

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: 9/25/13

Well information;

Operator Encana, Well Name and Number Good Times D14-2410 1H

API# 30-045-35493, Section 14, Township 24 NS, Range 10 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

NMOCD Approved by Signature

1-24-2014 ea

Date

# RECEIVED

Form 3160-3  
(August 2007)

SEP 26 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 100807 & NMNM 16760	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> 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. Good Times D14-2410 01H	
3b. Phone No. (include area code) 720-876-3989		9. API Well No. 30-045-35493	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1321' FNL and 449' FWL Section 14, T24N, R10W At proposed prod. zone 920' FNL and 330' FWL Section 15, T24N, R10W		10. Field and Pool, or Exploratory Basin Mancos	
14. Distance in miles and direction from nearest town or post office* +/- 33.3 miles southeast of the 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, R10W NMPM	
15. Distance from proposed* location to nearest property or lease line, ft. BHL is 330' from west lease line Section 15, T24N, R10W (Also to nearest drig. unit line, if any)		12. County or Parish San Juan	
16. No. of acres in lease NMNM 100807 - 640 ac. NMNM 16760 - 1279.83 ac.		13. State NM	
17. Spacing Unit dedicated to this well 640 acres - All Section 15, T24N, R10W		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Juniper 15 31 is +/- 366' of wellbore	
19. Proposed Depth 5,263' TVD/10,480' MD		20. BLM/BIA Bond No. on file COB-000235 ROVD JAN 17 '14 OIL CONS. DIV.	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,876' GL, 6,892' KB		22. Approximate date work will start* 05/22/2014	
23. Estimated duration 25 days		DIST. 3	

24. Attachments

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

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

25. Signature <i>Brenda R. Linster</i>	Name (Printed/Typed) Brenda R. Linster	Date 09/25/13
Title Regulatory Lead		
Approved by (Signature) <i>A. Mantecón</i>	Name (Printed/Typed) AFM	Date 12/20/13
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)

\*(Instructions on page 2)

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

NMOC  
N

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

1885 N. French Dr., Hobbs, N.M. 88240  
Phone: (505) 593-0161 Fax: (505) 593-0760

## DISTRICT II

811 S. First St., Artesia, N.M. 86200  
Phone: (505) 748-1883 Fax: (505) 748-0780

## DISTRICT III

1000 El Estero Rd., Aztec, N.M. 87410  
Phone: (505) 354-6170 Fax: (505) 354-6170

## DISTRICT IV

1820 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3463

State of New Mexico  
Energy, Minerals & Natural Resources Department

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Form C-102

Revised August 1, 2011

SEP 26 2012

Submit one copy to appropriate District Office

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Farmington Field Office  
Santa Fe, NM 87505

Bureau of Land Management AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-35493		Pool Code 97232	Pool Name BASIN MANCOS GAS
Property Code 40346	Property Name GOOD TIMES D14-2410		Well Number 01H
GRID No. 282327	Operator Name ENCANA OIL & GAS (USA) INC.		Elevation 6876.4'

## 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	10W		1321'	NORTH	449'	WEST	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	East/West line	County
D	15	24N	10W		920'	NORTH	330'	WEST	SAN JUAN

Dedicated Acres 640.00 ACRES ALL SEC. 15	Project Area PROJECT AREA	Joint or Infill	Consolidation Code	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

18

<b>BOTTOM HOLE</b> LAT. 36.318293° N (NAD83) LONG. 107.891080° W (NAD83) LAT. 36.318279° N (NAD27) LONG. 107.890461° W (NAD27)		<b>ENTRY POINT</b> LAT. 36.318693° N (NAD83) LONG. 107.875679° W (NAD83) LAT. 36.318679° N (NAD27) LONG. 107.875062° W (NAD27)		<b>WELL FLAG</b> LAT. 36.317623° N (NAD83) LONG. 107.873039° W (NAD83) LAT. 36.317612° N (NAD27) LONG. 107.872421° W (NAD27)	
<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.					
Signature: <i>Brenda R. Linster</i> Date: 09/25/13 Printed Name: Brenda R. Linster E-mail Address: brenda.linster@encana.com					
<b>SURVEYOR CERTIFICATION</b> 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 of Survey: JUNE 18, 2013 Signature and Seal of Professional Surveyor: <i>David B. Russell</i> 					
Certificate Number: 10201					

**ENCANA OIL & GAS (USA) INC.**  
GOOD TIMES D14-2410 #01H  
1321' FNL & 449' FWL  
LOCATED IN THE NW/4 NW/4 OF SECTION 14,  
T24N, R10W, 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, 28.2 MILES TO HWY 57 (M.P. 123.4).
- 2) TURN RIGHT ONTO HWY 57 AND GO 4.3 MILES.
- 3) TURN LEFT AND GO THROUGH GATE.
- 4) GO 0.1 MILES AND GO THROUGH SECOND GATE.
- 5) TRAVEL 0.7 MILES WHERE ACCESS IS STAKED ON LEFT SIDE OF ROAD.

WELL FLAG LOCATED AT LAT. 36.317623° N, LONG. 107.873039° W (NAD 83).

JOB No.: ENC099  
DATE: 07/11/13



**Scorpion Survey &  
Consulting, L.L.C.**  
55 County Road 3312  
Aztec, New Mexico 87410  
(505) 333-2945



Good Times D14-2410 01H  
 SHL: NWNW Section 14, T24N, R10W  
 1321 FNL and 449 FWL  
 BHL: NWNW Section 15, T24N, R10W  
 920 FNL and 330 FNL  
 San Juan County, New Mexico  
 Lease Number: NMNM 100807 & NMNM 16760

## 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.	795
Kirtland Shale	937
Fruitland Coal	1,272
Pictured Cliffs Ss.	1,601
Lewis Shale	1,752
Cliffhouse Ss.	2,359
Menefee Fn.	3,117
Point Lookout Ss.	4,032
Mancos Shale	4,232
Mancos Silt	4,829
Gallup Fn.	5,050

The referenced surface elevation is 6,876', KB 6,892'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,272
Oil/Gas	Pictured Cliffs Ss.	1,601
Oil/Gas	Cliffhouse Ss.	2,359
Gas	Menefee Fn.	3,117
Oil/Gas	Point Lookout Ss.	4,032
Oil/Gas	Mancos Shale	4,232
Oil/Gas	Mancos Silt	4,829
Oil/Gas	Gallup Fn.	5,050

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.

Good Times D14-2410 01H

SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL

BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL

San Juan County, New Mexico

Lease Number: NMNM 100807 & NMNM 16760

- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- l) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

#### 4. CASING & CEMENTING PROGRAM

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

- a) The proposed casing design is as follows:

Casing	Depth	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'-5840'MD	8 3/4"	7"	26#	J55, LTC New
Production Liner	5640'-10480'MD	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lb)	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 1/2"	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.

Good Times D14-2410 01H

SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL

BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL

San Juan County, New Mexico

Lease Number: NMNM 100807 & NMNM 16760

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

b) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

Casing	Depth	Cement Volume (sacks)	Cement Type&Yield	Designed TOC	Centralizers
Conductor	60'	100sk	Type I Neat 14.8 ppg	Surface	None
Surface	500'	178sk	Type III Cement + 1% CaCl + 0.25lb/sk Cello Flake + 0.2% FL, 14.6ppg, 1.38cuf/sk	Surface	1 per joint on bottom 3 joints
Intermediate	5840'MD	30% open hole excess Stage 1 Lead: 227sks Stage 1 Tail: 156sks Stage 2 Lead: 128sks	<b>Lead</b> (Stages 1 and 2): PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuf/sk <b>Tail</b> (Stage 1): Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuf/sk	Surface	1 per joint for bottom 3 joints, 1 every 3 joints for remaining joints
Production Liner*	5640'-10480'	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 a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

Good Times D14-2410 01H

SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL

BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL

San Juan County, New Mexico

Lease Number: NMNM 100807 & NMNM 16760

## 5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4727'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5263'/10480'	Gallup

## 6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Hole Size (in)	Depth (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60' TVD	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0-500' TVD	Fresh Water	8.4-8.6	60-70	NC
8 3/4"	500'TVD- 5311'TVD/5840'MD	Fresh Water LSND	8.5-8.8	40-50	8-10

b) Intermediate Casing Point to TD:

Hole Size (in)	MD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5840'-10480'	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 and LOGGING

- a) Drill Stem Testing – None anticipated
- b) Coring – None anticipated.
- c) Mud 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

Good Times D14-2410 01H  
SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL  
BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL  
San Juan County, New Mexico  
Lease Number: NMNM 100807 & NMNM 16760

#### **8. ABNORMAL PRESSURES & HYDROGEN SULFIDE**


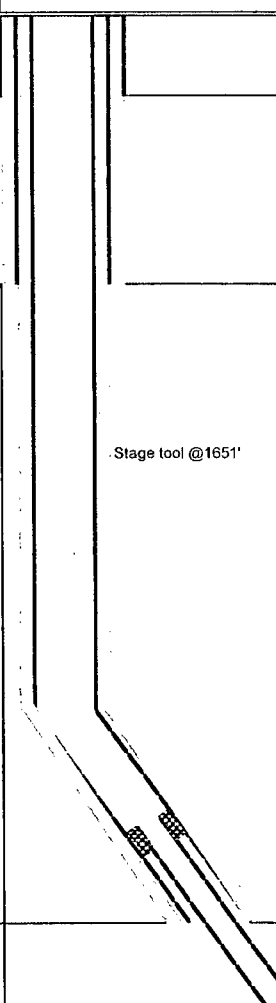
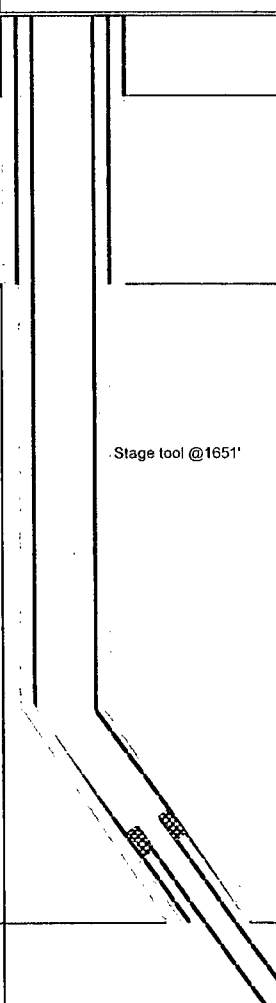
The anticipated bottom hole pressure is +/- 2486 psi based on a 9.0 ppg at 5311' TVD of the landing point of the horizontal lateral. No abnormal pressure or temperatures are anticipated.

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

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

Drilling is estimated to commence on May 22, 2014. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 25 days.

LOC: Sec 14-T24N-R10W County: San Juan WELL: Good Times D14-2410 01H			Encana Natural Gas WELL SUMMARY					ENG: 9/17/13 RIG: GLE: 6876 RKBE: 6892	
MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH			HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			TVD	MD					
			60	60'		30	20" 94# 100sx Type I Neat 14.8ppg cmt	Fresh wtr 8.3-9.2	
Surveys After csg is run	None					12 1/4	9 5/8" 36ppf J55 STC  TOC @ surface 178 sks Type III Cmt	Fresh wtr 8.4-8.6	Vertical <1°
			500	500					
Surveys every 500'	No OH logs          Mud logger onsite	Ojo Alamo Kirtland  Fruitland Coal  Pictured Cliffs Ss Lewis Shale  Cliffhouse Ss Menefee Fn  Point Lookout Ss Mancos Sh  KICK OFF PT  Mancos Silt  Gallup Top  7" csg	795 937  1272  1601 1752  2359 3117  4032 4232  4727  4829  5050  5311		Stage tool @1651'	8 3/4	7" 26ppf J55 LTC  TOC @ surface 30% OH excess: 511 sks Total. Stage 1 Lead: 227sks Stage 1 Tail: 156sks Stage 2 Lead: 128sks	Fresh Wtr  8.5-8.8	Vertical <1°          KOP 4727 10 deg/100'
		horz target  Base Gallup	5311 5362	5940		6 1/8	200' overlap at liner top		25deg updip 5263'TVD TD = 10480' MD
Surveys every 500' Gyro at CP MWD Gamma Directional	No OH Logs						4540' Lateral	8.6-9.0 OBM	Switch to OBM 8.6-9.0
							4 1/2" 11.6ppf SB80 LTC  Running external swellable csg packers for isolation of prod string Plan on setting top packer within 100' of intermediate casing shoe		

**NOTES:**

- 1) Drill with 30" bit to 60', set 20" 94# conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 4727', 8 3/4" hole size,
- 5) PU directional tools and start curve at 10deg/100' build rate
- 6) Drill to casing point of 5840' MD
- 7) R&C 7" casing, circ cmt to surface, switch to OBM
- 8) Land at 90deg, drill 4540' lateral to 10480', run 4 1/2" liner with external swellable csg packers



## Boomerang Tube LLC

### CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

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

### MAXIMUM DEPTH/LENGTH BASED ON MUD WTS & SAFETY FACTORS

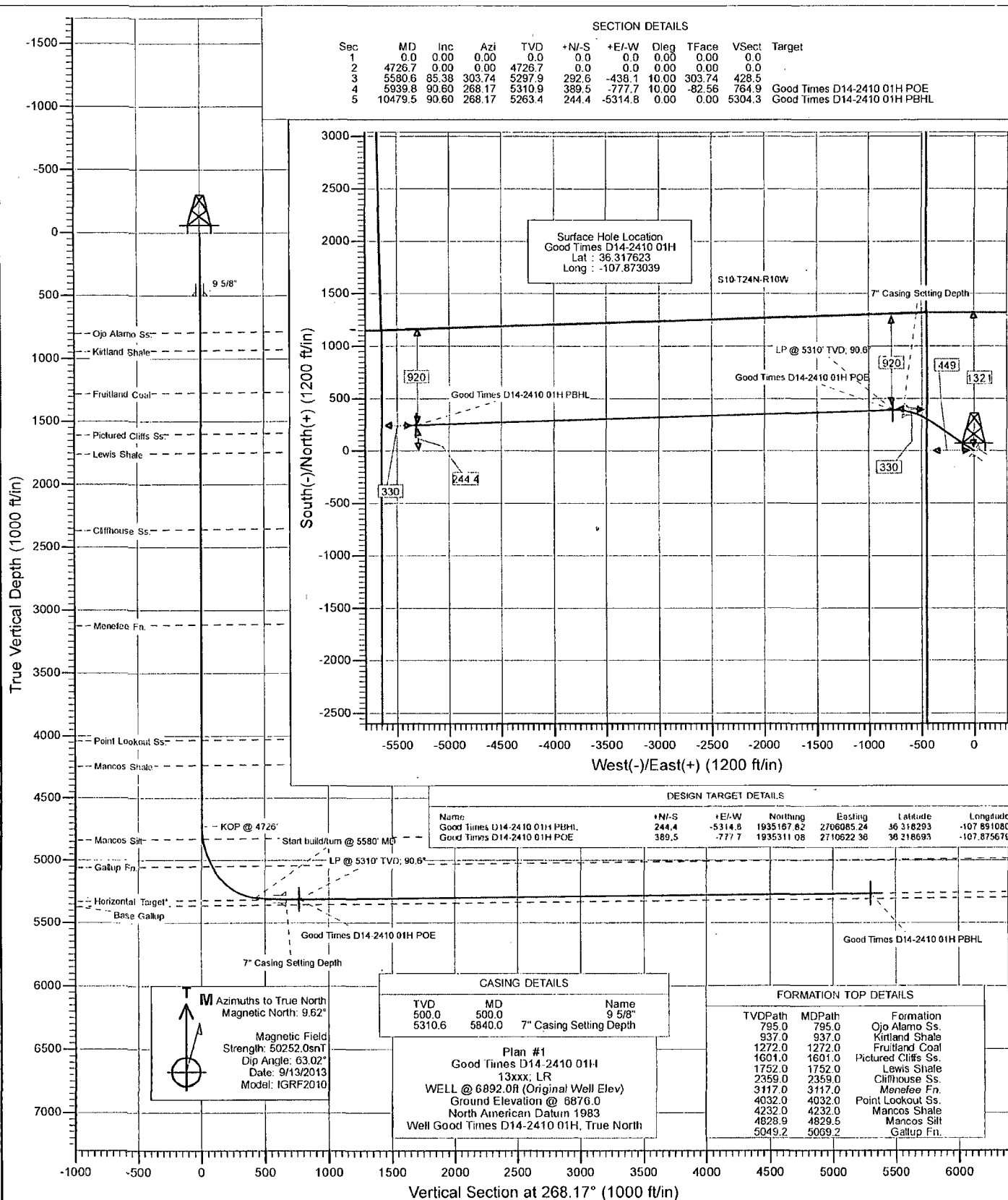
Drilling Mud Weight (ppg)	_____	9.625
Tension Safety Factor	_____	1.80
Maximum Tension Length (ft)	_____	9,630
Internal Yield Safety Factor	_____	1.10
Maximum Depth for Internal Yield (ft)	_____	14,150
Collapse Safety Factor	_____	1.125
Maximum Collapse Depth (ft)	_____	11,290

### API RELATED VALUES and INTERMEDIATE CALCULATION RESULTS

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



Project: San Juan County, NM  
Site: S14-T24N-R10W  
Well: Good Times D14-2410 01H  
Wellbore: Hz  
Design: Plan #1



# Planning Report

Database: USA EDM 5000 Multi Users DB  
 Company: EnCana Oil & Gas (USA) Inc  
 Project: San Juan County, NM  
 Site: S14-T24N-R10W  
 Well: Good Times D14-2410 01H  
 Wellbore: Hz  
 Design: Plan #1

Local Co-ordinate Reference: Well Good Times D14-2410 01H  
 TVD Reference: WELL @ 6892.0ft (Original Well Elev)  
 MD Reference: WELL @ 6892.0ft (Original Well Elev)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

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

Site	S14-T24N-R10W				
Site Position:		Northing:	1,934,894.31 ft	Latitude:	36.317549
From:	Lat/Long	Easting:	2,711,386.96 ft	Longitude:	-107.873083
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.02 °

Well	Good Times D14-2410 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,934,921.24 ft	Latitude:	36.317623
	+E/-W	0.0 ft	Easting:	2,711,399.93 ft	Longitude:	-107.873039
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,876.0 ft	

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/13/2013	9.62	63.02	50,252

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	268.17

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,726.7	0.00	0.00	4,726.7	0.0	0.0	0.00	0.00	0.00	0.00	
5,580.6	85.38	303.74	5,297.9	292.6	-438.1	10.00	10.00	0.00	303.74	
5,939.8	90.60	268.17	5,310.9	389.5	-777.7	10.00	1.45	-9.90	-82.56	Good Times D14-2410
10,479.5	90.60	268.17	5,263.4	244.4	-5,314.8	0.00	0.00	0.00	0.00	Good Times D14-2410

# Planning Report

**Databaso:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** San Juan County, NM  
**Site:** S14-T24N-R10W  
**Well:** Good Times D14-2410 01H  
**Wellbore:** Hz  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Good Times D14-2410 01H  
**TVD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**MD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**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"
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	
795.0	0.00	0.00	795.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
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	
937.0	0.00	0.00	937.0	0.0	0.0	0.0	0.00	0.00	Kirtland Shale
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	
1,272.0	0.00	0.00	1,272.0	0.0	0.0	0.0	0.00	0.00	Fruitland Coal
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	
1,601.0	0.00	0.00	1,601.0	0.0	0.0	0.0	0.00	0.00	Pictured Cliffs Ss.
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,752.0	0.00	0.00	1,752.0	0.0	0.0	0.0	0.00	0.00	Lewis Shale
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	
2,359.0	0.00	0.00	2,359.0	0.0	0.0	0.0	0.00	0.00	Cliffhouse Ss.
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	
3,117.0	0.00	0.00	3,117.0	0.0	0.0	0.0	0.00	0.00	Menefee Fn.
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	
4,032.0	0.00	0.00	4,032.0	0.0	0.0	0.0	0.00	0.00	Point Lookout Ss.
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	
4,232.0	0.00	0.00	4,232.0	0.0	0.0	0.0	0.00	0.00	Mancos Shale

# Planning Report

Database: USA EDM 5000 Multi Users DB  
 Company: EnCana Oil & Gas (USA) Inc  
 Project: San Juan County, NM  
 Site: S14-T24N-R10W  
 Well: Good Times D14-2410 01H  
 Wellbore: Hz  
 Design: Plan #1

Local Co-ordinate Reference: Well Good Times D14-2410 01H  
 TVD Reference: WELL @ 6892.0ft (Original Well Elev)  
 MD Reference: WELL @ 6892.0ft (Original Well Elev)  
 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	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	
4,726.7	0.00	0.00	4,726.7	0.0	0.0	0.0	0.00	0.00	KOP @ 4726'
4,800.0	7.33	303.74	4,799.8	2.6	-3.9	3.8	10.00	10.00	
4,829.5	10.28	303.74	4,828.9	5.1	-7.6	7.5	10.00	10.00	Mancos Silt
4,900.0	17.33	303.74	4,897.4	14.4	-21.6	21.2	10.00	10.00	
5,000.0	27.33	303.74	4,989.8	35.5	-53.2	52.0	10.00	10.00	
5,069.2	34.24	303.74	5,049.2	55.2	-82.6	80.8	10.00	10.00	Gallup Fn.
5,100.0	37.33	303.74	5,074.2	65.2	-97.6	95.5	10.00	10.00	
5,200.0	47.32	303.74	5,148.0	102.5	-153.5	150.2	10.00	10.00	
5,300.0	57.32	303.74	5,209.0	146.4	-219.2	214.5	10.00	10.00	
5,400.0	67.32	303.74	5,255.4	195.6	-292.8	286.4	10.00	10.00	
5,500.0	77.32	303.74	5,285.8	248.4	-371.9	363.8	10.00	10.00	
5,580.6	85.38	303.74	5,297.9	292.6	-438.1	428.5	10.00	10.00	Start build/turn @ 5580' MD
5,600.0	85.63	301.81	5,299.4	303.1	-454.4	444.5	10.00	1.31	
5,700.0	87.01	291.89	5,305.8	348.1	-543.3	531.9	10.00	1.38	
5,800.0	88.48	281.99	5,309.8	377.2	-638.8	626.4	10.00	1.47	
5,840.0	89.08	278.03	5,310.6	384.1	-678.2	665.5	10.00	1.51	7" Casing Setting Depth
5,900.0	89.99	272.11	5,311.1	389.4	-737.9	725.1	10.00	1.52	
5,939.8	90.60	268.17	5,310.9	389.5	-777.7	764.9	10.00	1.52	LP @ 5310' TVD; 90.6°
6,000.0	90.60	268.17	5,310.3	387.6	-837.8	825.0	0.00	0.00	
6,100.0	90.60	268.17	5,309.2	384.4	-937.8	925.0	0.00	0.00	
6,200.0	90.60	268.17	5,308.2	381.2	-1,037.7	1,025.0	0.00	0.00	
6,300.0	90.60	268.17	5,307.1	378.0	-1,137.7	1,125.0	0.00	0.00	
6,400.0	90.60	268.17	5,306.1	374.8	-1,237.6	1,225.0	0.00	0.00	
6,500.0	90.60	268.17	5,305.0	371.6	-1,337.6	1,325.0	0.00	0.00	
6,600.0	90.60	268.17	5,304.0	368.4	-1,437.5	1,425.0	0.00	0.00	
6,700.0	90.60	268.17	5,303.0	365.2	-1,537.5	1,525.0	0.00	0.00	
6,800.0	90.60	268.17	5,301.9	362.0	-1,637.4	1,625.0	0.00	0.00	
6,900.0	90.60	268.17	5,300.9	358.8	-1,737.3	1,725.0	0.00	0.00	
7,000.0	90.60	268.17	5,299.8	355.6	-1,837.3	1,825.0	0.00	0.00	
7,100.0	90.60	268.17	5,298.8	352.4	-1,937.2	1,925.0	0.00	0.00	
7,200.0	90.60	268.17	5,297.7	349.2	-2,037.2	2,025.0	0.00	0.00	
7,300.0	90.60	268.17	5,296.7	346.0	-2,137.1	2,125.0	0.00	0.00	
7,400.0	90.60	268.17	5,295.6	342.8	-2,237.1	2,225.0	0.00	0.00	
7,500.0	90.60	268.17	5,294.6	339.6	-2,337.0	2,325.0	0.00	0.00	
7,600.0	90.60	268.17	5,293.5	336.4	-2,436.9	2,425.0	0.00	0.00	
7,700.0	90.60	268.17	5,292.5	333.3	-2,536.9	2,524.9	0.00	0.00	
7,800.0	90.60	268.17	5,291.5	330.1	-2,636.8	2,624.9	0.00	0.00	
7,900.0	90.60	268.17	5,290.4	326.9	-2,736.8	2,724.9	0.00	0.00	
8,000.0	90.60	268.17	5,289.4	323.7	-2,836.7	2,824.9	0.00	0.00	
8,100.0	90.60	268.17	5,288.3	320.5	-2,936.7	2,924.9	0.00	0.00	
8,200.0	90.60	268.17	5,287.3	317.3	-3,036.6	3,024.9	0.00	0.00	
8,300.0	90.60	268.17	5,286.2	314.1	-3,136.5	3,124.9	0.00	0.00	
8,400.0	90.60	268.17	5,285.2	310.9	-3,236.5	3,224.9	0.00	0.00	
8,500.0	90.60	268.17	5,284.1	307.7	-3,336.4	3,324.9	0.00	0.00	
8,600.0	90.60	268.17	5,283.1	304.5	-3,436.4	3,424.9	0.00	0.00	
8,700.0	90.60	268.17	5,282.0	301.3	-3,536.3	3,524.9	0.00	0.00	
8,800.0	90.60	268.17	5,281.0	298.1	-3,636.3	3,624.9	0.00	0.00	

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** San Juan County, NM  
**Site:** S14-T24N-R10W  
**Well:** Good Times D14-2410 01H  
**Wellbore:** Hz  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Good Times D14-2410 01H  
**TVD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**MD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,900.0	90.60	268.17	5,280.0	294.9	-3,736.2	3,724.9	0.00	0.00	
9,000.0	90.60	268.17	5,278.9	291.7	-3,836.1	3,824.9	0.00	0.00	
9,100.0	90.60	268.17	5,277.9	288.5	-3,936.1	3,924.9	0.00	0.00	
9,200.0	90.60	268.17	5,276.8	285.3	-4,036.0	4,024.9	0.00	0.00	
9,300.0	90.60	268.17	5,275.8	282.1	-4,136.0	4,124.9	0.00	0.00	
9,400.0	90.60	268.17	5,274.7	278.9	-4,235.9	4,224.9	0.00	0.00	
9,500.0	90.60	268.17	5,273.7	275.7	-4,335.9	4,324.9	0.00	0.00	
9,600.0	90.60	268.17	5,272.6	272.5	-4,435.8	4,424.8	0.00	0.00	
9,700.0	90.60	268.17	5,271.6	269.3	-4,535.8	4,524.8	0.00	0.00	
9,800.0	90.60	268.17	5,270.6	266.1	-4,635.7	4,624.8	0.00	0.00	
9,900.0	90.60	268.17	5,269.5	262.9	-4,735.6	4,724.8	0.00	0.00	
10,000.0	90.60	268.17	5,268.5	259.7	-4,835.6	4,824.8	0.00	0.00	
10,100.0	90.60	268.17	5,267.4	256.5	-4,935.5	4,924.8	0.00	0.00	
10,200.0	90.60	268.17	5,266.4	253.3	-5,035.5	5,024.8	0.00	0.00	
10,300.0	90.60	268.17	5,265.3	250.1	-5,135.4	5,124.8	0.00	0.00	
10,400.0	90.60	268.17	5,264.3	246.9	-5,235.4	5,224.8	0.00	0.00	
10,479.5	90.60	268.17	5,263.4	244.4	-5,314.8	5,304.3	0.00	0.00	TD at 10479.5

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Good Times D14-2410 C - plan hits target center - Point	0.00	0.00	5,310.9	389.5	-777.7	1,935,311.08	2,710,622.36	36.318693	-107.875679
Good Times D14-2410 0 - plan hits target center - Point	0.00	0.00	5,263.4	244.4	-5,314.8	1,935,167.82	2,706,085.24	36.318293	-107.891080

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
500.0	500.0	9 5/8"	0.000	0.000
5,840.0	5,310.6	7" Casing Setting Depth	0.000	0.000

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** San Juan County, NM  
**Site:** S14-T24N-R10W  
**Well:** Good Times D14-2410 01H  
**Wellbore:** Hz  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Good Times D14-2410 01H  
**TVD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**MD Reference:** WELL @ 6892.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
795.0	795.0	Ojo Alamo Ss.		-0.60	268.17
937.0	937.0	Kirtland Shale		-0.60	268.17
1,272.0	1,272.0	Fruitland Coal		-0.60	268.17
1,601.0	1,601.0	Pictured Cliffs Ss.		-0.60	268.17
1,752.0	1,752.0	Lewis Shale		-0.60	268.17
2,359.0	2,359.0	Cliffhouse Ss.		-0.60	268.17
3,117.0	3,117.0	Menefee Fn.		-0.60	268.17
4,032.0	4,032.0	Point Lookout Ss.		-0.60	268.17
4,232.0	4,232.0	Mancos Shale		-0.60	268.17
4,829.5	4,829.0	Mancos Silt		-0.60	268.17
5,069.2	5,050.0	Gallup Fn.		-0.60	268.17

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,726.7	4,726.7	0.0	0.0	KOP @ 4726'
5,580.6	5,297.9	292.6	-438.1	Start build/turn @ 5580' MD
5,939.8	5,310.9	389.5	-777.7	LP @ 5310' TVD; 90.6°
10,479.5	5,263.4	244.4	-5,314.8	TD at 10479.5

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Good Times D14-2410 01H
<b>Project:</b>	San Juan County, NM	<b>TVD Reference:</b>	WELL @ 6892.0ft (Original Well Elev)
<b>Reference Site:</b>	S14-T24N-R10W	<b>MD Reference:</b>	WELL @ 6892.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Good Times D14-2410 01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 500.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	9/13/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	10,479.3'	Plan #1 (Hz)	Geolink MWD	Geolink MWD

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
Offset Well - Wellbore - Design						
S14-T24N-R10W						
Good Times D14-2410 02H - Hz - Plan #1	4,200.0	4,200.0	29.9	15.3	2.047	CC, ES, SF

# Anticollision Report

Company: EnCana Oil & Gas (USA) Inc  
Project: San Juan County, NM  
Reference Site: S14-T24N-R10W  
Site Error: 0.0ft  
Reference Well: Good Times D14-2410 01H  
Well Error: 0.0ft  
Reference Wellbore: Hz  
Reference Design: Plan #1

Local Co-ordinate Reference: Well Good Times D14-2410 01H  
TVD Reference: WELL @ 6892.0ft (Original Well Elev)  
MD Reference: WELL @ 6892.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Output errors are at: 2.00 sigma  
Database: USA EDM 5000 Multi Users DB  
Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R10W - Good Times D14-2410 02H - Hz - Plan #1														Offset Site Error:	0.0 ft
Survey Program: O-Geodink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)				Between Centres (ft)	Between Ellipses (ft)		
0.0	0.0	0.0	0.0	0.0	0.0	-154.30	-26.9	-13.0	29.9						
100.0	100.0	100.0	100.0	0.1	0.1	-154.30	-26.9	-13.0	29.9	0.29	101.954				
200.0	200.0	200.0	200.0	0.3	0.3	-154.30	-26.9	-13.0	29.9	0.64	46.544				
300.0	300.0	300.0	300.0	0.5	0.5	-154.30	-26.9	-13.0	29.9	0.99	30.155				
400.0	400.0	400.0	400.0	0.7	0.7	-154.30	-26.9	-13.0	29.9	1.34	22.302				
500.0	500.0	500.0	500.0	0.8	0.8	-154.30	-26.9	-13.0	29.9	1.69	17.694				
600.0	600.0	600.0	600.0	1.0	1.0	-154.30	-26.9	-13.0	29.9	2.04	14.665				
700.0	700.0	700.0	700.0	1.2	1.2	-154.30	-26.9	-13.0	29.9	2.39	12.521				
800.0	800.0	800.0	800.0	1.4	1.4	-154.30	-26.9	-13.0	29.9	2.74	10.924				
900.0	900.0	900.0	900.0	1.5	1.5	-154.30	-26.9	-13.0	29.9	3.09	9.688				
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-154.30	-26.9	-13.0	29.9	3.43	8.703				
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-154.30	-26.9	-13.0	29.9	3.78	7.900				
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-154.30	-26.9	-13.0	29.9	4.13	7.233				
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-154.30	-26.9	-13.0	29.9	4.48	6.670				
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	-154.30	-26.9	-13.0	29.9	4.83	6.188				
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	-154.30	-26.9	-13.0	29.9	5.18	5.771				
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	-154.30	-26.9	-13.0	29.9	5.53	5.407				
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	-154.30	-26.9	-13.0	29.9	5.88	5.086				
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	-154.30	-26.9	-13.0	29.9	6.23	4.801				
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	-154.30	-26.9	-13.0	29.9	6.58	4.546				
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	-154.30	-26.9	-13.0	29.9	6.93	4.317				
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	-154.30	-26.9	-13.0	29.9	7.27	4.109				
2,200.0	2,200.0	2,200.0	2,200.0	3.8	3.8	-154.30	-26.9	-13.0	29.9	7.62	3.921				
2,300.0	2,300.0	2,300.0	2,300.0	4.0	4.0	-154.30	-26.9	-13.0	29.9	7.97	3.750				
2,400.0	2,400.0	2,400.0	2,400.0	4.2	4.2	-154.30	-26.9	-13.0	29.9	8.32	3.592				
2,500.0	2,500.0	2,500.0	2,500.0	4.3	4.3	-154.30	-26.9	-13.0	29.9	8.67	3.448				
2,600.0	2,600.0	2,600.0	2,600.0	4.5	4.5	-154.30	-26.9	-13.0	29.9	9.02	3.314				
2,700.0	2,700.0	2,700.0	2,700.0	4.7	4.7	-154.30	-26.9	-13.0	29.9	9.37	3.191				
2,800.0	2,800.0	2,800.0	2,800.0	4.9	4.9	-154.30	-26.9	-13.0	29.9	9.72	3.078				
2,900.0	2,900.0	2,900.0	2,900.0	5.0	5.0	-154.30	-26.9	-13.0	29.9	10.07	2.970				
3,000.0	3,000.0	3,000.0	3,000.0	5.2	5.2	-154.30	-26.9	-13.0	29.9	10.42	2.870				
3,100.0	3,100.0	3,100.0	3,100.0	5.4	5.4	-154.30	-26.9	-13.0	29.9	10.77	2.777				
3,200.0	3,200.0	3,200.0	3,200.0	5.6	5.6	-154.30	-26.9	-13.0	29.9	11.11	2.690				
3,300.0	3,300.0	3,300.0	3,300.0	5.7	5.7	-154.30	-26.9	-13.0	29.9	11.46	2.608				
3,400.0	3,400.0	3,400.0	3,400.0	5.9	5.9	-154.30	-26.9	-13.0	29.9	11.81	2.531				
3,500.0	3,500.0	3,500.0	3,500.0	6.1	6.1	-154.30	-26.9	-13.0	29.9	12.16	2.458				
3,600.0	3,600.0	3,600.0	3,600.0	6.3	6.3	-154.30	-26.9	-13.0	29.9	12.51	2.390				
3,700.0	3,700.0	3,700.0	3,700.0	6.4	6.4	-154.30	-26.9	-13.0	29.9	12.86	2.325				
3,800.0	3,800.0	3,800.0	3,800.0	6.6	6.6	-154.30	-26.9	-13.0	29.9	13.21	2.263				
3,900.0	3,900.0	3,900.0	3,900.0	6.8	6.8	-154.30	-26.9	-13.0	29.9	13.56	2.205				
4,000.0	4,000.0	4,000.0	4,000.0	7.0	7.0	-154.30	-26.9	-13.0	29.9	13.91	2.150				
4,100.0	4,100.0	4,100.0	4,100.0	7.1	7.1	-154.30	-26.9	-13.0	29.9	14.26	2.097				
4,200.0	4,200.0	4,200.0	4,200.0	7.3	7.3	-154.30	-26.9	-13.0	29.9	14.60	2.047 CC, ES, SF				
4,300.0	4,300.0	4,295.4	4,295.2	7.5	7.5	-155.04	-32.8	-15.3	36.6	14.95	2.445				
4,400.0	4,400.0	4,387.6	4,385.5	7.7	7.6	-156.21	-49.7	-21.9	56.2	15.30	3.674				
4,500.0	4,500.0	4,473.8	4,467.2	7.8	7.9	-156.99	-75.1	-31.9	87.9	15.66	5.613				
4,600.0	4,600.0	4,550.0	4,536.2	8.0	8.1	-157.42	-105.0	-43.6	130.3	16.04	8.126				
4,700.0	4,700.0	4,622.9	4,598.7	8.2	8.4	-157.70	-139.8	-57.3	181.9	16.46	11.047				
4,726.7	4,726.7	4,640.3	4,613.1	8.2	8.5	-157.75	-149.0	-60.9	197.0	16.58	11.885				
4,750.0	4,750.0	4,650.0	4,621.0	8.3	8.5	-99.89	-154.2	-63.0	210.8	16.35	12.894				
4,800.0	4,799.8	4,684.5	4,648.4	8.4	8.7	-97.06	-173.7	-70.7	241.8	16.50	14.657				
4,850.0	4,849.1	4,711.5	4,669.1	8.4	8.9	-94.25	-189.8	-77.0	275.0	16.65	16.518				

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: San Juan County, NM  
 Reference Site: S14-T24N-R10W  
 Site Error: 0.0ft  
 Reference Well: Good Times D14-2410 01H  
 Well Error: 0.0ft  
 Reference Wellbore: Hz  
 Reference Design: Plan #1

Local Co-ordinate Reference: Well Good Times D14-2410 01H  
 TVD Reference: WELL @ 6892.0ft (Original Well Elev)  
 MD Reference: WELL @ 6892.0ft (Original Well Elev)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature  
 Output errors are at: 2.00 sigma  
 Database: USA EDM 5000 Multi Users DB  
 Offset TVD Reference: Offset Datum

Offset Design S14-T24N-R10W - Good Times D14-2410 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		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)					
4,900.0	4,897.4	4,735.7	4,687.2	8.5	9.0	-91.33	-204.9	-82.9	309.9	293.1	16.61	18.438			
4,950.0	4,944.4	4,750.0	4,697.5	8.7	9.1	-87.30	-214.0	-86.5	346.6	329.6	16.98	20.408			
5,000.0	4,989.8	4,776.4	4,716.2	8.8	9.3	-84.49	-231.4	-93.4	384.3	367.1	17.20	22.341			
5,050.0	5,033.1	4,800.0	4,732.2	9.0	9.5	-81.35	-247.5	-99.7	423.4	406.0	17.44	24.272			
5,100.0	5,074.2	4,800.0	4,732.2	9.2	9.5	-74.87	-247.5	-99.7	463.3	445.7	17.64	26.272			

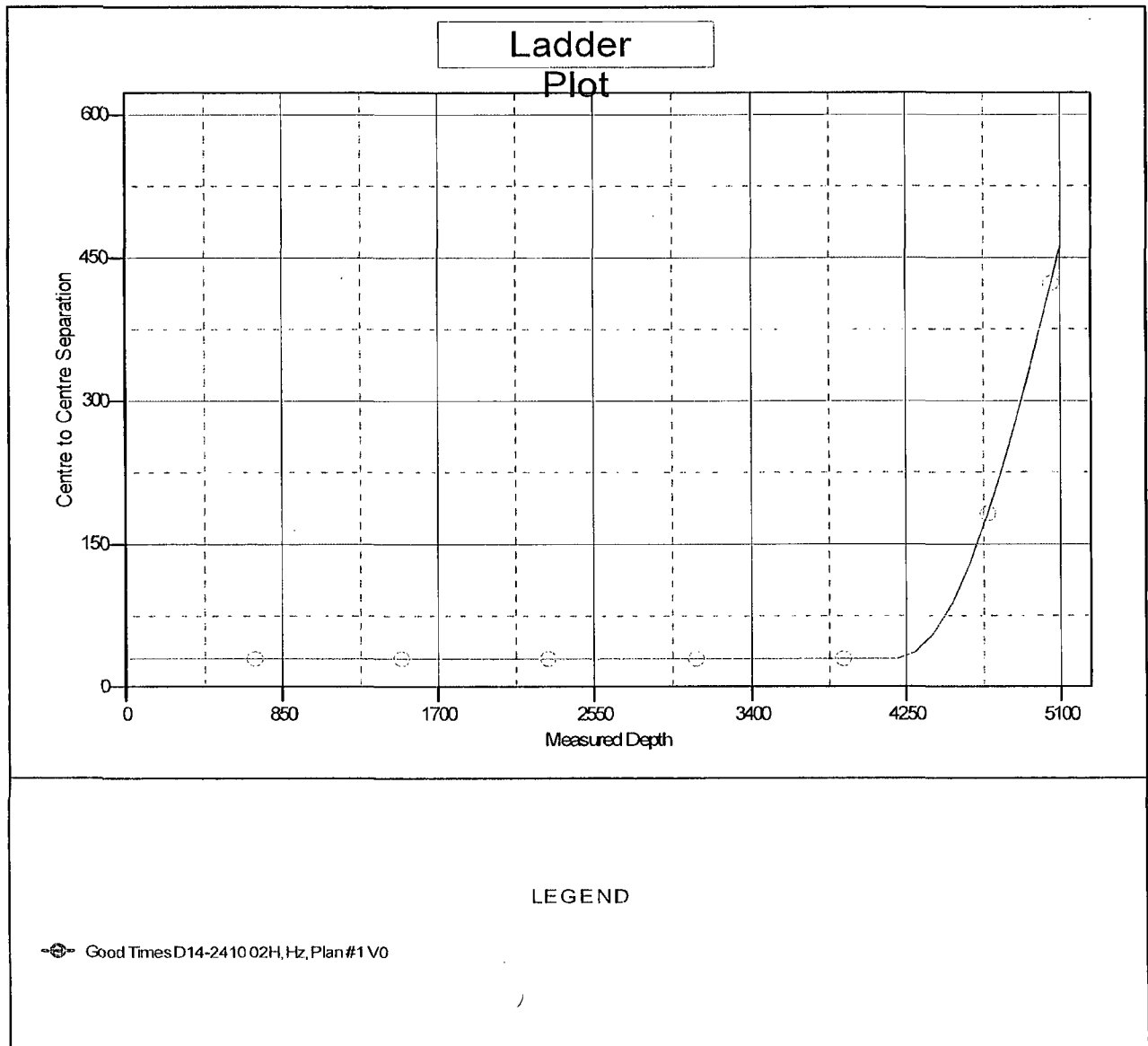
## Anticollision Report

Company: EnCana Oil & Gas (USA) Inc  
Project: San Juan County, NM  
Reference Site: S14-T24N-R10W  
Site Error: 0.0ft  
Reference Well: Good Times D14-2410 01H  
Well Error: 0.0ft  
Reference Wellbore: Hz  
Reference Design: Plan #1

Local Co-ordinate Reference: Well Good Times D14-2410 01H  
TVD Reference: WELL @ 6892.0ft (Original Well Elev)  
MD Reference: WELL @ 6892.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Output errors are at: 2.00 sigma  
Database: USA EDM 5000 Multi Users DB  
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 6892.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -107.833333 °

Coordinates are relative to: Good Times D14-2410 01H  
Coordinate System is US State Plane 1983, New Mexico Western Zone  
Grid Convergence at Surface is: -0.02°



Good Times D14-2410 01H

SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL

BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL

San Juan County, New Mexico

Lease Number: NMNM 100807 & NMNM 16760

2. After removal of vegetation, topsoil will be segregated and windrowed on the edge of the. Topsoil will be defined as the top six (6) inches of soil. The stockpiled topsoil will be free of brush and tree limbs, trunks and root balls, but may include chipped or mulched material so long as it is incorporated into the topsoil stockpile.

Topsoil will be stockpiled separate from subsoil with a noticeable gap left between the stockpiles. Vehicle/equipment traffic will be prevented from crossing topsoil stockpiles.

Topsoil will not be stripped when soils are moisture-saturated or frozen below the stripping depth.

If the location becomes prone to wind or water erosion, Encana will take appropriate measures to prevent topsoil loss from wind. Such measures may include using tackifiers or water to wet the topsoil stockpile so that a crust is created across the exposed soil to prevent soil loss.

3. All construction materials for the well pad will consist of native borrow and subsoil accumulated during well pad construction. If additional fill or surfacing material is required, it will be obtained from existing permitted or private sources and will be hauled in by trucks over existing access roads.

The maximum cut will be approximately 13.2 feet on the northeast midline on line 1 between corners 2 and 6. The maximum fill will be approximately 13.8 feet on the north corner (corner 5).

4. As determined during the onsite on September 4, 2013, the following best management practices will be implemented:
  - a. Water will be diverted around the pad and silt traps installed as needed upon interim reclamation.
5. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, and dozer. Construction for the access road and well pad will take approximately 2 to 3 weeks.

C. Pipeline

See the Plan of Development submitted with the final Standard SF-299 Application for authorization to construct, operate, maintain and terminate a 2,473.5 foot, up to 6-inch buried, steel well connect pipeline that was submitted to the BLM concurrently with the APD.

**7. METHODS FOR HANDLING WASTE**

A. Cuttings

- ✓ 1. A closed-loop system will be used. Cuttings will be moved through a shaker system on the drill rig that separates drilling fluids from the cuttings. Cuttings will be stored onsite in above-ground storage tanks. Cuttings will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at the Envirotech, Inc. and/or Industrial Ecosystem, Inc. waste disposal facilities.
2. The closed-loop system storage tanks will be adequately sized to ensure confinement of all fluids and will provide sufficient freeboard to prevent uncontrolled releases.

Good Times D14-2410 01H

SHL: NWNW Section 14, T24N, R10W  
1321 FNL and 449 FWL

BHL: NWNW Section 15, T24N, R10W  
920 FNL and 330 FNL

San Juan County, New Mexico

Lease Number: NMNM 100807 & NMNM 16760

3. A 20-mil liner will be installed under tanks, pumps, ancillary facilities, and truck loading/unloading areas associated with the closed-loop system.
- B. Drilling Fluids
1. A closed-loop system will be used. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. Residual fluids will be vacuumed from the storage tanks and disposed of at Basin Disposal, Inc. and/or Industrial Ecosystem, Inc. waste disposal facilities.
  2. The closed-loop system storage tanks will be adequately sized to ensure confinement of all fluids and will provide sufficient freeboard to prevent uncontrolled releases.
  3. The closed-loop system storage tanks will be placed in bermed secondary containment sized to accommodate a minimum of 110 percent of the volume of the largest storage tank.
  4. A 20-mil liner will be installed under tanks, pumps, ancillary facilities, and truck loading/unloading areas associated with the closed-loop system.
- C. Flowback Water
1. The water-based solution that flows back to the surface during and after completion operations will be placed in storage tanks on the location.
  2. Flowback water will be confined to a storage tank for a period not to exceed 90 days after initial production and will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystem, Inc. waste disposal facilities.
- D. Spills – any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.
- E. Sewage – self-contained, chemical toilets will be provided for human waste disposal. The toilet holding tanks will be pumped, as needed, and the contents thereof disposed of in an approved sewage disposal facility. The toilets will be onsite during all operations.
- F. Garbage and other waste material – garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash container during drilling and completion operations. The accumulated trash will be removed, as needed, and will be disposed of at an authorized sanitary landfill. No trash will be buried or burned on location.
- G. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash container will be cleaned up and removed from the well location.
- H. No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing or completing of this well.
- I. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

WELLHEAD BLOWOUT CONTROL SYSTEM



Well name and number:

Good Times D14-2410 01H

