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Form 3160-5 (March 2012) JUL 03 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No. NM 76842, NMNM48989A	
6. If Indian, Allottee or Tribe Name N/A	
7. If Unit of CA/Agreement, Name and/or No. N/A	
1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	8. Well Name and No. Lybrook M35-2308 01H
2. Name of Operator Encana Oil & Gas (USA) Inc.	9. API Well No. 30-045-35526
3a. Address 370 17th Street, Suite 1700 Denver, CO 80202	3b. Phone No. *(include area code)* 720-876-3926
	10. Field and Pool or Exploratory Area Alamito-Gallup Pool
4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SHL: 316' FSL and 1298' FWL Sec 35, T23N, R8W BHL: 330' FSL and 920' FWL Sec 2, T22N, R8W	11. County or Parish, State San Juan County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	_____
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Encana Oil & Gas (USA) Inc. would like to revise the 10-Point Drilling Plan, Well Summary Diagram, and Directional Drilling Plan submitted on March 20, 2014. Revisions to these documents were requested by the Oil Conservation Division.

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

OIL CONS. DIV DIST. 3

JUL 14 2014

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Jessica Gregg — Title Regulatory Analyst

Signature Jessica Gregg — Date 07/02/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/William Tambekou — Title Petroleum Engineer — Date 7/7/2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. — Office FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

20

Lybrook M35-2308 01H
SHL: SWSW Sec 35 T23N R8W
316' FSL, 1298' FWL
BHL: SWSW Sec 2 T22N R8W
330' FSL, 920' FWL
San Juan, New Mexico

Encana Oil & Gas (USA) Inc.
Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
Ojo Alamo Ss.	600
Kirtland Shale	791
Fruitland Coal	1,131
Pictured Cliffs Ss.	1,271
Lewis Shale	1,367
Cliffhouse Ss.	2,009
Menefee Fn.	2,720
Point Lookout Ss.	3,658
Mancos Shale	3,802
Mancos Silt	4,310
Gallup Fn.	4,566

The referenced surface elevation is 6879', KB 6895'

2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS, & OTHER MINERAL BEARING FORMATIONS

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,131
Oil/Gas	Pictured Cliffs Ss.	1,271
Oil/Gas	Cliffhouse Ss.	2,009
Gas	Menefee Fn.	2,720
Oil/Gas	Point Lookout Ss.	3,658
Oil/Gas	Mancos Shale	3,802
Oil/Gas	Mancos Silt	4,310
Oil/Gas	Gallup Fn.	4,566

All shows of fresh water and minerals will be reported and protected.

3. PRESSURE CONTROL

a) Pressure contol equipment and configuration will be designed to meet 2M standards.
b) Working pressure on rams and BOPE will be 3,000 psi.
c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.

g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
l) The choke and manifold shall contain two adjustable chokes.
m) Hand wheels shall be installed on all ram preventers.
n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

a) The proposed casing design is as follows:

Casing	Depth (MD)	Hole Size	Csg Size	Weight	Grade
Conductor	0'-60'	30"	20"	94#	
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5247'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5047'-10005'	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (ppf)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lbs)	Collapse	Burst	Tension
9 5/8"	36	J55	STC	2020	3520	394	1.125	1.1	1.5
7"	26	J55	LTC	4320	4980	367	1.125	1.1	1.5
4.5"	11.6	B80	LTC	6350	7780	201	1.125	1.1	1.5

*B80 pipe specifications are attached

Casing design is subject to revision based on geologic conditions encountered

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

b) The proposed cementing program is as follows

Casing	Depth (MD)	Cement Volume (sacks)	Cement Type & Yield	Designed TOC	Centralizers
Conductor	0'-60'	100 sks	Type I Neat 16 ppg	Surface	None
Surface	0'-500'	314 sks	HALCEM ™ SYSTEM + 2% CaCl2 + 0.125lbm/sk Poly-E-Flake. 15.8 ppg, 1.174 cuft/sk	Surface	1 per joint on bottom 3 joints
Intermediate	0'-5247'	30% open hole excess Stage 1 Lead: 273 sks Stage 1 Tail: 422 sks Stage 2 Lead: 135 sks	Stage 1 Lead: HALCEM ™ SYSTEM + 0.2% HR-5 + 5lbm/sk Kol-Seal + 0.125lbm/sk Poly-E-Flake. 12.3 ppg, 1.948 cuft/sk Stage 1 Tail: VARICEM ™ CEMENT + .15% CFR-3 + 5lbm/sk Kol-Seal + 0.125% Poly-E-Flake. 13.5 ppg, 1.308 cuft/sk. Stage 2 Contingency: HALCEM ™ SYSTEM + 5lbm/sk Kol-Seal + 0.125lbm/sk Poly-E-Flake. 12.3 ppg,	Surface	1 every 3 joints through water bearing zones
Production Liner	5047'-10005'	None - External Casing Packers	N/A	N/A	N/A

*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4215'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	4793'/10005'	Gallup

Lybrook M35-2308 01H
SHL: SWSW Sec 35 T23N R8W
316' FSL, 1298' FWL
BHL: SWSW Sec 2 T22N R8W
330' FSL, 920' FWL
San Juan, New Mexico

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60'/60'	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0'-500'/500'	Fresh Water	8.3-10	60-70	NC
8 3/4"	500'/500'-4854'/5247	Fresh Water LSND	8.3-10	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	4854'/5247'-4793'/10005'	Fresh Water LSND	8.3-10	15-25	<15

c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

7. TESTING, CORING, & LOGGING

a) Drill Stem Testing - None anticipated.
b) Coring - None anticipated.
c) Mudd Logging - Mud loggers will be on location from kick off point to TD.
d) Logging - See below

Cased Hole:
CBL/CCL/GR/VDL will be run as needed for perforating control

8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2278 psi based on a 9.0 ppg at 4867' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H_2S is encountered, the guidelines in Onshore Order No. 6 will be followed.

9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on January 1, 2015. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 20 days.

LOC: NW/4 NW/4 Sec 2 T22N R8W, 330' F
County: San Juan
WELL: Lybrook M35-2308 01H

Encana Natural Gas

WELL SUMMARY

ENG: Ashley Lantz 7/2/14
RIG: Aztec 950
GLE: 6879
RKBE: 6895

MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH TVD	DEPTH MD	HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			60	60'	30	**16" 42.09#** **100sx Type I Neat 16.0ppg cmt**	Fresh wtr 8.3-9.2	
Multi-Well pad - take survey every stand and run anti-collision report prior to spud	None	Nacimiento **9 5/8" Csg**	0 500	500.00	12 1/4	**9 5/8" 36ppf J55 STC** TOC Surface with 100% OH Excess: 314 sks of HALCEM ™ SYSTEM + 2% CaCl2 + 0.125lbm/sk Poly-E-Flake. Mixed at 15.8 ppg. Yield 1.174 cuft/sk.	Fresh wtr 8.3-10	Vertical <1°
Survey Every 60'-120', updating anticollision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5	No OH logs	Ojo Alamo Ss. Kirtland Shale Fruitland Coal Pictured Cliffs Ss. Lewis Shale Cliffhouse Ss. Menefee Fn. Point Lookout Ss. Mancos Shale	600 791 1,131 1,271 1,367 2,009 2,720 3,658 3,802		8 3/4	**7" 26ppf J55 LTC** TOC @ surface (30% OH excess) Stage 1 Total: 695sks If necessary, Stage 2 Total: 135sks Stage tool @ ~ 1,417 Stage 1 Lead: 273 sks HALCEM ™ SYSTEM + 0.2% HR-5 + 5lbm/sk Kol-Seal + 0.125lbm/sk Poly-E-Flake. Mixed at 12.3 ppg. Yield 1.948 cuft/sk. Stage 1 Tail: 422 sks VARICEM ™ CEMENT + .15% CFR-3 + 5lbm/sk Kol-Seal + 0.125% Poly-E-Flake. Mixed at 13.5 ppg. Yield 1.308 cuft/sk.	Fresh Wtr 8.3-10	Vertical <1°
Surveys every 30' through the curve	Mud logger onsite	KOP Mancos Silt Gallup Fn. **7" Csg**	**4,215** 4,310 4,566 **4,854**	**4,215** **5,247'**		Stage 2: 135 sks HALCEM ™ SYSTEM + 5lbm/sk Kol-Seal + 0.125lbm/sk Poly-E-Flake. Mixed at 12.3 ppg. Yield 1.946 cuft/sk.		
Surveys every stand to TD unless directed otherwise by Geologist MWD Gamma Directional	No OH Logs	Horizontal Target **TD** Base Gallup	4,867 **4,793** 4,900	10,005	**6 1/8**	200' overlap at liner top 4758' Drilled Lateral **4 1/2" 11.6ppf SB80 LTC** Running external swellable csg packers for isolation of prod string	**WBM** 8.3-10	Horz Inc/TVD 90.8 degdeg/4867ft TD = 10004.5 MD

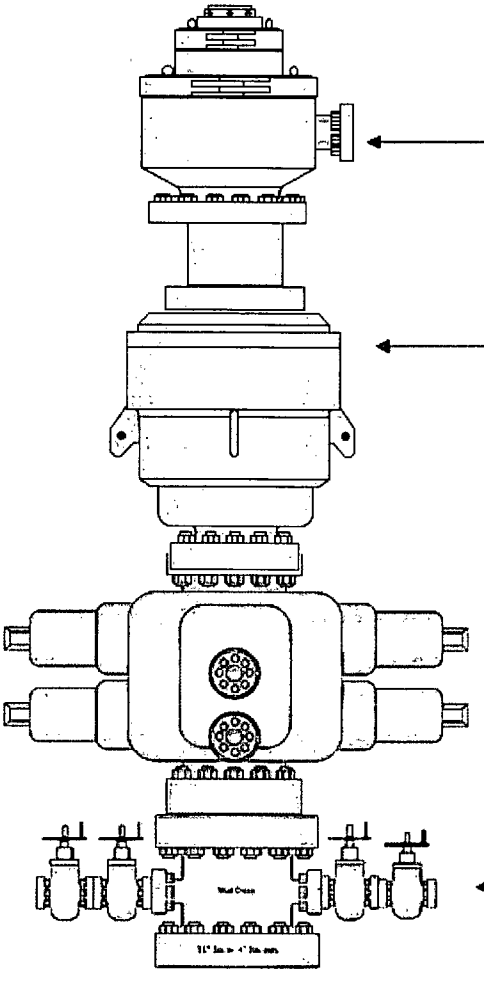
NOTES:

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 4215', 8 3/4 inch holesize
5) Start curve at 10deg/100' build rate
6) Drill to csg point of 5247' MD
7) R&C 7" csg, circ cmt to surface, switch to WBM
8) Land at 90 deg, drill lateral to 10005' run 4 1/2 inch liner with external swellable csg packers

WELLHEAD BLOWOUT CONTROL SYSTEM

encana

Well Name and Number:
Lybrook M35-2308 01H

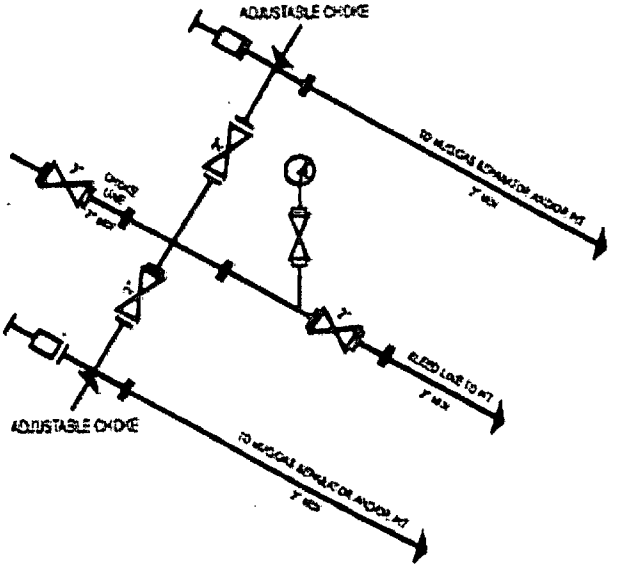


11" 3K Rotating Head

11" 3K Annular

3K Double Ram
Top: Pipe Ram
Bottom: Blind Ram
3" Outlets Below Ram

3K Mud Cross 3" gate valves



Boomerang Tube LLC

CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

Pipe Outside Diameter (ins)	4.500
Pipe Wall Thickness (ins)	0.250
Nominal Weight Per Foot (lbs)	11.60
Thread Name	Long Thread CSG
Grade Name	SB-80
Pipe Minimum Yield (psi)	80,000
Pipe Minimum Ultimate (psi)	90,000
Coupling Minimum Yield (psi)	80,000
Coupling Minimum Ultimate (psi)	100,000
Coupling or Joint Outside Diameter (ins)	5.000
Drift Diameter (ins)	3.875
Plain End Weight per Foot (lbs)	11.36
Joint Strength (lbs)	201,000
Internal Yield (psi)	7,780
Collapse Rating (psi)	6,350

MAXIMUM DEPTH/LENGTH BASED ON MUD WTS & SAFETY FACTORS

Drilling Mud Weight (ppg)	9.625
Tension Safety Factor	1.80
Maximum Tension Length (ft)	9,630
Internal Yield Safety Factor	1.10
Maximum Depth for Internal Yield (ft)	14,150
Collapse Safety Factor	1.125
Maximum Collapse Depth (ft)	11,290

API RELATED VALUES and INTERMEDIATE CALCULATION RESULTS

Coupling Thread Fracture Strength	464,000
Pipe Thread Fracture Strength (lbs)	201,000
Pipe Body Plain End Yield (lbs)	267,000
Round Thread Pull-Out (lbs)	219,000
Minimum Make-up Torque (ft-lbs)	1,640
Nominal Make-up Torque (ft-lbs)	2,190
Maximum Make-up Torque (ft-lbs)	2,740
Coupling Internal Yield (psi)	10,660
Pipe Body Internal Yield (psi)	7,780
Leak @ E1 or E7 plane (psi)	17,920
Pipe Hydrostatic Test Pressure @ 80 % SMYS	7,100

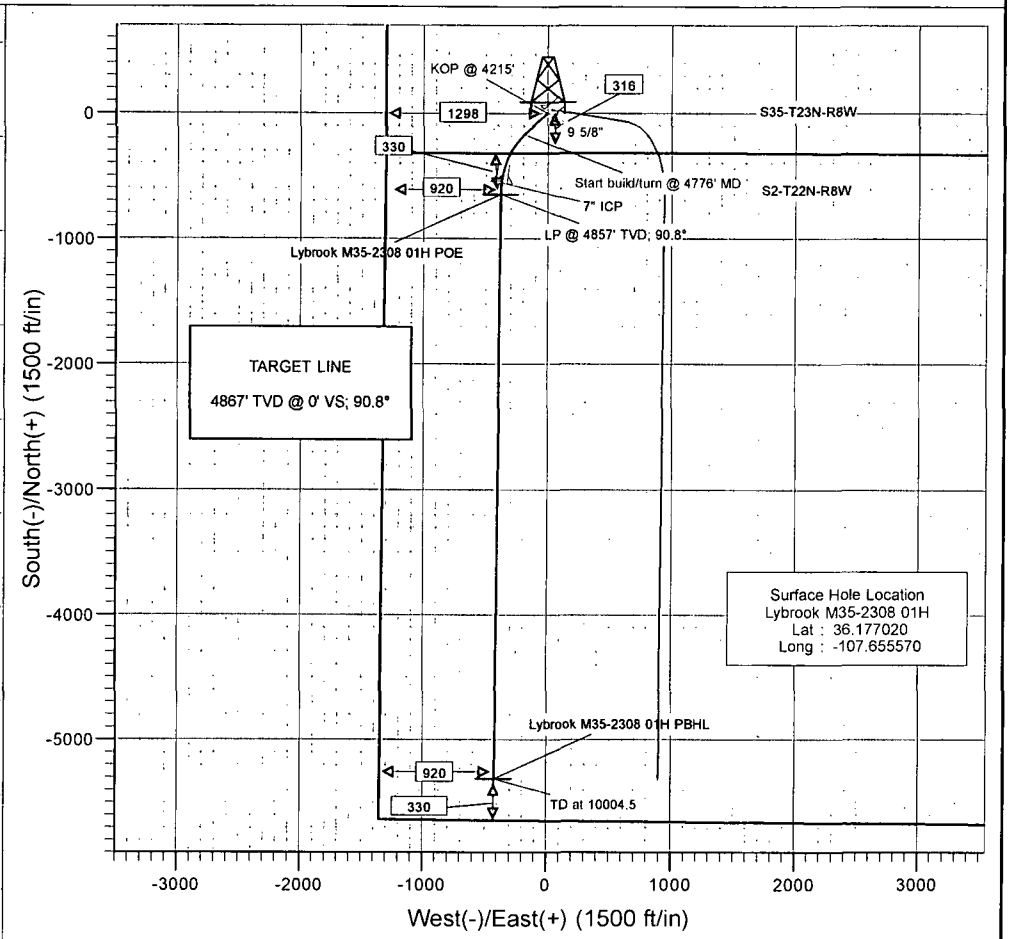
encana natural gas

Project: San Juan County, NM
Site: S35-T23N-R8W
Well: Lybrook M35-2308 01H
Wellbore: Hz
Design: Plan #1

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4215.2	0.00	0.00	4215.2	0.0	0.0	0.00	0.00	0.0	
3	4776.8	56.15	227.96	4691.1	-170.0	-188.5	10.00	227.96	171.7	
4	5340.7	90.80	180.51	4857.9	-648.0	-380.7	10.00	-62.21	651.3	Lybrook M35-2308 01H POE
510004.5		90.80	180.51	4792.8	-5311.0	-422.1	0.00	0.00	5314.6	Lybrook M35-2308 01H PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Lybrook M35-2308 01H PBHL	-5311.0	-422.1	1878472.28	2775147.25	36.162430	-107.657000
Lybrook M35-2308 01H POE	-648.0	-380.7	1883135.44	2775180.10	36.175240	-107.656860

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
600.0	600.0	Ojo Alamo
791.0	791.0	Kirtland Shale
1131.0	1131.0	Fruitland Coal
1271.0	1271.0	Pictured Cliffs Ss.
1367.0	1367.0	Lewis Shale
2009.0	2009.0	Cliffhouse Ss.
2720.0	2720.0	Menefee Fn.
3658.0	3658.0	Point Lookout Ss.
3802.0	3802.0	Mancos Shale
4309.9	4310.4	Mancos Silt
4564.9	4591.3	Gallup Fn.

T M Azimuths to True North
Magnetic North: 9.46°

Magnetic Field
Strength: 50161.6snT
Dip Angle: 62.94°
Date: 2/3/2014
Model: IGRF2010

Plan #1
Lybrook M35-2308 01H
14xxx; LR
WELL @ 6895.0ft (Original Well Elev)
Ground Elevation @ 6879.0
North American Datum 1983
Well Lybrook M35-2308 01H, True North

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Project:	San Juan County, NM	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site:	S35-T23N-R8W	**North Reference:**	True
Well:	Lybrook M35-2308 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Project	San Juan County, NM		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	S35-T23N-R8W				
Site Position:		**Northing:**	1,883,784.09 ft	**Latitude:**	36.177020
From:	Lat/Long	**Easting:**	2,775,559.63 ft	**Longitude:**	-107.655570
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.10 °

Well	Lybrook M35-2308 01H				
Well Position	**+N/-S** 0.0 ft	**Northing:**	1,883,784.09 ft	**Latitude:**	36.177020
	+E/-W 0.0 ft	**Easting:**	2,775,559.63 ft	**Longitude:**	-107.655570
Position Uncertainty	0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,879.0 ft

Wellbore	Hz			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	2/3/2014	9.46	62.94	50,162

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.0	0.0	0.0	180.51	

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	
4,215.2	0.00	0.00	4,215.2	0.0	0.0	0.00	0.00	0.00	0.00	
4,776.8	56.15	227.96	4,691.1	-170.0	-188.5	10.00	10.00	0.00	227.96	
5,340.7	90.80	180.51	4,857.9	-648.0	-380.7	10.00	6.14	-8.41	-62.21	Lybrook M35-2308 01
10,004.5	90.80	180.51	4,792.8	-5,311.0	-422.1	0.00	0.00	0.00	0.00	Lybrook M35-2308 01

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Project:	San Juan County, NM	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site:	S35-T23N-R8W	**North Reference:**	True
Well:	Lybrook M35-2308 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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	
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	Ojo Alamo
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
791.0	0.00	0.00	791.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
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	
1,131.0	0.00	0.00	1,131.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,271.0	0.00	0.00	1,271.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,367.0	0.00	0.00	1,367.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
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	
1,600.0	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	
1,800.0	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,009.0	0.00	0.00	2,009.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
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	
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
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	
3,500.0	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	
3,658.0	0.00	0.00	3,658.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
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	
3,802.0	0.00	0.00	3,802.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale
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	
4,215.2	0.00	0.00	4,215.2	0.0	0.0	0.0	0.00	0.00	KOP @ 4215'

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Project:	San Juan County, NM	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site:	S35-T23N-R8W	**North Reference:**	True
Well:	Lybrook M35-2308 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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	8.48	227.96	4,299.7	-4.2	-4.7	4.2	10.00	10.00	
4,310.4	9.52	227.96	4,309.9	-5.3	-5.9	5.3	10.00	10.00	Mancos Silt
4,400.0	18.48	227.96	4,396.8	-19.8	-21.9	20.0	10.00	10.00	
4,500.0	28.48	227.96	4,488.4	-46.4	-51.5	46.9	10.00	10.00	
4,591.3	37.61	227.96	4,564.9	-79.7	-88.4	80.5	10.00	10.00	Gallup Fn.
4,600.0	38.48	227.96	4,571.7	-83.3	-92.4	84.1	10.00	10.00	
4,700.0	48.47	227.96	4,644.2	-129.3	-143.4	130.6	10.00	10.00	
4,776.8	56.15	227.96	4,691.1	-170.0	-188.5	171.7	10.00	10.00	Start build/turn @ 4776' MD
4,800.0	57.26	225.52	4,703.8	-183.3	-202.7	185.1	10.00	4.76	
4,900.0	62.51	215.68	4,754.1	-249.0	-258.7	251.3	10.00	5.25	
5,000.0	68.39	206.78	4,795.7	-326.7	-305.6	329.4	10.00	5.88	
5,100.0	74.70	198.61	4,827.4	-414.1	-342.0	417.1	10.00	6.31	
5,200.0	81.30	190.92	4,848.2	-508.6	-366.9	511.8	10.00	6.59	
5,247.0	84.45	187.41	4,854.0	-554.6	-374.3	557.9	10.00	6.72	7" ICP
5,300.0	88.04	183.50	4,857.5	-607.3	-379.3	610.6	10.00	6.76	
5,340.7	90.80	180.51	4,857.9	-648.0	-380.7	651.3	10.00	6.78	LP @ 4857' TVD; 90.8°
5,400.0	90.80	180.51	4,857.1	-707.2	-381.2	710.6	0.00	0.00	
5,500.0	90.80	180.51	4,855.7	-807.2	-382.1	810.6	0.00	0.00	
5,600.0	90.80	180.51	4,854.3	-907.2	-383.0	910.6	0.00	0.00	
5,700.0	90.80	180.51	4,852.9	-1,007.2	-383.9	1,010.5	0.00	0.00	
5,800.0	90.80	180.51	4,851.5	-1,107.2	-384.8	1,110.5	0.00	0.00	
5,900.0	90.80	180.51	4,850.1	-1,207.1	-385.7	1,210.5	0.00	0.00	
6,000.0	90.80	180.51	4,848.7	-1,307.1	-386.6	1,310.5	0.00	0.00	
6,100.0	90.80	180.51	4,847.3	-1,407.1	-387.5	1,410.5	0.00	0.00	
6,200.0	90.80	180.51	4,845.9	-1,507.1	-388.3	1,510.5	0.00	0.00	
6,300.0	90.80	180.51	4,844.5	-1,607.1	-389.2	1,610.5	0.00	0.00	
6,400.0	90.80	180.51	4,843.1	-1,707.1	-390.1	1,710.5	0.00	0.00	
6,500.0	90.80	180.51	4,841.7	-1,807.1	-391.0	1,810.5	0.00	0.00	
6,600.0	90.80	180.51	4,840.3	-1,907.0	-391.9	1,910.5	0.00	0.00	
6,700.0	90.80	180.51	4,838.9	-2,007.0	-392.8	2,010.4	0.00	0.00	
6,800.0	90.80	180.51	4,837.5	-2,107.0	-393.7	2,110.4	0.00	0.00	
6,900.0	90.80	180.51	4,836.1	-2,207.0	-394.6	2,210.4	0.00	0.00	
7,000.0	90.80	180.51	4,834.7	-2,307.0	-395.4	2,310.4	0.00	0.00	
7,100.0	90.80	180.51	4,833.3	-2,407.0	-396.3	2,410.4	0.00	0.00	
7,200.0	90.80	180.51	4,831.9	-2,507.0	-397.2	2,510.4	0.00	0.00	
7,300.0	90.80	180.51	4,830.5	-2,606.9	-398.1	2,610.4	0.00	0.00	
7,400.0	90.80	180.51	4,829.1	-2,706.9	-399.0	2,710.4	0.00	0.00	
7,500.0	90.80	180.51	4,827.8	-2,806.9	-399.9	2,810.4	0.00	0.00	
7,600.0	90.80	180.51	4,826.4	-2,906.9	-400.8	2,910.4	0.00	0.00	
7,700.0	90.80	180.51	4,825.0	-3,006.9	-401.7	3,010.3	0.00	0.00	
7,800.0	90.80	180.51	4,823.6	-3,106.9	-402.5	3,110.3	0.00	0.00	
7,900.0	90.80	180.51	4,822.2	-3,206.9	-403.4	3,210.3	0.00	0.00	
8,000.0	90.80	180.51	4,820.8	-3,306.9	-404.3	3,310.3	0.00	0.00	
8,100.0	90.80	180.51	4,819.4	-3,406.8	-405.2	3,410.3	0.00	0.00	
8,200.0	90.80	180.51	4,818.0	-3,506.8	-406.1	3,510.3	0.00	0.00	
8,300.0	90.80	180.51	4,816.6	-3,606.8	-407.0	3,610.3	0.00	0.00	
8,400.0	90.80	180.51	4,815.2	-3,706.8	-407.9	3,710.3	0.00	0.00	
8,500.0	90.80	180.51	4,813.8	-3,806.8	-408.8	3,810.3	0.00	0.00	
8,600.0	90.80	180.51	4,812.4	-3,906.8	-409.6	3,910.3	0.00	0.00	
8,700.0	90.80	180.51	4,811.0	-4,006.8	-410.5	4,010.3	0.00	0.00	
8,800.0	90.80	180.51	4,809.6	-4,106.7	-411.4	4,110.2	0.00	0.00	
8,900.0	90.80	180.51	4,808.2	-4,206.7	-412.3	4,210.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Project:	San Juan County, NM	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site:	S35-T23N-R8W	**North Reference:**	True
Well:	Lybrook M35-2308 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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
9,000.0	90.80	180.51	4,806.8	-4,306.7	-413.2	4,310.2	0.00	0.00	
9,100.0	90.80	180.51	4,805.4	-4,406.7	-414.1	4,410.2	0.00	0.00	
9,200.0	90.80	180.51	4,804.0	-4,506.7	-415.0	4,510.2	0.00	0.00	
9,300.0	90.80	180.51	4,802.6	-4,606.7	-415.9	4,610.2	0.00	0.00	
9,400.0	90.80	180.51	4,801.2	-4,706.7	-416.7	4,710.2	0.00	0.00	
9,500.0	90.80	180.51	4,799.8	-4,806.6	-417.6	4,810.2	0.00	0.00	
9,600.0	90.80	180.51	4,798.4	-4,906.6	-418.5	4,910.2	0.00	0.00	
9,700.0	90.80	180.51	4,797.0	-5,006.6	-419.4	5,010.2	0.00	0.00	
9,800.0	90.80	180.51	4,795.6	-5,106.6	-420.3	5,110.1	0.00	0.00	
9,900.0	90.80	180.51	4,794.2	-5,206.6	-421.2	5,210.1	0.00	0.00	
10,000.0	90.80	180.51	4,792.8	-5,306.6	-422.1	5,310.1	0.00	0.00	
10,004.5	90.80	180.51	4,792.8	-5,311.0	-422.1	5,314.6	0.00	0.00	TD at 10004.5

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Lybrook M35-2308 01H - plan hits target center - Point	0.00	0.00	4,857.9	-648.0	-380.7	1,883,135.44	2,775,180.10	36.175240	-107.656860
Lybrook M35-2308 01H - plan hits target center - Point	0.00	0.00	4,792.8	-5,311.0	-422.1	1,878,472.28	2,775,147.25	36.162430	-107.657000

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.0	500.0	9 5/8"	0.000	0.000
5,247.0	4,854.0	7" ICP	0.000	0.000

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Project:	San Juan County, NM	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site:	S35-T23N-R8W	**North Reference:**	True
Well:	Lybrook M35-2308 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
600.0	600.0	Ojo Alamo		-0.80	180.51
791.0	791.0	Kirtland Shale		-0.80	180.51
1,131.0	1,131.0	Fruitland Coal		-0.80	180.51
1,271.0	1,271.0	Pictured Cliffs Ss.		-0.80	180.51
1,367.0	1,367.0	Lewis Shale		-0.80	180.51
2,009.0	2,009.0	Cliffhouse Ss.		-0.80	180.51
2,720.0	2,720.0	Menefee Fn.		-0.80	180.51
3,658.0	3,658.0	Point Lookout Ss.		-0.80	180.51
3,802.0	3,802.0	Mancos Shale		-0.80	180.51
4,310.4	4,310.0	Mancos Silt		-0.80	180.51
4,591.3	4,566.0	Gallup Fn.		-0.80	180.51

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
4,215.2	4,215.2	0.0	0.0	KOP @ 4215'
4,776.8	4,691.1	-170.0	-188.5	Start build/turn @ 4776' MD
5,340.7	4,857.9	-648.0	-380.7	LP @ 4857' TVD; 90.8°
10,004.5	4,792.8	-5,311.0	-422.1	TD at 10004.5

EnCana Oil & Gas (USA) Inc

San Juan County, NM
S35-T23N-R8W
Lybrook M35-2308 01H
Hz
Plan #1

Anticollision Report

03 February, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Project:	San Juan County, NM	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Reference Site:	S35-T23N-R8W	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Lybrook M35-2308 01H	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,200.4ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 2/3/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,004.4	Plan #1 (Hz)	Geolink MWD	Geolink MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S35-T23N-R8W						
Lybrook M35-2308 02H - Hz - Plan #1	3,800.0	3,800.0	43.6	30.4	3.302	CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Project:	San Juan County, NM	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Reference Site:	S35-T23N-R8W	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Lybrook M35-2308 01H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design S35-T23N-R8W - Lybrook M35-2308 02H - Hz - Plan #1 — Offset Site Error: 0.0 ft

Survey Program: 0-Geolink MWD — Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	48.11	29.1	32.5	43.6				
100.0	100.0	100.0	100.0	0.1	0.1	48.11	29.1	32.5	43.6	43.3	0.29	148.736	
200.0	200.0	200.0	200.0	0.3	0.3	48.11	29.1	32.5	43.6	43.0	0.64	67.901	
300.0	300.0	300.0	300.0	0.5	0.5	48.11	29.1	32.5	43.6	42.6	0.99	43.992	
400.0	400.0	400.0	400.0	0.7	0.7	48.11	29.1	32.5	43.6	42.3	1.34	32.536	
500.0	500.0	500.0	500.0	0.8	0.8	48.11	29.1	32.5	43.6	41.9	1.69	25.814	
600.0	600.0	600.0	600.0	1.0	1.0	48.11	29.1	32.5	43.6	41.6	2.04	21.394	
700.0	700.0	700.0	700.0	1.2	1.2	48.11	29.1	32.5	43.6	41.2	2.39	18.266	
800.0	800.0	800.0	800.0	1.4	1.4	48.11	29.1	32.5	43.6	40.9	2.74	15.936	
900.0	900.0	900.0	900.0	1.5	1.5	48.11	29.1	32.5	43.6	40.5	3.09	14.133	
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	48.11	29.1	32.5	43.6	40.2	3.43	12.697	
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	48.11	29.1	32.5	43.6	39.8	3.78	11.526	
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	48.11	29.1	32.5	43.6	39.5	4.13	10.552	
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	48.11	29.1	32.5	43.6	39.1	4.48	9.730	
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	48.11	29.1	32.5	43.6	38.8	4.83	9.027	
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	48.11	29.1	32.5	43.6	38.4	5.18	8.419	
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	48.11	29.1	32.5	43.6	38.1	5.53	7.888	
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	48.11	29.1	32.5	43.6	37.7	5.88	7.419	
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	48.11	29.1	32.5	43.6	37.4	6.23	7.003	
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	48.11	29.1	32.5	43.6	37.0	6.58	6.632	
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	48.11	29.1	32.5	43.6	36.7	6.93	6.297	
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	48.11	29.1	32.5	43.6	36.3	7.27	5.995	
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	48.11	29.1	32.5	43.6	36.0	7.62	5.721	
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	48.11	29.1	32.5	43.6	35.6	7.97	5.470	
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	48.11	29.1	32.5	43.6	35.3	8.32	5.241	
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	48.11	29.1	32.5	43.6	34.9	8.67	5.030	
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	48.11	29.1	32.5	43.6	34.6	9.02	4.835	
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	48.11	29.1	32.5	43.6	34.2	9.37	4.655	
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	48.11	29.1	32.5	43.6	33.9	9.72	4.488	
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	48.11	29.1	32.5	43.6	33.5	10.07	4.332	
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	48.11	29.1	32.5	43.6	33.2	10.42	4.187	
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	48.11	29.1	32.5	43.6	32.8	10.77	4.051	
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	48.11	29.1	32.5	43.6	32.5	11.11	3.924	
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	48.11	29.1	32.5	43.6	32.1	11.46	3.804	
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	48.11	29.1	32.5	43.6	31.8	11.81	3.692	
3,500.0	3,500.0	3,500.0	3,500.0	6.1	6.1	48.11	29.1	32.5	43.6	31.5	12.16	3.586	
3,600.0	3,600.0	3,600.0	3,600.0	6.3	6.3	48.11	29.1	32.5	43.6	31.1	12.51	3.486	
3,700.0	3,700.0	3,700.0	3,700.0	6.4	6.4	48.11	29.1	32.5	43.6	30.8	12.86	3.391	
3,800.0	3,800.0	3,800.0	3,800.0	6.6	6.6	48.11	29.1	32.5	43.6	30.4	13.21	3.302	CC, ES, SF
3,900.0	3,900.0	3,897.0	3,896.9	6.8	6.8	52.97	28.1	37.3	46.8	33.3	13.55	3.454	
4,000.0	4,000.0	3,992.1	3,990.8	7.0	7.0	63.81	25.2	51.3	57.9	44.0	13.91	4.166	
4,100.0	4,100.0	4,083.4	4,079.3	7.1	7.2	74.24	20.7	73.4	79.0	64.7	14.28	5.532	
4,200.0	4,200.0	4,169.8	4,160.6	7.3	7.4	81.69	14.9	101.7	110.1	95.4	14.68	7.500	
4,300.0	4,299.7	4,250.0	4,233.5	7.5	7.7	-140.14	8.1	134.4	154.5	139.7	14.81	10.433	
4,400.0	4,396.8	4,314.5	4,290.0	7.7	8.0	-135.63	1.8	165.0	216.4	201.5	14.88	14.537	
4,500.0	4,488.4	4,366.1	4,333.5	8.0	8.3	-130.00	-3.7	192.1	291.8	276.8	14.97	19.495	
4,600.0	4,571.7	4,400.0	4,361.3	8.4	8.5	-120.09	-7.7	211.1	377.0	361.5	15.44	24.416	
4,700.0	4,644.2	4,427.1	4,383.0	9.1	8.7	-103.81	-10.9	227.0	468.5	451.7	16.76	27.946	
4,800.0	4,703.8	4,439.2	4,392.5	10.1	8.8	-81.20	-12.4	234.3	563.1	544.9	18.14	31.046	
4,900.0	4,754.1	4,450.0	4,401.0	11.3	8.9	-71.36	-13.8	240.9	655.4	636.6	18.80	34.862	
5,000.0	4,795.7	4,450.0	4,401.0	12.5	8.9	-63.44	-13.8	240.9	743.2	724.1	19.15	38.809	
5,100.0	4,827.4	4,463.6	4,411.5	13.9	9.0	-59.85	-15.5	249.4	825.6	806.0	19.59	42.141	

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 M35-2308 01H
Project:	San Juan County, NM	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Reference Site:	S35-T23N-R8W	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Lybrook M35-2308 01H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design S35-T23N-R8W - Lybrook M35-2308 02H - Hz - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-Geolink MWD — **Offset Well Error:** 0.0 ft

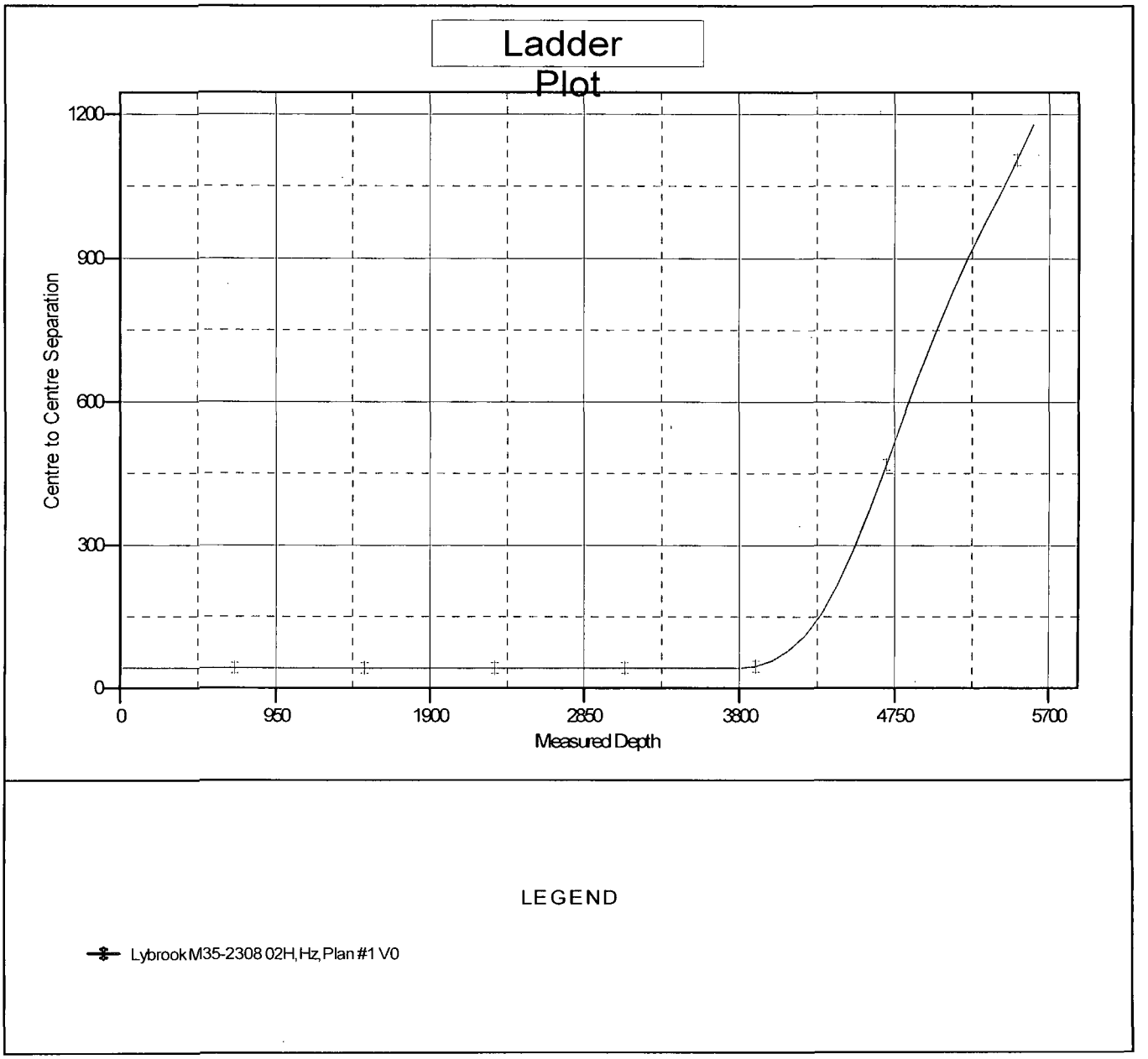
Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	4,848.2	4,471.0	4,417.2	15.2	9.1	-57.02	-16.5	254.1	901.9	882.1	19.85	45.445	
5,300.0	4,857.5	4,478.2	4,422.6	16.5	9.1	-55.48	-17.4	258.6	971.6	951.5	20.04	48.477	
5,400.0	4,857.1	4,485.0	4,427.8	17.8	9.2	-55.48	-18.3	263.0	1,036.3	1,015.4	20.89	49.611	
5,500.0	4,855.7	4,500.0	4,439.0	19.2	9.3	-56.57	-20.3	272.7	1,105.3	1,082.9	22.37	49.402	
5,600.0	4,854.3	4,500.0	4,439.0	20.6	9.3	-56.57	-20.3	272.7	1,178.5	1,154.9	23.66	49.805	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Lybrook M35-2308 01H
Project:	San Juan County, NM	**TVD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Reference Site:	S35-T23N-R8W	**MD Reference:**	WELL @ 6895.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Lybrook M35-2308 01H	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 6895.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -107.833333 °

Coordinates are relative to: Lybrook M35-2308 01H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.10°



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