

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: 4/1/14
Well information;
Operator ENCANA, Well Name and Number Escrito D14-2407 2H
API# 30-039-31232, Section 14, Township 24 NS, Range 7 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.

Charlie Herrin
NMOCD Approved by Signature

7-29-2014
Date

CONFIDENTIAL

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 14 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER Field Office
Bureau of Land Management

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM 117567
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Encana Oil & Gas (USA) Inc.		7. If Unit or CA Agreement, Name and No. Pending
3a. Address 370 17th Street, Suite 1700, Denver, CO 80202		8. Lease Name and Well No. Escrito D14-2407 02H
3b. Phone No. (include area code) 720-876-3533		9. API Well No. 30-039-31232
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface ^D 491' FNL and 541' FWL Section 14, T24N, R7W At proposed prod. zone ^E 1850' FNL 330' FWL Section 15, T24N, R7W		10. Field and Pool, or Exploratory Escrito Gallup (associated)
14. Distance in miles and direction from nearest town or post office* +/- 65.3 miles from intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM		11. Sec., T. R. M. or Blk. and Survey or Area Section 14, T24N, R7W NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) BHL is 330' FWL Section 15, T24N, R7W	16. No. of acres in lease NMNM 117567- 1722.45 acres	17. Spacing Unit dedicated to this well 320 acres N/2 Section 15
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Escrito D14-2407 01H is +/- 30' NE of SHL	19. Proposed Depth 5822' TVD, 11095' MD	20. BLM/BIA Bond No. on file COB-000235
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 7029', KB 7045'	22. Approximate date work will start* 09/28/2014	23. Estimated duration 20 days

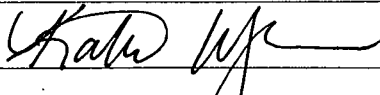
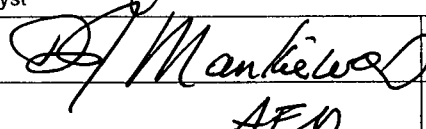
OIL CONS. DIV DIST. 3

JUL 18 2014

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. I, 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) Katie Wegner	Date 4/11/14
Title Regulatory Analyst		
Approved by (Signature) 	Name (Printed Typed) AFM	Date 7/16/14
Title AFM	Office FFO	

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.

(Continued on page 2)

**OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS**

*(Instructions on page 2)

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

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

NMOCDA

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Submit one copy to
Appropriate District Office

RECEIVED

AMENDED REPORT

APR 14 2014

Farmington Field Office
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31232	*Pool Code 22619	*Pool Name ESCRITO GALLUP (ASSOCIATED)
*Property Code 313510	*Property Name ESCRITO D14-2407	*Well Number 02H
*OGRTD No. 282327	*Operator Name ENCANA OIL & GAS (USA) INC.	*Elevation 7029'

¹⁰ Surface Location

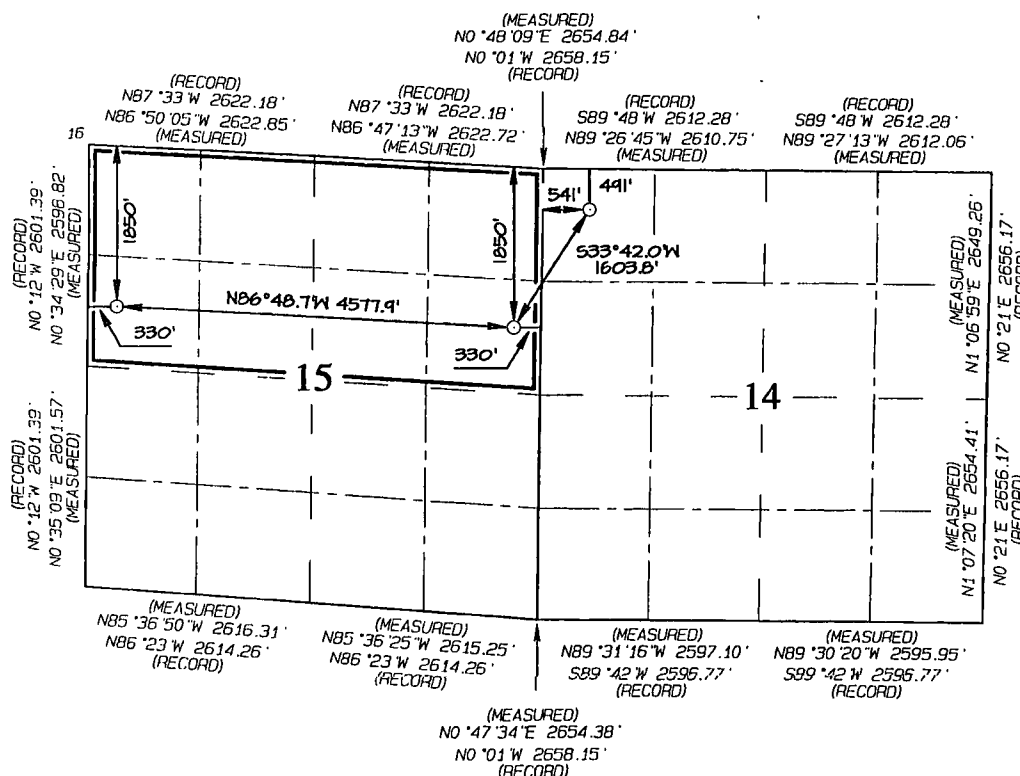
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	14	24N.	7W		491	NORTH	541	WEST	RIO ARRIBA

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
E	15	24N	7W		1850	NORTH	330	WEST	RIO ARriba

12. Hedicated Acres	320.0 Acres N/2 - Section 15	13. Joint or Infill	14. Consolidation Code	15. Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



END-OF-LATERAL
1850' FNL 330' FWL
SECTION 15, T24N, R7W
LAT: 36.31565°N
LONG: 107.57018°W
DATUM: NAD1927

LAT: 36.31567°N
LONG: 107.57079°W
DATUM: NAD1983

POINT-OF-ENTRY
1850' FNL 330' FEL
SECTION 15, T24N, R7W
LAT: 36.31512°N
LONG: 107.55466°W
DATUM: NAD1927

LAT: 36.31514°N
LONG: 107.55526°W
DATUM: NAD1983

SURFACE LOCATION
491' FNL 541' FWL
SECTION 14, T24N, R7W
LAT: 36.31882°N
LONG: 107.55170°W
DATUM: NAD1927

LAT: 36.31883 °N
LONG: 107.55230 °W
DATUM: NAD1983

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to an interest in the land, or has a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Kathryn A. K. Date 3/31/14

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.

Date Revised: MARCH 14, 2014
Date of Survey: JULY 3, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Escrito D14-2407 02H
SHL: NW NW 14 24N 7W
491 FNL 541 FWL
BHL: NW NW 15 24N 7W
1850 FNL 330 FWL
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
Nacimiento	355
Ojo Alamo Ss.	1,795
Kirtland Shale	1,985
Fruitland Coal	2,215
Pictured Cliffs Ss.	2,445
Lewis Shale	2,545
Cliffhouse Ss.	3,305
Menefee Fn.	4,057
Point Lookout Ss.	4,740
Mancos Shale	4,915
Mancos Silt	5,573
Gallup Fn.	5,760

The referenced surface elevation is 7029', KB 7045'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	2,215
Oil/Gas	Pictured Cliffs Ss.	2,445
Oil/Gas	Cliffhouse Ss.	3,305
Gas	Menefee Fn.	4,057
Oil/Gas	Point Lookout Ss.	4,740
Oil/Gas	Mancos Shale	4,915
Oil/Gas	Mancos Silt	5,573
Oil/Gas	Gallup Fn.	5,760

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 D14-2407 02H
 SHL: NW NW 14 24N 7W
 491 FNL 541 FWL
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 1850 FNL 330 FWL
 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'-6419'	8 3/4"	7"	26#	J55, LTC New
Production Liner	6219'-11095'	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.

Escrito D14-2407 02H
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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'-6419'	30% open hole excess Stage 1 Lead: 468 sks Stage 1 Tail: 274 sks Stage 2 Lead: 232 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	6219'-11095'	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 2800'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5822'/11095'	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'-5839'/6419'	Fresh Water LSND	9.5-8.8	40-50	8-10

Escrito D14-2407 02H
SHL: NW NW 14 24N 7W
491 FNL 541 FWL
BHL: NW NW 15 24N 7W
1850 FNL 330 FWL
Rio Arriba, New Mexico

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"	5839'/6419'- 5822'/11095'	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 +/- 2738 psi based on a 9.0 ppg at 5850' 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: NE/4 NE/4 15 24N 7W 1850 FNL 33				Encana Natural Gas				ENG: S Kuykendall RIG: Aztec 950 GLE: 7029 RKBE: 7045				4/1/14	
County: Rio Arriba				WELL SUMMARY									
WELL: Escrito D14-2407 02H													
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH TVD	MD		HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION 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	Vertical <1°				
		Nacimiento 9 5/8" Csg	355 500	500.00	TOC Surface - 201 sks of Type III Cement		8.4-8.6						
Survey Every 60"-120", updating anti/collision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5	No OH logs	Ojo Alamo Ss. Kirtland Shale	1,795 1,985		Stage tool @ ~ 2,595	8 3/4	7" 26ppf J55 LTC	Fresh Wtr	Vertical <1°				
		Fruitland Coal	2,215				TOC @ surface 30% OH excess: 742 sksTotal.	8.5-8.8					
Surveys every 30' through the curve	Mud logger onsite	Pictured Cliffs Ss. Lewis Shale	2,445 2,545				Stage 1 Lead: 468 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.						
		Cliffhouse Ss. Menefee Fn.	3,305 4,057			Stage 1 Tail: 274 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.							
		Point Lookout Ss. Mancos Shale	4,740 4,915			232 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.							
		KOP	2,800	2,800									
		Mancos Silt	5,573										
		Gallup Fn.	5,760										
		7" Csg	5,839	6,419'									
Surveys every stand to TD unless directed otherwise by Geologist	No OH Logs	Horizontal Target TD	5,850 5,822	11,095		6 1/8	200' overlap at liner top	Horizontal Inclination Horizontal TVD	Horz Inc/TVD /90.3 TD = 11095.2 MD				
		Base Gallup	6,070		4676' Drilled Lateral	8.6-9.0 OBM							
MWD Gamma Directional							4 1/2" 11.6ppf SB80 LTC	Switch to OBM 8.6-9.0					
							Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe						

NOTES:

- 1) Drill with 30" bit to 60', set 20" 94# conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 2800', 8 3/4 inch holesize
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to csg point of 6419' MD
- 7) R&C 7" csg, circ cmt to surface, switch to OBM
- 8) Land at 90 deg, drill lateral to 11095' 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

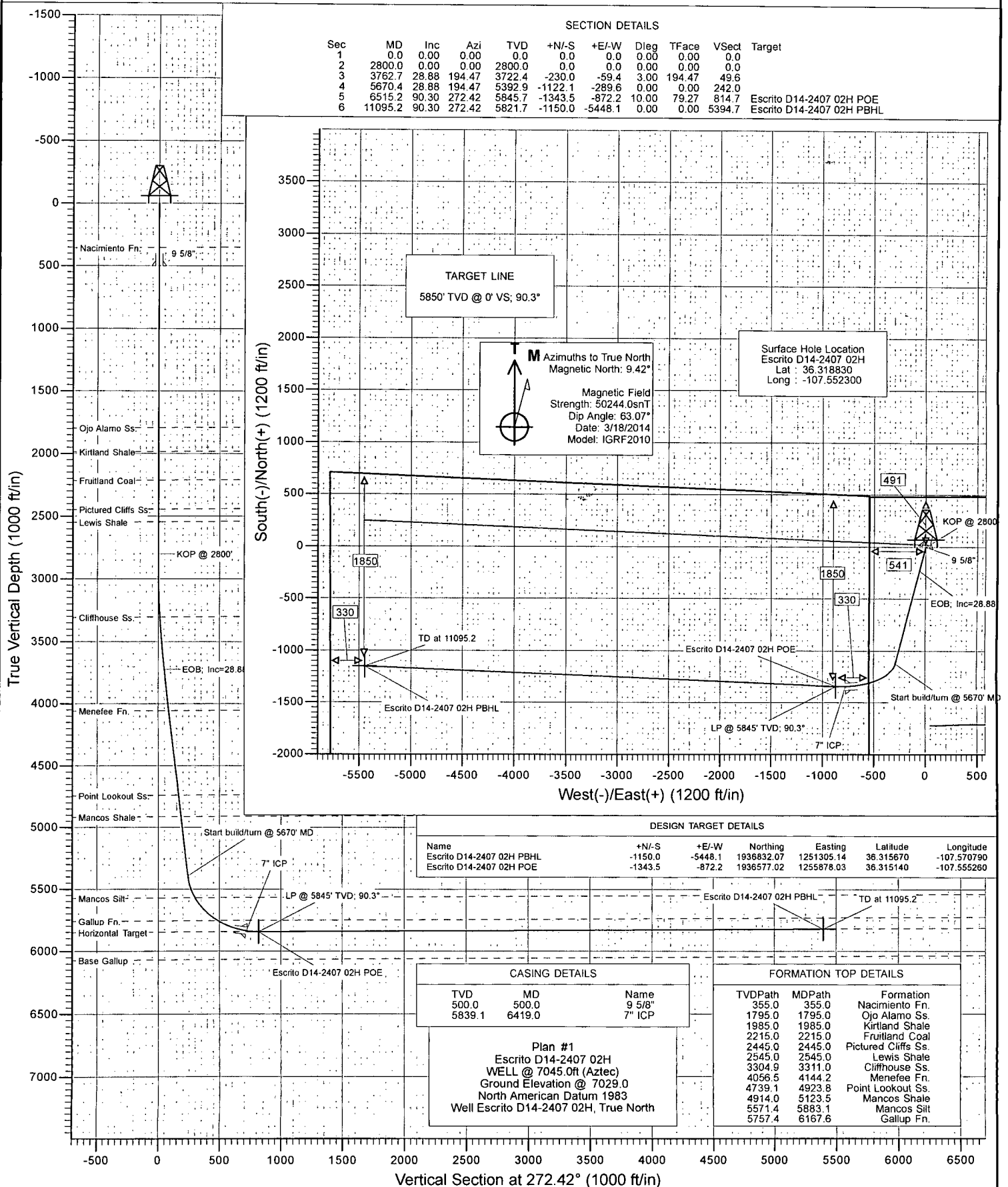
Minimum Make-up Torque (ft-lbs)	_____	1,640
Nominal Make-up Torque (ft-lbs)	_____	2,190
Maximum Make-up Torque (ft-lbs)	_____	2,740

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: S14-T24N-R7W
Well: Escrito D14-2407 02H
Wellbore: HZ
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7045.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7045.0ft (Aztec)
Site:	S14-T24N-R7W	North Reference:	True
Well:	Escrito D14-2407 02H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Project	Rio Arriba 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		S14-T24N-R7W			
Site Position:		Northing:	1,937,930.17 ft	Latitude:	36.318890
From:	Lat/Long	Easting:	1,256,789.12 ft	Longitude:	-107.552230
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.77 °

Well	Escrito D14-2407 02H					
Well Position	+N/-S	0.0 ft	Northing:	1,937,908.61 ft	Latitude:	36.318830
	+E/-W	0.0 ft	Easting:	1,256,768.21 ft	Longitude:	-107.552300
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,029.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/18/2014	9.42	63.07	50,244

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	272.42

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	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,762.7	28.88	194.47	3,722.4	-230.0	-59.4	3.00	3.00	0.00	194.47	
5,670.4	28.88	194.47	5,392.9	-1,122.1	-289.6	0.00	0.00	0.00	0.00	
6,515.2	90.30	272.42	5,845.7	-1,343.5	-872.2	10.00	7.27	9.23	79.27	Escrito D14-2407 02H
11,095.2	90.30	272.42	5,821.7	-1,150.0	-5,448.1	0.00	0.00	0.00	0.00	Escrito D14-2407 02H

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7045.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7045.0ft (Aztec)
Site:	S14-T24N-R7W	North Reference:	True
Well:	Escrito D14-2407 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	
355.0	0.00	0.00	355.0	0.0	0.0	0.0	0.00	0.00	Nacimiento Fn.
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	9 5/8"
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	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	
1,795.0	0.00	0.00	1,795.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
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	
1,985.0	0.00	0.00	1,985.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
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	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,215.0	0.00	0.00	2,215.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
2,445.0	0.00	0.00	2,445.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,545.0	0.00	0.00	2,545.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 2800'
2,900.0	3.00	194.47	2,900.0	-2.5	-0.7	0.5	3.00	3.00	
3,000.0	6.00	194.47	2,999.6	-10.1	-2.6	2.2	3.00	3.00	
3,100.0	9.00	194.47	3,098.8	-22.8	-5.9	4.9	3.00	3.00	
3,200.0	12.00	194.47	3,197.1	-40.4	-10.4	8.7	3.00	3.00	
3,300.0	15.00	194.47	3,294.3	-63.0	-16.3	13.6	3.00	3.00	
3,311.0	15.33	194.47	3,304.9	-65.8	-17.0	14.2	3.00	3.00	Cliffhouse Ss.
3,400.0	18.00	194.47	3,390.2	-90.5	-23.4	19.5	3.00	3.00	
3,500.0	21.00	194.47	3,484.4	-122.8	-31.7	26.5	3.00	3.00	
3,600.0	24.00	194.47	3,576.8	-159.9	-41.3	34.5	3.00	3.00	
3,700.0	27.00	194.47	3,667.1	-201.6	-52.0	43.5	3.00	3.00	
3,762.7	28.88	194.47	3,722.4	-230.0	-59.4	49.6	3.00	3.00	EOB; Inc=28.88°
3,800.0	28.88	194.47	3,755.1	-247.4	-63.9	53.4	0.00	0.00	
3,900.0	28.88	194.47	3,842.7	-294.2	-75.9	63.4	0.00	0.00	
4,000.0	28.88	194.47	3,930.2	-341.0	-88.0	73.5	0.00	0.00	
4,100.0	28.88	194.47	4,017.8	-387.7	-100.1	83.6	0.00	0.00	
4,144.2	28.88	194.47	4,056.5	-408.4	-105.4	88.1	0.00	0.00	Menefee Fn.
4,200.0	28.88	194.47	4,105.4	-434.5	-112.1	93.7	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7045.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7045.0ft (Aztec)
Site:	S14-T24N-R7W	North Reference:	True
Well:	Escrito D14-2407 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
4,300.0	28.88	194.47	4,192.9	-481.3	-124.2	103.8	0.00	0.00	
4,400.0	28.88	194.47	4,280.5	-528.0	-136.3	113.9	0.00	0.00	
4,500.0	28.88	194.47	4,368.1	-574.8	-148.4	124.0	0.00	0.00	
4,600.0	28.88	194.47	4,455.6	-621.6	-160.4	134.0	0.00	0.00	
4,700.0	28.88	194.47	4,543.2	-668.3	-172.5	144.1	0.00	0.00	
4,800.0	28.88	194.47	4,630.7	-715.1	-184.6	154.2	0.00	0.00	
4,900.0	28.88	194.47	4,718.3	-761.9	-196.6	164.3	0.00	0.00	
4,923.8	28.88	194.47	4,739.1	-773.0	-199.5	166.7	0.00	0.00	Point Lookout Ss.
5,000.0	28.88	194.47	4,805.9	-808.6	-208.7	174.4	0.00	0.00	
5,100.0	28.88	194.47	4,893.4	-855.4	-220.8	184.5	0.00	0.00	
5,123.5	28.88	194.47	4,914.0	-866.4	-223.6	186.8	0.00	0.00	Mancos Shale
5,200.0	28.88	194.47	4,981.0	-902.2	-232.8	194.5	0.00	0.00	
5,300.0	28.88	194.47	5,068.6	-948.9	-244.9	204.6	0.00	0.00	
5,400.0	28.88	194.47	5,156.1	-995.7	-257.0	214.7	0.00	0.00	
5,500.0	28.88	194.47	5,243.7	-1,042.5	-269.1	224.8	0.00	0.00	
5,600.0	28.88	194.47	5,331.2	-1,089.2	-281.1	234.9	0.00	0.00	
5,670.4	28.88	194.47	5,392.9	-1,122.1	-289.6	242.0	0.00	0.00	Start build/turn @ 5670' MD
5,700.0	29.56	200.37	5,418.7	-1,135.9	-293.9	245.7	10.00	2.30	
5,800.0	33.58	217.95	5,504.1	-1,181.0	-319.6	269.5	10.00	4.01	
5,883.1	38.43	229.47	5,571.4	-1,215.9	-353.4	301.8	10.00	5.84	Mancos Silt
5,900.0	39.54	231.49	5,584.5	-1,222.7	-361.6	309.7	10.00	6.56	
6,000.0	46.70	241.73	5,657.6	-1,259.8	-418.7	365.2	10.00	7.16	
6,100.0	54.58	249.72	5,721.0	-1,291.3	-489.2	434.2	10.00	7.88	
6,167.6	60.17	254.25	5,757.4	-1,308.8	-543.3	487.6	10.00	8.26	Gallup Fn.
6,200.0	62.89	256.24	5,772.9	-1,316.0	-570.8	514.8	10.00	8.42	
6,300.0	71.46	261.84	5,811.7	-1,333.4	-661.2	604.3	10.00	8.57	
6,400.0	80.18	266.90	5,836.1	-1,342.8	-757.6	700.2	10.00	8.72	
6,419.0	81.84	267.83	5,839.1	-1,343.7	-776.3	718.9	10.00	8.77	7" ICP
6,500.0	88.96	271.70	5,845.6	-1,344.0	-857.0	799.5	10.00	8.79	
6,515.2	90.30	272.42	5,845.7	-1,343.5	-872.2	814.7	10.00	8.80	LP @ 5845' TVD; 90.3°
6,600.0	90.30	272.42	5,845.3	-1,339.9	-956.9	899.5	0.00	0.00	
6,700.0	90.30	272.42	5,844.7	-1,335.6	-1,056.8	999.5	0.00	0.00	
6,800.0	90.30	272.42	5,844.2	-1,331.4	-1,156.7	1,099.5	0.00	0.00	
6,900.0	90.30	272.42	5,843.7	-1,327.2	-1,256.6	1,199.5	0.00	0.00	
7,000.0	90.30	272.42	5,843.2	-1,323.0	-1,356.6	1,299.5	0.00	0.00	
7,100.0	90.30	272.42	5,842.6	-1,318.8	-1,456.5	1,399.5	0.00	0.00	
7,200.0	90.30	272.42	5,842.1	-1,314.5	-1,556.4	1,499.5	0.00	0.00	
7,300.0	90.30	272.42	5,841.6	-1,310.3	-1,656.3	1,599.5	0.00	0.00	
7,400.0	90.30	272.42	5,841.1	-1,306.1	-1,756.2	1,699.5	0.00	0.00	
7,500.0	90.30	272.42	5,840.5	-1,301.9	-1,856.1	1,799.5	0.00	0.00	
7,600.0	90.30	272.42	5,840.0	-1,297.6	-1,956.0	1,899.5	0.00	0.00	
7,700.0	90.30	272.42	5,839.5	-1,293.4	-2,055.9	1,999.5	0.00	0.00	
7,800.0	90.30	272.42	5,839.0	-1,289.2	-2,155.8	2,099.5	0.00	0.00	
7,900.0	90.30	272.42	5,838.4	-1,285.0	-2,255.7	2,199.5	0.00	0.00	
8,000.0	90.30	272.42	5,837.9	-1,280.7	-2,355.6	2,299.5	0.00	0.00	
8,100.0	90.30	272.42	5,837.4	-1,276.5	-2,455.6	2,399.5	0.00	0.00	
8,200.0	90.30	272.42	5,836.9	-1,272.3	-2,555.5	2,499.5	0.00	0.00	
8,300.0	90.30	272.42	5,836.3	-1,268.1	-2,655.4	2,599.5	0.00	0.00	
8,400.0	90.30	272.42	5,835.8	-1,263.8	-2,755.3	2,699.5	0.00	0.00	
8,500.0	90.30	272.42	5,835.3	-1,259.6	-2,855.2	2,799.5	0.00	0.00	
8,600.0	90.30	272.42	5,834.8	-1,255.4	-2,955.1	2,899.5	0.00	0.00	
8,700.0	90.30	272.42	5,834.3	-1,251.2	-3,055.0	2,999.5	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7045.0ft (Aztec)
Project:	Rio Arriba County, NM	MD Reference:	WELL @ 7045.0ft (Aztec)
Site:	S14-T24N-R7W	North Reference:	True
Well:	Escrito D14-2407 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
8,800.0	90.30	272.42	5,833.7	-1,246.9	-3,154.9	3,099.5	0.00	0.00	
8,900.0	90.30	272.42	5,833.2	-1,242.7	-3,254.8	3,199.5	0.00	0.00	
9,000.0	90.30	272.42	5,832.7	-1,238.5	-3,354.7	3,299.5	0.00	0.00	
9,100.0	90.30	272.42	5,832.2	-1,234.3	-3,454.6	3,399.5	0.00	0.00	
9,200.0	90.30	272.42	5,831.6	-1,230.0	-3,554.6	3,499.5	0.00	0.00	
9,300.0	90.30	272.42	5,831.1	-1,225.8	-3,654.5	3,599.4	0.00	0.00	
9,400.0	90.30	272.42	5,830.6	-1,221.6	-3,754.4	3,699.4	0.00	0.00	
9,500.0	90.30	272.42	5,830.1	-1,217.4	-3,854.3	3,799.4	0.00	0.00	
9,600.0	90.30	272.42	5,829.5	-1,213.2	-3,954.2	3,899.4	0.00	0.00	
9,700.0	90.30	272.42	5,829.0	-1,208.9	-4,054.1	3,999.4	0.00	0.00	
9,800.0	90.30	272.42	5,828.5	-1,204.7	-4,154.0	4,099.4	0.00	0.00	
9,900.0	90.30	272.42	5,828.0	-1,200.5	-4,253.9	4,199.4	0.00	0.00	
10,000.0	90.30	272.42	5,827.4	-1,196.3	-4,353.8	4,299.4	0.00	0.00	
10,100.0	90.30	272.42	5,826.9	-1,192.0	-4,453.7	4,399.4	0.00	0.00	
10,200.0	90.30	272.42	5,826.4	-1,187.8	-4,553.7	4,499.4	0.00	0.00	
10,300.0	90.30	272.42	5,825.9	-1,183.6	-4,653.6	4,599.4	0.00	0.00	
10,400.0	90.30	272.42	5,825.3	-1,179.4	-4,753.5	4,699.4	0.00	0.00	
10,500.0	90.30	272.42	5,824.8	-1,175.1	-4,853.4	4,799.4	0.00	0.00	
10,600.0	90.30	272.42	5,824.3	-1,170.9	-4,953.3	4,899.4	0.00	0.00	
10,700.0	90.30	272.42	5,823.8	-1,166.7	-5,053.2	4,999.4	0.00	0.00	
10,800.0	90.30	272.42	5,823.2	-1,162.5	-5,153.1	5,099.4	0.00	0.00	
10,900.0	90.30	272.42	5,822.7	-1,158.2	-5,253.0	5,199.4	0.00	0.00	
11,000.0	90.30	272.42	5,822.2	-1,154.0	-5,352.9	5,299.4	0.00	0.00	
11,095.2	90.30	272.42	5,821.7	-1,150.0	-5,448.1	5,394.7	0.00	0.00	TD at 11095.2

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 D14-2407 02H P	0.00	0.00	5,821.7	-1,150.0	-5,448.1	1,936,832.07	1,251,305.14	36.315670	-107.570790
- plan hits target center									
- Point									
Escrito D14-2407 02H P	0.00	0.00	5,845.7	-1,343.5	-872.2	1,936,577.02	1,255,878.03	36.315140	-107.555260
- 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
6,419.0	5,839.1	7" ICP	0.000	0.000

Planning Report

Database: USA EDM 5000 Multi Users DB Company: EnCana Oil & Gas (USA) Inc Project: Rio Arriba County, NM Site: S14-T24N-R7W Well: Escrito D14-2407 02H Wellbore: HZ Design: Plan #1	Local Co-ordinate Reference: Well Escrito D14-2407 02H TVD Reference: WELL @ 7045.0ft (Aztec) MD Reference: WELL @ 7045.0ft (Aztec) North Reference: True Survey Calculation Method: Minimum Curvature	
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Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
355.0	355.0	Nacimiento Fn.		-0.30	272.42
1,795.0	1,795.0	Ojo Alamo Ss.		-0.30	272.42
1,985.0	1,985.0	Kirtland Shale		-0.30	272.42
2,215.0	2,215.0	Fruitland Coal		-0.30	272.42
2,445.0	2,445.0	Pictured Cliffs Ss.		-0.30	272.42
2,545.0	2,545.0	Lewis Shale		-0.30	272.42
3,311.0	3,305.0	Cliffhouse Ss.		-0.30	272.42
4,144.2	4,057.0	Menefee Fn.		-0.30	272.42
4,923.8	4,740.0	Point Lookout Ss.		-0.30	272.42
5,123.5	4,915.0	Mancos Shale		-0.30	272.42
5,883.1	5,573.0	Mancos Silt		-0.30	272.42
6,167.6	5,760.0	Gallup Fn.		-0.30	272.42

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,800.0	2,800.0	0.0	0.0	KOP @ 2800'
3,762.7	3,722.4	-230.0	-59.4	EOB; Inc=28.88°
5,670.4	5,392.9	-1,122.1	-289.6	Start build/turn @ 5670' MD
6,515.2	5,845.7	-1,343.5	-872.2	LP @ 5845' TVD; 90.3°
11,095.2	5,821.7	-1,150.0	-5,448.1	TD at 11095.2

EnCana Oil & Gas (USA) Inc

Rio Arriba County, NM

S14-T24N-R7W

Escrito D14-2407 02H

HZ

Plan #1

Anticollision Report

19 March, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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:	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 1,312.2ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	Systematic Ellipse
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic

Survey Tool Program		Date	3/19/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,095.2	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						
S13-T24N-R7W						
Escrito E13-2407 01H - Hz - FINAL	6,000.5	10,133.0	691.1	584.1	6.459	CC, ES
Escrito E13-2407 01H - Hz - FINAL	6,100.0	10,133.0	705.9	593.6	6.287	SF
Escrito E13-2407 01H - Hz - Plan #2	6,094.0	10,417.3	527.4	399.7	4.129	CC
Escrito E13-2407 01H - Hz - Plan #2	6,100.0	10,417.3	527.5	399.5	4.122	ES, SF
S14-T24N-R7W						
Escrito D14-2407 01H - HZ - Plan #1	2,800.0	2,800.0	30.0	20.3	3.091	CC, ES, SF
Escrito D14-2407 01H - Pilot Hole - Plan #1	2,800.0	2,800.0	30.0	20.3	3.091	CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S13-T24N-R7W - Escrito E13-2407 01H - Hz - FINAL													Offset Site Error: 0.0 ft	
Survey Program: 616-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		
5,200.0	4,981.0	10,133.0	5,526.7	19.1	119.6	-66.77	-1,722.2	50.9	1,239.2	1,149.0	90.21	13.737		
5,300.0	5,068.6	10,133.0	5,526.7	19.9	119.6	-66.77	-1,722.2	50.9	1,149.3	1,058.3	90.97	12.633		
5,400.0	5,156.1	10,133.0	5,526.7	20.7	119.6	-66.77	-1,722.2	50.9	1,061.1	969.4	91.74	11.567		
5,500.0	5,243.7	10,133.0	5,526.7	21.6	119.6	-66.77	-1,722.2	50.9	975.3	882.8	92.51	10.543		
5,600.0	5,331.2	10,133.0	5,526.7	22.4	119.6	-66.77	-1,722.2	50.9	892.5	799.2	93.28	9.568		
5,700.0	5,418.7	10,133.0	5,526.7	23.2	119.6	-73.81	-1,722.2	50.9	813.9	719.8	94.10	8.649		
5,800.0	5,504.1	10,133.0	5,526.7	24.1	119.6	-93.13	-1,722.2	50.9	748.9	651.9	97.10	7.714		
5,900.0	5,584.5	10,133.0	5,526.7	25.1	119.6	-106.19	-1,722.2	50.9	706.2	604.4	101.75	6.940		
6,000.0	5,657.6	10,133.0	5,526.7	26.1	119.6	-114.35	-1,722.2	50.9	691.1	584.1	106.96	6.461		
6,000.5	5,657.9	10,133.0	5,526.7	26.1	119.6	-114.38	-1,722.2	50.9	691.1	584.1	106.99	6.459 CC, ES		
6,100.0	5,721.0	10,133.0	5,526.7	27.1	119.6	-118.78	-1,722.2	50.9	705.9	593.6	112.28	6.287 SF		
6,200.0	5,772.9	10,133.0	5,526.7	28.1	119.6	-120.05	-1,722.2	50.9	748.4	630.7	117.73	6.357		
6,300.0	5,811.7	10,133.0	5,526.7	29.3	119.6	-117.95	-1,722.2	50.9	813.1	689.3	123.82	6.567		
6,400.0	5,836.1	10,133.0	5,526.7	30.4	119.6	-111.14	-1,722.2	50.9	893.5	762.2	131.35	6.802		
6,500.0	5,845.6	10,133.0	5,526.7	31.6	119.6	-95.96	-1,722.2	50.9	983.7	844.7	139.02	7.076		
6,600.0	5,845.3	10,133.0	5,526.7	32.8	119.6	-92.54	-1,722.2	50.9	1,078.1	936.7	141.38	7.625		
6,700.0	5,844.7	10,133.0	5,526.7	34.2	119.6	-92.54	-1,722.2	50.9	1,173.4	1,029.8	143.58	8.173		
6,800.0	5,844.2	10,133.0	5,526.7	35.7	119.6	-92.54	-1,722.2	50.9	1,269.4	1,123.6	145.82	8.706		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S13-T24N-R7W - Escrito E13-2407 01H - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							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		
5,100.0	4,893.4	10,417.3	5,518.2	18.2	126.3	-39.97	-1,719.9	-213.6	1,294.7	1,176.5	118.21	10.953		
5,200.0	4,981.0	10,417.3	5,518.2	19.1	126.3	-39.97	-1,719.9	-213.6	1,198.7	1,079.9	118.74	10.095		
5,300.0	5,068.6	10,417.3	5,518.2	19.9	126.3	-39.97	-1,719.9	-213.6	1,103.3	984.1	119.28	9.250		
5,400.0	5,156.1	10,417.3	5,518.2	20.7	126.3	-39.97	-1,719.9	-213.6	1,008.9	889.1	119.82	8.420		
5,500.0	5,243.7	10,417.3	5,518.2	21.6	126.3	-39.97	-1,719.9	-213.6	915.6	795.3	120.36	7.608		
5,600.0	5,331.2	10,417.3	5,518.2	22.4	126.3	-39.97	-1,719.9	-213.6	824.0	703.1	120.90	6.815		
5,700.0	5,418.7	10,417.3	5,518.2	23.2	126.3	-49.78	-1,719.9	-213.6	734.7	614.1	120.60	6.092		
5,800.0	5,504.1	10,417.3	5,518.2	24.1	126.3	-75.86	-1,719.9	-213.6	653.0	533.3	119.63	5.458		
5,900.0	5,584.5	10,417.3	5,518.2	25.1	126.3	-92.87	-1,719.9	-213.6	586.1	465.0	121.10	4.840		
6,000.0	5,657.6	10,417.3	5,518.2	26.1	126.3	-103.41	-1,719.9	-213.6	541.8	417.7	124.15	4.364		
6,094.0	5,717.5	10,417.3	5,518.2	27.0	126.3	-109.09	-1,719.9	-213.6	527.4	399.7	127.73	4.129 CC		
6,100.0	5,721.0	10,417.3	5,518.2	27.1	126.3	-109.34	-1,719.9	-213.6	527.5	399.5	127.96	4.122 ES, SF		
6,200.0	5,772.9	10,417.3	5,518.2	28.1	126.3	-111.64	-1,719.9	-213.6	545.7	413.6	132.18	4.129		
6,300.0	5,811.7	10,417.3	5,518.2	29.3	126.3	-110.48	-1,719.9	-213.6	593.1	456.3	136.80	4.336		
6,400.0	5,836.1	10,417.3	5,518.2	30.4	126.3	-105.15	-1,719.9	-213.6	662.2	520.3	141.91	4.666		
6,500.0	5,845.6	10,417.3	5,518.2	31.6	126.3	-93.75	-1,719.9	-213.6	745.2	599.1	146.14	5.099		
6,600.0	5,845.3	10,417.3	5,518.2	32.8	126.3	-91.31	-1,719.9	-213.6	834.9	686.7	148.18	5.634		
6,700.0	5,844.7	10,417.3	5,518.2	34.2	126.3	-91.31	-1,719.9	-213.6	926.7	776.3	150.38	6.163		
6,800.0	5,844.2	10,417.3	5,518.2	35.7	126.3	-91.31	-1,719.9	-213.6	1,020.1	867.5	152.62	6.684		
6,900.0	5,843.7	10,417.3	5,518.2	37.3	126.3	-91.31	-1,719.9	-213.6	1,114.6	959.7	154.90	7.196		
7,000.0	5,843.2	10,417.3	5,518.2	39.1	126.3	-91.31	-1,719.9	-213.6	1,210.0	1,052.8	157.21	7.697		
7,100.0	5,842.6	10,417.3	5,518.2	40.8	126.3	-91.31	-1,719.9	-213.6	1,306.1	1,146.5	159.54	8.186		

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 D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S14-T24N-R7W - Escrito D14-2407 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	43.35	21.8	20.6	30.0						
100.0	100.0	100.0	100.0	0.1	0.1	43.35	21.8	20.6	30.0	29.7	0.29	102.460			
200.0	200.0	200.0	200.0	0.3	0.3	43.35	21.8	20.6	30.0	29.4	0.64	46.775			
300.0	300.0	300.0	300.0	0.5	0.5	43.35	21.8	20.6	30.0	29.1	0.99	30.305			
400.0	400.0	400.0	400.0	0.7	0.7	43.35	21.8	20.6	30.0	28.7	1.34	22.413			
500.0	500.0	500.0	500.0	0.8	0.8	43.35	21.8	20.6	30.0	28.4	1.69	17.782			
600.0	600.0	600.0	600.0	1.0	1.0	43.35	21.8	20.6	30.0	28.0	2.04	14.737			
700.0	700.0	700.0	700.0	1.2	1.2	43.35	21.8	20.6	30.0	27.7	2.39	12.583			
800.0	800.0	800.0	800.0	1.4	1.4	43.35	21.8	20.6	30.0	27.3	2.74	10.978			
900.0	900.0	900.0	900.0	1.5	1.5	43.35	21.8	20.6	30.0	27.0	3.09	9.736			
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	43.35	21.8	20.6	30.0	26.6	3.43	8.747			
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	43.35	21.8	20.6	30.0	26.3	3.78	7.940			
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	43.35	21.8	20.6	30.0	25.9	4.13	7.269			
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	43.35	21.8	20.6	30.0	25.6	4.48	6.703			
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	43.35	21.8	20.6	30.0	25.2	4.83	6.219			
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	43.35	21.8	20.6	30.0	24.9	5.18	5.800			
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	43.35	21.8	20.6	30.0	24.5	5.53	5.434			
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	43.35	21.8	20.6	30.0	24.2	5.88	5.111			
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	43.35	21.8	20.6	30.0	23.8	6.23	4.824			
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	43.35	21.8	20.6	30.0	23.5	6.58	4.568			
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	43.35	21.8	20.6	30.0	23.1	6.93	4.338			
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	43.35	21.8	20.6	30.0	22.8	7.27	4.130			
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	43.35	21.8	20.6	30.0	22.4	7.62	3.941			
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	43.35	21.8	20.6	30.0	22.1	7.97	3.768			
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	43.35	21.8	20.6	30.0	21.7	8.32	3.610			
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	43.35	21.8	20.6	30.0	21.4	8.67	3.465			
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	43.35	21.8	20.6	30.0	21.0	9.02	3.331			
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	43.35	21.8	20.6	30.0	20.7	9.37	3.207			
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	43.35	21.8	20.6	30.0	20.3	9.72	3.091 CC, ES, SF			
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-153.33	21.8	20.6	32.4	22.3	10.06	3.217			
3,000.0	2,999.6	2,999.6	2,999.6	5.2	5.2	-158.36	21.8	20.6	39.5	29.1	10.38	3.807			
3,100.0	3,098.8	3,098.8	3,098.8	5.4	5.4	-163.57	21.8	20.6	51.9	41.2	10.69	4.855			
3,200.0	3,197.1	3,197.1	3,197.1	5.6	5.6	-167.70	21.8	20.6	69.6	58.6	10.97	6.344			
3,300.0	3,294.3	3,294.3	3,294.3	5.9	5.7	-170.66	21.8	20.6	92.5	81.3	11.22	8.246			
3,400.0	3,390.2	3,390.2	3,390.2	6.2	5.9	-172.74	21.8	20.6	120.7	109.2	11.45	10.535			
3,500.0	3,484.4	3,484.4	3,484.4	6.6	6.1	-174.21	21.8	20.6	153.8	142.2	11.66	13.195			
3,600.0	3,576.8	3,576.8	3,576.8	7.0	6.2	-175.26	21.8	20.6	192.0	180.1	11.84	16.212			
3,700.0	3,667.1	3,667.1	3,667.1	7.6	6.4	-176.03	21.8	20.6	234.9	222.9	12.00	19.579			
3,800.0	3,755.1	3,755.1	3,755.1	8.2	6.5	-176.64	21.8	20.6	282.2	270.0	12.21	23.123			
3,900.0	3,842.7	3,842.7	3,842.7	8.9	6.7	-177.13	21.8	20.6	330.5	317.9	12.53	26.370			
4,000.0	3,930.2	3,930.2	3,930.2	9.6	6.8	-177.49	21.8	20.6	378.7	365.9	12.86	29.453			
4,100.0	4,017.8	4,017.8	4,017.8	10.3	7.0	-177.78	21.8	20.6	427.0	413.8	13.19	32.385			
4,200.0	4,105.4	4,105.4	4,105.4	11.0	7.1	-178.00	21.8	20.6	475.3	461.8	13.51	35.177			
4,300.0	4,192.9	4,192.9	4,192.9	11.8	7.3	-178.19	21.8	20.6	523.5	509.7	13.84	37.838			
4,400.0	4,280.5	4,280.5	4,280.5	12.6	7.4	-178.34	21.8	20.6	571.8	557.7	14.16	40.377			
4,500.0	4,368.1	4,368.1	4,368.1	13.4	7.6	-178.47	21.8	20.6	620.1	605.6	14.49	42.804			
4,600.0	4,455.6	4,455.6	4,455.6	14.2	7.7	-178.58	21.8	20.6	668.4	653.6	14.81	45.124			
4,700.0	4,543.2	4,543.2	4,543.2	15.0	7.9	-178.68	21.8	20.6	716.7	701.5	15.14	47.346			
4,800.0	4,630.7	4,630.7	4,630.7	15.8	8.1	-178.76	21.8	20.6	765.0	749.5	15.46	49.476			
4,900.0	4,718.3	4,718.3	4,718.3	16.6	8.2	-178.83	21.8	20.6	813.3	797.5	15.79	51.518			
5,000.0	4,805.9	4,805.9	4,805.9	17.4	8.4	-178.90	21.8	20.6	861.6	845.4	16.11	53.479			
5,100.0	4,893.4	4,893.4	4,893.4	18.2	8.5	-178.96	21.8	20.6	909.8	893.4	16.43	55.363			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S14-T24N-R7W - Escrito D14-2407 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			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		
5,200.0	4,981.0	4,981.0	4,981.0	19.1	8.7	-179.01	21.8	20.6	958.1	941.4	16.76	57.175		
5,300.0	5,068.6	5,068.6	5,068.6	19.9	8.8	-179.06	21.8	20.6	1,006.4	989.3	17.08	58.919		
5,400.0	5,156.1	5,156.1	5,156.1	20.7	9.0	-179.10	21.8	20.6	1,054.7	1,037.3	17.41	60.598		
5,500.0	5,243.7	5,243.7	5,243.7	21.6	9.1	-179.14	21.8	20.6	1,103.0	1,085.3	17.73	62.217		
5,600.0	5,331.2	5,358.3	5,358.2	22.4	9.3	-179.35	22.0	17.6	1,150.9	1,132.8	18.09	63.608		
5,700.0	5,418.7	5,516.8	5,511.6	23.2	9.6	172.20	23.3	-20.3	1,194.7	1,176.1	18.59	64.274		
5,800.0	5,504.1	5,665.5	5,641.0	24.1	10.2	150.24	25.9	-92.6	1,235.6	1,215.6	19.98	61.833		
5,900.0	5,584.5	5,804.2	5,741.2	25.1	11.1	132.76	29.3	-188.0	1,273.6	1,250.9	22.66	56.215		
6,000.0	5,657.6	5,933.2	5,811.4	26.1	12.5	119.29	33.1	-295.8	1,307.8	1,281.6	26.22	49.876		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Escrito D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S14-T24N-R7W - Escrito D14-2407 01H - Pilot Hole - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	43.35	21.8	20.6	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	43.35	21.8	20.6	30.0	29.7	0.29	102.460		
200.0	200.0	200.0	200.0	0.3	0.3	43.35	21.8	20.6	30.0	29.4	0.64	46.775		
300.0	300.0	300.0	300.0	0.5	0.5	43.35	21.8	20.6	30.0	29.1	0.99	30.305		
400.0	400.0	400.0	400.0	0.7	0.7	43.35	21.8	20.6	30.0	28.7	1.34	22.413		
500.0	500.0	500.0	500.0	0.8	0.8	43.35	21.8	20.6	30.0	28.4	1.69	17.782		
600.0	600.0	600.0	600.0	1.0	1.0	43.35	21.8	20.6	30.0	28.0	2.04	14.737		
700.0	700.0	700.0	700.0	1.2	1.2	43.35	21.8	20.6	30.0	27.7	2.39	12.583		
800.0	800.0	800.0	800.0	1.4	1.4	43.35	21.8	20.6	30.0	27.3	2.74	10.978		
900.0	900.0	900.0	900.0	1.5	1.5	43.35	21.8	20.6	30.0	27.0	3.09	9.736		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	43.35	21.8	20.6	30.0	26.6	3.43	8.747		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	43.35	21.8	20.6	30.0	26.3	3.78	7.940		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	43.35	21.8	20.6	30.0	25.9	4.13	7.269		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	43.35	21.8	20.6	30.0	25.6	4.48	6.703		
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	43.35	21.8	20.6	30.0	25.2	4.83	6.219		
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	43.35	21.8	20.6	30.0	24.9	5.18	5.800		
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	43.35	21.8	20.6	30.0	24.5	5.53	5.434		
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	43.35	21.8	20.6	30.0	24.2	5.88	5.111		
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	43.35	21.8	20.6	30.0	23.8	6.23	4.824		
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	43.35	21.8	20.6	30.0	23.5	6.58	4.568		
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	43.35	21.8	20.6	30.0	23.1	6.93	4.338		
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	43.35	21.8	20.6	30.0	22.8	7.27	4.130		
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	43.35	21.8	20.6	30.0	22.4	7.62	3.941		
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	43.35	21.8	20.6	30.0	22.1	7.97	3.768		
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	43.35	21.8	20.6	30.0	21.7	8.32	3.610		
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	43.35	21.8	20.6	30.0	21.4	8.67	3.465		
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	43.35	21.8	20.6	30.0	21.0	9.02	3.331		
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	43.35	21.8	20.6	30.0	20.7	9.37	3.207		
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	43.35	21.8	20.6	30.0	20.3	9.72	3.091	CC, ES, SF	
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-153.33	21.8	20.6	32.4	22.3	10.06	3.217		
3,000.0	2,999.6	2,999.6	2,999.6	5.2	5.2	-158.36	21.8	20.6	39.5	29.1	10.38	3.807		
3,100.0	3,098.8	3,098.8	3,098.8	5.4	5.4	-163.57	21.8	20.6	51.9	41.2	10.69	4.855		
3,200.0	3,197.1	3,197.1	3,197.1	5.6	5.6	-167.70	21.8	20.6	69.6	58.6	10.97	6.344		
3,300.0	3,294.3	3,294.3	3,294.3	5.9	5.7	-170.66	21.8	20.6	92.5	81.3	11.22	8.246		
3,400.0	3,390.2	3,390.2	3,390.2	6.2	5.9	-172.74	21.8	20.6	120.7	109.2	11.45	10.535		
3,500.0	3,484.4	3,484.4	3,484.4	6.6	6.1	-174.21	21.8	20.6	153.8	142.2	11.66	13.195		
3,600.0	3,576.8	3,576.8	3,576.8	7.0	6.2	-175.26	21.8	20.6	192.0	180.1	11.84	16.212		
3,700.0	3,667.1	3,667.1	3,667.1	7.6	6.4	-176.03	21.8	20.6	234.9	222.9	12.00	19.579		
3,800.0	3,755.1	3,755.1	3,755.1	8.2	6.5	-176.64	21.8	20.6	282.2	270.0	12.21	23.123		
3,900.0	3,842.7	3,842.7	3,842.7	8.9	6.7	-177.13	21.8	20.6	330.5	317.9	12.53	26.370		
4,000.0	3,930.2	3,930.2	3,930.2	9.6	6.8	-177.49	21.8	20.6	378.7	365.9	12.86	29.453		
4,100.0	4,017.8	4,017.8	4,017.8	10.3	7.0	-177.78	21.8	20.6	427.0	413.8	13.19	32.385		
4,200.0	4,105.4	4,105.4	4,105.4	11.0	7.1	-178.00	21.8	20.6	475.3	461.8	13.51	35.177		
4,300.0	4,192.9	4,192.9	4,192.9	11.8	7.3	-178.19	21.8	20.6	523.5	509.7	13.84	37.838		
4,400.0	4,280.5	4,280.5	4,280.5	12.6	7.4	-178.34	21.8	20.6	571.8	557.7	14.16	40.377		
4,500.0	4,368.1	4,368.1	4,368.1	13.4	7.6	-178.47	21.8	20.6	620.1	605.6	14.49	42.804		
4,600.0	4,455.6	4,455.6	4,455.6	14.2	7.7	-178.58	21.8	20.6	668.4	653.6	14.81	45.124		
4,700.0	4,543.2	4,543.2	4,543.2	15.0	7.9	-178.68	21.8	20.6	716.7	701.5	15.14	47.346		
4,800.0	4,630.7	4,630.7	4,630.7	15.8	8.1	-178.76	21.8	20.6	765.0	749.5	15.46	49.476		
4,900.0	4,718.3	4,718.3	4,718.3	16.6	8.2	-178.83	21.8	20.6	813.3	797.5	15.79	51.518		
5,000.0	4,805.9	4,805.9	4,805.9	17.4	8.4	-178.90	21.8	20.6	861.6	845.4	16.11	53.479		
5,100.0	4,893.4	4,893.4	4,893.4	18.2	8.5	-178.96	21.8	20.6	909.8	893.4	16.43	55.363		

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 D14-2407 02H
Project:	Rio Arriba County, NM	TVD Reference:	WELL @ 7045.0ft (Aztec)
Reference Site:	S14-T24N-R7W	MD Reference:	WELL @ 7045.0ft (Aztec)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Escrito D14-2407 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

Offset Design S14-T24N-R7W - Escrito D14-2407 01H - Pilot Hole - 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	4,981.0	4,981.0	4,981.0	19.1	8.7	-179.01	21.8	20.6	958.1	941.4	16.76	57.175			
5,300.0	5,068.6	5,068.6	5,068.6	19.9	8.8	-179.06	21.8	20.6	1,006.4	989.3	17.08	58.919			
5,400.0	5,156.1	5,156.1	5,156.1	20.7	9.0	-179.10	21.8	20.6	1,054.7	1,037.3	17.41	60.598			
5,500.0	5,243.7	5,243.7	5,243.7	21.6	9.1	-179.14	21.8	20.6	1,103.0	1,085.3	17.73	62.217			
5,600.0	5,331.2	5,331.2	5,331.2	22.4	9.3	-179.18	21.8	20.6	1,151.3	1,133.3	18.05	63.778			
5,700.0	5,418.7	5,418.7	5,418.7	23.2	9.4	174.06	21.8	20.6	1,199.7	1,181.4	18.33	65.440			
5,800.0	5,504.1	5,504.1	5,504.1	24.1	9.6	153.95	21.8	20.6	1,250.0	1,231.0	18.94	65.981			
5,900.0	5,584.5	5,584.5	5,584.5	25.1	9.7	138.39	21.8	20.6	1,301.9	1,281.7	20.22	64.398			

Anticollision Report

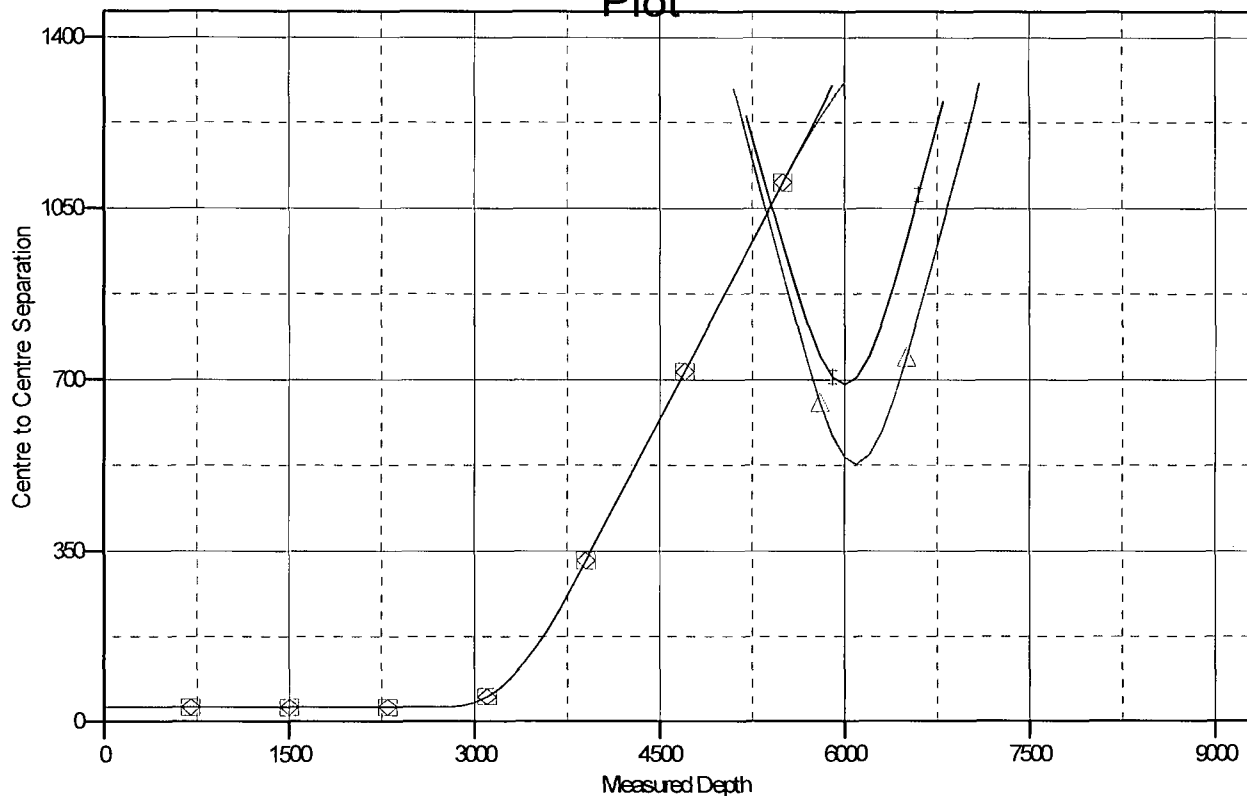
Company: EnCana Oil & Gas (USA) Inc
Project: Rio Arriba County, NM
Reference Site: S14-T24N-R7W
Site Error: 0.0ft
Reference Well: Escrito D14-2407 02H
Well Error: 0.0ft
Reference Wellbore: HZ
Reference Design: Plan #1

Local Co-ordinate Reference: Well Escrito D14-2407 02H
TVD Reference: WELL @ 7045.0ft (Aztec)
MD Reference: WELL @ 7045.0ft (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 @ 7045.0ft (Aztec)
 Offset Depths are relative to Offset Datum
 Central Meridian is -106.250000 °

Coordinates are relative to: Escrito D14-2407 02H
 Coordinate System is US State Plane 1983, New Mexico Central Zone
 Grid Convergence at Surface is: -0.77°

Ladder Plot



LEGEND

- ◆ Escrito E13-2407 01H, Hz, FINAL V0
- ◻ Escrito D14-2407 01H, Hz, Plan #1 V0
- △ Escrito E13-2407 01H, Hz, Plan #2 V0
- ◊ Escrito D14-2407 01H, Pilot Hole, Plan #1 V0

Directions from the Intersection of US Hwy 550 & US Hwy 64
in Bloomfield, NM to Encana Oil & Gas (USA) Inc. Escrito D14-2407 02H
491' FNL & 541' FWL, Section 14, T24N, R7W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.31883°N Longitude: 107.55230°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 48.3 miles to Mile Marker 102.9;

Go Left (Northerly) for 1.1 miles to fork in roadway;

Go Left (North-westerly) for 0.4 miles down Rocky Berry hill to fork in roadway at bottom of hill;

Go Right (North-easterly) for 2.3 miles to fork in roadway;

Go Right (North-easterly) which is straight for 6.1 miles to fork in roadway;

Go Left (Northerly) which is straight for 0.4 miles to fork in roadway;

Go Left (South-westerly) for 2.1 miles to fork in roadway;

Go Left (Southerly) up hill for 2.1 miles to fork in roadway;

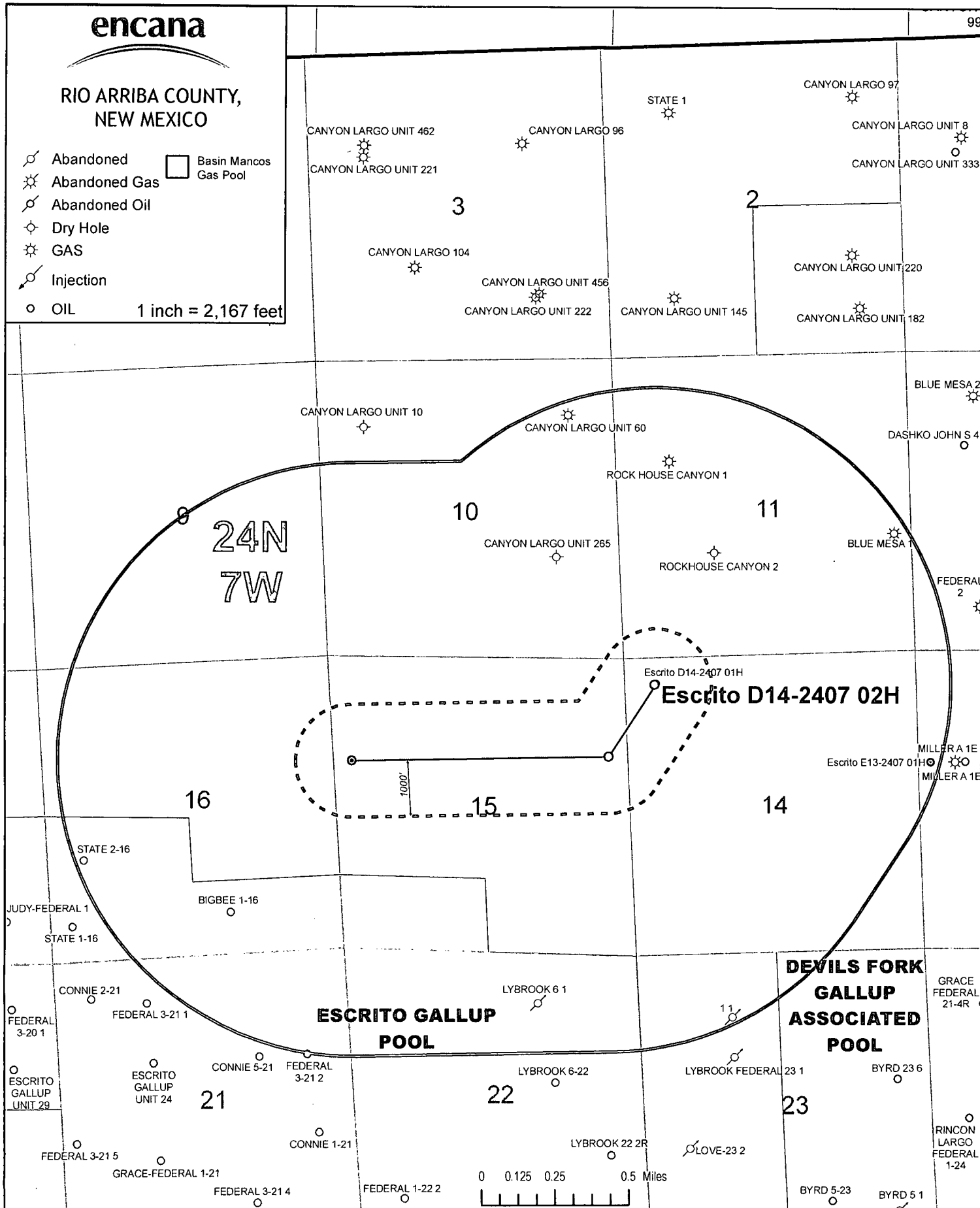
Go Left (Westerly) which is straight for 1.9 miles to fork in roadway;

Go Left (South-westerly) which is straight for 0.6 miles to new access on right-hand side of existing roadway which continues for 238' to staked Encana Escrito D14-2407 02H location.

encana

RIO ARriba COUNTY,
NEW MEXICO

- Abandoned
 - Abandoned Gas
 - Abandoned Oil
 - Dry Hole
 - GAS
 - Injection
 - OIL
 - Basin Mancos Gas Pool
- 1 inch = 2,167 feet



WELLHEAD BLOWOUT CONTROL SYSTEM

encana

Well Name and Number:
Escrito D14-2407 02H

