	-736.5	-4,792.7	80.1	-154.2	234.27	0.342 Level 1		
10,400.0	5,458.4	10,269.7	5,458.5	120.7	120.0	91.51	-736.9	-4,892.7	80.1	-159.1	239.20	0.335 Level 1		
10,500.0	5,457.9	10,369.7	5,458.0	123.2	122.5	91.51	-737.3	-4,992.7	80.1	-164.0	244.13	0.328 Level 1		
10,600.0	5,457.3	10,469.7	5,457.5	125.6	124.9	91.51	-737.7	-5,092.7	80.1	-168.9	249.06	0.322 Level 1		
10,700.0	5,456.8	10,569.7	5,456.9	128.1	127.4	91.51	-738.1	-5,192.7	80.1	-173.9	254.00	0.315 Level 1		
10,800.0	5,456.3	10,669.7	5,456.4	130.5	129.8	91.51	-738.4	-5,292.7	80.1	-178.8	258.93	0.309 Level 1		
10,817.9	5,456.2	10,687.6	5,456.3	131.0	130.3	91.51	-738.5	-5,310.7	80.1	-179.7	259.81	0.308 Level 1		
10,835.4	5,456.1	10,704.7	5,456.2	131.4	130.7	91.51	-738.6	-5,327.8	80.1	-180.5	260.67	0.307 Level 1, ES, SF		

Anticollision Report

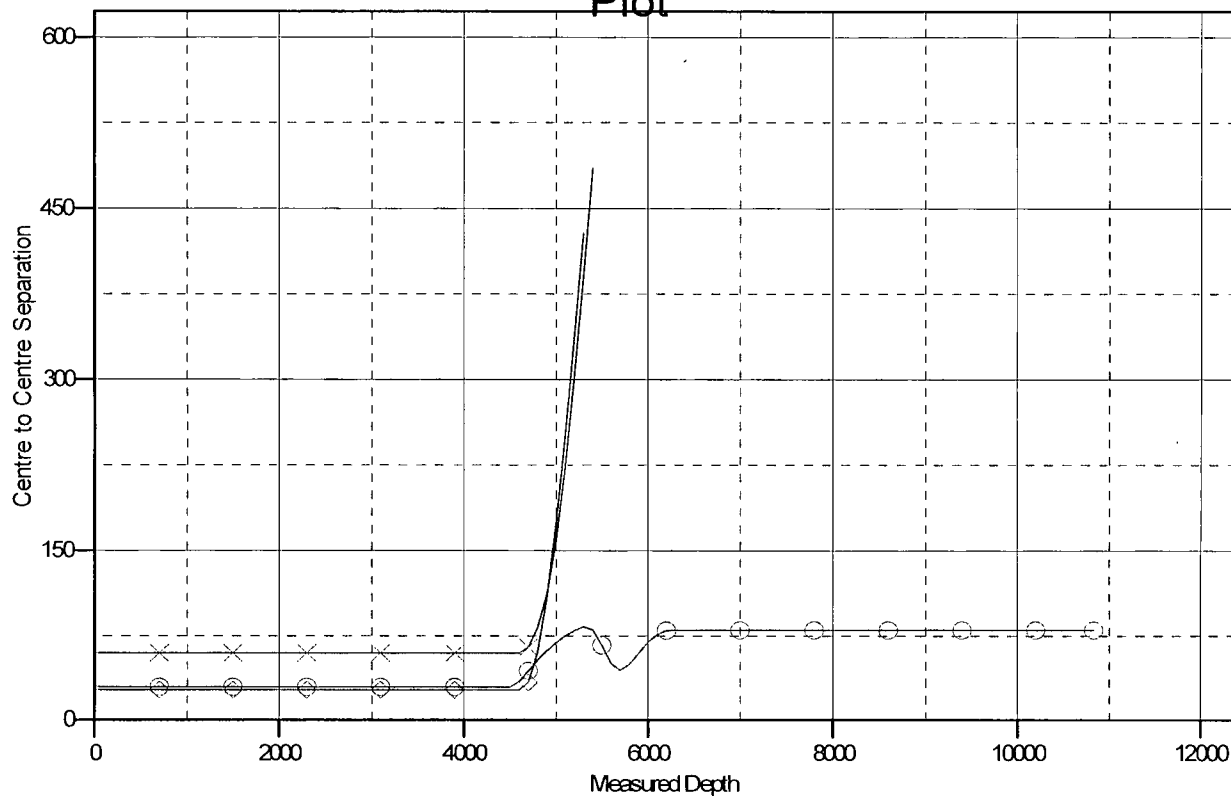
Company: EnCana Oil & Gas (USA) Inc
 Project: Sandoval County, NM
 Reference Site: Lybrook
 Site Error: 0.0ft
 Reference Well: Lybrook M31-2306 03H
 Well Error: 0.0ft
 Reference Wellbore: HZ
 Reference Design: Plan #3

Local Co-ordinate Reference: Well Lybrook M31-2306 03H
 TVD Reference: 15' KB @ 7188.0ft (Aztec)
 MD Reference: 15' KB @ 7188.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Reference Depths are relative to 15' KB @ 7188.0ft (Aztec)
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.250000°

Coordinates are relative to: Lybrook M31-2306 03H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.75°

Ladder Plot



LEGEND

Lybrook M31-2306 02H, Hz, Plan #2 V0
 Lybrook M31-2306 01H, Hz, Plan #1 V0
 Lybrook M31-2306 04H, Hz, Plan #1 V0