

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 3-14-14

Well information:

Operator Encana, Well Name and Number GCW 027-2306 #2H

API# 30-043-21208, Section 27, Township 23 N/S, Range 16 E/W

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☐ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Charles Lee  
NMOCD Approved by Signature

5-27-2014  
Date

# RECEIVED

Form 3160-3  
(March 2012)

MAR 18 2014

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Farmington Field Office  
Bureau of Land Management  
Lease Serial No.  
~~NMNM 17009~~ NMNM 118128; ~~VO 9212~~

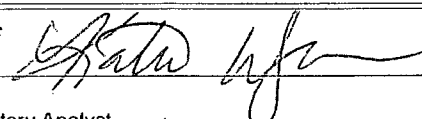
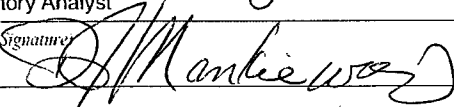
## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                                        |                                                                              |                                                                                                  |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                                           |                                                                              | 7. If Unit or CA Agreement, Name and No.<br>NMNM 131017X                                         |                |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone                            |                                                                              | 8. Lease Name and Well No.<br>Gallo Canyon Unit O27-2306 02H                                     |                |
| 2. Name of Operator Encana Oil & Gas (USA) Inc.                                                                                                                                                                                        |                                                                              | 9. API Well No.<br>30-043-21208                                                                  |                |
| 3a. Address 370 17th Street, Suite 1700<br>Denver, CO 80202                                                                                                                                                                            | 3b. Phone No. (include area code)<br>720-876-3533                            | 10. Field and Pool, or Exploratory<br>Counselors Gallup-Dakota                                   |                |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 30' FSL and 2014' FEL Section 27, T23N, R6W SWSE<br>At proposed prod. zone 330' FSL and 990' FWL Section 35, T23N, R6W SESE |                                                                              | 11. Sec., T, R, M. or Blk. and Survey or Area<br>Section 27, T23N, R6W NMPM<br>Sec 35, T23N, R6W |                |
| 14. Distance in miles and direction from nearest town or post office*<br>+/- 55.0 miles southeast of the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM                                                                      |                                                                              | 12. County or Parish<br>Sandoval                                                                 | 13. State<br>N |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drilg. unit line, if any)                                                                                                                 | 16. No. of acres in lease<br>NMNM 17009 - 2560 ac.<br>NMNM 118128 - 1920 ac. | 17. Spacing Unit dedicated to this well<br>5,120 acres - Sections 22-26, 34-36                   |                |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.                                                                                                                             | 19. Proposed Depth<br>5457'TVD, 12772'MD                                     | 20. BLM/BIA Bond No. on file<br>COB-000235                                                       |                |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>6,984' GL, 7,000' KB                                                                                                                                                            | 22. Approximate date work will start*<br>09/14/2014                          | 23. Estimated duration<br>20 Days                                                                |                |

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

|                                                                                                   |                                      |                 |
|---------------------------------------------------------------------------------------------------|--------------------------------------|-----------------|
| 25. Signature  | Name (Printed/Typed)<br>Katie Wegner | Date<br>3/14/14 |
| Title<br>Regulatory Analyst                                                                       |                                      |                 |
| Approved by    | Name (Printed/Typed)<br>Montie Way   | Date<br>5/9/14  |
| Title<br>AFM                                                                                      | Office<br>FFU                        |                 |

Application approval 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.

Conditions of approval, if any, are attached.

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

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 or for any person to obtain or attempt to obtain in any manner any money or property from any such department or agency.

(Continued on page 2)

DRILLING OPERATIONS  
AUTHORIZED ARE SUBJECT TO  
COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

This action is subject to (Continued on page 2)  
and procedural review pursuant  
43 CFR 3165.3 and appeal  
pursuant to 43 CFR 3165.4

NMOCDA

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to  
appropriate  
District Office

MAR 18 2014

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION

|                                     |  |                                                           |  |                                                |                             |
|-------------------------------------|--|-----------------------------------------------------------|--|------------------------------------------------|-----------------------------|
| 1 API Number<br><b>30-043-21208</b> |  | 2 Pool Code<br><b>13379</b>                               |  | 3 Pool Name<br><b>COUNSELORS GALLUP-DAKOTA</b> |                             |
| 4 Property Code<br><b>313260</b>    |  | 5 Property Name<br><b>GALLO CANYON UNIT 027-2306</b>      |  |                                                | 6 Well Number<br><b>02H</b> |
| 7 OGRID No.<br><b>282327</b>        |  | 8 Operator Name<br><b>ENCANA OIL &amp; GAS (USA) INC.</b> |  |                                                | 9 Elevation<br><b>6984</b>  |

10 Surface Location

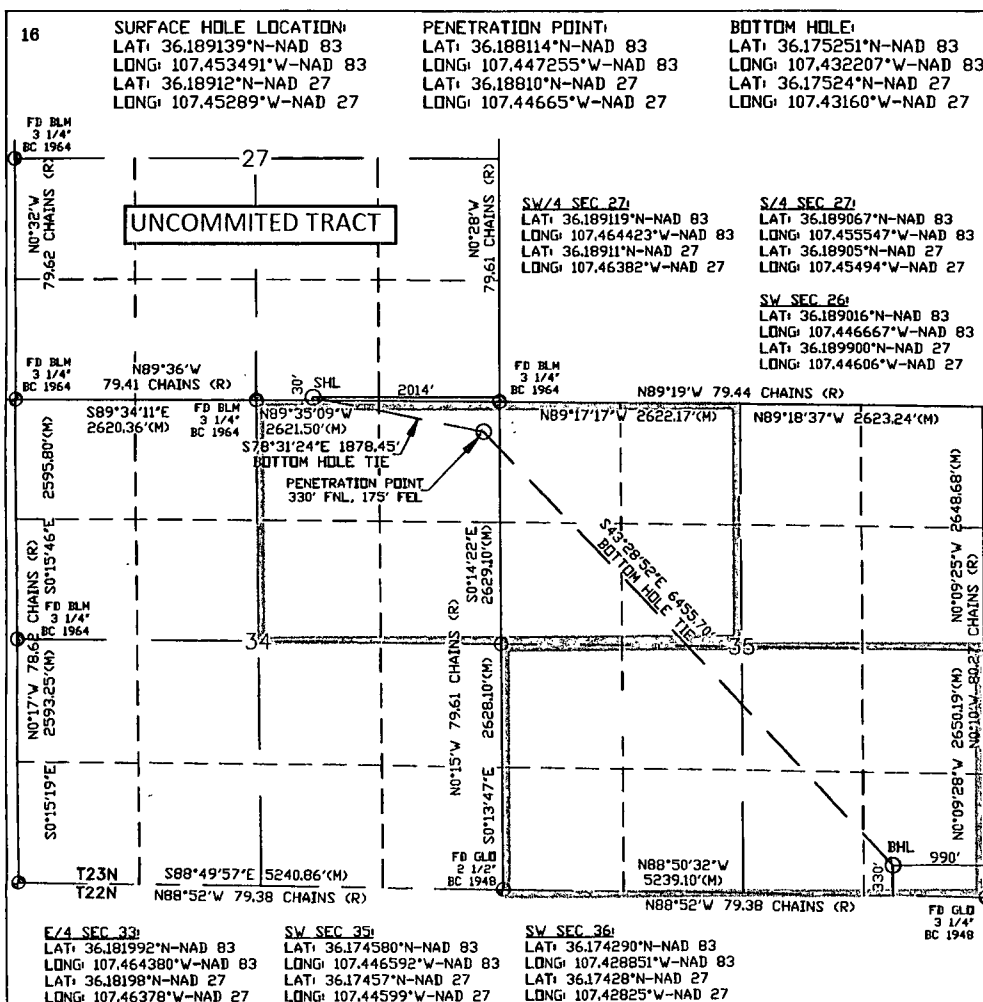
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| 0             | 27      | 23-N     | 6-W   |         | 30'           | SOUTH            | 2014'         | EAST           | SANDOVAL |

11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| P             | 35      | 23-N     | 6-W   |         | 330'          | SOUTH            | 990'          | EAST           | SANDOVAL |

|                                                                                                                                         |  |                    |                       |                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-----------------------|------------------------------------------------|
| 12 Dedicated Acres<br>5,120 Acres Sec. 22-26, 34-36 - Undivided Unit<br>Penetrated Spacing Units:<br>S2 and NW Sec 35: <b>640 acres</b> |  | 13 Joint or Infill | 14 Consolidation Code | 15 Order No.<br><b>R-13718-A (5,120 acres)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-----------------------|------------------------------------------------|

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



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.

*Katie Wegner* 3/14/14  
Signature Date  
Katie Wegner

Printed Name  
Katie.Wegner@encana.com  
E-mail Address

18 SURVEYOR CERTIFICATION

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

AUG 31, 2013  
Date of Survey  
Signature and Seal of Professional Surveyor:

**WILLIAM E. MAHNKE III**  
# 8466  
WILLIAM E. MAHNKE II  
Certificate Number 74530

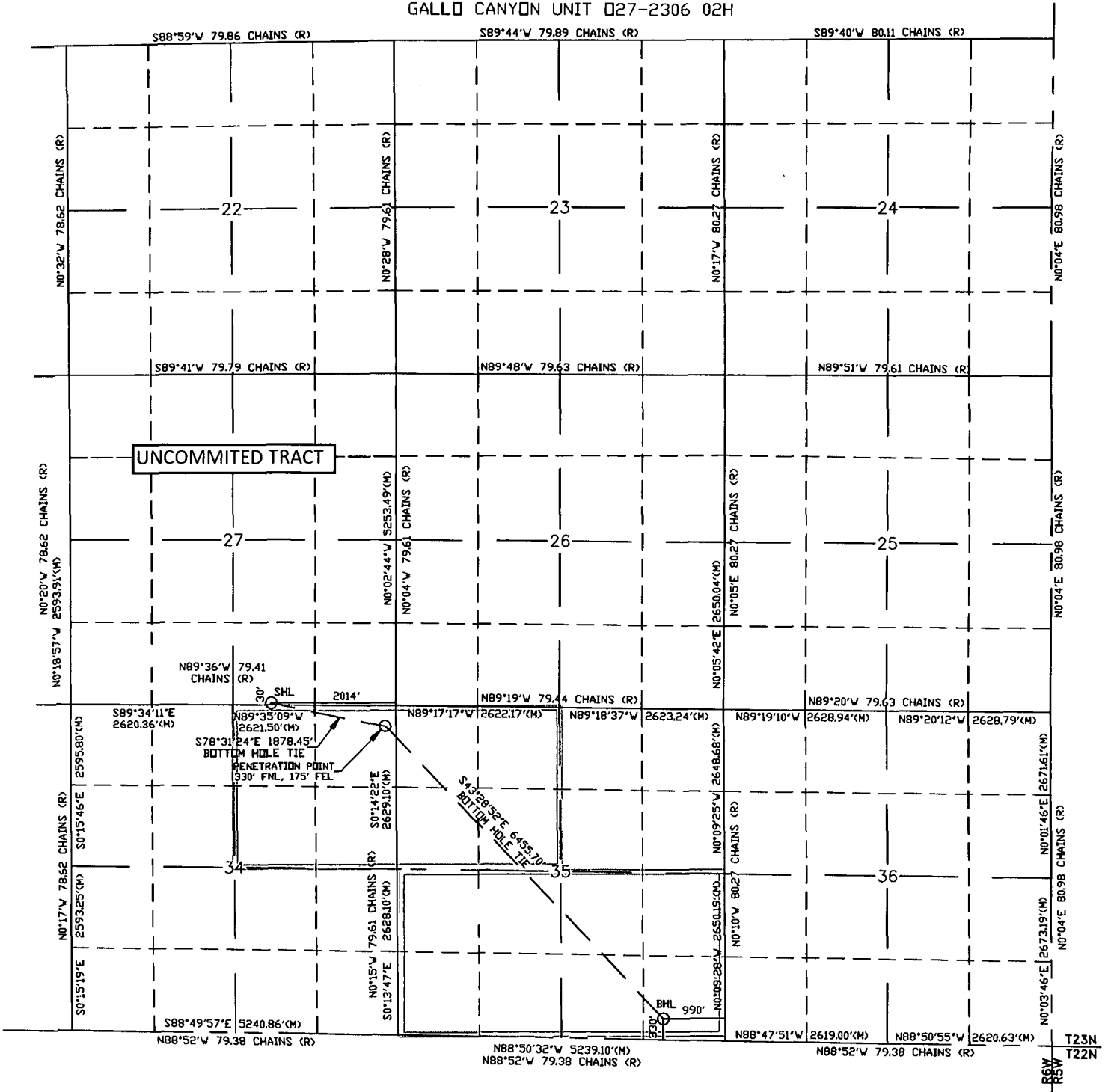
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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to  
appropriate  
District Office

☐ AMENDED REPORT

ENCANA OIL & GAS (USA) INC.  
GALLO CANYON UNIT 027-2306 02H



GCU O27-2306 02H  
 SHL: SWSE Sec 27 T23N R6W  
 30' FSL, 2014' FEL  
 BHL: SESE Sec 35 T23N R6W  
 330' FSL, 990' FEL  
 Sandoval, 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.       | 1,366                    |
| Kirtland Shale      | 1,515                    |
| Fruitland Coal      | 1,678                    |
| Pictured Cliffs Ss. | 1,920                    |
| Lewis Shale         | 2,048                    |
| Cliffhouse Ss.      | 2,739                    |
| Menefee Fn.         | 3,470                    |
| Point Lookout Ss.   | 4,184                    |
| Mancos Shale        | 4,352                    |
| Mancos Silt         | 4,961                    |
| Gallup Fn.          | 5,233                    |

The referenced surface elevation is 6984', KB 7000'

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

| Substance | Formation           | Depth (TVD) units = feet |
|-----------|---------------------|--------------------------|
| Water/Gas | Fruitland Coal      | 1,678                    |
| Oil/Gas   | Pictured Cliffs Ss. | 1,920                    |
| Oil/Gas   | Cliffhouse Ss.      | 2,739                    |
| Gas       | Menefee Fn.         | 3,470                    |
| Oil/Gas   | Point Lookout Ss.   | 4,184                    |
| Oil/Gas   | Mancos Shale        | 4,352                    |
| Oil/Gas   | Mancos Silt         | 4,961                    |
| Oil/Gas   | Gallup Fn.          | 5,233                    |

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

### 3. PRESSURE CONTROL

- a) Pressure control 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
- 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#    | H40, STC New  |
| Surface          | 0'-500'      | 12 1/4"   | 9 5/8"   | 36#    | J55, STC New  |
| Intermediate     | 0'-6318'     | 8 3/4"    | 7"       | 26#    | J55, LTC New  |
| Production Liner | 6118'-12772' | 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.

GCU O27-2306 02H  
 SHL: SWSE Sec 27 T23N R6W  
 30' FSL, 2014' FEL  
 BHL: SESE Sec 35 T23N R6W  
 330' FSL, 990' FEL  
 Sandoval, New Mexico

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'      | 201 sks                                                                                         | Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 16ppg, 1.38cuf/sk                                                                                                         | Surface      | 1 per joint on bottom 3 joints               |
| Intermediate     | 0'-6318'     | 30% open hole excess<br>Stage 1 Lead: 375 sks<br>Stage 1 Tail: 383 sks<br>Stage 2 Lead: 186 sks | Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuf/sk<br>Tail (Stage 1): Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuf/sk | Surface      | 1 every 3 joints through water bearing zones |
| Production Liner | 6118'-12772' | 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 4570'. Directional plans are attached.

| Description           | Proposed Depth (TVD/MD) | Formation |
|-----------------------|-------------------------|-----------|
| Horizontal Lateral TD | 5457'/12772'            | Gallup    |

## 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      | 8.4-8.6       | 60-70              | NC              |
| 8 3/4"         | 500'/500'-5480'/6318' | Fresh Water LSND | 9.5-8.8       | 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"         | 5480'/6318'-<br>5457'/12772' | Synthetic Oil<br>Based Mud | 8.6-9.0       | 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, including fresh water and oil-based operations. 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 +/- 2567 psi based on a 9.0 ppg at 5485' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

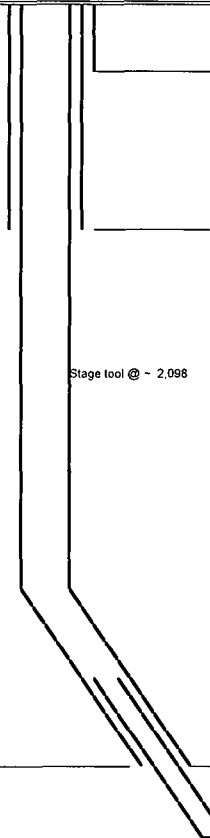
No hydrogen sulfide gas is anticipated, however, if H<sub>2</sub>S is encountered, the guidelines in Onshore Order No. 6 will be followed.

**9. ANTICIPATED START DATE AND DURATION OF OPERATIONS**

Drilling is estimated to commence on October 12, 2014. 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: NE/4 NE/4 Sec 34 T23N R6W, 330'                                                                                                                                                         |                      |                                                                                                                                                                               | Encana Natural Gas                                                                            |                                |                                                                                    |              | ENG: S Kuykendall<br>RIG: Aztec 950<br>GLE: 6984<br>RKBE: 7000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                        | 3/14/14                                                 |                                               |
| County: Sandoval                                                                                                                                                                             |                      |                                                                                                                                                                               | WELL SUMMARY                                                                                  |                                |                                                                                    |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                        |                                                         |                                               |
| WELL: GCU 027-2306 02H                                                                                                                                                                       |                      |                                                                                                                                                                               |                                                                                               |                                |                                                                                    |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                        |                                                         |                                               |
| MWD<br>LWD                                                                                                                                                                                   | OPEN HOLE<br>LOGGING | FORM                                                                                                                                                                          | DEPTH<br>TVDMD                                                                                |                                |                                                                                    | HOLE<br>SIZE | CASING<br>SPECS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MW<br>MUD TYPE                                         | DEVIATION<br>INFORMATION                                |                                               |
|                                                                                                                                                                                              |                      |                                                                                                                                                                               | 60                                                                                            | 60'                            |  | 30           | 20" 94#<br>100sx Type I Neat 16.0ppg cmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fresh wtr<br>8.3-9.2                                   |                                                         |                                               |
| Multi-Well pad<br>- take survey<br>every stand<br>and run anti-<br>collision<br>report prior to<br>spud                                                                                      | None                 | Nacimiento<br>9 5/8" Csg                                                                                                                                                      | 0<br>500                                                                                      | 500.00                         |                                                                                    | 12 1/4       | 9 5/8" 36ppf J55 STC<br><br>TOC Surface - 201 sks of Type III<br>Cement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Fresh wtr<br><br>8.4-8.6                               | Vertical<br><br><1°                                     |                                               |
| Survey Every<br>60'-120',<br>updating<br>anticollision<br>report after<br>surveys. Stop<br>operations and<br>contact<br>drilling<br>engineer if<br>separation<br>factor<br>approaches<br>1.5 | No OH logs           | Ojo Alamo Ss.<br>Kirtland Shale<br><br>Fruitland Coal<br><br>Pictured Cliffs Ss.<br>Lewis Shale<br><br>Cliffhouse Ss.<br>Menefee Fn.<br><br>Point Lookout Ss.<br>Mancos Shale | 1,366<br>1,515<br><br>1,678<br><br>1,920<br>2,048<br><br>2,739<br>3,470<br><br>4,184<br>4,352 |                                |                                                                                    | 8 3/4        | 7" 26ppf J55 LTC<br><br>TOC @ surface<br>30% OH excess: 759 sksTotal.<br><br>Stage 1 Lead: 375 sks Premium Lite FM<br>+ 3% CaCl2 + 0.25/sk Cello Flake +<br>5#/sk LCM-1 + 8% Bentonite + 0.4% FL-<br>52A + 0.4% Sodium Metasilicate. Mixed<br>at 12.1 ppg. Yield 2.13 cuft/sk.<br><br>Stage 1 Tail: 383 sks Type III Cement +<br>1% CaCl2 + 0.25#/sk Cello Flake +<br>0.2% FL-52A. Mixed at 14.6 ppg. Yield<br>1.38 cuft/sk.<br><br><b>186</b><br>Stage 2: 168 sks Premium Lite FM +<br>3% CaCl2 + 0.25/sk Cello Flake + 5#/sk<br>LCM-1 + 8% Bentonite + 0.4% FL-52A<br>+ 0.4% Sodium Metasilicate. Mixed at<br>12.1 ppg. Yield 2.13 cuft/sk. | Fresh Wtr<br><br>8.5-8.8                               | Vertical<br><br><1°                                     |                                               |
| Surveys every<br>30' through<br>the curve                                                                                                                                                    | Mud logger<br>onsite | KOP<br><br>Mancos Silt<br><br>Gallup Fn.<br><br>7" Csg                                                                                                                        | 4,570<br><br>4,961<br><br>5,233<br><br>5,480                                                  | 4,800.0<br><br><br><br>6,318.0 |                                                                                    |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                        |                                                         |                                               |
| Surveys every<br>stand to TD<br>unless<br>directed<br>otherwise by<br>Geologist                                                                                                              | No OH Logs           | Horizontal Target<br>TD<br><br>Base Gallup                                                                                                                                    | 5,485<br>5,457<br>5,531                                                                       | 12,772.1                       |                                                                                    |              | 6 1/8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 200' overlap at liner top<br><br>6454' Drilled Lateral | Horizontal Inclination<br>Horizontal TVD<br>8.6-9.0 OBM | Horz Inc/TVD<br>/90.2 deg<br>TD = 12,772.1 MD |
| MWD<br>Gamma<br>Directional                                                                                                                                                                  |                      |                                                                                                                                                                               |                                                                                               |                                |                                                                                    |              | 4 1/2" 11.6ppf SB80 LTC<br><br>Running external swellable csg packers for<br>isolation of prod string<br>Plan on setting top packer within 100' of<br>intermediate casing shoe                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Switch to OBM<br>8.6-9.0                               |                                                         |                                               |

#### 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 4800', 8 3/4 inch holesize
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to csg point of 6318' MD
- 7) R&C 7" csg, circ cmt to surface, switch to OBM
- 8) Land at 90 deg, drill lateral to 12772' run 4 1/2 inch liner with external swellable csg packers



## 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   |

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

**in Bloomfield, NM to Encana Oil & Gas (USA) Inc. Gallo Canyon Unit O27-2306 02H**

**26" FSL and 2044' FEL, Section 27, T23N, R6W, N.M.P.M., Sandoval County, NM**

**Latitude: 36.189128N Longitude: 107.453592 Datum NAD1983**

From the intersection of US Hwy 64 and US Hwy 550 in Bloomfield, NM travel south 53.6 miles on US Hwy 550.

Turn right at MP 197.7.

Travel South on BIA road 474 1.3 miles to staked access road on left.

Turn left and travel West to the new well pad.

encana

SANDOVAL COUNTY,  
NEW MEXICO

- ⊗ Abandoned
  - ⊗ Abandoned Gas
  - ⊗ Abandoned Oil
  - ⊗ Dry Hole
  - ⊗ GAS
  - ⊗ Injection
  - OIL
- Basin Mancos Gas Pool
- 1 inch = 2,333 feet

BUDDY 1  
GCU P15-2306 01H

GCU N14-2306 01H

GCU P14-2306 01H

GCU M13-2306 01H

GCU N13-2306 01H

ABSOLUT 1

CHADWELL 1

GULF FEDERAL 24-1

COUNSELORS  
GALLUP  
DAKOTA POOL

TEXAS NATIONAL 1

GULF FEDERAL-25 1

23N  
6W

GCU O27-2306 02H

GCU O27-2306 01H

GCU M26-2306 01H

GCU O26-2306 01H

GCU M25-2306 01H

WARNER  
GOVT 1

GULF STATE 36

GCU H33-2306 01H

DOM E T AL FED-33 1

MADDOX  
F-A 1

Lybrook  
A03-2206 01H

Lybrook  
H03-2206 01H

Lybrook  
P03-2206 01H

Lybrook  
P03-2206 02H

Lybrook N02-2206 02H  
Lybrook N02-2206 01H

Lybrook A01-2206 01H  
Lybrook A01-2206 02H  
Lybrook A01-2206 03H  
Lybrook A01-2206 04H

Lybrook H01-2206 01H  
Lybrook G01-2206 02H  
Lybrook G01-2206 01H

22N  
6W

0 0.125 0.25 0.5 Miles



# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well GCU O27-2306 02H                |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 7000.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 7000.0ft (Original Well Elev) |
| Site:     | S27-T23N-R6W                | North Reference:             | True                                 |
| Well:     | GCU O27-2306 02H            | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Hz                          |                              |                                      |
| Design:   | Plan #1                     |                              |                                      |

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

|                       |          |              |                 |                   |             |
|-----------------------|----------|--------------|-----------------|-------------------|-------------|
| Site                  |          | S27-T23N-R6W |                 |                   |             |
| Site Position:        |          | Northing:    | 1,890,314.91 ft | Latitude:         | 36.189128   |
| From:                 | Lat/Long | Easting:     | 1,285,261.84 ft | Longitude:        | -107.453592 |
| Position Uncertainty: | 0.0 ft   | Slot Radius: | 13.200 in       | Grid Convergence: | -0.71 °     |

|                      |                  |                     |           |                 |            |             |
|----------------------|------------------|---------------------|-----------|-----------------|------------|-------------|
| Well                 | GCU O27-2306 02H |                     |           |                 |            |             |
| Well Position        | +N/-S            | 0.0 ft              | Northing: | 1,890,318.54 ft | Latitude:  | 36.189139   |
|                      | +E/-W            | 0.0 ft              | Easting:  | 1,285,291.69 ft | Longitude: | -107.453491 |
| Position Uncertainty | 0.0 ft           | Wellhead Elevation: | ft        | Ground Level:   | 6,984.0 ft |             |

|           |            |             |                    |                  |                        |
|-----------|------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | Hz         |             |                    |                  |                        |
| Magnetics | Model Name | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | IGRF2010   | 2/27/2014   | 9.37               | 62.98            | 50,188                 |

|                   |                          |               |               |                  |
|-------------------|--------------------------|---------------|---------------|------------------|
| Design            | Plan #1                  |               |               |                  |
| Audit Notes:      |                          |               |               |                  |
| Version:          | Phase:                   | PLAN          | Tie On Depth: | 0.0              |
| Vertical Section: | Depth From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Direction<br>(°) |
|                   | 0.0                      | 0.0           | 0.0           | 136.51           |

| Plan Sections             |                    |                |                           |               |               |                             |                            |                           |            |                    |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|--------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target             |
| 0.0                       | 0.00               | 0.00           | 0.0                       | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 3,000.0                   | 0.00               | 0.00           | 3,000.0                   | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 4,441.5                   | 43.24              | 94.81          | 4,308.4                   | -43.5         | 516.8         | 3.00                        | 3.00                       | 0.00                      | 94.81      |                    |
| 5,723.9                   | 43.24              | 94.81          | 5,242.7                   | -117.2        | 1,392.3       | 0.00                        | 0.00                       | 0.00                      | 0.00       |                    |
| 6,318.0                   | 90.20              | 136.51         | 5,479.6                   | -373.1        | 1,840.4       | 10.00                       | 7.90                       | 7.02                      | 50.60      | GCU O27-2306 02H f |
| 12,772.1                  | 90.20              | 136.51         | 5,457.1                   | -5,055.4      | 6,282.4       | 0.00                        | 0.00                       | 0.00                      | 0.00       | GCU O27-2306 02H f |

# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well GCU O27-2306 02H                |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 7000.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 7000.0ft (Original Well Elev) |
| Site:     | S27-T23N-R6W                | North Reference:             | True                                 |
| Well:     | GCU O27-2306 02H            | 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                 |                       |
| 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                 |                       |
| 1,366.0             | 0.00            | 0.00        | 1,366.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Ojo Alamo             |
| 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                 |                       |
| 1,515.0             | 0.00            | 0.00        | 1,515.0             | 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                 |                       |
| 1,678.0             | 0.00            | 0.00        | 1,678.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Fruitland Coal        |
| 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                 |                       |
| 1,920.0             | 0.00            | 0.00        | 1,920.0             | 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                 |                       |
| 2,048.0             | 0.00            | 0.00        | 2,048.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Lewis Shale           |
| 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                 |                       |
| 2,739.0             | 0.00            | 0.00        | 2,739.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Cliffhouse Ss.        |
| 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                 | KOP @ 3000'           |
| 3,100.0             | 3.00            | 94.81       | 3,100.0             | -0.2       | 2.6        | 2.0                   | 3.00                  | 3.00                 |                       |
| 3,200.0             | 6.00            | 94.81       | 3,199.6             | -0.9       | 10.4       | 7.8                   | 3.00                  | 3.00                 |                       |
| 3,300.0             | 9.00            | 94.81       | 3,298.8             | -2.0       | 23.4       | 17.6                  | 3.00                  | 3.00                 |                       |
| 3,400.0             | 12.00           | 94.81       | 3,397.1             | -3.5       | 41.6       | 31.2                  | 3.00                  | 3.00                 |                       |
| 3,474.7             | 14.24           | 94.81       | 3,469.8             | -4.9       | 58.5       | 43.8                  | 3.00                  | 3.00                 | Menefee Fn.           |
| 3,500.0             | 15.00           | 94.81       | 3,494.3             | -5.5       | 64.8       | 48.6                  | 3.00                  | 3.00                 |                       |
| 3,600.0             | 18.00           | 94.81       | 3,590.2             | -7.8       | 93.1       | 69.8                  | 3.00                  | 3.00                 |                       |
| 3,700.0             | 21.00           | 94.81       | 3,684.4             | -10.6      | 126.4      | 94.7                  | 3.00                  | 3.00                 |                       |
| 3,800.0             | 24.00           | 94.81       | 3,776.8             | -13.9      | 164.5      | 123.3                 | 3.00                  | 3.00                 |                       |
| 3,900.0             | 27.00           | 94.81       | 3,867.1             | -17.5      | 207.4      | 155.4                 | 3.00                  | 3.00                 |                       |
| 4,000.0             | 30.00           | 94.81       | 3,954.9             | -21.5      | 255.0      | 191.1                 | 3.00                  | 3.00                 |                       |
| 4,100.0             | 33.00           | 94.81       | 4,040.2             | -25.8      | 307.0      | 230.1                 | 3.00                  | 3.00                 |                       |
| 4,200.0             | 36.00           | 94.81       | 4,122.6             | -30.6      | 363.5      | 272.3                 | 3.00                  | 3.00                 |                       |
| 4,275.7             | 38.27           | 94.81       | 4,182.9             | -34.4      | 409.0      | 306.5                 | 3.00                  | 3.00                 | Point Lookout Ss.     |
| 4,300.0             | 39.00           | 94.81       | 4,201.9             | -35.7      | 424.1      | 317.8                 | 3.00                  | 3.00                 |                       |

# Planning Report

|                  |                             |                                     |                                      |
|------------------|-----------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Project:</b>  | Sandoval County, NM         | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site:</b>     | S27-T23N-R6W                | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | GCU O27-2306 02H            | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Hz                          |                                     |                                      |
| <b>Design:</b>   | 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          |
| 4,400.0             | 42.00           | 94.81       | 4,277.9             | -41.2      | 488.8      | 366.3                 | 3.00                  | 3.00                 |                                |
| 4,441.5             | 43.24           | 94.81       | 4,308.4             | -43.5      | 516.8      | 387.2                 | 3.00                  | 3.00                 | EOB; Inc=43.24°                |
| 4,499.2             | 43.24           | 94.81       | 4,350.5             | -46.8      | 556.3      | 416.8                 | 0.00                  | 0.00                 | Mancos Shale                   |
| 4,500.0             | 43.24           | 94.81       | 4,351.1             | -46.9      | 556.8      | 417.2                 | 0.00                  | 0.00                 |                                |
| 4,600.0             | 43.24           | 94.81       | 4,423.9             | -52.6      | 625.0      | 468.3                 | 0.00                  | 0.00                 |                                |
| 4,700.0             | 43.24           | 94.81       | 4,496.8             | -58.4      | 693.3      | 519.5                 | 0.00                  | 0.00                 |                                |
| 4,800.0             | 43.24           | 94.81       | 4,569.6             | -64.1      | 761.6      | 570.7                 | 0.00                  | 0.00                 |                                |
| 4,900.0             | 43.24           | 94.81       | 4,642.5             | -69.9      | 829.8      | 621.8                 | 0.00                  | 0.00                 |                                |
| 5,000.0             | 43.24           | 94.81       | 4,715.3             | -75.6      | 898.1      | 673.0                 | 0.00                  | 0.00                 |                                |
| 5,100.0             | 43.24           | 94.81       | 4,788.2             | -81.4      | 966.4      | 724.1                 | 0.00                  | 0.00                 |                                |
| 5,200.0             | 43.24           | 94.81       | 4,861.0             | -87.1      | 1,034.6    | 775.3                 | 0.00                  | 0.00                 |                                |
| 5,300.0             | 43.24           | 94.81       | 4,933.9             | -92.9      | 1,102.9    | 826.4                 | 0.00                  | 0.00                 |                                |
| 5,333.2             | 43.24           | 94.81       | 4,958.1             | -94.8      | 1,125.6    | 843.4                 | 0.00                  | 0.00                 | Mancos Silt                    |
| 5,400.0             | 43.24           | 94.81       | 5,006.7             | -98.6      | 1,171.2    | 877.6                 | 0.00                  | 0.00                 |                                |
| 5,500.0             | 43.24           | 94.81       | 5,079.5             | -104.4     | 1,239.5    | 928.7                 | 0.00                  | 0.00                 |                                |
| 5,600.0             | 43.24           | 94.81       | 5,152.4             | -110.1     | 1,307.7    | 979.9                 | 0.00                  | 0.00                 |                                |
| 5,700.0             | 43.24           | 94.81       | 5,225.2             | -115.8     | 1,376.0    | 1,031.0               | 0.00                  | 0.00                 |                                |
| 5,705.7             | 43.24           | 94.81       | 5,229.4             | -116.2     | 1,379.9    | 1,034.0               | 0.00                  | 0.00                 | Gallup Fn.                     |
| 5,723.9             | 43.24           | 94.81       | 5,242.7             | -117.2     | 1,392.3    | 1,043.3               | 0.00                  | 0.00                 | Start build/turn @ 5723' MD    |
| 5,800.0             | 48.36           | 102.68      | 5,295.7             | -125.7     | 1,446.1    | 1,086.4               | 10.00                 | 6.72                 |                                |
| 5,900.0             | 55.75           | 111.24      | 5,357.2             | -148.9     | 1,521.3    | 1,155.0               | 10.00                 | 7.39                 |                                |
| 6,000.0             | 63.64           | 118.37      | 5,407.7             | -185.2     | 1,599.4    | 1,235.2               | 10.00                 | 7.89                 |                                |
| 6,100.0             | 71.84           | 124.57      | 5,445.6             | -233.6     | 1,678.2    | 1,324.4               | 10.00                 | 8.20                 |                                |
| 6,200.0             | 80.21           | 130.20      | 5,469.7             | -292.5     | 1,755.1    | 1,420.1               | 10.00                 | 8.38                 |                                |
| 6,300.0             | 88.68           | 135.56      | 5,479.4             | -360.2     | 1,827.9    | 1,519.3               | 10.00                 | 8.46                 |                                |
| 6,318.0             | 90.20           | 136.51      | 5,479.6             | -373.1     | 1,840.4    | 1,537.3               | 9.97                  | 8.46                 | LP @ 5479' TVD; 90.2° - 7" ICP |
| 6,400.0             | 90.20           | 136.51      | 5,479.3             | -432.6     | 1,896.8    | 1,619.3               | 0.00                  | 0.00                 |                                |
| 6,500.0             | 90.20           | 136.51      | 5,479.0             | -505.2     | 1,965.7    | 1,719.3               | 0.00                  | 0.00                 |                                |
| 6,600.0             | 90.20           | 136.51      | 5,478.6             | -577.7     | 2,034.5    | 1,819.3               | 0.00                  | 0.00                 |                                |
| 6,700.0             | 90.20           | 136.51      | 5,478.3             | -650.3     | 2,103.3    | 1,919.3               | 0.00                  | 0.00                 |                                |
| 6,800.0             | 90.20           | 136.51      | 5,477.9             | -722.8     | 2,172.1    | 2,019.3               | 0.00                  | 0.00                 |                                |
| 6,900.0             | 90.20           | 136.51      | 5,477.6             | -795.4     | 2,241.0    | 2,119.3               | 0.00                  | 0.00                 |                                |
| 7,000.0             | 90.20           | 136.51      | 5,477.2             | -867.9     | 2,309.8    | 2,219.3               | 0.00                  | 0.00                 |                                |
| 7,100.0             | 90.20           | 136.51      | 5,476.9             | -940.5     | 2,378.6    | 2,319.3               | 0.00                  | 0.00                 |                                |
| 7,200.0             | 90.20           | 136.51      | 5,476.5             | -1,013.0   | 2,447.4    | 2,419.3               | 0.00                  | 0.00                 |                                |
| 7,300.0             | 90.20           | 136.51      | 5,476.2             | -1,085.6   | 2,516.3    | 2,519.3               | 0.00                  | 0.00                 |                                |
| 7,400.0             | 90.20           | 136.51      | 5,475.8             | -1,158.1   | 2,585.1    | 2,619.3               | 0.00                  | 0.00                 |                                |
| 7,500.0             | 90.20           | 136.51      | 5,475.5             | -1,230.7   | 2,653.9    | 2,719.3               | 0.00                  | 0.00                 |                                |
| 7,600.0             | 90.20           | 136.51      | 5,475.1             | -1,303.2   | 2,722.7    | 2,819.3               | 0.00                  | 0.00                 |                                |
| 7,700.0             | 90.20           | 136.51      | 5,474.8             | -1,375.7   | 2,791.6    | 2,919.3               | 0.00                  | 0.00                 |                                |
| 7,800.0             | 90.20           | 136.51      | 5,474.4             | -1,448.3   | 2,860.4    | 3,019.3               | 0.00                  | 0.00                 |                                |
| 7,900.0             | 90.20           | 136.51      | 5,474.1             | -1,520.8   | 2,929.2    | 3,119.3               | 0.00                  | 0.00                 |                                |
| 8,000.0             | 90.20           | 136.51      | 5,473.7             | -1,593.4   | 2,998.0    | 3,219.3               | 0.00                  | 0.00                 |                                |
| 8,100.0             | 90.20           | 136.51      | 5,473.4             | -1,665.9   | 3,066.9    | 3,319.3               | 0.00                  | 0.00                 |                                |
| 8,200.0             | 90.20           | 136.51      | 5,473.0             | -1,738.5   | 3,135.7    | 3,419.3               | 0.00                  | 0.00                 |                                |
| 8,300.0             | 90.20           | 136.51      | 5,472.7             | -1,811.0   | 3,204.5    | 3,519.3               | 0.00                  | 0.00                 |                                |
| 8,400.0             | 90.20           | 136.51      | 5,472.3             | -1,883.6   | 3,273.3    | 3,619.3               | 0.00                  | 0.00                 |                                |
| 8,500.0             | 90.20           | 136.51      | 5,472.0             | -1,956.1   | 3,342.2    | 3,719.3               | 0.00                  | 0.00                 |                                |
| 8,600.0             | 90.20           | 136.51      | 5,471.6             | -2,028.7   | 3,411.0    | 3,819.3               | 0.00                  | 0.00                 |                                |
| 8,700.0             | 90.20           | 136.51      | 5,471.3             | -2,101.2   | 3,479.8    | 3,919.3               | 0.00                  | 0.00                 |                                |
| 8,800.0             | 90.20           | 136.51      | 5,470.9             | -2,173.8   | 3,548.6    | 4,019.3               | 0.00                  | 0.00                 |                                |
| 8,900.0             | 90.20           | 136.51      | 5,470.6             | -2,246.3   | 3,617.4    | 4,119.3               | 0.00                  | 0.00                 |                                |



# Planning Report

|                  |                             |                                     |                                      |
|------------------|-----------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Project:</b>  | Sandoval County, NM         | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site:</b>     | S27-T23N-R6W                | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | GCU O27-2306 02H            | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | H2                          |                                     |                                      |
| <b>Design:</b>   | 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             | 90.20           | 136.51      | 5,470.3             | -2,318.9   | 3,686.3    | 4,219.3               | 0.00                  | 0.00                 |                       |
| 9,100.0             | 90.20           | 136.51      | 5,469.9             | -2,391.4   | 3,755.1    | 4,319.3               | 0.00                  | 0.00                 |                       |
| 9,200.0             | 90.20           | 136.51      | 5,469.6             | -2,464.0   | 3,823.9    | 4,419.3               | 0.00                  | 0.00                 |                       |
| 9,300.0             | 90.20           | 136.51      | 5,469.2             | -2,536.5   | 3,892.7    | 4,519.3               | 0.00                  | 0.00                 |                       |
| 9,400.0             | 90.20           | 136.51      | 5,468.9             | -2,609.1   | 3,961.6    | 4,619.3               | 0.00                  | 0.00                 |                       |
| 9,500.0             | 90.20           | 136.51      | 5,468.5             | -2,681.6   | 4,030.4    | 4,719.3               | 0.00                  | 0.00                 |                       |
| 9,600.0             | 90.20           | 136.51      | 5,468.2             | -2,754.1   | 4,099.2    | 4,819.3               | 0.00                  | 0.00                 |                       |
| 9,700.0             | 90.20           | 136.51      | 5,467.8             | -2,826.7   | 4,168.0    | 4,919.3               | 0.00                  | 0.00                 |                       |
| 9,800.0             | 90.20           | 136.51      | 5,467.5             | -2,899.2   | 4,236.9    | 5,019.3               | 0.00                  | 0.00                 |                       |
| 9,900.0             | 90.20           | 136.51      | 5,467.1             | -2,971.8   | 4,305.7    | 5,119.3               | 0.00                  | 0.00                 |                       |
| 10,000.0            | 90.20           | 136.51      | 5,466.8             | -3,044.3   | 4,374.5    | 5,219.3               | 0.00                  | 0.00                 |                       |
| 10,100.0            | 90.20           | 136.51      | 5,466.4             | -3,116.9   | 4,443.3    | 5,319.3               | 0.00                  | 0.00                 |                       |
| 10,200.0            | 90.20           | 136.51      | 5,466.1             | -3,189.4   | 4,512.2    | 5,419.3               | 0.00                  | 0.00                 |                       |
| 10,300.0            | 90.20           | 136.51      | 5,465.7             | -3,262.0   | 4,581.0    | 5,519.3               | 0.00                  | 0.00                 |                       |
| 10,400.0            | 90.20           | 136.51      | 5,465.4             | -3,334.5   | 4,649.8    | 5,619.3               | 0.00                  | 0.00                 |                       |
| 10,500.0            | 90.20           | 136.51      | 5,465.0             | -3,407.1   | 4,718.6    | 5,719.3               | 0.00                  | 0.00                 |                       |
| 10,600.0            | 90.20           | 136.51      | 5,464.7             | -3,479.6   | 4,787.5    | 5,819.3               | 0.00                  | 0.00                 |                       |
| 10,700.0            | 90.20           | 136.51      | 5,464.3             | -3,552.2   | 4,856.3    | 5,919.3               | 0.00                  | 0.00                 |                       |
| 10,800.0            | 90.20           | 136.51      | 5,464.0             | -3,624.7   | 4,925.1    | 6,019.3               | 0.00                  | 0.00                 |                       |
| 10,900.0            | 90.20           | 136.51      | 5,463.6             | -3,697.3   | 4,993.9    | 6,119.3               | 0.00                  | 0.00                 |                       |
| 11,000.0            | 90.20           | 136.51      | 5,463.3             | -3,769.8   | 5,062.8    | 6,219.3               | 0.00                  | 0.00                 |                       |
| 11,100.0            | 90.20           | 136.51      | 5,462.9             | -3,842.4   | 5,131.6    | 6,319.3               | 0.00                  | 0.00                 |                       |
| 11,200.0            | 90.20           | 136.51      | 5,462.6             | -3,914.9   | 5,200.4    | 6,419.3               | 0.00                  | 0.00                 |                       |
| 11,300.0            | 90.20           | 136.51      | 5,462.2             | -3,987.5   | 5,269.2    | 6,519.3               | 0.00                  | 0.00                 |                       |
| 11,400.0            | 90.20           | 136.51      | 5,461.9             | -4,060.0   | 5,338.1    | 6,619.3               | 0.00                  | 0.00                 |                       |
| 11,500.0            | 90.20           | 136.51      | 5,461.5             | -4,132.5   | 5,406.9    | 6,719.3               | 0.00                  | 0.00                 |                       |
| 11,600.0            | 90.20           | 136.51      | 5,461.2             | -4,205.1   | 5,475.7    | 6,819.3               | 0.00                  | 0.00                 |                       |
| 11,700.0            | 90.20           | 136.51      | 5,460.8             | -4,277.6   | 5,544.5    | 6,919.3               | 0.00                  | 0.00                 |                       |
| 11,800.0            | 90.20           | 136.51      | 5,460.5             | -4,350.2   | 5,613.3    | 7,019.3               | 0.00                  | 0.00                 |                       |
| 11,900.0            | 90.20           | 136.51      | 5,460.1             | -4,422.7   | 5,682.2    | 7,119.3               | 0.00                  | 0.00                 |                       |
| 12,000.0            | 90.20           | 136.51      | 5,459.8             | -4,495.3   | 5,751.0    | 7,219.3               | 0.00                  | 0.00                 |                       |
| 12,100.0            | 90.20           | 136.51      | 5,459.4             | -4,567.8   | 5,819.8    | 7,319.3               | 0.00                  | 0.00                 |                       |
| 12,200.0            | 90.20           | 136.51      | 5,459.1             | -4,640.4   | 5,888.6    | 7,419.3               | 0.00                  | 0.00                 |                       |
| 12,300.0            | 90.20           | 136.51      | 5,458.7             | -4,712.9   | 5,957.5    | 7,519.3               | 0.00                  | 0.00                 |                       |
| 12,400.0            | 90.20           | 136.51      | 5,458.4             | -4,785.5   | 6,026.3    | 7,619.3               | 0.00                  | 0.00                 |                       |
| 12,500.0            | 90.20           | 136.51      | 5,458.0             | -4,858.0   | 6,095.1    | 7,719.3               | 0.00                  | 0.00                 |                       |
| 12,600.0            | 90.20           | 136.51      | 5,457.7             | -4,930.6   | 6,163.9    | 7,819.3               | 0.00                  | 0.00                 |                       |
| 12,700.0            | 90.20           | 136.51      | 5,457.4             | -5,003.1   | 6,232.8    | 7,919.3               | 0.00                  | 0.00                 |                       |
| 12,772.1            | 90.20           | 136.51      | 5,457.1             | -5,055.4   | 6,282.4    | 7,991.4               | 0.00                  | 0.00                 | TD at 12772.1         |

# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well GCU O27-2306 02H                |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 7000.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 7000.0ft (Original Well Elev) |
| Site:     | S27-T23N-R6W                | North Reference:             | True                                 |
| Well:     | GCU O27-2306 02H            | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Hz                          |                              |                                      |
| Design:   | Plan #1                     |                              |                                      |

| Targets              |                           |           |          |         |          |         |              |              |                       |
|----------------------|---------------------------|-----------|----------|---------|----------|---------|--------------|--------------|-----------------------|
| Target Name          | - hit/miss target         | Dip Angle | Dip Dir. | TVD     | +N/-S    | +E/-W   | Northing     | Easting      |                       |
| - Shape              |                           | (°)       | (°)      | (ft)    | (ft)     | (ft)    | (ft)         | (ft)         |                       |
|                      |                           |           |          |         |          |         |              |              | Latitude Longitude    |
| GCU O27-2306 02H PBI | - plan hits target center | 0.00      | 0.00     | 5,457.1 | -5,055.4 | 6,282.4 | 1,885,185.57 | 1,291,510.89 | 36.175251 -107.432207 |
|                      | - Point                   |           |          |         |          |         |              |              |                       |
| GCU O27-2306 02H PO  | - plan hits target center | 0.00      | 0.00     | 5,479.6 | -373.1   | 1,840.4 | 1,889,922.63 | 1,287,127.30 | 36.188114 -107.447255 |
|                      | - Point                   |           |          |         |          |         |              |              |                       |

| Casing Points  |                |        |  |                 |               |
|----------------|----------------|--------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | Name   |  | Casing Diameter | Hole Diameter |
| (ft)           | (ft)           |        |  | (in)            | (in)          |
| 500.0          | 500.0          | 9 5/8" |  | 0.000           | 0.000         |
| 6,318.0        | 5,479.6        | 7" ICP |  | 0.000           | 0.000         |

| Formations     |                |                     |           |       |               |
|----------------|----------------|---------------------|-----------|-------|---------------|
| Measured Depth | Vertical Depth | Name                | Lithology | Dip   | Dip Direction |
| (ft)           | (ft)           |                     |           | (°)   | (°)           |
| 1,366.0        | 1,366.0        | Ojo Alamo           |           | -0.20 | 136.51        |
| 1,515.0        | 1,515.0        | Kirtland Shale      |           | -0.20 | 136.51        |
| 1,678.0        | 1,678.0        | Fruitland Coal      |           | -0.20 | 136.51        |
| 1,920.0        | 1,920.0        | Pictured Cliffs Ss. |           | -0.20 | 136.51        |
| 2,048.0        | 2,048.0        | Lewis Shale         |           | -0.20 | 136.51        |
| 2,739.0        | 2,739.0        | Cliffhouse Ss.      |           | -0.20 | 136.51        |
| 3,474.7        | 3,470.0        | Menefee Fn.         |           | -0.20 | 136.51        |
| 4,275.7        | 4,184.0        | Point Lookout Ss.   |           | -0.20 | 136.51        |
| 4,499.2        | 4,352.0        | Mancos Shale        |           | -0.20 | 136.51        |
| 5,333.2        | 4,961.0        | Mancos Silt         |           | -0.20 | 136.51        |
| 5,705.7        | 5,233.0        | Gallup Fn.          |           | -0.20 | 136.51        |
| 997.0          | 5,485.0        | Horizontal Target   |           | -0.20 | 136.51        |
| 997.0          | 5,531.0        | Base Gallup         |           | -0.20 | 136.51        |

| Plan Annotations |                |                   |         |                             |  |
|------------------|----------------|-------------------|---------|-----------------------------|--|
| Measured Depth   | Vertical Depth | Local Coordinates |         |                             |  |
| (ft)             | (ft)           | +N/-S             | +E/-W   | Comment                     |  |
| (ft)             | (ft)           | (ft)              | (ft)    |                             |  |
| 3,000.0          | 3,000.0        | 0.0               | 0.0     | KOP @ 3000'                 |  |
| 4,441.5          | 4,308.4        | -43.5             | 516.8   | EOB; Inc=43.24°             |  |
| 5,723.9          | 5,242.7        | -117.2            | 1,392.3 | Start build/turn @ 5723' MD |  |
| 6,318.0          | 5,479.6        | -373.1            | 1,840.4 | LP @ 5479' TVD; 90.2°       |  |
| 12,772.1         | 5,457.1        | -5,055.4          | 6,282.4 | TD at 12772.1               |  |

# **EnCana Oil & Gas (USA) Inc**

**Sandoval County, NM**

**S27-T23N-R6W**

**GCU O27-2306 02H**

**Hz**

**Plan #1**

## **Anticollision Report**

**27 February, 2014**

# Anticollision Report

|                    |                            |                              |                                      |
|--------------------|----------------------------|------------------------------|--------------------------------------|
| Company:           | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well GCU O27-2306 02H                |
| Project:           | Sandoval County, NM        | TVD Reference:               | WELL @ 7000.0ft (Original Well Elev) |
| Reference Site:    | S27-T23N-R6W               | MD Reference:                | WELL @ 7000.0ft (Original Well Elev) |
| Site Error:        | 0.0ft                      | North Reference:             | True                                 |
| Reference Well:    | GCU O27-2306 02H           | 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 1,477.2ft                             | Error Surface: | Elliptical Conic    |
| Warning Levels Evaluated at: | 2.00 Sigma                                                              |                |                     |

|                     |            |                   |             |             |  |
|---------------------|------------|-------------------|-------------|-------------|--|
| Survey Tool Program |            | Date              | 2/27/2014   |             |  |
| From<br>(ft)        | To<br>(ft) | Survey (Wellbore) | Tool Name   | Description |  |
| 0.0                 | 12,772.1   | Plan #1 (Hz)      | Geolink MWD | Geolink MWD |  |

| 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 |                               |                            |                               |                                |                   |            |
| GCU                             |                               |                            |                               |                                |                   |            |
| GCU M26-2306 01H - Hz - Plan #2 | 6,703.6                       | 5,106.4                    | 1,060.1                       | 1,011.0                        | 21.586            | CC         |
| GCU M26-2306 01H - Hz - Plan #2 | 12,772.1                      | 11,469.5                   | 1,222.8                       | 912.7                          | 3.943             | ES, SF     |
| GCU O27-2306 01H - Hz - Plan #2 | 3,000.0                       | 3,000.0                    | 30.1                          | 19.7                           | 2.887             | CC, ES, SF |
| S27-T23N-R6W                    |                               |                            |                               |                                |                   |            |
| GCU O27-2306 01H - Hz - Plan #2 | 3,000.0                       | 3,000.0                    | 30.1                          | 19.7                           | 2.887             | CC, ES, SF |

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design GCU - GCU M26-2306 01H - Hz - Plan #2 |                           |                           |                           |                   |                |                             |                                         |               |                              |                      |         |                            | Offset Site Error:          | 0.0 ft |
|-----------------------------------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|-----------------------------------------|---------------|------------------------------|----------------------|---------|----------------------------|-----------------------------|--------|
| Survey Program: O-Geolink MWD                       |                           |                           |                           |                   |                |                             |                                         |               |                              |                      |         |                            | Offset Well Error:          | 0.0 ft |
| Reference                                           |                           | Offset                    |                           | Semi Major Axis   |                | Highside<br>Toolface<br>(°) | Distance                                |               | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning |                            |                             |        |
| Measured<br>Depth<br>(ft)                           | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) |                             | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) |                              |                      |         | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |        |
| 4,900.0                                             | 4,642.5                   | 4,200.0                   | 4,196.7                   | 19.3              | 7.3            | -9.39                       | 25.9                                    | 2,245.1       | 1,473.7                      | 1,459.4              | 14.34   | 102.762                    |                             |        |
| 5,000.0                                             | 4,715.3                   | 4,200.0                   | 4,196.7                   | 20.7              | 7.3            | -9.39                       | 25.9                                    | 2,245.1       | 1,431.0                      | 1,416.4              | 14.61   | 97.961                     |                             |        |
| 5,100.0                                             | 4,788.2                   | 4,250.0                   | 4,243.6                   | 22.0              | 7.5            | -9.54                       | 24.7                                    | 2,262.3       | 1,392.6                      | 1,377.6              | 14.99   | 92.922                     |                             |        |
| 5,200.0                                             | 4,861.0                   | 4,270.0                   | 4,262.0                   | 23.4              | 7.5            | -9.60                       | 24.1                                    | 2,270.2       | 1,358.3                      | 1,343.0              | 15.30   | 88.748                     |                             |        |
| 5,300.0                                             | 4,933.9                   | 4,300.0                   | 4,289.0                   | 24.8              | 7.6            | -9.67                       | 23.2                                    | 2,283.2       | 1,328.6                      | 1,312.9              | 15.65   | 84.898                     |                             |        |
| 5,400.0                                             | 5,006.7                   | 4,332.7                   | 4,317.7                   | 26.3              | 7.8            | -9.74                       | 22.1                                    | 2,298.7       | 1,303.6                      | 1,287.6              | 16.00   | 81.451                     |                             |        |
| 5,500.0                                             | 5,079.5                   | 4,350.0                   | 4,332.6                   | 27.7              | 7.8            | -9.78                       | 21.5                                    | 2,307.5       | 1,283.7                      | 1,267.4              | 16.33   | 78.626                     |                             |        |
| 5,600.0                                             | 5,152.4                   | 4,400.0                   | 4,374.2                   | 29.1              | 8.1            | -9.86                       | 19.6                                    | 2,335.3       | 1,268.4                      | 1,251.6              | 16.73   | 75.814                     |                             |        |
| 5,700.0                                             | 5,225.2                   | 4,434.6                   | 4,401.6                   | 30.5              | 8.3            | -9.90                       | 18.1                                    | 2,356.3       | 1,258.4                      | 1,241.3              | 17.10   | 73.594                     |                             |        |
| 5,800.0                                             | 5,295.7                   | 4,526.2                   | 4,472.7                   | 32.0              | 8.9            | -16.36                      | 14.0                                    | 2,413.9       | 1,249.0                      | 1,231.4              | 17.63   | 70.848                     |                             |        |
| 5,900.0                                             | 5,357.2                   | 4,622.3                   | 4,547.2                   | 33.7              | 9.7            | -24.16                      | 9.7                                     | 2,474.4       | 1,231.8                      | 1,212.6              | 19.16   | 64.291                     |                             |        |
| 6,000.0                                             | 5,407.7                   | 4,712.2                   | 4,617.0                   | 35.5              | 10.5           | -31.65                      | 5.7                                     | 2,531.0       | 1,207.8                      | 1,185.7              | 22.19   | 54.435                     |                             |        |
| 6,100.0                                             | 5,445.6                   | 4,793.3                   | 4,680.0                   | 37.3              | 11.3           | -38.97                      | 2.1                                     | 2,582.0       | 1,179.2                      | 1,152.5              | 26.66   | 44.224                     |                             |        |
| 6,200.0                                             | 5,469.7                   | 4,863.1                   | 4,734.1                   | 39.2              | 12.1           | -45.89                      | -1.0                                    | 2,626.0       | 1,148.5                      | 1,116.6              | 31.90   | 36.002                     |                             |        |
| 6,300.0                                             | 5,479.4                   | 4,919.4                   | 4,777.8                   | 40.9              | 12.7           | -51.88                      | -3.5                                    | 2,661.4       | 1,118.8                      | 1,081.9              | 36.90   | 30.325                     |                             |        |
| 6,400.0                                             | 5,479.3                   | 4,966.0                   | 4,813.9                   | 42.7              | 13.2           | -54.58                      | -5.5                                    | 2,690.7       | 1,093.7                      | 1,053.7              | 40.04   | 27.315                     |                             |        |
| 6,500.0                                             | 5,479.0                   | 5,012.2                   | 4,849.8                   | 44.4              | 13.7           | -56.78                      | -7.6                                    | 2,719.8       | 1,075.4                      | 1,032.4              | 42.97   | 25.027                     |                             |        |
| 6,600.0                                             | 5,478.6                   | 5,058.5                   | 4,885.7                   | 46.3              | 14.2           | -58.99                      | -9.6                                    | 2,748.9       | 1,064.1                      | 1,018.1              | 45.96   | 23.153                     |                             |        |
| 6,700.0                                             | 5,478.3                   | 5,104.8                   | 4,921.6                   | 48.1              | 14.7           | -61.20                      | -11.7                                   | 2,778.0       | 1,060.1                      | 1,011.1              | 49.00   | 21.636                     |                             |        |
| 6,703.6                                             | 5,478.3                   | 5,106.4                   | 4,922.9                   | 48.1              | 14.7           | -61.28                      | -11.8                                   | 2,779.1       | 1,060.1                      | 1,011.0              | 49.11   | 21.586 CC                  |                             |        |
| 6,800.0                                             | 5,477.9                   | 5,151.0                   | 4,957.5                   | 49.9              | 15.2           | -63.42                      | -13.7                                   | 2,807.1       | 1,063.5                      | 1,011.5              | 52.08   | 20.423                     |                             |        |
| 6,900.0                                             | 5,477.6                   | 5,197.3                   | 4,993.4                   | 51.8              | 15.8           | -65.63                      | -15.8                                   | 2,836.3       | 1,074.3                      | 1,019.1              | 55.17   | 19.472                     |                             |        |
| 7,000.0                                             | 5,477.2                   | 5,243.5                   | 5,029.3                   | 53.7              | 16.3           | -67.82                      | -17.9                                   | 2,865.4       | 1,092.2                      | 1,033.9              | 58.28   | 18.741                     |                             |        |
| 7,100.0                                             | 5,476.9                   | 5,289.8                   | 5,065.2                   | 55.6              | 16.9           | -70.00                      | -19.9                                   | 2,894.5       | 1,116.8                      | 1,055.4              | 61.37   | 18.197                     |                             |        |
| 7,200.0                                             | 5,476.5                   | 5,336.1                   | 5,101.1                   | 57.5              | 17.4           | -72.15                      | -22.0                                   | 2,923.6       | 1,147.8                      | 1,083.3              | 64.45   | 17.809                     |                             |        |
| 7,300.0                                             | 5,476.2                   | 5,382.3                   | 5,137.0                   | 59.5              | 18.0           | -74.27                      | -24.0                                   | 2,952.7       | 1,184.6                      | 1,117.1              | 67.50   | 17.551                     |                             |        |
| 7,400.0                                             | 5,475.8                   | 6,097.4                   | 5,449.1                   | 61.4              | 29.5           | -90.91                      | -318.3                                  | 3,469.4       | 1,219.7                      | 1,136.4              | 83.26   | 14.649                     |                             |        |
| 7,500.0                                             | 5,475.5                   | 6,197.4                   | 5,448.8                   | 63.4              | 31.3           | -90.91                      | -390.8                                  | 3,538.3       | 1,219.8                      | 1,132.4              | 87.38   | 13.959                     |                             |        |
| 7,600.0                                             | 5,475.1                   | 6,297.4                   | 5,448.4                   | 65.4              | 33.2           | -90.91                      | -463.3                                  | 3,607.1       | 1,219.8                      | 1,128.3              | 91.52   | 13.328                     |                             |        |
| 7,700.0                                             | 5,474.8                   | 6,397.4                   | 5,448.1                   | 67.4              | 35.0           | -90.91                      | -535.8                                  | 3,676.0       | 1,219.9                      | 1,124.2              | 95.67   | 12.751                     |                             |        |
| 7,800.0                                             | 5,474.4                   | 6,497.4                   | 5,447.7                   | 69.4              | 36.9           | -90.91                      | -608.3                                  | 3,744.9       | 1,219.9                      | 1,120.1              | 99.83   | 12.220                     |                             |        |
| 7,900.0                                             | 5,474.1                   | 6,597.4                   | 5,447.4                   | 71.4              | 38.9           | -90.91                      | -680.8                                  | 3,813.7       | 1,220.0                      | 1,116.0              | 104.01  | 11.730                     |                             |        |
| 8,000.0                                             | 5,473.7                   | 6,697.4                   | 5,447.0                   | 73.4              | 40.8           | -90.91                      | -753.3                                  | 3,882.6       | 1,220.1                      | 1,111.9              | 108.19  | 11.277                     |                             |        |
| 8,100.0                                             | 5,473.4                   | 6,797.4                   | 5,446.7                   | 75.4              | 42.8           | -90.90                      | -825.8                                  | 3,951.5       | 1,220.1                      | 1,107.7              | 112.37  | 10.858                     |                             |        |
| 8,200.0                                             | 5,473.0                   | 6,897.4                   | 5,446.3                   | 77.4              | 44.7           | -90.90                      | -898.3                                  | 4,020.3       | 1,220.2                      | 1,103.6              | 116.57  | 10.468                     |                             |        |
| 8,300.0                                             | 5,472.7                   | 6,997.4                   | 5,446.0                   | 79.4              | 46.7           | -90.90                      | -970.9                                  | 4,089.2       | 1,220.2                      | 1,099.5              | 120.76  | 10.104                     |                             |        |
| 8,400.0                                             | 5,472.3                   | 7,097.4                   | 5,445.6                   | 81.4              | 48.7           | -90.90                      | -1,043.4                                | 4,158.1       | 1,220.3                      | 1,095.3              | 124.96  | 9.765                      |                             |        |
| 8,500.0                                             | 5,472.0                   | 7,197.4                   | 5,445.3                   | 83.5              | 50.7           | -90.90                      | -1,115.9                                | 4,226.9       | 1,220.3                      | 1,091.2              | 129.17  | 9.448                      |                             |        |
| 8,600.0                                             | 5,471.6                   | 7,297.4                   | 5,444.9                   | 85.5              | 52.7           | -90.90                      | -1,188.4                                | 4,295.8       | 1,220.4                      | 1,087.0              | 133.38  | 9.150                      |                             |        |
| 8,700.0                                             | 5,471.3                   | 7,397.4                   | 5,444.6                   | 87.6              | 54.8           | -90.90                      | -1,260.9                                | 4,364.7       | 1,220.5                      | 1,082.9              | 137.59  | 8.870                      |                             |        |
| 8,800.0                                             | 5,470.9                   | 7,497.4                   | 5,444.2                   | 89.6              | 56.8           | -90.90                      | -1,333.4                                | 4,433.5       | 1,220.5                      | 1,078.7              | 141.81  | 8.607                      |                             |        |
| 8,900.0                                             | 5,470.6                   | 7,597.4                   | 5,443.9                   | 91.7              | 58.8           | -90.90                      | -1,405.9                                | 4,502.4       | 1,220.6                      | 1,074.6              | 146.02  | 8.359                      |                             |        |
| 9,000.0                                             | 5,470.3                   | 7,697.4                   | 5,443.5                   | 93.7              | 60.9           | -90.90                      | -1,478.4                                | 4,571.3       | 1,220.6                      | 1,070.4              | 150.24  | 8.124                      |                             |        |
| 9,100.0                                             | 5,469.9                   | 7,797.4                   | 5,443.2                   | 95.8              | 62.9           | -90.90                      | -1,550.9                                | 4,640.1       | 1,220.7                      | 1,066.2              | 154.47  | 7.903                      |                             |        |
| 9,200.0                                             | 5,469.6                   | 7,897.4                   | 5,442.8                   | 97.8              | 65.0           | -90.90                      | -1,623.4                                | 4,709.0       | 1,220.8                      | 1,062.1              | 158.69  | 7.693                      |                             |        |
| 9,300.0                                             | 5,469.2                   | 7,997.4                   | 5,442.5                   | 99.9              | 67.1           | -90.90                      | -1,695.9                                | 4,777.9       | 1,220.8                      | 1,057.9              | 162.91  | 7.494                      |                             |        |
| 9,400.0                                             | 5,468.9                   | 8,097.4                   | 5,442.1                   | 102.0             | 69.1           | -90.90                      | -1,768.4                                | 4,846.7       | 1,220.9                      | 1,053.7              | 167.14  | 7.304                      |                             |        |
| 9,500.0                                             | 5,468.5                   | 8,197.4                   | 5,441.8                   | 104.0             | 71.2           | -90.90                      | -1,840.9                                | 4,915.6       | 1,220.9                      | 1,049.6              | 171.37  | 7.125                      |                             |        |
| 9,600.0                                             | 5,468.2                   | 8,297.4                   | 5,441.4                   | 106.1             | 73.3           | -90.90                      | -1,913.5                                | 4,984.5       | 1,221.0                      | 1,045.4              | 175.60  | 6.953                      |                             |        |
| 9,700.0                                             | 5,467.8                   | 8,397.4                   | 5,441.1                   | 108.2             | 75.3           | -90.90                      | -1,986.0                                | 5,053.3       | 1,221.0                      | 1,041.2              | 179.83  | 6.790                      |                             |        |
| 9,800.0                                             | 5,467.5                   | 8,497.4                   | 5,440.7                   | 110.2             | 77.4           | -90.90                      | -2,058.5                                | 5,122.2       | 1,221.1                      | 1,037.0              | 184.06  | 6.634                      |                             |        |
| 9,900.0                                             | 5,467.1                   | 8,597.4                   | 5,440.4                   | 112.3             | 79.5           | -90.90                      | -2,131.0                                | 5,191.1       | 1,221.2                      | 1,032.9              | 188.29  | 6.485                      |                             |        |

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  
 Project: Sandoval County, NM  
 Reference Site: S27-T23N-R6W  
 Site Error: 0.0ft  
 Reference Well: GCU O27-2306 02H  
 Well Error: 0.0ft  
 Reference Wellbore: Hz  
 Reference Design: Plan #1

Local Co-ordinate Reference: Well GCU O27-2306 02H  
 TVD Reference: WELL @ 7000.0ft (Original Well Elev)  
 MD Reference: WELL @ 7000.0ft (Original Well Elev)  
 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                 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |         | GCU - GCU M26-2306 01H - Hz - Plan #2 |  | Offset Site Error: 0.0 ft |  |
|-------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------|---------------------------------------|--|---------------------------|--|
| Survey Program: D-Geolink 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 |                                       |  |                           |  |
| 10,000.0                      | 5,466.8             | 8,697.4             | 5,440.0             | 114.4           | 81.6        | -90.90                | -2,203.5                          | 5,259.9    | 1,221.2              | 1,028.7               | 192.53                 | 6.343             |         |                                       |  |                           |  |
| 10,100.0                      | 5,466.4             | 8,797.4             | 5,439.7             | 116.5           | 83.7        | -90.90                | -2,276.0                          | 5,328.8    | 1,221.3              | 1,024.5               | 196.76                 | 6.207             |         |                                       |  |                           |  |
| 10,200.0                      | 5,466.1             | 8,897.4             | 5,439.3             | 118.6           | 85.7        | -90.90                | -2,348.5                          | 5,397.7    | 1,221.3              | 1,020.3               | 201.00                 | 6.076             |         |                                       |  |                           |  |
| 10,300.0                      | 5,465.7             | 8,997.4             | 5,439.0             | 120.6           | 87.8        | -90.90                | -2,421.0                          | 5,466.5    | 1,221.4              | 1,016.2               | 205.23                 | 5.951             |         |                                       |  |                           |  |
| 10,400.0                      | 5,465.4             | 9,097.4             | 5,438.6             | 122.7           | 89.9        | -90.90                | -2,493.5                          | 5,535.4    | 1,221.4              | 1,012.0               | 209.47                 | 5.831             |         |                                       |  |                           |  |
| 10,500.0                      | 5,465.0             | 9,197.4             | 5,438.3             | 124.8           | 92.0        | -90.90                | -2,566.0                          | 5,604.3    | 1,221.5              | 1,007.8               | 213.70                 | 5.716             |         |                                       |  |                           |  |
| 10,600.0                      | 5,464.7             | 9,297.4             | 5,437.9             | 126.9           | 94.1        | -90.90                | -2,638.5                          | 5,673.1    | 1,221.6              | 1,003.6               | 217.94                 | 5.605             |         |                                       |  |                           |  |
| 10,700.0                      | 5,464.3             | 9,397.4             | 5,437.6             | 129.0           | 96.2        | -90.90                | -2,711.0                          | 5,742.0    | 1,221.6              | 999.4                 | 222.18                 | 5.498             |         |                                       |  |                           |  |
| 10,800.0                      | 5,464.0             | 9,497.4             | 5,437.2             | 131.1           | 98.3        | -90.90                | -2,783.5                          | 5,810.9    | 1,221.7              | 995.3                 | 226.42                 | 5.396             |         |                                       |  |                           |  |
| 10,900.0                      | 5,463.6             | 9,597.4             | 5,436.9             | 133.2           | 100.4       | -90.90                | -2,856.1                          | 5,879.7    | 1,221.7              | 991.1                 | 230.66                 | 5.297             |         |                                       |  |                           |  |
| 11,000.0                      | 5,463.3             | 9,697.4             | 5,436.5             | 135.3           | 102.5       | -90.90                | -2,928.6                          | 5,948.6    | 1,221.8              | 986.9                 | 234.90                 | 5.201             |         |                                       |  |                           |  |
| 11,100.0                      | 5,462.9             | 9,797.4             | 5,436.2             | 137.4           | 104.6       | -90.90                | -3,001.1                          | 6,017.5    | 1,221.8              | 982.7                 | 239.14                 | 5.109             |         |                                       |  |                           |  |
| 11,200.0                      | 5,462.6             | 9,897.4             | 5,435.8             | 139.4           | 106.7       | -90.90                | -3,073.6                          | 6,086.3    | 1,221.9              | 978.5                 | 243.38                 | 5.021             |         |                                       |  |                           |  |
| 11,300.0                      | 5,462.2             | 9,997.4             | 5,435.5             | 141.5           | 108.8       | -90.90                | -3,146.1                          | 6,155.2    | 1,222.0              | 974.3                 | 247.62                 | 4.935             |         |                                       |  |                           |  |
| 11,400.0                      | 5,461.9             | 10,097.4            | 5,435.1             | 143.6           | 110.9       | -90.90                | -3,218.6                          | 6,224.1    | 1,222.0              | 970.2                 | 251.86                 | 4.852             |         |                                       |  |                           |  |
| 11,500.0                      | 5,461.5             | 10,197.4            | 5,434.8             | 145.7           | 113.0       | -90.90                | -3,291.1                          | 6,292.9    | 1,222.1              | 966.0                 | 256.10                 | 4.772             |         |                                       |  |                           |  |
| 11,600.0                      | 5,461.2             | 10,297.4            | 5,434.4             | 147.8           | 115.1       | -90.90                | -3,363.6                          | 6,361.8    | 1,222.1              | 961.8                 | 260.35                 | 4.694             |         |                                       |  |                           |  |
| 11,700.0                      | 5,460.8             | 10,397.4            | 5,434.1             | 149.9           | 117.2       | -90.90                | -3,436.1                          | 6,430.6    | 1,222.2              | 957.6                 | 264.59                 | 4.619             |         |                                       |  |                           |  |
| 11,800.0                      | 5,460.5             | 10,497.4            | 5,433.7             | 152.0           | 119.3       | -90.90                | -3,508.6                          | 6,499.5    | 1,222.3              | 953.4                 | 268.83                 | 4.547             |         |                                       |  |                           |  |
| 11,900.0                      | 5,460.1             | 10,597.4            | 5,433.4             | 154.1           | 121.4       | -90.90                | -3,581.1                          | 6,568.4    | 1,222.3              | 949.2                 | 273.07                 | 4.476             |         |                                       |  |                           |  |
| 12,000.0                      | 5,459.8             | 10,697.4            | 5,433.0             | 156.2           | 123.5       | -90.90                | -3,653.6                          | 6,637.2    | 1,222.4              | 945.0                 | 277.32                 | 4.408             |         |                                       |  |                           |  |
| 12,100.0                      | 5,459.4             | 10,797.4            | 5,432.7             | 158.3           | 125.6       | -90.90                | -3,726.1                          | 6,706.1    | 1,222.4              | 940.9                 | 281.56                 | 4.342             |         |                                       |  |                           |  |
| 12,200.0                      | 5,459.1             | 10,897.4            | 5,432.3             | 160.4           | 127.8       | -90.90                | -3,798.7                          | 6,775.0    | 1,222.5              | 936.7                 | 285.81                 | 4.277             |         |                                       |  |                           |  |
| 12,300.0                      | 5,458.7             | 10,997.4            | 5,432.0             | 162.5           | 129.9       | -90.90                | -3,871.2                          | 6,843.8    | 1,222.5              | 932.5                 | 290.05                 | 4.215             |         |                                       |  |                           |  |
| 12,400.0                      | 5,458.4             | 11,097.4            | 5,431.7             | 164.6           | 132.0       | -90.90                | -3,943.7                          | 6,912.7    | 1,222.6              | 928.3                 | 294.29                 | 4.154             |         |                                       |  |                           |  |
| 12,500.0                      | 5,458.0             | 11,197.4            | 5,431.3             | 166.7           | 134.1       | -90.90                | -4,016.2                          | 6,981.6    | 1,222.7              | 924.1                 | 298.54                 | 4.095             |         |                                       |  |                           |  |
| 12,600.0                      | 5,457.7             | 11,297.4            | 5,431.0             | 168.8           | 136.2       | -90.90                | -4,088.7                          | 7,050.4    | 1,222.7              | 919.9                 | 302.78                 | 4.038             |         |                                       |  |                           |  |
| 12,700.0                      | 5,457.4             | 11,397.4            | 5,430.6             | 170.9           | 138.3       | -90.90                | -4,161.2                          | 7,119.3    | 1,222.8              | 915.7                 | 307.03                 | 3.983             |         |                                       |  |                           |  |
| 12,772.1                      | 5,457.1             | 11,469.5            | 5,430.4             | 172.5           | 139.8       | -90.90                | -4,213.5                          | 7,169.0    | 1,222.8              | 912.7                 | 310.09                 | 3.943 ES, SF      |         |                                       |  |                           |  |

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design GCU - GCU O27-2306 01H - Hz - Plan #2 |                           |                           |                           |                   |                |                             |                                         |               |                            |                             |                              |                      | Offset Site Error: 0.0 ft |  |
|-----------------------------------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|-----------------------------------------|---------------|----------------------------|-----------------------------|------------------------------|----------------------|---------------------------|--|
| Survey Program: 0-Geolink MWD                       |                           |                           |                           |                   |                |                             |                                         |               |                            |                             |                              |                      | Offset Well Error: 0.0 ft |  |
| Reference                                           |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning                   |  |
| Measured<br>Depth<br>(ft)                           | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                           |  |
| 0.0                                                 | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | -97.65                      | -4.0                                    | -29.8         | 30.1                       |                             |                              |                      |                           |  |
| 100.0                                               | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 29.8                        | 0.29                         | 102.569              |                           |  |
| 200.0                                               | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 29.4                        | 0.64                         | 46.825               |                           |  |
| 300.0                                               | 300.0                     | 300.0                     | 300.0                     | 0.5               | 0.5            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 29.1                        | 0.99                         | 30.337               |                           |  |
| 400.0                                               | 400.0                     | 400.0                     | 400.0                     | 0.7               | 0.7            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 28.7                        | 1.34                         | 22.437               |                           |  |
| 500.0                                               | 500.0                     | 500.0                     | 500.0                     | 0.8               | 0.8            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 28.4                        | 1.69                         | 17.801               |                           |  |
| 600.0                                               | 600.0                     | 600.0                     | 600.0                     | 1.0               | 1.0            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 28.0                        | 2.04                         | 14.753               |                           |  |
| 700.0                                               | 700.0                     | 700.0                     | 700.0                     | 1.2               | 1.2            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 27.7                        | 2.39                         | 12.596               |                           |  |
| 800.0                                               | 800.0                     | 800.0                     | 800.0                     | 1.4               | 1.4            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 27.3                        | 2.74                         | 10.990               |                           |  |
| 900.0                                               | 900.0                     | 900.0                     | 900.0                     | 1.5               | 1.5            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 27.0                        | 3.09                         | 9.746                |                           |  |
| 1,000.0                                             | 1,000.0                   | 1,000.0                   | 1,000.0                   | 1.7               | 1.7            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 26.6                        | 3.43                         | 8.756                |                           |  |
| 1,100.0                                             | 1,100.0                   | 1,100.0                   | 1,100.0                   | 1.9               | 1.9            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 26.3                        | 3.78                         | 7.948                |                           |  |
| 1,200.0                                             | 1,200.0                   | 1,200.0                   | 1,200.0                   | 2.1               | 2.1            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 25.9                        | 4.13                         | 7.277                |                           |  |
| 1,300.0                                             | 1,300.0                   | 1,300.0                   | 1,300.0                   | 2.2               | 2.2            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 25.6                        | 4.48                         | 6.710                |                           |  |
| 1,400.0                                             | 1,400.0                   | 1,400.0                   | 1,400.0                   | 2.4               | 2.4            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 25.2                        | 4.83                         | 6.225                |                           |  |
| 1,500.0                                             | 1,500.0                   | 1,500.0                   | 1,500.0                   | 2.6               | 2.6            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 24.9                        | 5.18                         | 5.806                |                           |  |
| 1,600.0                                             | 1,600.0                   | 1,600.0                   | 1,600.0                   | 2.8               | 2.8            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 24.5                        | 5.53                         | 5.439                |                           |  |
| 1,700.0                                             | 1,700.0                   | 1,700.0                   | 1,700.0                   | 2.9               | 2.9            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 24.2                        | 5.88                         | 5.116                |                           |  |
| 1,800.0                                             | 1,800.0                   | 1,800.0                   | 1,800.0                   | 3.1               | 3.1            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 23.8                        | 6.23                         | 4.829                |                           |  |
| 1,900.0                                             | 1,900.0                   | 1,900.0                   | 1,900.0                   | 3.3               | 3.3            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 23.5                        | 6.58                         | 4.573                |                           |  |
| 2,000.0                                             | 2,000.0                   | 2,000.0                   | 2,000.0                   | 3.5               | 3.5            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 23.1                        | 6.93                         | 4.343                |                           |  |
| 2,100.0                                             | 2,100.0                   | 2,100.0                   | 2,100.0                   | 3.6               | 3.6            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 22.8                        | 7.27                         | 4.134                |                           |  |
| 2,200.0                                             | 2,200.0                   | 2,200.0                   | 2,200.0                   | 3.8               | 3.8            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 22.5                        | 7.62                         | 3.945                |                           |  |
| 2,300.0                                             | 2,300.0                   | 2,300.0                   | 2,300.0                   | 4.0               | 4.0            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 22.1                        | 7.97                         | 3.772                |                           |  |
| 2,400.0                                             | 2,400.0                   | 2,400.0                   | 2,400.0                   | 4.2               | 4.2            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 21.8                        | 8.32                         | 3.614                |                           |  |
| 2,500.0                                             | 2,500.0                   | 2,500.0                   | 2,500.0                   | 4.3               | 4.3            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 21.4                        | 8.67                         | 3.469                |                           |  |
| 2,600.0                                             | 2,600.0                   | 2,600.0                   | 2,600.0                   | 4.5               | 4.5            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 21.1                        | 9.02                         | 3.334                |                           |  |
| 2,700.0                                             | 2,700.0                   | 2,700.0                   | 2,700.0                   | 4.7               | 4.7            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 20.7                        | 9.37                         | 3.210                |                           |  |
| 2,800.0                                             | 2,800.0                   | 2,800.0                   | 2,800.0                   | 4.9               | 4.9            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 20.4                        | 9.72                         | 3.095                |                           |  |
| 2,900.0                                             | 2,900.0                   | 2,900.0                   | 2,900.0                   | 5.0               | 5.0            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 20.0                        | 10.07                        | 2.987                |                           |  |
| 3,000.0                                             | 3,000.0                   | 3,000.0                   | 3,000.0                   | 5.2               | 5.2            | -97.65                      | -4.0                                    | -29.8         | 30.1                       | 19.7                        | 10.42                        | 2.887 CC, ES, SF     |                           |  |
| 3,100.0                                             | 3,100.0                   | 3,100.0                   | 3,100.0                   | 5.4               | 5.4            | 168.51                      | -4.0                                    | -29.8         | 32.6                       | 21.9                        | 10.76                        | 3.034                |                           |  |
| 3,200.0                                             | 3,199.6                   | 3,199.6                   | 3,199.6                   | 5.6               | 5.6            | 170.69                      | -4.0                                    | -29.8         | 40.4                       | 29.3                        | 11.07                        | 3.644                |                           |  |
| 3,300.0                                             | 3,298.8                   | 3,298.8                   | 3,298.8                   | 5.8               | 5.7            | 172.92                      | -4.0                                    | -29.8         | 53.3                       | 41.9                        | 11.37                        | 4.685                |                           |  |
| 3,400.0                                             | 3,397.1                   | 3,397.1                   | 3,397.1                   | 6.0               | 5.9            | 174.67                      | -4.0                                    | -29.8         | 71.4                       | 59.8                        | 11.65                        | 6.131                |                           |  |
| 3,500.0                                             | 3,494.3                   | 3,494.3                   | 3,494.3                   | 6.2               | 6.1            | 175.93                      | -4.0                                    | -29.8         | 94.7                       | 82.8                        | 11.89                        | 7.958                |                           |  |
| 3,600.0                                             | 3,590.2                   | 3,590.2                   | 3,590.2                   | 6.6               | 6.2            | 176.82                      | -4.0                                    | -29.8         | 123.0                      | 110.9                       | 12.12                        | 10.150               |                           |  |
| 3,700.0                                             | 3,684.4                   | 3,684.4                   | 3,684.4                   | 6.9               | 6.4            | 177.45                      | -4.0                                    | -29.8         | 156.4                      | 144.0                       | 12.32                        | 12.693               |                           |  |
| 3,800.0                                             | 3,776.8                   | 3,776.8                   | 3,776.8                   | 7.4               | 6.6            | 177.91                      | -4.0                                    | -29.8         | 194.6                      | 182.1                       | 12.49                        | 15.578               |                           |  |
| 3,900.0                                             | 3,867.1                   | 3,867.1                   | 3,867.1                   | 8.0               | 6.7            | 178.24                      | -4.0                                    | -29.8         | 237.6                      | 225.0                       | 12.64                        | 18.802               |                           |  |
| 4,000.0                                             | 3,954.9                   | 3,954.9                   | 3,954.9                   | 8.7               | 6.9            | 178.49                      | -4.0                                    | -29.8         | 285.3                      | 272.6                       | 12.76                        | 22.361               |                           |  |
| 4,100.0                                             | 4,040.2                   | 4,040.2                   | 4,040.2                   | 9.5               | 7.0            | 178.69                      | -4.0                                    | -29.8         | 337.5                      | 324.7                       | 12.86                        | 26.258               |                           |  |
| 4,200.0                                             | 4,122.6                   | 4,122.6                   | 4,122.6                   | 10.4              | 7.2            | 178.83                      | -4.0                                    | -29.8         | 394.2                      | 381.2                       | 12.93                        | 30.494               |                           |  |
| 4,300.0                                             | 4,201.9                   | 4,201.9                   | 4,201.9                   | 11.5              | 7.3            | 178.95                      | -4.0                                    | -29.8         | 455.0                      | 442.1                       | 12.97                        | 35.074               |                           |  |
| 4,400.0                                             | 4,277.9                   | 4,277.9                   | 4,277.9                   | 12.7              | 7.4            | 179.04                      | -4.0                                    | -29.8         | 520.0                      | 507.0                       | 13.00                        | 40.001               |                           |  |
| 4,500.0                                             | 4,351.1                   | 4,351.1                   | 4,351.1                   | 13.9              | 7.6            | 179.13                      | -4.0                                    | -29.8         | 588.1                      | 575.0                       | 13.18                        | 44.613               |                           |  |
| 4,600.0                                             | 4,423.9                   | 4,423.9                   | 4,423.9                   | 15.2              | 7.7            | 179.22                      | -4.0                                    | -29.8         | 656.6                      | 643.2                       | 13.49                        | 48.679               |                           |  |
| 4,700.0                                             | 4,496.8                   | 4,496.8                   | 4,496.8                   | 16.6              | 7.8            | 179.30                      | -4.0                                    | -29.8         | 725.2                      | 711.4                       | 13.79                        | 52.567               |                           |  |
| 4,800.0                                             | 4,569.6                   | 4,569.6                   | 4,569.6                   | 17.9              | 7.9            | 179.36                      | -4.0                                    | -29.8         | 793.7                      | 779.6                       | 14.10                        | 56.290               |                           |  |
| 4,900.0                                             | 4,642.5                   | 4,642.5                   | 4,642.5                   | 19.3              | 8.1            | 179.41                      | -4.0                                    | -29.8         | 862.2                      | 847.8                       | 14.40                        | 59.859               |                           |  |
| 5,000.0                                             | 4,715.3                   | 4,715.3                   | 4,715.3                   | 20.7              | 8.2            | 179.45                      | -4.0                                    | -29.8         | 930.7                      | 916.0                       | 14.71                        | 63.283               |                           |  |
| 5,100.0                                             | 4,788.2                   | 4,788.2                   | 4,788.2                   | 22.0              | 8.3            | 179.49                      | -4.0                                    | -29.8         | 999.2                      | 984.2                       | 15.01                        | 66.572               |                           |  |

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

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design GCU - GCU O27-2306 01H - Hz - Plan #2 |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                  |        |         | Offset Site Error: | 0.0 ft |
|-----------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|--------|---------|--------------------|--------|
| Survey Program: 0-Geolink MWD                       |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                  |        |         | Offset Well Error: | 0.0 ft |
| Reference                                           | Offset              |                     | Semi Major Axis     |                | Distance    |                       | Between                           |            | 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 |         |                    |        |
| 5,200.0                                             | 4,861.0             | 6,017.4             | 5,462.2             | 23.4           | 19.4        | 142.74                | -656.8                            | 434.9      | 1,022.6              | 990.3                 | 32.26            | 31.695 |         |                    |        |
| 5,282.6                                             | 4,921.2             | 6,059.4             | 5,462.1             | 24.6           | 20.1        | 140.71                | -687.3                            | 463.8      | 1,020.1              | 985.8                 | 34.28            | 29.759 |         |                    |        |
| 5,300.0                                             | 4,933.9             | 6,068.2             | 5,462.0             | 24.8           | 20.3        | 140.28                | -693.7                            | 469.8      | 1,020.2              | 985.5                 | 34.71            | 29.391 |         |                    |        |
| 5,400.0                                             | 5,006.7             | 6,119.1             | 5,461.9             | 26.3           | 21.3        | 137.83                | -730.7                            | 504.7      | 1,025.1              | 987.9                 | 37.25            | 27.519 |         |                    |        |
| 5,500.0                                             | 5,079.5             | 6,169.9             | 5,461.7             | 27.7           | 22.2        | 135.38                | -767.6                            | 539.6      | 1,037.2              | 997.3                 | 39.87            | 26.015 |         |                    |        |
| 5,600.0                                             | 5,152.4             | 6,220.7             | 5,461.5             | 29.1           | 23.2        | 132.96                | -804.5                            | 574.5      | 1,056.1              | 1,013.6               | 42.54            | 24.826 |         |                    |        |
| 5,700.0                                             | 5,225.2             | 6,271.5             | 5,461.3             | 30.5           | 24.2        | 130.56                | -841.5                            | 609.4      | 1,081.6              | 1,036.3               | 45.25            | 23.900 |         |                    |        |
| 5,800.0                                             | 5,295.7             | 6,326.6             | 5,461.1             | 32.0           | 25.3        | 129.20                | -881.5                            | 647.3      | 1,112.1              | 1,062.8               | 49.28            | 22.568 |         |                    |        |
| 5,900.0                                             | 5,357.2             | 6,394.9             | 5,460.9             | 33.7           | 26.6        | 109.29                | -931.1                            | 694.2      | 1,143.1              | 1,089.1               | 54.00            | 21.169 |         |                    |        |
| 6,000.0                                             | 5,407.7             | 6,474.8             | 5,460.6             | 35.5           | 28.2        | 100.70                | -989.2                            | 749.1      | 1,171.4              | 1,112.9               | 58.52            | 20.017 |         |                    |        |
| 6,100.0                                             | 5,445.6             | 6,563.9             | 5,460.3             | 37.3           | 30.0        | 94.49                 | -1,054.0                          | 810.3      | 1,194.3              | 1,131.8               | 62.49            | 19.113 |         |                    |        |
| 6,200.0                                             | 5,469.7             | 6,659.5             | 5,460.0             | 39.2           | 32.0        | 90.64                 | -1,123.4                          | 875.9      | 1,209.7              | 1,143.9               | 65.78            | 18.389 |         |                    |        |
| 6,300.0                                             | 5,479.4             | 6,758.6             | 5,459.6             | 40.9           | 34.0        | 89.09                 | -1,195.5                          | 944.0      | 1,216.3              | 1,147.9               | 68.43            | 17.774 |         |                    |        |
| 6,400.0                                             | 5,479.3             | 6,858.6             | 5,459.3             | 42.7           | 36.0        | 89.06                 | -1,268.2                          | 1,012.7    | 1,216.6              | 1,144.4               | 72.22            | 16.846 |         |                    |        |
| 6,500.0                                             | 5,479.0             | 6,958.6             | 5,458.9             | 44.4           | 38.1        | 89.06                 | -1,340.8                          | 1,081.4    | 1,216.8              | 1,140.5               | 76.35            | 15.937 |         |                    |        |
| 6,600.0                                             | 5,478.6             | 7,058.6             | 5,458.6             | 46.3           | 40.1        | 89.06                 | -1,413.5                          | 1,150.1    | 1,217.0              | 1,136.5               | 80.49            | 15.120 |         |                    |        |
| 6,700.0                                             | 5,478.3             | 7,158.6             | 5,458.2             | 48.1           | 42.2        | 89.06                 | -1,486.2                          | 1,218.8    | 1,217.2              | 1,132.5               | 84.64            | 14.380 |         |                    |        |
| 6,800.0                                             | 5,477.9             | 7,258.6             | 5,457.9             | 49.9           | 44.3        | 89.06                 | -1,558.9                          | 1,287.5    | 1,217.4              | 1,128.6               | 88.81            | 13.708 |         |                    |        |
| 6,900.0                                             | 5,477.6             | 7,358.6             | 5,457.6             | 51.8           | 46.3        | 89.06                 | -1,631.5                          | 1,356.2    | 1,217.6              | 1,124.6               | 92.98            | 13.095 |         |                    |        |
| 7,000.0                                             | 5,477.2             | 7,458.6             | 5,457.2             | 53.7           | 48.4        | 89.06                 | -1,704.2                          | 1,424.9    | 1,217.7              | 1,120.6               | 97.15            | 12.534 |         |                    |        |
| 7,100.0                                             | 5,476.9             | 7,558.6             | 5,456.9             | 55.6           | 50.5        | 89.06                 | -1,776.9                          | 1,493.5    | 1,217.9              | 1,116.6               | 101.34           | 12.019 |         |                    |        |
| 7,200.0                                             | 5,476.5             | 7,658.6             | 5,456.5             | 57.5           | 52.6        | 89.06                 | -1,849.6                          | 1,562.2    | 1,218.1              | 1,112.6               | 105.53           | 11.543 |         |                    |        |
| 7,300.0                                             | 5,476.2             | 7,758.6             | 5,456.2             | 59.5           | 54.7        | 89.06                 | -1,922.2                          | 1,630.9    | 1,218.3              | 1,108.6               | 109.72           | 11.104 |         |                    |        |
| 7,400.0                                             | 5,475.8             | 7,858.6             | 5,455.8             | 61.4           | 56.8        | 89.06                 | -1,994.9                          | 1,699.6    | 1,218.5              | 1,104.6               | 113.92           | 10.696 |         |                    |        |
| 7,500.0                                             | 5,475.5             | 7,958.6             | 5,455.5             | 63.4           | 58.9        | 89.06                 | -2,067.6                          | 1,768.3    | 1,218.7              | 1,100.6               | 118.12           | 10.318 |         |                    |        |
| 7,600.0                                             | 5,475.1             | 8,058.6             | 5,455.1             | 65.4           | 61.0        | 89.06                 | -2,140.3                          | 1,837.0    | 1,218.9              | 1,096.5               | 122.32           | 9.964  |         |                    |        |
| 7,700.0                                             | 5,474.8             | 8,158.6             | 5,454.8             | 67.4           | 63.1        | 89.06                 | -2,212.9                          | 1,905.7    | 1,219.1              | 1,092.5               | 126.53           | 9.635  |         |                    |        |
| 7,800.0                                             | 5,474.4             | 8,258.6             | 5,454.4             | 69.4           | 65.2        | 89.06                 | -2,285.6                          | 1,974.4    | 1,219.2              | 1,088.5               | 130.74           | 9.326  |         |                    |        |
| 7,900.0                                             | 5,474.1             | 8,358.6             | 5,454.1             | 71.4           | 67.3        | 89.06                 | -2,358.3                          | 2,043.0    | 1,219.4              | 1,084.5               | 134.95           | 9.036  |         |                    |        |
| 8,000.0                                             | 5,473.7             | 8,458.6             | 5,453.7             | 73.4           | 69.4        | 89.06                 | -2,431.0                          | 2,111.7    | 1,219.6              | 1,080.4               | 139.17           | 8.764  |         |                    |        |
| 8,100.0                                             | 5,473.4             | 8,558.6             | 5,453.4             | 75.4           | 71.5        | 89.06                 | -2,503.6                          | 2,180.4    | 1,219.8              | 1,076.4               | 143.39           | 8.507  |         |                    |        |
| 8,200.0                                             | 5,473.0             | 8,658.6             | 5,453.0             | 77.4           | 73.6        | 89.06                 | -2,576.3                          | 2,249.1    | 1,220.0              | 1,072.4               | 147.60           | 8.265  |         |                    |        |
| 8,300.0                                             | 5,472.7             | 8,758.6             | 5,452.7             | 79.4           | 75.7        | 89.06                 | -2,649.0                          | 2,317.8    | 1,220.2              | 1,068.4               | 151.82           | 8.037  |         |                    |        |
| 8,400.0                                             | 5,472.3             | 8,858.6             | 5,452.3             | 81.4           | 77.8        | 89.06                 | -2,721.7                          | 2,386.5    | 1,220.4              | 1,064.3               | 156.05           | 7.820  |         |                    |        |
| 8,500.0                                             | 5,472.0             | 8,958.6             | 5,452.0             | 83.5           | 79.9        | 89.06                 | -2,794.3                          | 2,455.2    | 1,220.5              | 1,060.3               | 160.27           | 7.616  |         |                    |        |
| 8,600.0                                             | 5,471.6             | 9,058.6             | 5,451.6             | 85.5           | 82.0        | 89.06                 | -2,867.0                          | 2,523.9    | 1,220.7              | 1,056.2               | 164.50           | 7.421  |         |                    |        |
| 8,700.0                                             | 5,471.3             | 9,158.6             | 5,451.3             | 87.6           | 84.1        | 89.06                 | -2,939.7                          | 2,592.6    | 1,220.9              | 1,052.2               | 168.72           | 7.236  |         |                    |        |
| 8,800.0                                             | 5,470.9             | 9,258.6             | 5,450.9             | 89.6           | 86.3        | 89.06                 | -3,012.4                          | 2,661.2    | 1,221.1              | 1,048.2               | 172.95           | 7.060  |         |                    |        |
| 8,900.0                                             | 5,470.6             | 9,358.6             | 5,450.6             | 91.7           | 88.4        | 89.06                 | -3,085.0                          | 2,729.9    | 1,221.3              | 1,044.1               | 177.18           | 6.893  |         |                    |        |
| 9,000.0                                             | 5,470.3             | 9,458.6             | 5,450.2             | 93.7           | 90.5        | 89.06                 | -3,157.7                          | 2,798.6    | 1,221.5              | 1,040.1               | 181.41           | 6.733  |         |                    |        |
| 9,100.0                                             | 5,469.9             | 9,558.6             | 5,449.9             | 95.8           | 92.6        | 89.06                 | -3,230.4                          | 2,867.3    | 1,221.7              | 1,036.0               | 185.64           | 6.581  |         |                    |        |
| 9,200.0                                             | 5,469.6             | 9,658.6             | 5,449.5             | 97.8           | 94.7        | 89.06                 | -3,303.1                          | 2,936.0    | 1,221.9              | 1,032.0               | 189.87           | 6.435  |         |                    |        |
| 9,300.0                                             | 5,469.2             | 9,758.6             | 5,449.2             | 99.9           | 96.8        | 89.06                 | -3,375.7                          | 3,004.7    | 1,222.0              | 1,027.9               | 194.10           | 6.296  |         |                    |        |
| 9,400.0                                             | 5,468.9             | 9,858.6             | 5,448.8             | 102.0          | 98.9        | 89.06                 | -3,448.4                          | 3,073.4    | 1,222.2              | 1,023.9               | 198.34           | 6.162  |         |                    |        |
| 9,500.0                                             | 5,468.5             | 9,958.6             | 5,448.5             | 104.0          | 101.0       | 89.06                 | -3,521.1                          | 3,142.1    | 1,222.4              | 1,019.8               | 202.57           | 6.035  |         |                    |        |
| 9,600.0                                             | 5,468.2             | 10,058.6            | 5,448.1             | 106.1          | 103.2       | 89.06                 | -3,593.8                          | 3,210.7    | 1,222.6              | 1,015.8               | 206.80           | 5.912  |         |                    |        |
| 9,700.0                                             | 5,467.8             | 10,158.6            | 5,447.8             | 108.2          | 105.3       | 89.06                 | -3,666.5                          | 3,279.4    | 1,222.8              | 1,011.8               | 211.04           | 5.794  |         |                    |        |
| 9,800.0                                             | 5,467.5             | 10,258.6            | 5,447.4             | 110.2          | 107.4       | 89.06                 | -3,739.1                          | 3,348.1    | 1,223.0              | 1,007.7               | 215.27           | 5.681  |         |                    |        |
| 9,900.0                                             | 5,467.1             | 10,358.6            | 5,447.1             | 112.3          | 109.5       | 89.06                 | -3,811.8                          | 3,416.8    | 1,223.2              | 1,003.7               | 219.51           | 5.572  |         |                    |        |
| 10,000.0                                            | 5,466.8             | 10,458.6            | 5,446.7             | 114.4          | 111.6       | 89.06                 | -3,884.5                          | 3,485.5    | 1,223.4              | 999.6                 | 223.75           | 5.468  |         |                    |        |
| 10,100.0                                            | 5,466.4             | 10,558.6            | 5,446.4             | 116.5          | 113.7       | 89.06                 | -3,957.2                          | 3,554.2    | 1,223.5              | 995.6                 | 227.98           | 5.367  |         |                    |        |
| 10,200.0                                            | 5,466.1             | 10,658.6            | 5,446.1             | 118.6          | 115.9       | 89.06                 | -4,029.8                          | 3,622.9    | 1,223.7              | 991.5                 | 232.22           | 5.270  |         |                    |        |

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



# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU 027-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU 027-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design GCU - GCU 027-2306 01H - Hz - Plan #2 |                           |                           |                           |                   |                |                             |                        |               |                            |                             |                              |                      |         | Offset Site Error: | 0.0 ft |
|-----------------------------------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|------------------------|---------------|----------------------------|-----------------------------|------------------------------|----------------------|---------|--------------------|--------|
| Survey Program: 0-Geolink MWD                       |                           |                           |                           |                   |                |                             |                        |               |                            |                             |                              |                      |         | Offset Well Error: | 0.0 ft |
| Reference                                           |                           | Offset                    |                           | Semi Major Axis   |                | Highside<br>Toolface<br>(°) | Offset Wellbore Centre |               | Distance                   |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning |                    |        |
| Measured<br>Depth<br>(ft)                           | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) |                             | +N/-S<br>(ft)          | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |         |                    |        |
| 10,300.0                                            | 5,465.7                   | 10,758.6                  | 5,445.7                   | 120.6             | 118.0          | 89.06                       | -4,102.5               | 3,691.6       | 1,223.9                    | 987.5                       | 236.46                       | 5.176                |         |                    |        |
| 10,400.0                                            | 5,465.4                   | 10,858.6                  | 5,445.4                   | 122.7             | 120.1          | 89.06                       | -4,175.2               | 3,760.3       | 1,224.1                    | 983.4                       | 240.70                       | 5.086                |         |                    |        |
| 10,500.0                                            | 5,465.0                   | 10,958.6                  | 5,445.0                   | 124.8             | 122.2          | 89.06                       | -4,247.9               | 3,828.9       | 1,224.3                    | 979.3                       | 244.94                       | 4.998                |         |                    |        |
| 10,600.0                                            | 5,464.7                   | 11,058.6                  | 5,444.7                   | 126.9             | 124.3          | 89.06                       | -4,320.5               | 3,897.6       | 1,224.5                    | 975.3                       | 249.18                       | 4.914                |         |                    |        |
| 10,700.0                                            | 5,464.3                   | 11,158.6                  | 5,444.3                   | 129.0             | 126.5          | 89.06                       | -4,393.2               | 3,966.3       | 1,224.7                    | 971.2                       | 253.42                       | 4.833                |         |                    |        |
| 10,800.0                                            | 5,464.0                   | 11,258.6                  | 5,444.0                   | 131.1             | 128.6          | 89.06                       | -4,465.9               | 4,035.0       | 1,224.8                    | 967.2                       | 257.66                       | 4.754                |         |                    |        |
| 10,900.0                                            | 5,463.6                   | 11,358.6                  | 5,443.6                   | 133.2             | 130.7          | 89.06                       | -4,538.6               | 4,103.7       | 1,225.0                    | 963.1                       | 261.90                       | 4.678                |         |                    |        |
| 11,000.0                                            | 5,463.3                   | 11,458.6                  | 5,443.3                   | 135.3             | 132.8          | 89.06                       | -4,611.2               | 4,172.4       | 1,225.2                    | 959.1                       | 266.14                       | 4.604                |         |                    |        |
| 11,100.0                                            | 5,462.9                   | 11,558.6                  | 5,442.9                   | 137.4             | 134.9          | 89.06                       | -4,683.9               | 4,241.1       | 1,225.4                    | 955.0                       | 270.38                       | 4.532                |         |                    |        |
| 11,200.0                                            | 5,462.6                   | 11,658.6                  | 5,442.6                   | 139.4             | 137.0          | 89.06                       | -4,756.6               | 4,309.8       | 1,225.6                    | 951.0                       | 274.62                       | 4.463                |         |                    |        |
| 11,300.0                                            | 5,462.2                   | 11,758.6                  | 5,442.2                   | 141.5             | 139.2          | 89.06                       | -4,829.3               | 4,378.4       | 1,225.8                    | 946.9                       | 278.86                       | 4.396                |         |                    |        |
| 11,400.0                                            | 5,461.9                   | 11,858.6                  | 5,441.9                   | 143.6             | 141.3          | 89.06                       | -4,901.9               | 4,447.1       | 1,226.0                    | 942.9                       | 283.10                       | 4.330                |         |                    |        |
| 11,500.0                                            | 5,461.5                   | 11,958.6                  | 5,441.5                   | 145.7             | 143.4          | 89.06                       | -4,974.6               | 4,515.8       | 1,226.2                    | 938.8                       | 287.34                       | 4.267                |         |                    |        |
| 11,533.6                                            | 5,461.4                   | 11,992.2                  | 5,441.4                   | 146.4             | 144.1          | 89.06                       | -4,999.0               | 4,538.9       | 1,226.2                    | 937.4                       | 288.77                       | 4.246                |         |                    |        |
| 11,600.0                                            | 5,461.2                   | 12,022.2                  | 5,441.3                   | 147.8             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,226.9                    | 936.1                       | 290.81                       | 4.219                |         |                    |        |
| 11,700.0                                            | 5,460.8                   | 12,022.2                  | 5,441.3                   | 149.9             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,234.1                    | 941.2                       | 292.94                       | 4.213                |         |                    |        |
| 11,800.0                                            | 5,460.5                   | 12,022.2                  | 5,441.3                   | 152.0             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,249.3                    | 954.2                       | 295.06                       | 4.234                |         |                    |        |
| 11,900.0                                            | 5,460.1                   | 12,022.2                  | 5,441.3                   | 154.1             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,272.2                    | 975.0                       | 297.18                       | 4.281                |         |                    |        |
| 12,000.0                                            | 5,459.8                   | 12,022.2                  | 5,441.3                   | 156.2             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,302.4                    | 1,003.1                     | 299.30                       | 4.351                |         |                    |        |
| 12,100.0                                            | 5,459.4                   | 12,022.2                  | 5,441.3                   | 158.3             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,339.4                    | 1,038.0                     | 301.43                       | 4.444                |         |                    |        |
| 12,200.0                                            | 5,459.1                   | 12,022.2                  | 5,441.3                   | 160.4             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,382.6                    | 1,079.1                     | 303.55                       | 4.555                |         |                    |        |
| 12,300.0                                            | 5,458.7                   | 12,022.2                  | 5,441.3                   | 162.5             | 144.8          | 89.06                       | -5,020.8               | 4,559.5       | 1,431.6                    | 1,125.9                     | 305.67                       | 4.683                |         |                    |        |

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design S27-T23N-R6W - GCU O27-2306 01H - Hz - Plan #2 |                           |                           |                           |                   |                |                             |                        |               |                            |                             |                              |                      |         | Offset Site Error: | 0.0 ft |
|--------------------------------------------------------------|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|------------------------|---------------|----------------------------|-----------------------------|------------------------------|----------------------|---------|--------------------|--------|
| Survey Program: 0-Geolink MWD                                |                           |                           |                           |                   |                |                             |                        |               |                            |                             |                              |                      |         | Offset Well Error: | 0.0 ft |
| Reference                                                    |                           | Offset                    |                           | Semi Major Axis   |                | Highside<br>Toolface<br>(°) | Offset Wellbore Centre |               | Distance                   |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning |                    |        |
| Measured<br>Depth<br>(ft)                                    | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) |                             | +N/-S<br>(ft)          | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |         |                    |        |
| 0.0                                                          | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | -97.65                      | -4.0                   | -29.8         | 30.1                       |                             |                              |                      |         |                    |        |
| 100.0                                                        | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 29.8                        | 0.29                         | 102.569              |         |                    |        |
| 200.0                                                        | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 29.4                        | 0.64                         | 46.825               |         |                    |        |
| 300.0                                                        | 300.0                     | 300.0                     | 300.0                     | 0.5               | 0.5            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 29.1                        | 0.99                         | 30.337               |         |                    |        |
| 400.0                                                        | 400.0                     | 400.0                     | 400.0                     | 0.7               | 0.7            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 28.7                        | 1.34                         | 22.437               |         |                    |        |
| 500.0                                                        | 500.0                     | 500.0                     | 500.0                     | 0.8               | 0.8            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 28.4                        | 1.69                         | 17.801               |         |                    |        |
| 600.0                                                        | 600.0                     | 600.0                     | 600.0                     | 1.0               | 1.0            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 28.0                        | 2.04                         | 14.753               |         |                    |        |
| 700.0                                                        | 700.0                     | 700.0                     | 700.0                     | 1.2               | 1.2            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 27.7                        | 2.39                         | 12.596               |         |                    |        |
| 800.0                                                        | 800.0                     | 800.0                     | 800.0                     | 1.4               | 1.4            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 27.3                        | 2.74                         | 10.990               |         |                    |        |
| 900.0                                                        | 900.0                     | 900.0                     | 900.0                     | 1.5               | 1.5            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 27.0                        | 3.09                         | 9.746                |         |                    |        |
| 1,000.0                                                      | 1,000.0                   | 1,000.0                   | 1,000.0                   | 1.7               | 1.7            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 26.6                        | 3.43                         | 8.756                |         |                    |        |
| 1,100.0                                                      | 1,100.0                   | 1,100.0                   | 1,100.0                   | 1.9               | 1.9            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 26.3                        | 3.78                         | 7.948                |         |                    |        |
| 1,200.0                                                      | 1,200.0                   | 1,200.0                   | 1,200.0                   | 2.1               | 2.1            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 25.9                        | 4.13                         | 7.277                |         |                    |        |
| 1,300.0                                                      | 1,300.0                   | 1,300.0                   | 1,300.0                   | 2.2               | 2.2            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 25.6                        | 4.48                         | 6.710                |         |                    |        |
| 1,400.0                                                      | 1,400.0                   | 1,400.0                   | 1,400.0                   | 2.4               | 2.4            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 25.2                        | 4.83                         | 6.225                |         |                    |        |
| 1,500.0                                                      | 1,500.0                   | 1,500.0                   | 1,500.0                   | 2.6               | 2.6            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 24.9                        | 5.18                         | 5.806                |         |                    |        |
| 1,600.0                                                      | 1,600.0                   | 1,600.0                   | 1,600.0                   | 2.8               | 2.8            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 24.5                        | 5.53                         | 5.439                |         |                    |        |
| 1,700.0                                                      | 1,700.0                   | 1,700.0                   | 1,700.0                   | 2.9               | 2.9            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 24.2                        | 5.88                         | 5.116                |         |                    |        |
| 1,800.0                                                      | 1,800.0                   | 1,800.0                   | 1,800.0                   | 3.1               | 3.1            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 23.8                        | 6.23                         | 4.829                |         |                    |        |
| 1,900.0                                                      | 1,900.0                   | 1,900.0                   | 1,900.0                   | 3.3               | 3.3            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 23.5                        | 6.58                         | 4.573                |         |                    |        |
| 2,000.0                                                      | 2,000.0                   | 2,000.0                   | 2,000.0                   | 3.5               | 3.5            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 23.1                        | 6.93                         | 4.343                |         |                    |        |
| 2,100.0                                                      | 2,100.0                   | 2,100.0                   | 2,100.0                   | 3.6               | 3.6            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 22.8                        | 7.27                         | 4.134                |         |                    |        |
| 2,200.0                                                      | 2,200.0                   | 2,200.0                   | 2,200.0                   | 3.8               | 3.8            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 22.5                        | 7.62                         | 3.945                |         |                    |        |
| 2,300.0                                                      | 2,300.0                   | 2,300.0                   | 2,300.0                   | 4.0               | 4.0            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 22.1                        | 7.97                         | 3.772                |         |                    |        |
| 2,400.0                                                      | 2,400.0                   | 2,400.0                   | 2,400.0                   | 4.2               | 4.2            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 21.8                        | 8.32                         | 3.614                |         |                    |        |
| 2,500.0                                                      | 2,500.0                   | 2,500.0                   | 2,500.0                   | 4.3               | 4.3            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 21.4                        | 8.67                         | 3.469                |         |                    |        |
| 2,600.0                                                      | 2,600.0                   | 2,600.0                   | 2,600.0                   | 4.5               | 4.5            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 21.1                        | 9.02                         | 3.334                |         |                    |        |
| 2,700.0                                                      | 2,700.0                   | 2,700.0                   | 2,700.0                   | 4.7               | 4.7            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 20.7                        | 9.37                         | 3.210                |         |                    |        |
| 2,800.0                                                      | 2,800.0                   | 2,800.0                   | 2,800.0                   | 4.9               | 4.9            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 20.4                        | 9.72                         | 3.095                |         |                    |        |
| 2,900.0                                                      | 2,900.0                   | 2,900.0                   | 2,900.0                   | 5.0               | 5.0            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 20.0                        | 10.07                        | 2.987                |         |                    |        |
| 3,000.0                                                      | 3,000.0                   | 3,000.0                   | 3,000.0                   | 5.2               | 5.2            | -97.65                      | -4.0                   | -29.8         | 30.1                       | 19.7                        | 10.42                        | 2.887 CC, ES, SF     |         |                    |        |
| 3,100.0                                                      | 3,100.0                   | 3,100.0                   | 3,100.0                   | 5.4               | 5.4            | 168.51                      | -4.0                   | -29.8         | 32.6                       | 21.9                        | 10.76                        | 3.034                |         |                    |        |
| 3,200.0                                                      | 3,199.6                   | 3,199.6                   | 3,199.6                   | 5.6               | 5.6            | 170.69                      | -4.0                   | -29.8         | 40.4                       | 29.3                        | 11.07                        | 3.644                |         |                    |        |
| 3,300.0                                                      | 3,298.8                   | 3,298.8                   | 3,298.8                   | 5.8               | 5.7            | 172.92                      | -4.0                   | -29.8         | 53.3                       | 41.9                        | 11.37                        | 4.685                |         |                    |        |
| 3,400.0                                                      | 3,397.1                   | 3,397.1                   | 3,397.1                   | 6.0               | 5.9            | 174.67                      | -4.0                   | -29.8         | 71.4                       | 59.8                        | 11.65                        | 6.131                |         |                    |        |
| 3,500.0                                                      | 3,494.3                   | 3,494.3                   | 3,494.3                   | 6.2               | 6.1            | 175.93                      | -4.0                   | -29.8         | 94.7                       | 82.8                        | 11.89                        | 7.958                |         |                    |        |
| 3,600.0                                                      | 3,590.2                   | 3,590.2                   | 3,590.2                   | 6.6               | 6.2            | 176.82                      | -4.0                   | -29.8         | 123.0                      | 110.9                       | 12.12                        | 10.150               |         |                    |        |
| 3,700.0                                                      | 3,684.4                   | 3,684.4                   | 3,684.4                   | 6.9               | 6.4            | 177.45                      | -4.0                   | -29.8         | 156.4                      | 144.0                       | 12.32                        | 12.693               |         |                    |        |
| 3,800.0                                                      | 3,776.8                   | 3,776.8                   | 3,776.8                   | 7.4               | 6.6            | 177.91                      | -4.0                   | -29.8         | 194.6                      | 182.1                       | 12.49                        | 15.578               |         |                    |        |
| 3,900.0                                                      | 3,867.1                   | 3,867.1                   | 3,867.1                   | 8.0               | 6.7            | 178.24                      | -4.0                   | -29.8         | 237.6                      | 225.0                       | 12.64                        | 18.802               |         |                    |        |
| 4,000.0                                                      | 3,954.9                   | 3,954.9                   | 3,954.9                   | 8.7               | 6.9            | 178.49                      | -4.0                   | -29.8         | 285.3                      | 272.6                       | 12.76                        | 22.361               |         |                    |        |
| 4,100.0                                                      | 4,040.2                   | 4,040.2                   | 4,040.2                   | 9.5               | 7.0            | 178.69                      | -4.0                   | -29.8         | 337.5                      | 324.7                       | 12.86                        | 26.258               |         |                    |        |
| 4,200.0                                                      | 4,122.6                   | 4,122.6                   | 4,122.6                   | 10.4              | 7.2            | 178.83                      | -4.0                   | -29.8         | 394.2                      | 381.2                       | 12.93                        | 30.494               |         |                    |        |
| 4,300.0                                                      | 4,201.9                   | 4,201.9                   | 4,201.9                   | 11.5              | 7.3            | 178.95                      | -4.0                   | -29.8         | 455.0                      | 442.1                       | 12.97                        | 35.074               |         |                    |        |
| 4,400.0                                                      | 4,277.9                   | 4,277.9                   | 4,277.9                   | 12.7              | 7.4            | 179.04                      | -4.0                   | -29.8         | 520.0                      | 507.0                       | 13.00                        | 40.001               |         |                    |        |
| 4,500.0                                                      | 4,351.1                   | 4,351.1                   | 4,351.1                   | 13.9              | 7.6            | 179.13                      | -4.0                   | -29.8         | 588.1                      | 575.0                       | 13.18                        | 44.613               |         |                    |        |
| 4,600.0                                                      | 4,423.9                   | 4,423.9                   | 4,423.9                   | 15.2              | 7.7            | 179.22                      | -4.0                   | -29.8         | 656.6                      | 643.2                       | 13.49                        | 48.679               |         |                    |        |
| 4,700.0                                                      | 4,496.8                   | 4,496.8                   | 4,496.8                   | 16.6              | 7.8            | 179.30                      | -4.0                   | -29.8         | 725.2                      | 711.4                       | 13.79                        | 52.567               |         |                    |        |
| 4,800.0                                                      | 4,569.6                   | 4,569.6                   | 4,569.6                   | 17.9              | 7.9            | 179.36                      | -4.0                   | -29.8         | 793.7                      | 779.6                       | 14.10                        | 56.290               |         |                    |        |
| 4,900.0                                                      | 4,642.5                   | 4,642.5                   | 4,642.5                   | 19.3              | 8.1            | 179.41                      | -4.0                   | -29.8         | 862.2                      | 847.8                       | 14.40                        | 59.859               |         |                    |        |
| 5,000.0                                                      | 4,715.3                   | 4,715.3                   | 4,715.3                   | 20.7              | 8.2            | 179.45                      | -4.0                   | -29.8         | 930.7                      | 916.0                       | 14.71                        | 63.283               |         |                    |        |
| 5,100.0                                                      | 4,788.2                   | 4,788.2                   | 4,788.2                   | 22.0              | 8.3            | 179.49                      | -4.0                   | -29.8         | 999.2                      | 984.2                       | 15.01                        | 66.572               |         |                    |        |

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

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design S27-T23N-R6W - GCU O27-2306 01H - Hz - Plan #2 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       | Offset Site Error: 0.0 ft |                           |                   |
|--------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|---------------------------|---------------------------|-------------------|
| Survey Program: O-Geolink 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) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis    |                           | Seperation Factor |
| 5,200.0                                                      | 4,861.0             | 6,017.4             | 5,462.2             | 23.4            | 19.4        | 142.74                | -656.8                            | 434.9      | 1,022.6              | 990.3                 | 32.26                     | 31.695                    |                   |
| 5,282.6                                                      | 4,921.2             | 6,059.4             | 5,462.1             | 24.6            | 20.1        | 140.71                | -687.3                            | 463.8      | 1,020.1              | 985.8                 | 34.28                     | 29.759                    |                   |
| 5,300.0                                                      | 4,933.9             | 6,068.2             | 5,462.0             | 24.8            | 20.3        | 140.28                | -693.7                            | 469.8      | 1,020.2              | 985.5                 | 34.71                     | 29.391                    |                   |
| 5,400.0                                                      | 5,006.7             | 6,119.1             | 5,461.9             | 26.3            | 21.3        | 137.83                | -730.7                            | 504.7      | 1,025.1              | 987.9                 | 37.25                     | 27.519                    |                   |
| 5,500.0                                                      | 5,079.5             | 6,169.9             | 5,461.7             | 27.7            | 22.2        | 135.38                | -767.6                            | 539.6      | 1,037.2              | 997.3                 | 39.87                     | 26.015                    |                   |
| 5,600.0                                                      | 5,152.4             | 6,220.7             | 5,461.5             | 29.1            | 23.2        | 132.96                | -804.5                            | 574.5      | 1,056.1              | 1,013.6               | 42.54                     | 24.826                    |                   |
| 5,700.0                                                      | 5,225.2             | 6,271.5             | 5,461.3             | 30.5            | 24.2        | 130.56                | -841.5                            | 609.4      | 1,081.6              | 1,036.3               | 45.25                     | 23.900                    |                   |
| 5,800.0                                                      | 5,295.7             | 6,326.6             | 5,461.1             | 32.0            | 25.3        | 120.20                | -881.5                            | 647.3      | 1,112.1              | 1,062.8               | 49.28                     | 22.568                    |                   |
| 5,900.0                                                      | 5,357.2             | 6,394.9             | 5,460.9             | 33.7            | 26.6        | 109.29                | -931.1                            | 694.2      | 1,143.1              | 1,089.1               | 54.00                     | 21.169                    |                   |
| 6,000.0                                                      | 5,407.7             | 6,474.8             | 5,460.6             | 35.5            | 28.2        | 100.70                | -989.2                            | 749.1      | 1,171.4              | 1,112.9               | 58.52                     | 20.017                    |                   |
| 6,100.0                                                      | 5,445.6             | 6,563.9             | 5,460.3             | 37.3            | 30.0        | 94.49                 | -1,054.0                          | 810.3      | 1,194.3              | 1,131.8               | 62.49                     | 19.113                    |                   |
| 6,200.0                                                      | 5,469.7             | 6,659.5             | 5,460.0             | 39.2            | 32.0        | 90.64                 | -1,123.4                          | 875.9      | 1,209.7              | 1,143.9               | 65.78                     | 18.389                    |                   |
| 6,300.0                                                      | 5,479.4             | 6,758.6             | 5,459.6             | 40.9            | 34.0        | 89.09                 | -1,195.5                          | 944.0      | 1,216.3              | 1,147.9               | 68.43                     | 17.774                    |                   |
| 6,400.0                                                      | 5,479.3             | 6,858.6             | 5,459.3             | 42.7            | 36.0        | 89.06                 | -1,268.2                          | 1,012.7    | 1,216.6              | 1,144.4               | 72.22                     | 16.846                    |                   |
| 6,500.0                                                      | 5,479.0             | 6,958.6             | 5,458.9             | 44.4            | 38.1        | 89.06                 | -1,340.8                          | 1,081.4    | 1,216.8              | 1,140.5               | 76.35                     | 15.937                    |                   |
| 6,600.0                                                      | 5,478.6             | 7,058.6             | 5,458.6             | 46.3            | 40.1        | 89.06                 | -1,413.5                          | 1,150.1    | 1,217.0              | 1,136.5               | 80.49                     | 15.120                    |                   |
| 6,700.0                                                      | 5,478.3             | 7,158.6             | 5,458.2             | 48.1            | 42.2        | 89.06                 | -1,486.2                          | 1,218.8    | 1,217.2              | 1,132.5               | 84.64                     | 14.380                    |                   |
| 6,800.0                                                      | 5,477.9             | 7,258.6             | 5,457.9             | 49.9            | 44.3        | 89.06                 | -1,558.9                          | 1,287.5    | 1,217.4              | 1,128.6               | 88.81                     | 13.708                    |                   |
| 6,900.0                                                      | 5,477.6             | 7,358.6             | 5,457.6             | 51.8            | 46.3        | 89.06                 | -1,631.5                          | 1,356.2    | 1,217.6              | 1,124.6               | 92.98                     | 13.095                    |                   |
| 7,000.0                                                      | 5,477.2             | 7,458.6             | 5,457.2             | 53.7            | 48.4        | 89.06                 | -1,704.2                          | 1,424.9    | 1,217.7              | 1,120.6               | 97.15                     | 12.534                    |                   |
| 7,100.0                                                      | 5,476.9             | 7,558.6             | 5,456.9             | 55.6            | 50.5        | 89.06                 | -1,776.9                          | 1,493.5    | 1,217.9              | 1,116.6               | 101.34                    | 12.019                    |                   |
| 7,200.0                                                      | 5,476.5             | 7,658.6             | 5,456.5             | 57.5            | 52.6        | 89.06                 | -1,849.6                          | 1,562.2    | 1,218.1              | 1,112.6               | 105.53                    | 11.543                    |                   |
| 7,300.0                                                      | 5,476.2             | 7,758.6             | 5,456.2             | 59.5            | 54.7        | 89.06                 | -1,922.2                          | 1,630.9    | 1,218.3              | 1,108.6               | 109.72                    | 11.104                    |                   |
| 7,400.0                                                      | 5,475.8             | 7,858.6             | 5,455.8             | 61.4            | 56.8        | 89.06                 | -1,994.9                          | 1,699.6    | 1,218.5              | 1,104.6               | 113.92                    | 10.696                    |                   |
| 7,500.0                                                      | 5,475.5             | 7,958.6             | 5,455.5             | 63.4            | 58.9        | 89.06                 | -2,067.6                          | 1,768.3    | 1,218.7              | 1,100.6               | 118.12                    | 10.318                    |                   |
| 7,600.0                                                      | 5,475.1             | 8,058.6             | 5,455.1             | 65.4            | 61.0        | 89.06                 | -2,140.3                          | 1,837.0    | 1,218.9              | 1,096.5               | 122.32                    | 9.964                     |                   |
| 7,700.0                                                      | 5,474.8             | 8,158.6             | 5,454.8             | 67.4            | 63.1        | 89.06                 | -2,212.9                          | 1,905.7    | 1,219.1              | 1,092.5               | 126.53                    | 9.635                     |                   |
| 7,800.0                                                      | 5,474.4             | 8,258.6             | 5,454.4             | 69.4            | 65.2        | 89.06                 | -2,285.6                          | 1,974.4    | 1,219.2              | 1,088.5               | 130.74                    | 9.326                     |                   |
| 7,900.0                                                      | 5,474.1             | 8,358.6             | 5,454.1             | 71.4            | 67.3        | 89.06                 | -2,358.3                          | 2,043.0    | 1,219.4              | 1,084.5               | 134.95                    | 9.036                     |                   |
| 8,000.0                                                      | 5,473.7             | 8,458.6             | 5,453.7             | 73.4            | 69.4        | 89.06                 | -2,431.0                          | 2,111.7    | 1,219.6              | 1,080.4               | 139.17                    | 8.764                     |                   |
| 8,100.0                                                      | 5,473.4             | 8,558.6             | 5,453.4             | 75.4            | 71.5        | 89.06                 | -2,503.6                          | 2,180.4    | 1,219.8              | 1,076.4               | 143.39                    | 8.507                     |                   |
| 8,200.0                                                      | 5,473.0             | 8,658.6             | 5,453.0             | 77.4            | 73.6        | 89.06                 | -2,576.3                          | 2,249.1    | 1,220.0              | 1,072.4               | 147.60                    | 8.265                     |                   |
| 8,300.0                                                      | 5,472.7             | 8,758.6             | 5,452.7             | 79.4            | 75.7        | 89.06                 | -2,649.0                          | 2,317.8    | 1,220.2              | 1,068.4               | 151.82                    | 8.037                     |                   |
| 8,400.0                                                      | 5,472.3             | 8,858.6             | 5,452.3             | 81.4            | 77.8        | 89.06                 | -2,721.7                          | 2,386.5    | 1,220.4              | 1,064.3               | 156.05                    | 7.820                     |                   |
| 8,500.0                                                      | 5,472.0             | 8,958.6             | 5,452.0             | 83.5            | 79.9        | 89.06                 | -2,794.3                          | 2,455.2    | 1,220.5              | 1,060.3               | 160.27                    | 7.616                     |                   |
| 8,600.0                                                      | 5,471.6             | 9,058.6             | 5,451.6             | 85.5            | 82.0        | 89.06                 | -2,867.0                          | 2,523.9    | 1,220.7              | 1,056.2               | 164.50                    | 7.421                     |                   |
| 8,700.0                                                      | 5,471.3             | 9,158.6             | 5,451.3             | 87.6            | 84.1        | 89.06                 | -2,939.7                          | 2,592.6    | 1,220.9              | 1,052.2               | 168.72                    | 7.236                     |                   |
| 8,800.0                                                      | 5,470.9             | 9,258.6             | 5,450.9             | 89.6            | 86.3        | 89.06                 | -3,012.4                          | 2,661.2    | 1,221.1              | 1,048.2               | 172.95                    | 7.060                     |                   |
| 8,900.0                                                      | 5,470.6             | 9,358.6             | 5,450.6             | 91.7            | 88.4        | 89.06                 | -3,085.0                          | 2,729.9    | 1,221.3              | 1,044.1               | 177.18                    | 6.893                     |                   |
| 9,000.0                                                      | 5,470.3             | 9,458.6             | 5,450.2             | 93.7            | 90.5        | 89.06                 | -3,157.7                          | 2,798.6    | 1,221.5              | 1,040.1               | 181.41                    | 6.733                     |                   |
| 9,100.0                                                      | 5,469.9             | 9,558.6             | 5,449.9             | 95.8            | 92.6        | 89.06                 | -3,230.4                          | 2,867.3    | 1,221.7              | 1,036.0               | 185.64                    | 6.581                     |                   |
| 9,200.0                                                      | 5,469.6             | 9,658.6             | 5,449.5             | 97.8            | 94.7        | 89.06                 | -3,303.1                          | 2,936.0    | 1,221.9              | 1,032.0               | 189.87                    | 6.435                     |                   |
| 9,300.0                                                      | 5,469.2             | 9,758.6             | 5,449.2             | 99.9            | 96.8        | 89.06                 | -3,375.7                          | 3,004.7    | 1,222.0              | 1,027.9               | 194.10                    | 6.296                     |                   |
| 9,400.0                                                      | 5,468.9             | 9,858.6             | 5,448.8             | 102.0           | 98.9        | 89.06                 | -3,448.4                          | 3,073.4    | 1,222.2              | 1,023.9               | 198.34                    | 6.162                     |                   |
| 9,500.0                                                      | 5,468.5             | 9,958.6             | 5,448.5             | 104.0           | 101.0       | 89.06                 | -3,521.1                          | 3,142.1    | 1,222.4              | 1,019.8               | 202.57                    | 6.035                     |                   |
| 9,600.0                                                      | 5,468.2             | 10,058.6            | 5,448.1             | 106.1           | 103.2       | 89.06                 | -3,593.8                          | 3,210.7    | 1,222.6              | 1,015.8               | 206.80                    | 5.912                     |                   |
| 9,700.0                                                      | 5,467.8             | 10,158.6            | 5,447.8             | 108.2           | 105.3       | 89.06                 | -3,666.5                          | 3,279.4    | 1,222.8              | 1,011.8               | 211.04                    | 5.794                     |                   |
| 9,800.0                                                      | 5,467.5             | 10,258.6            | 5,447.4             | 110.2           | 107.4       | 89.06                 | -3,739.1                          | 3,348.1    | 1,223.0              | 1,007.7               | 215.27                    | 5.681                     |                   |
| 9,900.0                                                      | 5,467.1             | 10,358.6            | 5,447.1             | 112.3           | 109.5       | 89.06                 | -3,811.8                          | 3,416.8    | 1,223.2              | 1,003.7               | 219.51                    | 5.572                     |                   |
| 10,000.0                                                     | 5,466.8             | 10,458.6            | 5,446.7             | 114.4           | 111.6       | 89.06                 | -3,884.5                          | 3,485.5    | 1,223.4              | 999.6                 | 223.75                    | 5.468                     |                   |
| 10,100.0                                                     | 5,466.4             | 10,558.6            | 5,446.4             | 116.5           | 113.7       | 89.06                 | -3,957.2                          | 3,554.2    | 1,223.5              | 995.6                 | 227.98                    | 5.367                     |                   |
| 10,200.0                                                     | 5,466.1             | 10,658.6            | 5,446.1             | 118.6           | 115.9       | 89.06                 | -4,029.8                          | 3,622.9    | 1,223.7              | 991.5                 | 232.22                    | 5.270                     |                   |

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

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GCU O27-2306 02H                |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 7000.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S27-T23N-R6W               | <b>MD Reference:</b>                | WELL @ 7000.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | GCU O27-2306 02H           | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #1                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design S27-T23N-R6W - GCU O27-2306 01H - Hz - Plan #2 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Site Error: 0.0 ft |         |
|--------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------------------------|---------|
| Survey Program: O-Geolink 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) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor |                           |         |
| 10,300.0                                                     | 5,465.7             | 10,758.6            | 5,445.7             | 120.6           | 118.0       | 89.06                 | -4,102.5                          | 3,691.6    | 1,223.9              | 987.5                 | 236.46                 | 5.176             |                           |         |
| 10,400.0                                                     | 5,465.4             | 10,858.6            | 5,445.4             | 122.7           | 120.1       | 89.06                 | -4,175.2                          | 3,760.3    | 1,224.1              | 983.4                 | 240.70                 | 5.086             |                           |         |
| 10,500.0                                                     | 5,465.0             | 10,958.6            | 5,445.0             | 124.8           | 122.2       | 89.06                 | -4,247.9                          | 3,828.9    | 1,224.3              | 979.3                 | 244.94                 | 4.998             |                           |         |
| 10,600.0                                                     | 5,464.7             | 11,058.6            | 5,444.7             | 126.9           | 124.3       | 89.06                 | -4,320.5                          | 3,897.6    | 1,224.5              | 975.3                 | 249.18                 | 4.914             |                           |         |
| 10,700.0                                                     | 5,464.3             | 11,158.6            | 5,444.3             | 129.0           | 126.5       | 89.06                 | -4,393.2                          | 3,966.3    | 1,224.7              | 971.2                 | 253.42                 | 4.833             |                           |         |
| 10,800.0                                                     | 5,464.0             | 11,258.6            | 5,444.0             | 131.1           | 128.6       | 89.06                 | -4,465.9                          | 4,035.0    | 1,224.8              | 967.2                 | 257.66                 | 4.754             |                           |         |
| 10,900.0                                                     | 5,463.6             | 11,358.6            | 5,443.6             | 133.2           | 130.7       | 89.06                 | -4,538.6                          | 4,103.7    | 1,225.0              | 963.1                 | 261.90                 | 4.678             |                           |         |
| 11,000.0                                                     | 5,463.3             | 11,458.6            | 5,443.3             | 135.3           | 132.8       | 89.06                 | -4,611.2                          | 4,172.4    | 1,225.2              | 959.1                 | 266.14                 | 4.604             |                           |         |
| 11,100.0                                                     | 5,462.9             | 11,558.6            | 5,442.9             | 137.4           | 134.9       | 89.06                 | -4,683.9                          | 4,241.1    | 1,225.4              | 955.0                 | 270.38                 | 4.532             |                           |         |
| 11,200.0                                                     | 5,462.6             | 11,658.6            | 5,442.6             | 139.4           | 137.0       | 89.06                 | -4,756.6                          | 4,309.8    | 1,225.6              | 951.0                 | 274.62                 | 4.463             |                           |         |
| 11,300.0                                                     | 5,462.2             | 11,758.6            | 5,442.2             | 141.5           | 139.2       | 89.06                 | -4,829.3                          | 4,378.4    | 1,225.8              | 946.9                 | 278.86                 | 4.396             |                           |         |
| 11,400.0                                                     | 5,461.9             | 11,858.6            | 5,441.9             | 143.6           | 141.3       | 89.06                 | -4,901.9                          | 4,447.1    | 1,226.0              | 942.9                 | 283.10                 | 4.330             |                           |         |
| 11,500.0                                                     | 5,461.5             | 11,958.6            | 5,441.5             | 145.7           | 143.4       | 89.06                 | -4,974.6                          | 4,515.8    | 1,226.2              | 938.8                 | 287.34                 | 4.267             |                           |         |
| 11,533.6                                                     | 5,461.4             | 11,992.2            | 5,441.4             | 146.4           | 144.1       | 89.06                 | -4,999.0                          | 4,538.9    | 1,226.2              | 937.4                 | 288.77                 | 4.246             |                           |         |
| 11,600.0                                                     | 5,461.2             | 12,022.2            | 5,441.3             | 147.8           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,226.9              | 936.1                 | 290.81                 | 4.219             |                           |         |
| 11,700.0                                                     | 5,460.8             | 12,022.2            | 5,441.3             | 149.9           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,234.1              | 941.2                 | 292.94                 | 4.213             |                           |         |
| 11,800.0                                                     | 5,460.5             | 12,022.2            | 5,441.3             | 152.0           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,249.3              | 954.2                 | 295.06                 | 4.234             |                           |         |
| 11,900.0                                                     | 5,460.1             | 12,022.2            | 5,441.3             | 154.1           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,272.2              | 975.0                 | 297.18                 | 4.281             |                           |         |
| 12,000.0                                                     | 5,459.8             | 12,022.2            | 5,441.3             | 156.2           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,302.4              | 1,003.1               | 299.30                 | 4.351             |                           |         |
| 12,100.0                                                     | 5,459.4             | 12,022.2            | 5,441.3             | 158.3           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,339.4              | 1,038.0               | 301.43                 | 4.444             |                           |         |
| 12,200.0                                                     | 5,459.1             | 12,022.2            | 5,441.3             | 160.4           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,382.6              | 1,079.1               | 303.55                 | 4.555             |                           |         |
| 12,300.0                                                     | 5,458.7             | 12,022.2            | 5,441.3             | 162.5           | 144.8       | 89.06                 | -5,020.8                          | 4,559.5    | 1,431.6              | 1,125.9               | 305.67                 | 4.683             |                           |         |

# Anticollision Report

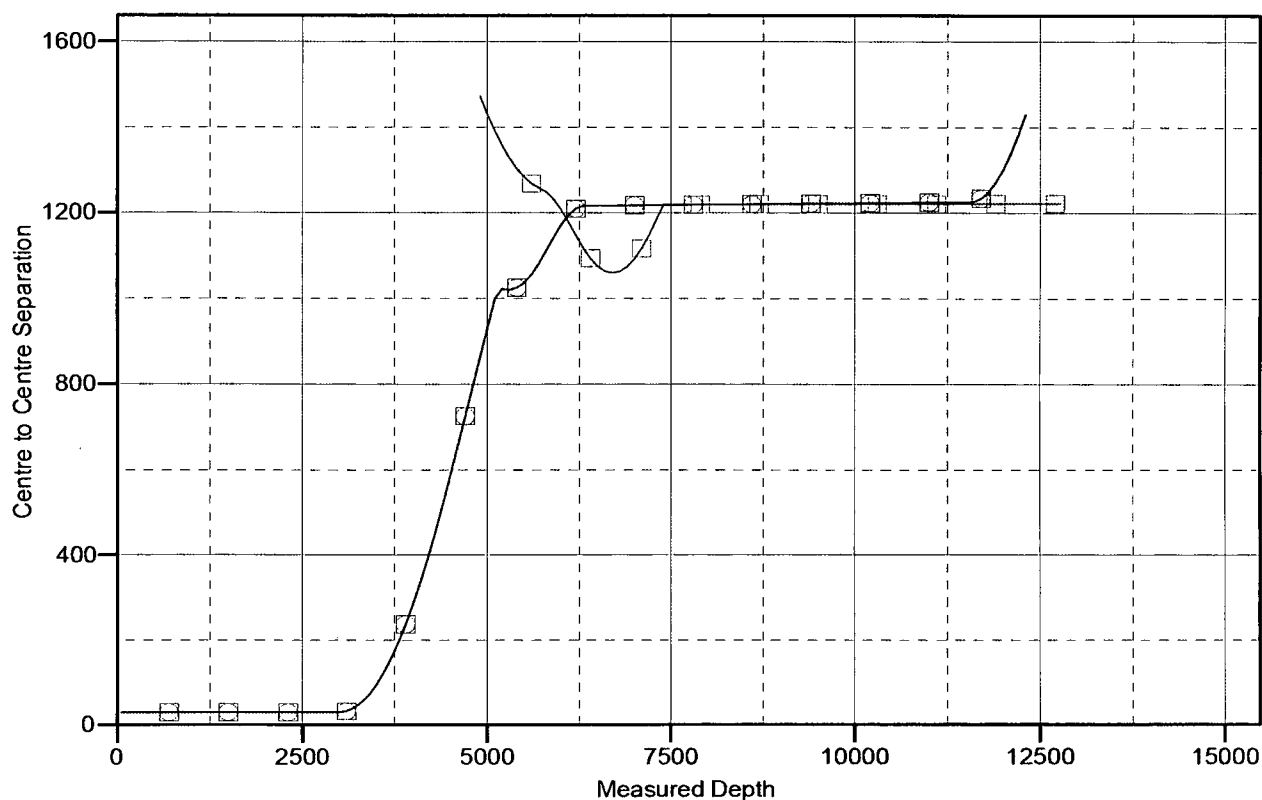
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** Sandoval County, NM  
**Reference Site:** S27-T23N-R6W  
**Site Error:** 0.0ft  
**Reference Well:** GCU O27-2306 02H  
**Well Error:** 0.0ft  
**Reference Wellbore:** Hz  
**Reference Design:** Plan #1

**Local Co-ordinate Reference:** Well GCU O27-2306 02H  
**TVD Reference:** WELL @ 7000.0ft (Original Well Elev)  
**MD Reference:** WELL @ 7000.0ft (Original Well Elev)  
**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 WELL @ 7000.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -106.250000 °

Coordinates are relative to: GCU O27-2306 02H  
 Coordinate System is US State Plane 1983, New Mexico Central Zone  
 Grid Convergence at Surface is: -0.71°

## Ladder Plot



## LEGEND

GCU M26-2306 01H, Hz, Plan #2 V0
  GCU O27-2306 01H, Hz, Plan #2 V0
  GCU O27-2306 01H, Hz, Plan #2 V0

# encana

GCU 027-2306 02H



## 11" 3K Annular

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

**3K Mud Cross 3" gate valves**

