

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: 4/2/14

Well information:

Operator ENCONA, Well Name and Number Escaito E07-2407 4H

API# 30-045-35536, Section 12, Township 24 (N)S, Range 8 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.

Chadi Harrin
NMOCD Approved by Signature

7-29-2014
Date

CONFIDENTIAL
RECEIVED

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Palmington Field Office

APR 14 2014

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM 0557389

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
Pending

8. Lease Name and Well No.
Escrito E07-2407 04H

9. API Well No.
30-045-35536

10. Field and Pool, or Exploratory
Duffers Point- Gallup Dakota

11. Sec., T. R. M. or Blk. and Survey or Area
Section 12, T24N, R8W NMPM

12. County or Parish
San Juan

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

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

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

3b. Phone No. (include area code)
720-876-3533

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 1301' FNL and 12' FEL in Section 12, T24N, R8W

At proposed prod. zone 430' FNL and 330' FWL in Section 12, T24N, R8W

14. Distance in miles and direction from nearest town or post office*
+/- 52.1 miles from the intersection of US Hwy 64 & US Hwy 550 in Bloomfield, NM

15. Distance from proposed* location to nearest property or lease line, ft.
(Also to nearest drig. unit line, if any)
SHL is 12' from East lease line

16. No. of acres in lease
NM 0557389- 480 acres

17. Spacing Unit dedicated to this well
320 acres N/2 Section 12

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
Escrito E07-2407 03H is +/- 30' SW of SHL

19. Proposed Depth
6301' TVD/ 11126' MD

20. BLM/BIA Bond No. on file
COB-000235

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
GL 7323', KB 7339'

22. Approximate date work will start*
09/28/2014

23. Estimated duration
20 Days

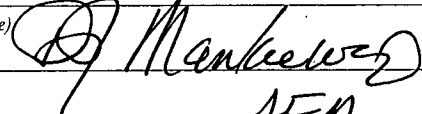
24. Attachments

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

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

25. Signature:  Name (Printed/Typed) Katie Wegner Date 4/2/14

Title
Regulatory Analyst

Approved by (Signature):  Name (Printed/Typed) AFM Date 7/16/14

Title
AFM

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.

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

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

*(Instructions on page 2)

NMOCDA

This action is subject to
technical and procedural review
pursuant to 43 CFR 3165.3 and
appeal pursuant to 43 CFR 3165.4

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

DISTRICT I

1625 N. French Dr., Hobbs, N.M. 88240
Phone: (505) 393-0101 Fax: (505) 393-0720

DISTRICT II

811 S. First St., Artesia, N.M. 80210
Phone: (505) 748-1203 Fax: (505) 748-0720

DISTRICT III

1000 Rio Bravo Rd., Aztec, N.M. 87410
Phone: (505) 334-8176 Fax: (505) 334-8170

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

RECEIVED

Form C-102

Revised August 1, 2011

APR 14 2014 Submit one copy to appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

Farmington Field Office

Bureau of Land Management AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35536		*Pool Code 19859	*Pool Name DUFERS POINT-GALLUP DAKOTA
*Property Code 313515	*Property Name ESCRITO E07-2407		*Well Number 04H
*GRID No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.		*Elevation 7322.9'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	WEST/East line	County
H	12	24N	8W		1301'	NORTH	12'	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	WEST/East line	County
D	12	24N	8W		430'	NORTH	330'	WEST	SAN JUAN

*Dedicated Acres	PROJECT AREA	*Joint or Infill	*Consolidation Code	*Order No.
320.00 ACRES N/2 SEC. 12				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

1 LAT. 36.335445° N (NAD83) LONG. 107.643517° W (NAD83) LAT. 36.335435° N (NAD27) LONG. 107.642707° W (NAD27)	3 LAT. 36.335116° N (NAD83) LONG. 107.625044° W (NAD83) LAT. 36.335104° N (NAD27) LONG. 107.625035° W (NAD27)	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. <i>Katie Wegner</i> 4/02/14 Signature Date Katie Wegner Printed Name Katie.Wegner@encana.com E-mail Address
16 BASIS OF BEARINGS N 88°40'17" W 5208.95' (M) N 88°41' W 5216.64' (R) HORIZONTAL DRILL N 88°40'09" W 4549.36' N 20°54'59" W 940.42' ENTRY POINT LAT. 36.333956° N (NAD83) LONG. 107.626733° W (NAD83) LAT. 36.333944° N (NAD27) LONG. 107.626124° W (NAD27) WELL FLAG LAT. 36.331544° N (NAD83) LONG. 107.625594° W (NAD83) LAT. 36.331532° N (NAD27) LONG. 107.624935° W (NAD27) 12 BOTTOM HOLE LAT. 36.334244° N (NAD83) LONG. 107.642155° W (NAD83) LAT. 36.334232° N (NAD27) LONG. 107.641545° W (NAD27) 2 LAT. 36.321236° N (NAD83) LONG. 107.642803° W (NAD83) LAT. 36.321224° N (NAD27) LONG. 107.642190° W (NAD27) 4 LAT. 36.320844° N (NAD83) LONG. 107.625276° W (NAD83) LAT. 36.320832° N (NAD27) LONG. 107.624667° W (NAD27)		

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.

DECEMBER 5, 2013

Signature and Seal of Professional Surveyor:

David A. Russell
DAVID A. RUSSELL
REGISTERED PROFESSIONAL LAND SURVEYOR
10201
DAVID RUSSELL
Certificate Number 10201

Escrito E07-2407 04H
SHL: SENE 12 24N 8W
1317 FNL 13 FEL
BHL: SENE 7 24N 7W
1750 FNL 330 FEL
Rio Arriba, 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.	1,977
Kirtland Shale	2,146
Fruitland Coal	2,397
Pictured Cliffs Ss.	2,651
Lewis Shale	2,754
Cliffhouse Ss.	3,514
Menefee Fn.	4,241
Point Lookout Ss.	4,970
Mancos Shale	5,152
Mancos Silt	5,826
Gallup Fn.	6,040
Horizontal Target	6,307

The referenced surface elevation is 7323', KB 7339'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	2,397
Oil/Gas	Pictured Cliffs Ss.	2,651
Oil/Gas	Cliffhouse Ss.	3,514
Gas	Menefee Fn.	4,241
Oil/Gas	Point Lookout Ss.	4,970
Oil/Gas	Mancos Shale	5,152
Oil/Gas	Mancos Silt	5,826
Oil/Gas	Gallup Fn.	6,040

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.

Escrito E07-2407 04H
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 Rio Arriba, New Mexico

- 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'-6528'	8 3/4"	7"	26#	J55, LTC New
Production Liner	6328'-11126'	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.

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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'-6528'	30% open hole excess Stage 1 Lead: 506 sks Stage 1 Tail: 238 sks Stage 2 Lead: 251 sks	Lead (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk Cello Flake + 5lb/sk LCM, 12.1ppg 2.13cuf/sk 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	6328'-11126'	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 5543'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	6301'/11126'	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'-6274'/6528'	Fresh Water LSND	9.5-8.8	40-50	8-10

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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"	6274'/6528'- 6301'/11126'	Synthetic Oil 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

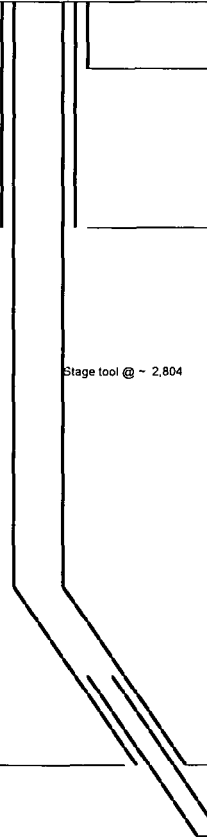
The anticipated bottom hole pressure is +/- 2952 psi based on a 9.0 ppg at 6307' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H₂S is encountered, the guidelines in Onshore Order No. 6 will be followed.

9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

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

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

LOC: SW/4 NW/4 7 24N 7W 1750 FNL 330			Encana Natural Gas				ENG: S Kuykendall 4/2/14		
County: Rio Arriba			WELL SUMMARY				RIG: Aztec 950		
WELL: Escrito E07-2407 02H							GLE: 0		
							RKBE: 6306.9		
MWD	OPEN HOLE	FORM	DEPTH			HOLE SIZE	CASING	MW	DEVIATION
LWD	LOGGING		TVD	MD			SPECS	MUD TYPE	INFORMATION
			60	60'		30	20" 94# 100sx Type I Neat 16.0ppg cmt	Fresh wtr 8.3-9.2	
Multi-Well pad - take survey every stand and run anti- collision report prior to spud	None			12 1/4		9 5/8" 36ppf J55 STC	Fresh wtr 8.4-8.6	Vertical <1°	
		Nacimiento 9 5/8" Csg	509 500	500.00		TOC Surface - 201 sks of Type III Cement			
Survey Every 60'-120', updating anticollision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5	No OH logs	Ojo Alamo Ss. Kirtland Shale Fruitland Coal Pictured Cliffs Ss. Lewis Shale Cliffhouse Ss. Menefee Fn. Point Lookout Ss. Mancos Shale	1,977 2,146 2,397 2,651 2,754 3,514 4,241 4,970 5,152			8 3/4	7" 26ppf J55 LTC TOC @ surface 30% OH excess: 744 sksTotal. Stage 1 Lead: 506 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL- 52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk. Stage 1 Tail: 238 sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk. Stage 2: 168 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk.	Fresh Wtr 8.5-8.8	Vertical <1°
	Mud logger onsite	KOP	5,543	5,543					
Surveys every 30' through the curve		Mancos Silt	5,826						
		Gallup Fn.	6,040						
		7" Csg	6,274	6,528'					
Surveys every stand to TD unless directed otherwise by Geologist		Horizontal Target TD	6,307 6,301	11,126		6 1/8	200' overlap at liner top 4598' Drilled Lateral	Horizontal Inclination Horizontal TVD 8.6-9.0 OBM	90.1 6306.9 TD = 11126.3 MD
	No OH Logs	Base Gallup	6,381				4 1/2" 11.6ppf SB80 LTC Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe	Switch to OBM 8.6-9.0	
MWD Gamma Directional									

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/A BOP and surface equipment
- 4) Drill to KOP of 5543', 8 3/4 inch holesize
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to csg point of 6528' MD
- 7) R&C 7" csg, circ cmt to surface, switch to OBM
- 8) Land at 90 deg, drill lateral to 11126' 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
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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

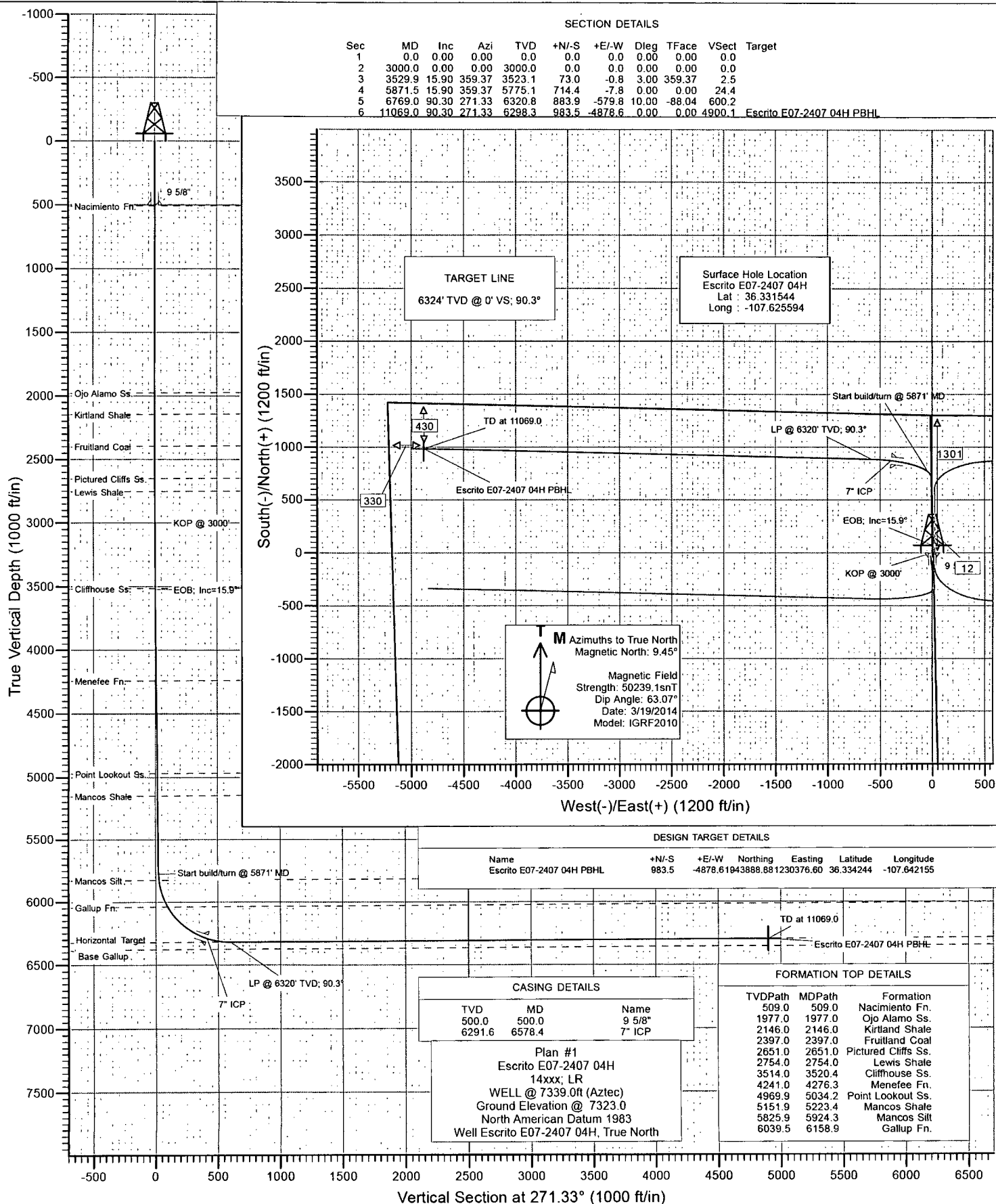
Minimum Make-up Torque (ft-lbs)	_____	1,640
Nominal Make-up Torque (ft-lbs)	_____	2,190
Maximum Make-up Torque (ft-lbs)	_____	2,740

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
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Project: Rio Arriba County, NM
 Site: S7-T24N-R7W
 Well: Escrito E07-2407 04H
 Wellbore: Hz
 Design: Plan #1



Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Site: S7-T24N-R7W
 Well: Escrito E07-2407 04H
 Wellbore: Hz
 Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project: Rio Arriba County, NM
 Map System: US State Plane 1983
 Geo Datum: North American Datum 1983
 Map Zone: New Mexico Central Zone

System Datum: Mean Sea Level

Site: S7-T24N-R7W

Site Position: Northing: 1,942,819.73 ft Latitude: 36.331500
 From: Lat/Long Easting: 1,235,265.85 ft Longitude: -107.625508
 Position Uncertainty: 0.0 ft Slot Radius: 13.200 in Grid Convergence: -0.82 °

Well: Escrito E07-2407 04H

Well Position: +N/-S 0.0 ft Northing: 1,942,836.11 ft Latitude: 36.331544
 +E/-W 0.0 ft Easting: 1,235,240.75 ft Longitude: -107.625594
 Position Uncertainty: 0.0 ft Wellhead Elevation: ft Ground Level: 7,323.0 ft

Wellbore: Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/19/2014	9.45	63.07	50,239

Design: Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	271.33

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,529.9	15.90	359.37	3,523.1	73.0	-0.8	3.00	3.00	0.00	359.37	
5,871.5	15.90	359.37	5,775.1	714.4	-7.8	0.00	0.00	0.00	0.00	
6,769.0	90.30	271.33	6,320.8	883.9	-579.8	10.00	8.29	-9.81	-88.04	
11,069.0	90.30	271.33	6,298.3	983.5	-4,878.6	0.00	0.00	0.00	0.00	Escrito E07-2407 04H

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Site: S7-T24N-R7W
 Well: Escrito E07-2407 04H
 Wellbore: Hz
 Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
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"
509.0	0.00	0.00	509.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
1,977.0	0.00	0.00	1,977.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,146.0	0.00	0.00	2,146.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,397.0	0.00	0.00	2,397.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
2,651.0	0.00	0.00	2,651.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,754.0	0.00	0.00	2,754.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
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	359.37	3,100.0	2.6	0.0	0.1	3.00	3.00	
3,200.0	6.00	359.37	3,199.6	10.5	-0.1	0.4	3.00	3.00	
3,300.0	9.00	359.37	3,298.8	23.5	-0.3	0.8	3.00	3.00	
3,400.0	12.00	359.37	3,397.1	41.7	-0.5	1.4	3.00	3.00	
3,500.0	15.00	359.37	3,494.3	65.1	-0.7	2.2	3.00	3.00	
3,520.4	15.61	359.37	3,514.0	70.5	-0.8	2.4	3.00	3.00	Cliffhouse Ss.
3,529.9	15.90	359.37	3,523.1	73.0	-0.8	2.5	3.00	3.00	EOB; Inc=15.9°
3,600.0	15.90	359.37	3,590.5	92.2	-1.0	3.1	0.00	0.00	
3,700.0	15.90	359.37	3,686.7	119.6	-1.3	4.1	0.00	0.00	
3,800.0	15.90	359.37	3,782.9	147.0	-1.6	5.0	0.00	0.00	
3,900.0	15.90	359.37	3,879.1	174.4	-1.9	6.0	0.00	0.00	
4,000.0	15.90	359.37	3,975.2	201.8	-2.2	6.9	0.00	0.00	
4,100.0	15.90	359.37	4,071.4	229.2	-2.5	7.8	0.00	0.00	
4,200.0	15.90	359.37	4,167.6	256.6	-2.8	8.8	0.00	0.00	
4,276.3	15.90	359.37	4,241.0	277.5	-3.0	9.5	0.00	0.00	Menefee Fn.

Planning Report

Database: USA EDM 5000 Multi Users DB
 Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Site: S7-T24N-R7W
 Well: Escrito E07-2407 04H
 Wellbore: Hz
 Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,300.0	15.90	359.37	4,263.8	284.0	-3.1	9.7	0.00	0.00	
4,400.0	15.90	359.37	4,360.0	311.4	-3.4	10.6	0.00	0.00	
4,500.0	15.90	359.37	4,456.1	338.7	-3.7	11.6	0.00	0.00	
4,600.0	15.90	359.37	4,552.3	366.1	-4.0	12.5	0.00	0.00	
4,700.0	15.90	359.37	4,648.5	393.5	-4.3	13.4	0.00	0.00	
4,800.0	15.90	359.37	4,744.7	420.9	-4.6	14.4	0.00	0.00	
4,900.0	15.90	359.37	4,840.8	448.3	-4.9	15.3	0.00	0.00	
5,000.0	15.90	359.37	4,937.0	475.7	-5.2	16.2	0.00	0.00	
5,034.2	15.90	359.37	4,969.9	485.1	-5.3	16.6	0.00	0.00	Point Lookout Ss.
5,100.0	15.90	359.37	5,033.2	503.1	-5.5	17.2	0.00	0.00	
5,200.0	15.90	359.37	5,129.4	530.5	-5.8	18.1	0.00	0.00	
5,223.4	15.90	359.37	5,151.9	536.9	-5.9	18.3	0.00	0.00	Mancos Shale
5,300.0	15.90	359.37	5,225.5	557.9	-6.1	19.0	0.00	0.00	
5,400.0	15.90	359.37	5,321.7	585.2	-6.4	20.0	0.00	0.00	
5,500.0	15.90	359.37	5,417.9	612.6	-6.7	20.9	0.00	0.00	
5,600.0	15.90	359.37	5,514.1	640.0	-7.0	21.8	0.00	0.00	
5,700.0	15.90	359.37	5,610.2	667.4	-7.3	22.8	0.00	0.00	
5,800.0	15.90	359.37	5,706.4	694.8	-7.6	23.7	0.00	0.00	
5,871.5	15.90	359.37	5,775.1	714.4	-7.8	24.4	0.00	0.00	Start build/turn @ 5871' MD
5,900.0	16.24	349.12	5,802.6	722.2	-8.6	25.4	10.00	1.20	
5,924.3	16.90	340.92	5,825.9	728.9	-10.4	27.3	10.00	2.72	Mancos Silt
6,000.0	20.68	320.35	5,897.6	749.6	-22.5	39.9	10.00	4.99	
6,100.0	28.04	303.71	5,988.7	776.3	-53.4	71.4	10.00	7.36	
6,158.9	33.00	297.41	6,039.5	791.4	-79.2	97.6	10.00	8.41	Gallup Fn.
6,200.0	36.60	293.95	6,073.2	801.5	-100.4	118.9	10.00	8.77	
6,300.0	45.68	287.55	6,148.5	824.5	-161.9	181.0	10.00	9.08	
6,400.0	55.02	282.90	6,212.2	844.5	-236.1	255.6	10.00	9.34	
6,500.0	64.50	279.21	6,262.6	860.9	-320.8	340.7	10.00	9.48	
6,578.4	71.99	276.72	6,291.6	870.9	-392.8	413.0	10.00	9.55	7" ICP
6,600.0	74.06	276.07	6,297.9	873.2	-413.4	433.5	10.00	9.58	
6,700.0	83.67	273.22	6,317.2	881.1	-511.1	531.4	10.00	9.60	
6,769.0	90.30	271.33	6,320.8	883.9	-579.8	600.2	10.00	9.62	LP @ 6320' TVD; 90.3°
6,800.0	90.30	271.33	6,320.7	884.6	-610.9	631.2	0.00	0.00	
6,900.0	90.30	271.33	6,320.1	886.9	-710.8	731.2	0.00	0.00	
7,000.0	90.30	271.33	6,319.6	889.2	-810.8	831.2	0.00	0.00	
7,100.0	90.30	271.33	6,319.1	891.5	-910.8	931.2	0.00	0.00	
7,200.0	90.30	271.33	6,318.6	893.8	-1,010.7	1,031.2	0.00	0.00	
7,300.0	90.30	271.33	6,318.0	896.2	-1,110.7	1,131.2	0.00	0.00	
7,400.0	90.30	271.33	6,317.5	898.5	-1,210.7	1,231.2	0.00	0.00	
7,500.0	90.30	271.33	6,317.0	900.8	-1,310.7	1,331.2	0.00	0.00	
7,600.0	90.30	271.33	6,316.5	903.1	-1,410.6	1,431.2	0.00	0.00	
7,700.0	90.30	271.33	6,315.9	905.4	-1,510.6	1,531.2	0.00	0.00	
7,800.0	90.30	271.33	6,315.4	907.7	-1,610.6	1,631.2	0.00	0.00	
7,900.0	90.30	271.33	6,314.9	910.1	-1,710.5	1,731.2	0.00	0.00	
8,000.0	90.30	271.33	6,314.4	912.4	-1,810.5	1,831.2	0.00	0.00	
8,100.0	90.30	271.33	6,313.8	914.7	-1,910.5	1,931.2	0.00	0.00	
8,200.0	90.30	271.33	6,313.3	917.0	-2,010.5	2,031.2	0.00	0.00	
8,300.0	90.30	271.33	6,312.8	919.3	-2,110.4	2,131.2	0.00	0.00	
8,400.0	90.30	271.33	6,312.3	921.6	-2,210.4	2,231.2	0.00	0.00	
8,500.0	90.30	271.33	6,311.8	924.0	-2,310.4	2,331.2	0.00	0.00	
8,600.0	90.30	271.33	6,311.2	926.3	-2,410.3	2,431.2	0.00	0.00	
8,700.0	90.30	271.33	6,310.7	928.6	-2,510.3	2,531.2	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito E07-2407 04H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7339.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7339.0ft (Aztec)
Site:	S7-T24N-R7W	North Reference:	True
Well:	Escrito E07-2407 04H	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
8,800.0	90.30	271.33	6,310.2	930.9	-2,610.3	2,631.2	0.00	0.00	
8,900.0	90.30	271.33	6,309.7	933.2	-2,710.3	2,731.2	0.00	0.00	
9,000.0	90.30	271.33	6,309.1	935.5	-2,810.2	2,831.2	0.00	0.00	
9,100.0	90.30	271.33	6,308.6	937.9	-2,910.2	2,931.2	0.00	0.00	
9,200.0	90.30	271.33	6,308.1	940.2	-3,010.2	3,031.2	0.00	0.00	
9,300.0	90.30	271.33	6,307.6	942.5	-3,110.1	3,131.2	0.00	0.00	
9,400.0	90.30	271.33	6,307.0	944.8	-3,210.1	3,231.2	0.00	0.00	
9,500.0	90.30	271.33	6,306.5	947.1	-3,310.1	3,331.2	0.00	0.00	
9,600.0	90.30	271.33	6,306.0	949.4	-3,410.1	3,431.2	0.00	0.00	
9,700.0	90.30	271.33	6,305.5	951.7	-3,510.0	3,531.2	0.00	0.00	
9,800.0	90.30	271.33	6,304.9	954.1	-3,610.0	3,631.2	0.00	0.00	
9,900.0	90.30	271.33	6,304.4	956.4	-3,710.0	3,731.2	0.00	0.00	
10,000.0	90.30	271.33	6,303.9	958.7	-3,809.9	3,831.2	0.00	0.00	
10,100.0	90.30	271.33	6,303.4	961.0	-3,909.9	3,931.2	0.00	0.00	
10,200.0	90.30	271.33	6,302.9	963.3	-4,009.9	4,031.2	0.00	0.00	
10,300.0	90.30	271.33	6,302.3	965.6	-4,109.9	4,131.2	0.00	0.00	
10,400.0	90.30	271.33	6,301.8	968.0	-4,209.8	4,231.2	0.00	0.00	
10,500.0	90.30	271.33	6,301.3	970.3	-4,309.8	4,331.2	0.00	0.00	
10,600.0	90.30	271.33	6,300.8	972.6	-4,409.8	4,431.2	0.00	0.00	
10,700.0	90.30	271.33	6,300.2	974.9	-4,509.8	4,531.2	0.00	0.00	
10,800.0	90.30	271.33	6,299.7	977.2	-4,609.7	4,631.2	0.00	0.00	
10,900.0	90.30	271.33	6,299.2	979.5	-4,709.7	4,731.2	0.00	0.00	
11,000.0	90.30	271.33	6,298.7	981.9	-4,809.7	4,831.2	0.00	0.00	
11,069.0	90.30	271.33	6,298.3	983.5	-4,878.6	4,900.1	0.00	0.00	TD at 11069.0

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Escrito E07-2407 04H P	0.00	0.00	6,322.1	878.2	-335.5	1,943,718.99	1,234,917.74	36.333956	-107.626733
- plan misses target center by 49.9ft at 6537.9ft MD (6277.8 TVD, 866.1 N, -355.1 E)									
- Point									
Escrito E07-2407 04H P	0.00	0.00	6,298.3	983.5	-4,878.6	1,943,888.88	1,230,376.60	36.334244	-107.642155
- plan hits target center									
- Point									

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
500.0	500.0	9 5/8"	0.000	0.000		
6,578.4	6,291.6	7" ICP	0.000	0.000		

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito E07-2407 04H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7339.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7339.0ft (Aztec)
Site:	S7-T24N-R7W	North Reference:	True
Well:	Escrito E07-2407 04H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
509.0	509.0	Nacimiento Fn.		-0.30	271.33	
1,977.0	1,977.0	Ojo Alamo Ss.		-0.30	271.33	
2,146.0	2,146.0	Kirtland Shale		-0.30	271.33	
2,397.0	2,397.0	Fruitland Coal		-0.30	271.33	
2,651.0	2,651.0	Pictured Cliffs Ss.		-0.30	271.33	
2,754.0	2,754.0	Lewis Shale		-0.30	271.33	
3,520.4	3,514.0	Cliffhouse Ss.		-0.30	271.33	
4,276.3	4,241.0	Menefee Fn.		-0.30	271.33	
5,034.2	4,970.0	Point Lookout Ss.		-0.30	271.33	
5,223.4	5,152.0	Mancos Shale		-0.30	271.33	
5,924.3	5,826.0	Mancos Silt		-0.30	271.33	
6,158.9	6,040.0	Gallup Fn.		-0.30	271.33	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,000.0	3,000.0	0.0	0.0	KOP @ 3000'	
3,529.9	3,523.1	73.0	-0.8	EOB; Inc=15.9°	
5,871.5	5,775.1	714.4	-7.8	Start build/turn @ 5871' MD	
6,769.0	6,320.8	883.9	-579.8	LP @ 6320' TVD; 90.3°	
11,069.0	6,298.3	983.5	-4,878.6	TD at 11069.0	

EnCana Oil & Gas (USA) Inc

Rio Arriba County, NM

S7-T24N-R7W

Escrito E07-2407 04H

Hz

Plan #1

Anticollision Report

20 March, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito E07-2407 04H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7339.0ft (Aztec)
Reference Site:	S7-T24N-R7W	MD Reference:	WELL @ 7339.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito E07-2407 04H	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:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0ft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 1,331.4ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	Systematic Ellipse
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program **Date** 3/20/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,069.0	Plan #1 (Hz)	Geolink MWD	Geolink MWD

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S7-T24N-R7W						
Escrito E07-2407 01H - HZ - Plan #1	3,000.0	3,000.0	30.0	19.6	2.878	CC, ES, SF
Escrito E07-2407 02H- HZ - Plan #1	3,000.0	3,000.0	42.5	32.1	4.080	CC, ES, SF
Escrito E07-2407 03H - HZ - Plan #1	3,000.0	3,000.0	29.9	19.5	2.870	CC, ES, SF

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Rio Arriba County, NM
Reference Site: S7-T24N-R7W
Site Error: 0.0ft
Reference Well: Escrito E07-2407 04H
Well Error: 0.0ft
Reference Wellbore: Hz
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
TVD Reference: WELL @ 7339.0ft (Aztec)
MD Reference: WELL @ 7339.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 01H - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
0.0	0.0	0.0	0.0	0.0	0.0	122.31	-16.0	25.3	30.0						
100.0	100.0	100.0	100.0	0.1	0.1	122.31	-16.0	25.3	30.0	29.7	0.29	102.229			
200.0	200.0	200.0	200.0	0.3	0.3	122.31	-16.0	25.3	30.0	29.3	0.64	46.670			
300.0	300.0	300.0	300.0	0.5	0.5	122.31	-16.0	25.3	30.0	29.0	0.99	30.237			
400.0	400.0	400.0	400.0	0.7	0.7	122.31	-16.0	25.3	30.0	28.6	1.34	22.363			
500.0	500.0	500.0	500.0	0.8	0.8	122.31	-16.0	25.3	30.0	28.3	1.69	17.742			
600.0	600.0	600.0	600.0	1.0	1.0	122.31	-16.0	25.3	30.0	27.9	2.04	14.704			
700.0	700.0	700.0	700.0	1.2	1.2	122.31	-16.0	25.3	30.0	27.6	2.39	12.554			
800.0	800.0	800.0	800.0	1.4	1.4	122.31	-16.0	25.3	30.0	27.2	2.74	10.953			
900.0	900.0	900.0	900.0	1.5	1.5	122.31	-16.0	25.3	30.0	26.9	3.09	9.714			
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	122.31	-16.0	25.3	30.0	26.5	3.43	8.727			
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	122.31	-16.0	25.3	30.0	26.2	3.78	7.922			
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	122.31	-16.0	25.3	30.0	25.8	4.13	7.253			
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	122.31	-16.0	25.3	30.0	25.5	4.48	6.688			
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	122.31	-16.0	25.3	30.0	25.1	4.83	6.205			
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	122.31	-16.0	25.3	30.0	24.8	5.18	5.787			
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	122.31	-16.0	25.3	30.0	24.4	5.53	5.421			
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	122.31	-16.0	25.3	30.0	24.1	5.88	5.099			
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	122.31	-16.0	25.3	30.0	23.7	6.23	4.813			
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	122.31	-16.0	25.3	30.0	23.4	6.58	4.558			
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	122.31	-16.0	25.3	30.0	23.0	6.93	4.328			
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	122.31	-16.0	25.3	30.0	22.7	7.27	4.121			
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	122.31	-16.0	25.3	30.0	22.4	7.62	3.932			
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	122.31	-16.0	25.3	30.0	22.0	7.97	3.760			
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	122.31	-16.0	25.3	30.0	21.7	8.32	3.602			
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	122.31	-16.0	25.3	30.0	21.3	8.67	3.457			
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	122.31	-16.0	25.3	30.0	21.0	9.02	3.323			
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	122.31	-16.0	25.3	30.0	20.6	9.37	3.199			
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	122.31	-16.0	25.3	30.0	20.3	9.72	3.085			
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	122.31	-16.0	25.3	30.0	19.9	10.07	2.978			
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	122.31	-16.0	25.3	30.0	19.6	10.42	2.878 CC, ES, SF			
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	126.90	-16.0	25.3	31.5	20.7	10.76	2.925			
3,200.0	3,199.6	3,199.6	3,199.6	5.6	5.6	136.61	-16.0	25.3	36.7	25.6	11.10	3.310			
3,300.0	3,298.8	3,298.8	3,298.8	5.8	5.7	147.39	-16.0	25.3	47.1	35.7	11.40	4.129			
3,400.0	3,397.1	3,397.1	3,397.1	6.0	5.9	156.10	-16.0	25.3	63.2	51.6	11.68	5.414			
3,500.0	3,494.3	3,494.3	3,494.3	6.2	6.1	162.25	-16.0	25.3	85.2	73.2	11.93	7.139			
3,600.0	3,590.5	3,590.5	3,590.5	6.5	6.2	166.45	-16.0	25.3	111.4	99.2	12.23	9.107			
3,700.0	3,686.7	3,686.7	3,686.7	6.8	6.4	169.11	-16.0	25.3	138.2	125.7	12.57	10.997			
3,800.0	3,782.9	3,782.9	3,782.9	7.2	6.6	170.90	-16.0	25.3	165.2	152.3	12.91	12.801			
3,900.0	3,879.1	3,879.1	3,879.1	7.5	6.7	172.19	-16.0	25.3	192.4	179.1	13.25	14.519			
4,000.0	3,975.2	3,975.2	3,975.2	7.9	6.9	173.16	-16.0	25.3	219.5	206.0	13.59	16.156			
4,100.0	4,071.4	4,071.4	4,071.4	8.3	7.1	173.92	-16.0	25.3	246.8	232.9	13.93	17.716			
4,200.0	4,167.6	4,167.6	4,167.6	8.7	7.2	174.52	-16.0	25.3	274.0	259.8	14.27	19.204			
4,300.0	4,263.8	4,275.6	4,275.6	9.1	7.4	175.05	-14.5	25.3	300.1	285.4	14.63	20.509			
4,400.0	4,360.0	4,392.4	4,392.1	9.5	7.6	175.42	-6.3	25.3	320.6	305.6	15.01	21.359			
4,500.0	4,456.1	4,511.8	4,510.4	9.9	7.9	175.64	9.4	25.2	335.1	319.7	15.40	21.764			
4,600.0	4,552.3	4,632.9	4,629.2	10.4	8.1	175.74	32.8	25.1	343.3	327.5	15.79	21.744			
4,700.0	4,648.5	4,754.8	4,747.0	10.8	8.4	175.74	64.0	24.9	345.2	329.0	16.18	21.328			
4,800.0	4,744.7	4,876.5	4,862.4	11.3	8.8	175.63	102.5	24.7	340.7	324.1	16.59	20.544			
4,900.0	4,840.8	4,997.0	4,974.1	11.7	9.3	175.41	147.9	24.5	330.0	313.0	16.99	19.423			
5,000.0	4,937.0	5,115.4	5,080.8	12.2	9.8	175.06	199.2	24.3	313.0	295.6	17.39	17.997			
5,100.0	5,033.2	5,218.0	5,171.2	12.6	10.4	174.62	247.8	24.0	291.7	274.0	17.78	16.412			

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

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Reference Site: S7-T24N-R7W
 Site Error: 0.0ft
 Reference Well: Escrito E07-2407 04H
 Well Error: 0.0ft
 Reference Wellbore: Hz
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 01H - HZ - Plan #1														Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
5,200.0	5,129.4	5,315.7	5,257.1	13.1	10.9	174.13	294.2	23.8	270.2	252.1	18.15	14.888			
5,300.0	5,225.5	5,413.3	5,343.0	13.6	11.5	173.56	340.6	23.5	248.8	230.2	18.54	13.421			
5,400.0	5,321.7	5,511.0	5,428.9	14.0	12.1	172.88	387.0	23.3	227.4	208.4	18.93	12.009			
5,500.0	5,417.9	5,608.6	5,514.8	14.5	12.8	172.05	433.4	23.1	206.0	186.6	19.34	10.648			
5,600.0	5,514.1	5,706.2	5,600.7	15.0	13.4	171.04	479.8	22.8	184.6	164.8	19.78	9.335			
5,700.0	5,610.2	5,803.9	5,686.6	15.5	14.1	169.76	526.2	22.6	163.3	143.1	20.25	8.066			
5,800.0	5,706.4	5,901.5	5,772.5	16.0	14.8	168.11	572.6	22.4	142.2	121.4	20.79	6.839			
5,900.0	5,802.6	5,996.5	5,856.1	16.4	15.5	174.12	617.7	24.0	121.9	100.3	21.60	5.641			
5,981.8	5,880.5	6,068.1	5,918.4	16.8	16.0	-174.37	651.3	34.0	113.7	90.1	23.65	4.808			
6,000.0	5,897.6	6,082.8	5,931.1	16.9	16.1	-173.74	658.1	37.1	114.3	90.0	24.28	4.706			
6,100.0	5,988.7	6,150.0	5,987.8	17.4	16.6	-174.36	688.6	56.2	140.4	113.5	26.86	5.226			
6,200.0	6,073.2	6,200.0	6,028.6	18.0	17.0	-174.80	710.4	75.1	202.7	175.8	26.91	7.533			
6,300.0	6,148.5	6,230.4	6,052.6	18.5	17.2	-170.06	723.3	88.6	286.7	262.0	24.70	11.607			
6,400.0	6,212.2	6,250.0	6,067.7	19.2	17.4	-156.73	731.4	98.1	381.2	359.7	21.48	17.745			
6,500.0	6,262.6	6,250.0	6,067.7	20.0	17.4	-100.31	731.4	98.1	479.8	454.9	24.84	19.311			
6,600.0	6,297.9	6,250.0	6,067.7	21.0	17.4	-48.25	731.4	98.1	578.5	555.2	23.27	24.864			
6,700.0	6,317.2	6,226.7	6,049.7	22.2	17.2	-32.24	721.8	86.9	674.2	655.1	19.04	35.407			
6,800.0	6,320.7	6,200.0	6,028.6	23.5	17.0	-28.15	710.4	75.1	765.6	747.9	17.80	43.020			
6,900.0	6,320.1	6,200.0	6,028.6	25.0	17.0	-28.15	710.4	75.1	856.7	837.9	18.75	45.684			
7,000.0	6,319.6	6,176.6	6,009.7	26.6	16.8	-28.18	700.3	65.7	948.7	929.0	19.73	48.094			
7,100.0	6,319.1	6,150.0	5,987.8	28.4	16.6	-28.22	688.6	56.2	1,042.1	1,021.3	20.73	50.273			
7,200.0	6,318.6	6,150.0	5,987.8	30.4	16.6	-28.22	688.6	56.2	1,135.7	1,113.9	21.78	52.151			
7,300.0	6,318.0	6,150.0	5,987.8	32.4	16.6	-28.22	688.6	56.2	1,230.3	1,207.5	22.84	53.856			
7,400.0	6,317.5	6,131.1	5,972.1	34.4	16.5	-28.24	680.1	50.1	1,325.3	1,301.4	23.92	55.416			

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Reference Site: S7-T24N-R7W
 Site Error: 0.0ft
 Reference Well: Escrito E07-2407 04H
 Well Error: 0.0ft
 Reference Wellbore: Hz
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 02H - Hz - Plan #1													Offset Site Error: 0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
0.0	0.0	0.0	0.0	0.0	0.0	167.59	-41.5	9.1	42.5				
100.0	100.0	100.0	100.0	0.1	0.1	167.59	-41.5	9.1	42.5	42.2	0.29	144.942	
200.0	200.0	200.0	200.0	0.3	0.3	167.59	-41.5	9.1	42.5	41.9	0.64	66.169	
300.0	300.0	300.0	300.0	0.5	0.5	167.59	-41.5	9.1	42.5	41.5	0.99	42.870	
400.0	400.0	400.0	400.0	0.7	0.7	167.59	-41.5	9.1	42.5	41.2	1.34	31.706	
500.0	500.0	500.0	500.0	0.8	0.8	167.59	-41.5	9.1	42.5	40.8	1.69	25.155	
600.0	600.0	600.0	600.0	1.0	1.0	167.59	-41.5	9.1	42.5	40.5	2.04	20.848	
700.0	700.0	700.0	700.0	1.2	1.2	167.59	-41.5	9.1	42.5	40.1	2.39	17.800	
800.0	800.0	800.0	800.0	1.4	1.4	167.59	-41.5	9.1	42.5	39.8	2.74	15.529	
900.0	900.0	900.0	900.0	1.5	1.5	167.59	-41.5	9.1	42.5	39.4	3.09	13.773	
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	167.59	-41.5	9.1	42.5	39.1	3.43	12.373	
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	167.59	-41.5	9.1	42.5	38.7	3.78	11.232	
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	167.59	-41.5	9.1	42.5	38.4	4.13	10.283	
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	167.59	-41.5	9.1	42.5	38.0	4.48	9.482	
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	167.59	-41.5	9.1	42.5	37.7	4.83	8.797	
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	167.59	-41.5	9.1	42.5	37.3	5.18	8.204	
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	167.59	-41.5	9.1	42.5	37.0	5.53	7.686	
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	167.59	-41.5	9.1	42.5	36.6	5.88	7.230	
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	167.59	-41.5	9.1	42.5	36.3	6.23	6.825	
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	167.59	-41.5	9.1	42.5	35.9	6.58	6.462	
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	167.59	-41.5	9.1	42.5	35.6	6.93	6.137	
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	167.59	-41.5	9.1	42.5	35.2	7.27	5.842	
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	167.59	-41.5	9.1	42.5	34.9	7.62	5.575	
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	167.59	-41.5	9.1	42.5	34.5	7.97	5.331	
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	167.59	-41.5	9.1	42.5	34.2	8.32	5.107	
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	167.59	-41.5	9.1	42.5	33.8	8.67	4.901	
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	167.59	-41.5	9.1	42.5	33.5	9.02	4.712	
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	167.59	-41.5	9.1	42.5	33.1	9.37	4.536	
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	167.59	-41.5	9.1	42.5	32.8	9.72	4.373	
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	167.59	-41.5	9.1	42.5	32.4	10.07	4.222	
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	167.59	-41.5	9.1	42.5	32.1	10.42	4.080 CC, ES, SF	
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	168.88	-41.5	9.1	45.1	34.3	10.76	4.190	
3,200.0	3,199.6	3,199.6	3,199.6	5.6	5.6	170.49	-41.5	9.1	52.8	41.7	11.08	4.766	
3,300.0	3,298.8	3,298.8	3,298.8	5.8	5.7	172.32	-41.5	9.1	65.7	54.3	11.37	5.777	
3,400.0	3,397.1	3,397.1	3,397.1	6.0	5.9	173.92	-41.5	9.1	83.8	72.1	11.65	7.195	
3,500.0	3,494.3	3,494.3	3,494.3	6.2	6.1	175.19	-41.5	9.1	107.0	95.1	11.90	8.998	
3,600.0	3,590.5	3,590.5	3,590.5	6.5	6.2	176.14	-41.5	9.1	134.1	121.9	12.21	10.989	
3,700.0	3,686.7	3,686.7	3,686.7	6.8	6.4	176.80	-41.5	9.1	161.5	148.9	12.55	12.869	
3,800.0	3,782.9	3,782.9	3,782.9	7.2	6.6	177.26	-41.5	9.1	188.8	175.9	12.89	14.651	
3,900.0	3,879.1	3,879.1	3,879.1	7.5	6.7	177.61	-41.5	9.1	216.2	203.0	13.23	16.341	
4,000.0	3,975.2	3,975.2	3,975.2	7.9	6.9	177.88	-41.5	9.1	243.6	230.0	13.57	17.946	
4,100.0	4,071.4	4,071.4	4,071.4	8.3	7.1	178.09	-41.5	9.1	270.9	257.0	13.91	19.473	
4,200.0	4,167.6	4,167.6	4,167.6	8.7	7.2	178.27	-41.5	9.1	298.3	284.1	14.26	20.927	
4,300.0	4,263.8	4,263.8	4,263.8	9.1	7.4	178.41	-41.5	9.1	325.7	311.1	14.60	22.313	
4,400.0	4,360.0	4,360.0	4,360.0	9.5	7.6	178.54	-41.5	9.1	353.1	338.1	14.94	23.636	
4,500.0	4,456.1	4,456.1	4,456.1	9.9	7.7	178.64	-41.5	9.1	380.5	365.2	15.28	24.900	
4,600.0	4,552.3	4,552.3	4,552.3	10.4	7.9	178.73	-41.5	9.1	407.9	392.2	15.62	26.109	
4,700.0	4,648.5	4,648.5	4,648.5	10.8	8.1	178.81	-41.5	9.1	435.2	419.3	15.96	27.267	
4,800.0	4,744.7	4,744.7	4,744.7	11.3	8.3	178.88	-41.5	9.1	462.6	446.3	16.30	28.376	
4,900.0	4,840.8	4,840.8	4,840.8	11.7	8.4	178.94	-41.5	9.1	490.0	473.4	16.64	29.440	
5,000.0	4,937.0	4,937.0	4,937.0	12.2	8.6	179.00	-41.5	9.1	517.4	500.4	16.99	30.462	
5,100.0	5,033.2	5,033.2	5,033.2	12.6	8.8	179.05	-41.5	9.1	544.8	527.5	17.33	31.443	

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: Rio Arriba County, NM
 Reference Site: S7-T24N-R7W
 Site Error: 0.0ft
 Reference Well: Escrito E07-2407 04H
 Well Error: 0.0ft
 Reference Wellbore: Hz
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 02H - Hz - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft
Reference	Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor	
5,200.0	5,129.4	5,129.4	5,129.4	13.1	8.9	179.10	-41.5	9.1	572.2	554.5	17.67	32.387	
5,300.0	5,225.5	5,225.5	5,225.5	13.6	9.1	179.14	-41.5	9.1	599.6	581.6	18.01	33.294	
5,400.0	5,321.7	5,321.7	5,321.7	14.0	9.3	179.18	-41.5	9.1	626.9	608.6	18.35	34.169	
5,500.0	5,417.9	5,417.9	5,417.9	14.5	9.4	179.21	-41.5	9.1	654.3	635.6	18.69	35.011	
5,600.0	5,514.1	5,514.1	5,514.1	15.0	9.6	179.24	-41.5	9.1	681.7	662.7	19.03	35.823	
5,700.0	5,610.2	5,573.1	5,573.1	15.5	9.7	179.25	-42.3	9.2	710.9	691.6	19.31	36.818	
5,800.0	5,706.4	5,614.3	5,614.2	16.0	9.8	179.23	-45.9	9.7	746.6	727.1	19.55	38.183	
5,900.0	5,802.6	5,650.0	5,649.4	16.4	9.8	-169.54	-51.4	10.4	788.8	769.1	19.79	39.867	
6,000.0	5,897.6	5,700.0	5,698.0	16.9	9.9	-137.42	-62.7	11.8	837.2	817.0	20.20	41.439	
6,100.0	5,988.7	5,720.5	5,717.7	17.4	10.0	-116.69	-68.6	12.6	889.7	868.8	20.93	42.504	
6,200.0	6,073.2	5,750.0	5,745.5	18.0	10.0	-103.01	-78.2	13.8	945.7	923.7	21.96	43.056	
6,300.0	6,148.5	5,769.1	5,763.3	18.5	10.1	-92.37	-85.2	14.7	1,003.5	980.4	23.14	43.368	
6,400.0	6,212.2	5,800.0	5,791.5	19.2	10.2	-84.49	-97.7	16.3	1,062.3	1,038.1	24.20	43.905	
6,500.0	6,262.6	5,800.0	5,791.5	20.0	10.2	-76.40	-97.7	16.3	1,120.0	1,095.0	24.99	44.821	
6,600.0	6,297.9	5,800.0	5,791.5	21.0	10.2	-69.64	-97.7	16.3	1,176.4	1,151.0	25.34	46.418	
6,700.0	6,317.2	5,800.0	5,791.5	22.2	10.2	-64.19	-97.7	16.3	1,229.9	1,204.6	25.33	48.550	
6,800.0	6,320.7	5,800.0	5,791.5	23.5	10.2	-61.17	-97.7	16.3	1,279.9	1,254.2	25.75	49.715	

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Reference Site: S7-T24N-R7W
 Site Error: 0.0ft
 Reference Well: Escrito E07-2407 04H
 Well Error: 0.0ft
 Reference Wellbore Hz
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 03H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-147.18	-25.1	-16.2	29.9					
100.0	100.0	100.0	100.0	0.1	0.1	-147.18	-25.1	-16.2	29.9	29.6	0.29	101.953		
200.0	200.0	200.0	200.0	0.3	0.3	-147.18	-25.1	-16.2	29.9	29.3	0.64	46.544		
300.0	300.0	300.0	300.0	0.5	0.5	-147.18	-25.1	-16.2	29.9	28.9	0.99	30.155		
400.0	400.0	400.0	400.0	0.7	0.7	-147.18	-25.1	-16.2	29.9	28.6	1.34	22.302		
500.0	500.0	500.0	500.0	0.8	0.8	-147.18	-25.1	-16.2	29.9	28.2	1.69	17.694		
600.0	600.0	600.0	600.0	1.0	1.0	-147.18	-25.1	-16.2	29.9	27.9	2.04	14.664		
700.0	700.0	700.0	700.0	1.2	1.2	-147.18	-25.1	-16.2	29.9	27.5	2.39	12.521		
800.0	800.0	800.0	800.0	1.4	1.4	-147.18	-25.1	-16.2	29.9	27.2	2.74	10.924		
900.0	900.0	900.0	900.0	1.5	1.5	-147.18	-25.1	-16.2	29.9	26.8	3.09	9.688		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-147.18	-25.1	-16.2	29.9	26.5	3.43	8.703		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-147.18	-25.1	-16.2	29.9	26.1	3.78	7.900		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-147.18	-25.1	-16.2	29.9	25.8	4.13	7.233		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-147.18	-25.1	-16.2	29.9	25.4	4.48	6.670		
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	-147.18	-25.1	-16.2	29.9	25.1	4.83	6.188		
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	-147.18	-25.1	-16.2	29.9	24.7	5.18	5.771		
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	-147.18	-25.1	-16.2	29.9	24.4	5.53	5.407		
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	-147.18	-25.1	-16.2	29.9	24.0	5.88	5.086		
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	-147.18	-25.1	-16.2	29.9	23.7	6.23	4.800		
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	-147.18	-25.1	-16.2	29.9	23.3	6.58	4.546		
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	-147.18	-25.1	-16.2	29.9	23.0	6.93	4.317		
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	-147.18	-25.1	-16.2	29.9	22.6	7.27	4.109		
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	-147.18	-25.1	-16.2	29.9	22.3	7.62	3.921		
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	-147.18	-25.1	-16.2	29.9	21.9	7.97	3.750		
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	-147.18	-25.1	-16.2	29.9	21.6	8.32	3.592		
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	-147.18	-25.1	-16.2	29.9	21.2	8.67	3.448		
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	-147.18	-25.1	-16.2	29.9	20.9	9.02	3.314		
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	-147.18	-25.1	-16.2	29.9	20.5	9.37	3.191		
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	-147.18	-25.1	-16.2	29.9	20.2	9.72	3.076		
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-147.18	-25.1	-16.2	29.9	19.8	10.07	2.969		
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	-147.18	-25.1	-16.2	29.9	19.5	10.42	2.870 CC, ES, SF		
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	-149.09	-25.1	-16.2	32.1	21.4	10.76	2.985		
3,200.0	3,199.6	3,199.6	3,199.6	5.6	5.6	-154.92	-25.1	-16.2	39.1	28.0	11.08	3.524		
3,300.0	3,298.8	3,298.8	3,298.8	5.8	5.7	-161.00	-25.1	-16.2	51.2	39.8	11.38	4.496		
3,400.0	3,397.1	3,397.1	3,397.1	6.0	5.9	-165.82	-25.1	-16.2	68.7	57.0	11.66	5.892		
3,500.0	3,494.3	3,494.3	3,494.3	6.2	6.1	-169.27	-25.1	-16.2	91.5	79.6	11.91	7.686		
3,600.0	3,590.5	3,590.5	3,590.5	6.5	6.2	-171.68	-25.1	-16.2	118.3	106.1	12.21	9.688		
3,700.0	3,686.7	3,686.7	3,686.7	6.8	6.4	-173.24	-25.1	-16.2	145.5	133.0	12.55	11.590		
3,800.0	3,782.9	3,782.9	3,782.9	7.2	6.6	-174.31	-25.1	-16.2	172.8	159.9	12.90	13.397		
3,900.0	3,879.1	3,879.1	3,879.1	7.5	6.7	-175.09	-25.1	-16.2	200.0	186.8	13.24	15.113		
4,000.0	3,975.2	3,975.2	3,975.2	7.9	6.9	-175.68	-25.1	-16.2	227.3	213.8	13.58	16.744		
4,100.0	4,071.4	4,063.1	4,063.1	8.3	7.1	-176.15	-26.2	-16.1	255.8	241.9	13.90	18.399		
4,200.0	4,167.6	4,146.0	4,145.8	8.7	7.2	-176.62	-30.7	-15.6	288.3	274.1	14.22	20.274		
4,300.0	4,263.8	4,226.3	4,225.8	9.1	7.4	-177.10	-38.4	-14.8	324.8	310.3	14.53	22.351		
4,400.0	4,360.0	4,300.0	4,298.8	9.5	7.5	-177.53	-48.5	-13.7	365.2	350.3	14.83	24.617		
4,500.0	4,456.1	4,379.7	4,377.2	9.9	7.7	-177.98	-62.5	-12.2	409.0	393.9	15.14	27.014		
4,600.0	4,552.3	4,467.3	4,463.1	10.4	7.9	-178.42	-79.7	-10.3	454.7	439.3	15.46	29.409		
4,700.0	4,648.5	4,556.2	4,550.3	10.8	8.1	-178.78	-97.2	-8.4	500.5	484.7	15.79	31.703		
4,800.0	4,744.7	4,645.1	4,637.4	11.3	8.3	-179.08	-114.7	-6.5	546.2	530.1	16.11	33.907		
4,900.0	4,840.8	4,734.0	4,724.5	11.7	8.5	-179.34	-132.1	-4.7	591.9	575.5	16.43	36.023		
5,000.0	4,937.0	4,822.9	4,811.7	12.2	8.7	-179.56	-149.6	-2.8	637.7	620.9	16.76	38.059		
5,100.0	5,033.2	4,911.8	4,898.8	12.6	8.9	-179.74	-167.0	-0.9	683.5	666.4	17.08	40.018		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito E07-2407 04H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7339.0ft (Aztec)
Reference Site:	S7-T24N-R7W	MD Reference:	WELL @ 7339.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito E07-2407 04H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 03H - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)							
5,200.0	5,129.4	5,000.7	4,986.0	13.1	9.2	-179.91	-184.5	1.0	729.2	711.8	17.40	41.904			
5,300.0	5,225.5	5,089.6	5,073.1	13.6	9.4	179.94	-201.9	2.9	775.0	757.3	17.73	43.722			
5,400.0	5,321.7	5,178.5	5,160.3	14.0	9.7	179.81	-219.4	4.8	820.8	802.7	18.05	45.475			
5,500.0	5,417.9	5,267.4	5,247.4	14.5	10.0	179.70	-236.9	6.7	866.5	848.2	18.37	47.166			
5,600.0	5,514.1	5,356.3	5,334.6	15.0	10.2	179.59	-254.3	8.5	912.3	893.6	18.70	48.799			
5,700.0	5,610.2	5,445.2	5,421.7	15.5	10.5	179.50	-271.8	10.4	958.1	939.1	19.02	50.376			
5,800.0	5,706.4	5,534.1	5,508.8	16.0	10.8	179.41	-289.2	12.3	1,003.9	984.5	19.34	51.901			
5,900.0	5,802.6	5,622.9	5,596.0	16.4	11.0	-169.38	-306.7	14.2	1,049.7	1,030.0	19.67	53.366			
6,000.0	5,897.6	5,710.4	5,681.7	16.9	11.3	-137.70	-323.9	16.1	1,095.6	1,075.5	20.17	54.319			
6,100.0	5,988.7	5,801.1	5,770.6	17.4	11.6	-119.12	-341.6	16.3	1,141.2	1,120.3	20.89	54.634			
6,200.0	6,073.2	5,905.9	5,872.2	18.0	11.9	-108.08	-361.6	1.1	1,184.7	1,163.0	21.75	54.460			
6,300.0	6,148.5	6,022.4	5,979.9	18.5	12.3	-101.00	-382.3	-37.6	1,224.8	1,202.0	22.77	53.798			
6,400.0	6,212.2	6,154.0	6,089.6	19.2	12.8	-96.31	-402.6	-106.9	1,259.7	1,235.7	24.02	52.435			
6,500.0	6,262.6	6,303.0	6,191.5	20.0	13.7	-93.20	-420.6	-213.5	1,287.9	1,262.0	25.94	49.658			
6,600.0	6,297.9	6,467.8	6,268.8	21.0	15.4	-91.11	-432.8	-357.9	1,307.5	1,278.5	29.08	44.967			
6,700.0	6,317.2	6,641.4	6,303.4	22.2	18.0	-89.68	-436.0	-527.3	1,317.2	1,283.7	33.54	39.271			
6,800.0	6,320.7	6,755.7	6,303.8	23.5	20.0	-89.27	-433.5	-641.6	1,318.5	1,280.9	37.58	35.081			
6,900.0	6,320.1	6,855.7	6,303.2	25.0	22.0	-89.27	-431.1	-741.6	1,318.5	1,276.8	41.72	31.600			
7,000.0	6,319.6	6,955.7	6,302.7	26.6	24.0	-89.27	-428.8	-841.5	1,318.5	1,272.4	46.02	28.647			
7,100.0	6,319.1	7,055.7	6,302.2	28.4	26.2	-89.27	-426.5	-941.5	1,318.4	1,268.0	50.44	26.137			
7,200.0	6,318.6	7,155.7	6,301.7	30.4	28.4	-89.27	-424.1	-1,041.5	1,318.4	1,263.5	54.95	23.992			
7,300.0	6,318.0	7,255.7	6,301.1	32.4	30.6	-89.27	-421.8	-1,141.4	1,318.4	1,258.9	59.53	22.146			
7,400.0	6,317.5	7,355.7	6,300.6	34.4	32.9	-89.27	-419.4	-1,241.4	1,318.4	1,254.2	64.17	20.546			
7,500.0	6,317.0	7,455.7	6,300.1	36.6	35.2	-89.27	-417.1	-1,341.4	1,318.4	1,249.5	68.84	19.150			
7,600.0	6,316.5	7,555.7	6,299.6	38.8	37.5	-89.27	-414.8	-1,441.4	1,318.3	1,244.8	73.56	17.923			
7,700.0	6,315.9	7,655.7	6,299.0	41.0	39.8	-89.27	-412.4	-1,541.3	1,318.3	1,240.0	78.30	16.837			
7,800.0	6,315.4	7,755.7	6,298.5	43.2	42.2	-89.27	-410.1	-1,641.3	1,318.3	1,235.2	83.07	15.871			
7,900.0	6,314.9	7,855.7	6,298.0	45.5	44.6	-89.27	-407.8	-1,741.3	1,318.3	1,230.4	87.85	15.006			
8,000.0	6,314.4	7,955.7	6,297.5	47.8	46.9	-89.27	-405.4	-1,841.2	1,318.3	1,225.6	92.66	14.228			
8,100.0	6,313.8	8,055.7	6,297.0	50.1	49.3	-89.27	-403.1	-1,941.2	1,318.2	1,220.8	97.47	13.524			
8,200.0	6,313.3	8,155.7	6,296.4	52.5	51.7	-89.27	-400.7	-2,041.2	1,318.2	1,215.9	102.30	12.885			
8,300.0	6,312.8	8,255.7	6,295.9	54.8	54.1	-89.27	-398.4	-2,141.2	1,318.2	1,211.0	107.14	12.303			
8,400.0	6,312.3	8,355.7	6,295.4	57.2	56.5	-89.27	-396.1	-2,241.1	1,318.2	1,206.2	111.99	11.770			
8,500.0	6,311.8	8,455.7	6,294.9	59.5	59.0	-89.27	-393.7	-2,341.1	1,318.1	1,201.3	116.85	11.280			
8,600.0	6,311.2	8,555.7	6,294.3	61.9	61.4	-89.27	-391.4	-2,441.1	1,318.1	1,196.4	121.72	10.829			
8,700.0	6,310.7	8,655.7	6,293.8	64.3	63.8	-89.27	-389.1	-2,541.0	1,318.1	1,191.5	126.59	10.412			
8,800.0	6,310.2	8,755.7	6,293.3	66.7	66.2	-89.27	-386.7	-2,641.0	1,318.1	1,186.6	131.47	10.026			
8,900.0	6,309.7	8,855.7	6,292.8	69.1	68.7	-89.27	-384.4	-2,741.0	1,318.1	1,181.7	136.35	9.667			
9,000.0	6,309.1	8,955.7	6,292.2	71.5	71.1	-89.27	-382.0	-2,841.0	1,318.0	1,176.8	141.24	9.332			
9,100.0	6,308.6	9,055.7	6,291.7	73.9	73.5	-89.27	-379.7	-2,940.9	1,318.0	1,171.9	146.13	9.020			
9,200.0	6,308.1	9,155.7	6,291.2	76.3	76.0	-89.27	-377.4	-3,040.9	1,318.0	1,167.0	151.02	8.727			
9,300.0	6,307.6	9,255.7	6,290.7	78.7	78.4	-89.27	-375.0	-3,140.9	1,318.0	1,162.1	155.92	8.453			
9,400.0	6,307.0	9,355.7	6,290.2	81.1	80.9	-89.27	-372.7	-3,240.8	1,318.0	1,157.1	160.82	8.195			
9,500.0	6,306.5	9,455.7	6,289.6	83.6	83.3	-89.27	-370.3	-3,340.8	1,317.9	1,152.2	165.73	7.952			
9,600.0	6,306.0	9,555.7	6,289.1	86.0	85.7	-89.27	-368.0	-3,440.8	1,317.9	1,147.3	170.63	7.724			
9,700.0	6,305.5	9,655.7	6,288.6	88.4	88.2	-89.27	-365.7	-3,540.8	1,317.9	1,142.3	175.54	7.507			
9,800.0	6,304.9	9,755.7	6,288.1	90.8	90.6	-89.27	-363.3	-3,640.7	1,317.9	1,137.4	180.45	7.303			
9,900.0	6,304.4	9,855.7	6,287.5	93.3	93.1	-89.27	-361.0	-3,740.7	1,317.8	1,132.5	185.37	7.109			
10,000.0	6,303.9	9,955.7	6,287.0	95.7	95.6	-89.27	-358.7	-3,840.7	1,317.8	1,127.5	190.28	6.926			
10,100.0	6,303.4	10,055.7	6,286.5	98.2	98.0	-89.27	-356.3	-3,940.6	1,317.8	1,122.6	195.20	6.751			
10,200.0	6,302.9	10,155.7	6,286.0	100.6	100.5	-89.27	-354.0	-4,040.6	1,317.8	1,117.7	200.12	6.585			
10,300.0	6,302.3	10,255.7	6,285.4	103.0	102.9	-89.27	-351.6	-4,140.6	1,317.8	1,112.7	205.04	6.427			

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

Anticollision Report

Company: EnCana Oil & Gas (USA) Inc
Project: Rio Arriba County, NM
Reference Site: S7-T24N-R7W
Site Error: 0.0ft
Reference Well: Escrito E07-2407 04H
Well Error: 0.0ft
Reference Wellbore: Hz
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
TVD Reference: WELL @ 7339.0ft (Aztec)
MD Reference: WELL @ 7339.0ft (Aztec)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Offset Design S7-T24N-R7W - Escrito E07-2407 03H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-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		
10,400.0	6,301.8	10,355.7	6,284.9	105.5	105.4	-89.27	-349.3	-4,240.6	1,317.7	1,107.8	209.96	6.276		
10,500.0	6,301.3	10,455.7	6,284.4	107.9	107.8	-89.27	-347.0	-4,340.5	1,317.7	1,102.8	214.88	6.132		
10,600.0	6,300.8	10,555.7	6,283.9	110.4	110.3	-89.27	-344.6	-4,440.5	1,317.7	1,097.9	219.80	5.995		
10,700.0	6,300.2	10,655.7	6,283.3	112.8	112.7	-89.27	-342.3	-4,540.5	1,317.7	1,092.9	224.73	5.863		
10,800.0	6,299.7	10,755.7	6,282.8	115.3	115.2	-89.27	-340.0	-4,640.4	1,317.7	1,088.0	229.65	5.738		
10,900.0	6,299.2	10,855.7	6,282.3	117.7	117.7	-89.27	-337.6	-4,740.4	1,317.6	1,083.1	234.58	5.617		
10,991.8	6,298.7	10,947.6	6,281.8	120.0	119.9	-89.27	-335.5	-4,832.2	1,317.6	1,078.5	239.10	5.511		
11,000.0	6,298.7	10,955.3	6,281.8	120.2	120.1	-89.27	-335.3	-4,840.0	1,317.6	1,078.1	239.49	5.502		
11,069.0	6,298.3	10,955.3	6,281.8	121.9	120.1	-89.27	-335.3	-4,840.0	1,319.4	1,078.2	241.19	5.470		

Anticollision Report

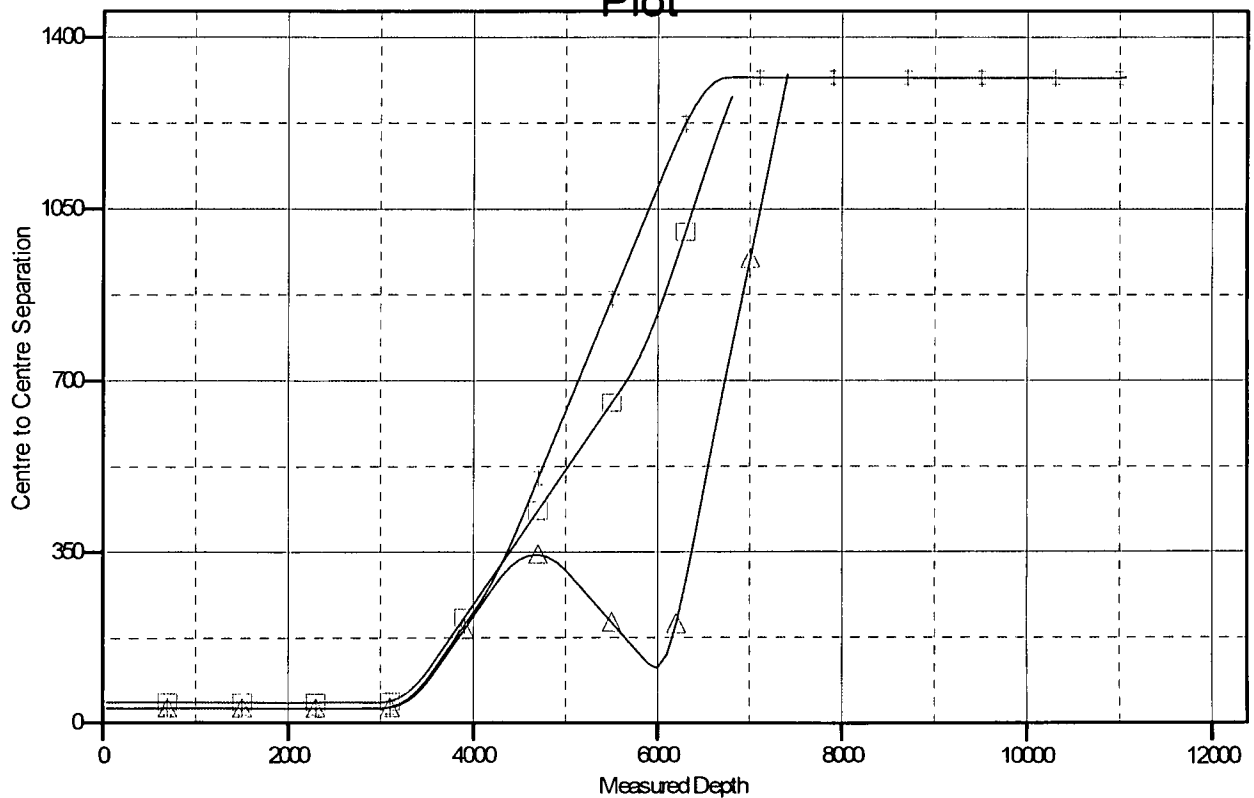
Company: EnCana Oil & Gas (USA) Inc
 Project: Rio Arriba County, NM
 Reference Site: S7-T24N-R7W
 Site Error: 0.0ft
 Reference Well: Escrito E07-2407 04H
 Well Error: 0.0ft
 Reference Wellbore: Hz
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito E07-2407 04H
 TVD Reference: WELL @ 7339.0ft (Aztec)
 MD Reference: WELL @ 7339.0ft (Aztec)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: USA EDM 5000 Multi Users DB
 Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 7339.0ft (Aztec)
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.250000 °

Coordinates are relative to: Escrito E07-2407 04H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.82°

Ladder Plot



LEGEND

Escrito E07-2407 01H, Hz, Plan #1 V0 Escrito E07-2407 03H, Hz, Plan #1 V0 Escrito E07-2407 02H, Hz, Plan #1 V0

ENCANA OIL & GAS (USA) INC.
ESCRITO E07-2407 #04H
1301' FNL & 12' FIEL
LOCATED IN THE SE/4 NE/4 OF SECTION 12,
T24N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO

DIRECTIONS

- 1) FROM THE INTERSECTION OF HWY 64 & HWY 550 IN BLOOMFIELD, GO SOUTH ON HWY 550, 42.6 MILES TO CR 7997 (M.P. 120.7).
- 2) TURN LEFT AND GO 3.1 MILES TO "Y" INTERSECTION.
- 3) TURN RIGHT AND GO 1.2 MILES TO GATE.
- 4) CONTINUE THROUGH GATE AND GO 0.7 MILES TO "Y" INTERSECTION.
- 5) TURN LEFT AND GO 2.4 MILES TO "Y" INTERSECTION.
- 6) CONTINUE LEFT AND GO 2.1 MILES WHERE ACCESS IS STAKED ON RIGHT SIDE OF ROAD.

WELL FLAG LOCATED AT LAT. 36.331544° N, LONG. 107.625594° W (NAD 83).

JOB No.: ENC141
DATE: 12/27/13



**Scorpion Survey &
Consulting, L.L.C.**
302 South Ash
Aztec, New Mexico 87410
(505) 334-4007

encana

SAN JUAN COUNTY,
NEW MEXICO

- ⊘ Abandoned
 - ⊗ Abandoned Gas
 - ⊘ Abandoned Oil
 - ⊘ Dry Hole
 - ⊗ GAS
 - ⊘ Injection
 - Basin Mancos Gas Pool
 - OIL
- 1 inch = 2,000 feet

Escrito P25-2508 01H
Escrito P25-2508 02H

Escrito E36-2508 01H
Escrito E36-2508 02H

Escrito M36-2508 01H

Escrito M36A-2508 01H

31

25N
7W

**BASIN DAKOTA
GAS POOL
(out)**

24N
8W

**DUFERS POINT
GALLUP
DAKOTA
POOL**

ROAD RUNNER 1

2

NO NAME 1

WILD HARE 1

FEDERAL-C 1

11

AKE 1-11

HORSEFLY 1

FEDERAL A 2

NANCY 6

NANCY 4
NANCY 4
NANCY 4

NANCY 5

NANCY 3
NANCY 3

NANCY-FEDERAL 3
LOCO 5
LOCO 5

NANCY-FEDERAL 2

NANCY-FEDERAL 1

ELIZABETH-FEDERAL 2

ELIZABETH-FEDERAL 4

ELIZABETH-FEDERAL 1

**ESCRITO GALLUP
POOL**

SHOO FLY 1

SMITH 5

SMITH 4

ESCRITO-GALLUP 21

ESCRITO-GALLUP 22

ESCRITO-GALLUP 25

GRAND GULCH 2

GRAND GULCH 1

MEXICAN HAT 1

24N
7W

Escrito E07-2407 01H
Escrito E07-2407 02H
Escrito E07-2407 03H
Escrito E07-2407 04H

7

FEDERAL 1-7

FEDERAL 1-7

FEDERAL 2-7

FEDERAL 2

18

13

14

0 0.125 0.25 0.5 Miles

WELLHEAD BLOWOUT CONTROL SYSTEM

encana

Well Name and Number:
Escrito E07-2407 02H

