## 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** 



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.

Well infor	Signature Date: <u>9 - 25 - 14</u> mation; <u>En Cana</u> , Well Name and Number <u>Good Times</u> P25 - 2410 <sup>#</sup> 01 H
api# <u>30</u> -	-045-35604, Section <u>25,</u> Township <u>24</u> NS, Range <u>10</u> E/W
	elow checked and handwritten conditions) tify Aztec OCD 24hrs prior to casing & cement.
	ld C-104 for directional survey & "As Drilled" Plat ld C-104 for NSL NSP, DHC
•	acing rule violation. Operator must follow up with change of status notification on other well 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
- Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- 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.
- Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

NMOCD Approved by Signature

10-24-2014

Date

Form 3160-3 (August 2007)

## UNITED STATES

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SFP 29 Lease Serial No DEPARTMENT OF THE INTERIOR NM 5991 BUREAU OF LAND MANAGEMENT Cinhdian, Allotee or APPLICATION FOR PERMIT TO DRILL OR REENTER 7 If Unit or CA Agreement, Name and No. **V** DRILL la. Type of work: REENTER Pending 8. Lease Name and Well No. lb. Type of Well: Oil Well Gas Well ✓ Single Zone Multiple Zone Good Times P25-2410 01H Name of Operator Encana Oil & Gas (USA) Inc. 3b. Phone No. (include area code) 3a<sub>x</sub> Address 10. Field and Pool, or Exploratory 370 17th Street, Suite 1700 720-876-3926 Denver, CO 80202 Basin Mancos Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surfact '1177 FSL and '78 FEL Section 25, T24N, R10W Section 25, T24N, R10W NMPM At proposed prod. zone '2180 FSL and '330 FWL Section 25, T24N, R10W 12. County or Parish 13. State 14. Distance in miles and direction from nearest town or post office\* +/- 36.6 miles south from the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM San Juan NM 15. Distance from proposed\* BHL is 330' from the west lease 16. No. of acres in lease NM 5991-640 ac. Spacing Unit dedicated to this well location to nearest property or lease line, ft. line Section 25, T24N, R10W 320 acres- S/2 of Section 25 (Also to nearest drig. unit line, if any) 20. BLM/BIA Bond No. on file 19. Proposed Depth 18. Distance from proposed location\* to nearest well, drilling, completed, 02H is +/- 30' from SHL Good Times P25-2410 5134' TVD, 10257' MD COB-000235 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 6947' GL, 6963' KB 03/23/2015 20 Days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification SUPO must be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the 25. Signature Name (Printed/Typed) Jessica Gregg Title Regulatory Analyst Approved by (Signature) Name (Printed/Typed)

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.

Office

Conditions of approval, if any, are attached.

Title

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 Title 18 U.S.C. Section 1001 and 1106-45 Codes. States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

BLM S APPROVAL OR ACCEPTANT

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

ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON THE ERAL AND INDIAN LANDS

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "General requirements"

Oistrict I 1625 & French Ofrive. Hobbs, NM 88240 Phone: (575) 393-5161 Fax: (575) 393-6720 Bistrict II 811 S. First Street, Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rin Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Orive. Santa Fe, NM 87505 Phone: (505) 476–3460 Fax: (505) 476–3462

District IV

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 1, 2011

Submit one copy to Appropriate District Office

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

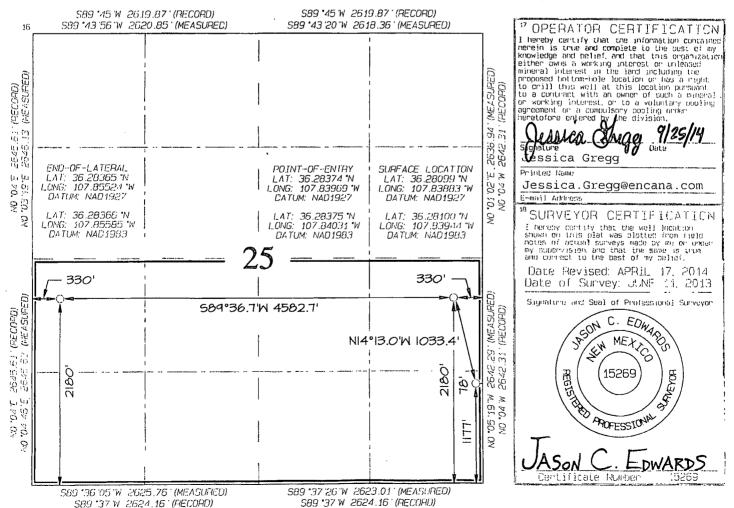
OIL CONS. DIV DIST. 3

OCT 2 4 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

300	VPI Number	3560	H	'Pool Con 97232			POOT Nam BASIN MAN		1		
Property	Code				⁵Propent,	•		e M	ell Number		
13128	33			9	GOOD TIMES	P25-2410 ·			01H		
'09RID (	lo.	***			*Operator				Elevation		
28232	7			ENCA	NA OIL & (	GAS (USA) INC	Σ.	4	6947 '		
L.	<sup>10</sup> Surface Location								· · · · · · · · · · · · · · · · · · ·		
UL or lot no.	Section	lownship	Range	Lot l <b>d</b> n	Feet from the	North/South line	Feel from the	East/West line	County		
P	25	24N	10W		1177	SOUTH	78	EAST	SAN JUAN		
	· ·		1 Botto	m Hole	Location !	f Different H	rom Surfac	e			
U_ or lat no	Sect 101	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County		
<u> </u>	25	24N	10W		2180	SOUTH	330	WEST	SAN JUAN		
320.0 Acres S/2 Section 25					<sup>13</sup> Joint or Infill	<sup>34</sup> Consolidation Code	<sup>15</sup> Order No.		 		

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



SHL: 1177'FSL & 78'FEL Sec 25 T24NR10W BHL: 2180'FSL & 330'FWL Sec 25 T24NR10W

San Juan, New Mexico

## Encana Oil & Gas (USA) Inc. Drilling Plan

#### 1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
San Jose Fn.	n/a
Nacimiento Fn.	0
Ojo Alamo Ss.	713
Kirtland Shale	901
Fruitland Coal	1,213
Pictured Cliffs Ss.	1,494
Lewis Shale	1,647
Cliffhouse Ss.	2,204
Menefee Fn.	2,933
Point Lookout Ss.	3,880
Mancos Shale	4,074
Mancos Silt	4,636
Gallup Fn.	4,916
Base Gallup	5,238

The referenced surface elevation is 6947', KB 6963'

#### 2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS,

#### & OTHER MINERAL BEARING FORMATIONS

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,213
Oil/Gas	Pictured Cliffs Ss.	1,494
Oil/Gas	Cliffhouse Ss.	2,204
Gas	Menefee Fn.	2,933
Oil/Gas	Point Lookout Ss.	3,880
Oil/Gas	Mancos Shale	4,074
Oil/Gas	Mancos Silt	4,636
Oil/Gas	Gallup Fn.	4,916

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

SHL: 1177'FSL & 78'FEL Sec 25 T24NR10W BHL: 2180'FSL & 330'FWL Sec 25 T24NR10W

San Juan, New Mexico

#### 3. PRESSURE CONTROL

- a) Pressure contol equipment and configuration will be designed to meet 2M standards.
- b) Working pressure on rams and BOPE will be 3,000 psi.
- c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- 1) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n)
  Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

#### 4. CASING & CEMENTING PROGRAM

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

#### a) The proposed casing design is as follows:

Casing	Depth (MD)	Hole Size	Csg Size	Weight	Grade
Conductor	0'-60'	26"	16"	42.09#	
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-5295'	8 3/4"	7"	26#	J55, LTC New
Production Liner	5195'-10257'	6 1/8"	4 1/2"	11.6#	B80*, LTC New

	Casir	ng String	g	Ca	Minimum Design Factors				
Size	Weight	Grade	Connectio	Collapse	Burst (psi)	Tensile (1000lbs)	Collapse	Burst	Tensio
	(ppf)		n	(psi)					n
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

<sup>\*</sup>B80 pipe specifications are attached

Casing design is subject to revision based on geologic conditions encountered.

SHL: 1177'FSL & 78'FEL Sec 25 T24NR10W BHL: 2180'FSL & 330'FWL Sec 25 T24NR10W

San Juan, New Mexico

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

#### b) The proposed cementing program is as follows

Casing	Depth	Cement Volume	Cement Type & Yield	Designed	Centralizers
	(MD)	(sacks)		TOC	
Conductor	0'-60'	100 sks	Type I Neat 16 ppg	Surface	None
Surface	0'-500'	276 sks	Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water	Surface	1 per joint on bottom 3 joints
Intermediate	0'-5295'	100% open hole excess Stage 1 Lead: 701 sks Stage 1 Tail: 534 sks	Lead: PremLite + 3% CaCl + 0.25lb/sk CelloFlake + 5lb/sk LCM, 12.1ppg 2.13cuft/sk Tail: Type III Cmt + 1% CaCl + 0.25lb/sk Cello Flake 14.5ppg 1.38cuft/sk	Surface	1 every 3 joints through water bearing zones
Production Liner	5195'- 10257'	50% OH excess Stage 1 Blend Total: 279sks	Blend: Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwow Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL- 52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk	Liner Hanger	N/A

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 2000'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5134'/10257'	Gallup

SHL: 1177'FSL & 78'FEL Sec 25 T24NR10W BHL: 2180'FSL & 330'FWL Sec 25 T24NR10W

San Juan, New Mexico

#### DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

	_	•		Viscosity	
Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	(sec/qt)	Fluid Loss (cc)
30"	0-60'/60'	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0'-500'/500'	Fresh Water	8.3-10	60-70	NC
8 3/4"	500'/500'-5037'/5295	Fresh Water LSND	8.3-10	40-50	8-10

b) Intermediate Casing Point to TD:

				Viscosity	
Hole Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	(sec/qt)	Fluid Loss (cc)
	5037'/5295'-				
6 1/8"	5134'/10257'	Fresh Water LSND	8.3-10	15-25	<15

- c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

#### 7. TESTING, CORING, & LOGGING

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

Cased Hole:

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

#### 8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2411 psi based on a 9.0 ppg at 5151' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

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

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

Drilling is estimated to commence on March 23, 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.

		Sec 25 T24NR10W		En	na Natural Gas	ENG: Michael Sanch	9/25/14
County: San J	uan					RIG: Unassigned	
WELL: Good	Times P25-24	410 01H		1	ELL SUMMARY	GLE: 6947	
						RKBE: 6963	
MWD	OPEN HOLE		DEPTH		HOLE CASING	MW	DEVIATION
LWD	LOGGING	FORM	TVD	MD	SIZE SPECS	MUD TYPE	INFORMATION
			60	60.	16" 42.09# 26 100sx Type I Neat 16.0ppg o	Fresh wtr nt 8.3-9.2	
Multi-Well pad - take survey		San Jose Fn.	0		9 5/8" 36ppf J55 STC	Fresh wtr	Vertical
every stand and run anti- collision report prior to spud	None	Nacimiento Fn. 9 5/8" Csg	0 500	500.00	12 1/4 TOC Surface with 100% OH Exco 276 sks Type III Cement + 1% by Calcium Chloride + 0.25 lbs/sack ( Flake + 0.2% bwoc FL-52A + 58. Fresh Water.	oc ello	<10
		Ojo Alamo Ss.	713				1
	No OH logs	Kirtland Shale Fruitland Coal	901 1,213		7" 26ppf J55 LTC	Fresh Wtr	
Survey Every 60'-120', updating anticollision		Pictured Cliffs Ss. Lewis Shale	1,494 1,647		TOC @ surface (100% OH excess - 70% Lead 3 Tail) Stage 1 Total: 1236sks	% 8.3-10	Vertical <1°
report after surveys. Stop operations and contact drilling		Cliffhouse Ss. Menefee Fn.	2,204 2,933		Stage 1 Lead: 701 sks Premium		
engineer if separation factor approaches		Point Lookout Ss. Mancos Shale	3,880 4,074		FM + 3% CaCl2 + 0.25/sk Cello F + 5#/sk LCM-1 + 8% Bentonite + 0 FL-52A + 0.4% Sodium Metasilic Mixed at 12.1 ppg. Yield 2.13 cuff	4% e.	
1.5	Mud logger onsite	кор	2,000	2,000	Stage 1 Tail: 534 sks Type III Cem 1% CaCl2 + 0.25#/sk Cello Flak	+	
Surveys every 30' through the curve		Mancos Silt	4,636		0.2% FL-52A. Mixed at 14.6 ppg. 1.38 cuft/sk.	eid	
		Gallup Fn.	4,916				
-		7" Csg	5,037	5,295			
Surveys every		Horizontal Target	5,151		6 1/8 100' overlap at liner top		Horz Inc/TVD 90.2deg/5151ft
unless		TD	5,134	10,257	4962' Drilled Lateral		TD = 10256.8 MD
directed otherwise by Geologist	No OH Logs	Base Gallup	5,238			wвм	
Ceologist				ŀ	4 1/2" 11.6ppf SB80 LTC	8,3-10	
					TOC @ hanger (50% OH excess) Stage 1 Total: 279sks		
MWD				1		1	
Gamma Directional					Stage 1 Blend: 279 sks Premium Lite Strength FM + 0.7% bwoc R-3 + 3% b Potassium Chloride + 0.25lbs/sack C Flake + 0.5% bwoc CD-32 + 1.15% bwo 52A + 60 lbs/sack Calcium Carbonat 124.4% Fresh Water, Yield 2.63 cuft	ow lo FL- +	

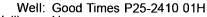
#### NOTES:

- 1) Drill with 26" bit to 60', set 16" 42.09ppf 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 2000', 8 3/4 inch holesize
- 5) Start curve at 10deg/100' build rate
- 6) Drill to csg point of 5295' MD 7) R&C 7" csg, circ cmt to surface
- 8) Land at ~90 deg, drill lateral to 10257' run 4 1/2 inch cemented liner

encana

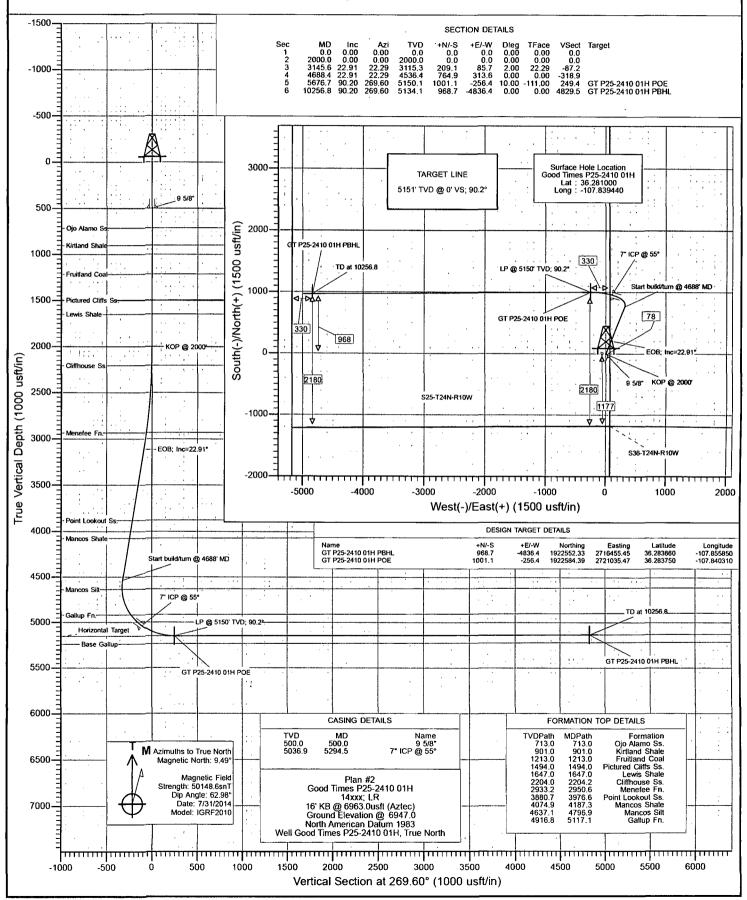
Project: San Juan County, NM

Site: S25-T24N-R10W



Wellbore: Hz Design: Plan #2





Database:

USA EDM 5000 Multi Users DB

Company: Project:

EnCana Oil & Gas (USA) Inc San Juan County, NM S25-T24N-R10W

Site: Well:

Good Times P25-2410 01H

Wellbore: Design:

Hz Plan #2 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Good Times P25-2410 01H

16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

True

TO STATE OF THE PROPERTY OF TH

Minimum Curvature

San Juan County, NM Project

Map System: Geo Datum:

Map Zone:

Site

US State Plane 1983

North American Datum 1983 New Mexico Western Zone

System Datum:

Mean Sea Level

Site Position: From:

Lat/Long

S25-T24N-R10W

Northing: Easting:

1,921,583.31 usft 2,721,291.82 usft Latitude: Longitude:

36.281000 -107.839440

Position Uncertainty:

0.0 usft

Slot Radius:

13-3/16"

**Grid Convergence:** 

0.00°

Well Good Times P25-2410 01H Well Position +N/-S 0.0 usft 1,921,583.31 usft Northing: Latitude: 36.281000 0.0 usft +E/-W 2,721,291.82 usft Easting: Longitude: -107.839440 **Position Uncertainty** 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 6,947.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/31/2014	9.49	62.98	50,149

Design	Plan #2					
Audit Notes:						
Version:		Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(usft)	(usft)	(usft)	(°)	
		0.0	0.0	0.0	269.60	<u></u> _

lan Sections	; · · · · · ·										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00		
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00		
3,145.6	22.91	22.29	3,115.3	209.1	85.7	2.00	2.00	0.00	22.29		
4,688.4	22.91	22.29	4,536.4	764.9	313.6	0.00	0.00	0.00	0.00		
5,676.7	90.20	269.60	5,150.1	1,001.1	-256.4	10.00	6.81	-11.40	-111.00	GT P25-2410 01H	
10,256.8	90.20	269.60	5,134.1	968.7	-4,836.4	0.00	0.00	0.00	0.00	GT P25-2410 01H	

Database:

USA EDM 5000 Multi Users DB

Company:

EnCana Oil & Gas (USA) Inc San Juan County, NM

Project:

S25-T24N-R10W

Site: Well:

Good Times P25-2410 01H

Wellbore: Plan #2 Design:

Planned Survey

Local Co-ordinate Reference:

TVD Reference:

Well Good Times P25-2410 01H 16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

MD Reference:

North Reference: Survey Calculation Method: True

Minimum Curvature

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	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	
713.0	0.00	0.00	713.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo Ss.
0.008	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	
901.0	0.00	0.00	901.0	0.0	0.0	0.0	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	
1,213.0	0.00	0.00	1,213.0	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	
1,494.0	0.00	0.00	1,494.0	0.0	0.0	0.0	0.00		Pictured Cliffs Ss.
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	
1,647.0	0.00	0.00	1,647.0	0.0	0.0	0.0	0.00		Lewis Shale
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	20 miles
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	KOP @ 2000'
2,100.0	2.00	22.29	2,100.0	1.6	0.7	-0.7	2.00	2.00	No. @ 2000
2,200.0	4.00	22.29	2,199.8	6.5	2.6	-2.7	2.00	2.00	
2,204.2	4.08	22.29	2,204.0	6.7	2.8	-2.8	2.00		Cliffhouse Ss.
2,300.0	6.00	22.29	2,299.4	14.5	6.0	-6.1	2.00	2.00	
2,400.0	8.00	22.29	2,398.7	25.8	10.6	-10.8	2.00	2.00	
2,500.0	10.00	22.29	2,497.5	40.3	16.5	-16.8	2.00	2.00	
2,600.0	12.00	22.29	2,595.6	57.9	23.7	-24.2	2.00	2.00	
2,700.0	14.00	22.29	2,693.0	78.7	32.3	-32.8	2.00	2.00	
2,800.0	16.00	22.29	2,789.6	102.7	42.1	-42.8	2.00	2.00	
2,900.0	18.00	22.29	2,885.3	129.7	53.2	-54.1	2.00	2.00	
2,950.6	19.01	22.29	2,933.2	144.6	59.3	-60.3	2.00		Menefee Fn.
3.000.0	20.00	22.29	2,979.8	159.9	65.5	-66.7	2.00	2.00	
3,100.0	22.00	22.29	3,073.2	193.0	79.1	-80.5	2.00	2.00	
3,145.6	22.91	22.29	3,115.3	209.1	85.7	-87.2	2.00		EOB; Inc=22.91°
3,200.0	22.91	22.29	3,165.4	228.7	93.8	-95.4	0.00	0.00	
-			3,257.5						
3,300.0 3,400.0	22.91 22.91	22.29 22.29	3,349.6	264.7 300.8	108.5 123.3	-110.4 -125.4	0.00	0.00	
3,500.0	22.91	22.29	3,441.7	336.8	138.1	-140.4	0.00	0.00	
3,600.0	22.91	22.29	3,533.9	372.8	152.8	-155.4	0.00	0.00	
•									
3,700.0	22.91	22.29	3,626.0	408.8	167.6	-170.5	0.00	0.00	
3,800.0	22.91	22.29	3,718.1	444.9	182.4	-185.5	0.00	0.00	
3,900.0	22.91	22.29	3,810.2	480.9	197.2	-200.5	0.00	0.00	Deint to about Ca
3,976.6	22.91	22.29	3,880.7	508.5	208.5	-212.0	0.00		Point Lookout Ss.
4,000.0	22.91	22.29	3,902.3	516.9	211.9	-215.5	0.00	0.00	
4,100.0	22.91	22.29	3,994.4	552.9	226.7	-230.5	0.00	0.00	
4,187.3	22.91	22.29	4,074.9	584.4	239.6	-243.7	0.00	0.00	Mancos Shale

Database:

USA EDM 5000 Multi Users DB

Company: Project:

EnCana Oil & Gas (USA) Inc San Juan County, NM

Site: Well: S25-T24N-R10W

Wellbore: Design:

Good Times P25-2410 01H

Hz Plan #2 Local Co-ordinate Reference:

The Company of the Co

TVD Reference: MD Reference:

Well Good Times P25-2410 01H 16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

North Reference:

**Survey Calculation Method:** 

True

: Minimum Curvature

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
4,200.0	22.91	22.29	4,086.5	588.9	241.5	-245.6	0.00	0.00	
4,300.0	22.91	22.29	4,178.6	625.0	256.2	-260.6	0.00	0.00	
4,400.0	22.91	22.29	4,270.7	661.0	271.0	-275.6	0.00	0.00	
4,500.0	22.91	22.29	4,362.8	697.0	285.8	-290.6	0.00	0.00	
4,600.0	22.91	22.29	4,455.0	733.0	300.5	-305.6	0.00	0.00	
4,688.4	22,91	22.29	4,536.4	764.9	313.6	-318.9	0.00	0.00	Start build/turn @ 4688' MD
4,700.0	22.52	19.47	4,547.1	769.1	315.2	-320.5	10.00	-3.37	-
4,796.9	21.42	353.55	4,637.1	804.2	319.4	-325.0	10.00	-1.13	Mancos Silt ·
4,800.0	21.46	352.70	4,640.0	805.3	319.3	-324.9	10.00	1.06	
4,900.0	24.58	328.20	4,732.3	841.3	305.9	-311.8	10.00	3.12	
5,000.0	30.64	310.88	4,821.0	875.7	275.6	-281.7	10.00	6.05	
5,100.0	38.25	299.34	4,903.5	907.6	229.3	-235.6	10.00	7.61	
5,117.1	39.65	297.76	4,916.8	912.8	219.8	-226.2	10.00		Gallup Fn.
									<b>F</b>
5,200.0	46.66	291.28	4,977.3	936.1	168.2	-174.8	10.00	8.46	
5,294.5	55,00	285.53	5,036.9	958.9	98.8	-105.5	10.00		7" ICP @ 55°
5,300.0	55,49	285.23	5,040.1	960.1	94.4	-101.1	10.00	8.97	
5,400.0	64,56 73,77	280.37 276.19	5,090.0	979.1 992.5	10.0	-16.9	10.00	9.07	
5,500.0	13.11	270.19	5,125.5	992.5	-82.3	75.4	10.00	9.21	
5,600.0	83.06	272.40	5,145.6	999.7	-179.9	172.9	10.00	9.28	
5,676.7	90.20	269.60	5,150.1	1,001.1	-256.4	249.4	10.00	9.31	LP @ 5150' TVD; 90.2° - GT P25-2410 01H
5,700.0	90.20	269.60	5,150.0	1,000.9	-279.7	272.7	0.00	0.00	
5,800.0	90.20	269.60	5,149.7	1,000.2	-379.7	372.7	0.00	0.00	
5,900.0	90.20	269.60	5,149.3	999.5	-479.7	472.7	0.00	0.00	
6,000.0	90.20	269.60	5,149.0	998.8	-579.7	572.7	0.00	0.00	
6,100.0	90.20	269.60	5,148.6	998.1	-679.7	672.7	0.00	0.00	
6,200.0	90.20	269.60	5,148.3	997.4	-779.7	772.7	0.00	0.00	
6,300.0	90.20	269.60	5,147.9	996.7	-879.7	872.7	0.00	0.00	
6,400.0	90.20	269.60	5,147.6	996.0	-979.7	972.7	0.00	0.00	
6,500.0	90.20	269.60	5,147.2	995.3	-1,079.7	1,072.7	0.00	0.00	
6,600.0	90.20	269.60	5,146.9	994.5	-1,179.7	1,172.7	0.00	0.00	
6,700.0	90,20	269.60	5,146.5	993.8	-1,279.7	1,272.7	0.00	0.00	
6,800.0	90.20	269.60	5,146.2	993.1	-1,379.7	1,372.7	0.00	0.00	
6,900.0	90.20	269.60	5,145.8	992.4	-1,479.7	1,472.7	0.00	0.00	
7,000.0	90.20	269.60	5,145.5	991.7	-1,579.7	1,572.7	0.00	0.00	
7,000.0	90.20	269.60	5,145.1	991.0	-1,679.7	1,672.7	0.00	0.00	
7,200.0	90.20	269.60	5,144.8	990.3	-1,779.7	1,772.7	0.00	0.00	
7,300.0	90.20	269.60	5,144.4	989.6	-1,879.7	1,872.7	0.00	0.00	
7,400.0	90.20	269.60	5,144.1	988.9	-1,979.7	1,972.7	0.00	0.00	
	00.00	260.60		000.2	2.070.7	2.072.7	0.00	0.00	
7,500.0	90.20 90.20	269.60 269.60	5,143.7 5,143.4	988.2 987.5	-2,079.7 -2,179.6	2,072.7 2,172.7	0.00 0.00	0.00	
7,600.0 7,700.0	90.20	269.60	5,143.4 5,143.0	986.8	-2,179.6 -2,279.6	2,172.7	0.00	0.00	
7,700.0	90.20	269.60	5,143.0 5,142.7	986.1	-2,379.6	2,372.7	0.00	0.00	
7,800.0	90.20	269.60	5,142.7 5,142.3	985.4	-2,379.6 -2,479.6	2,372.7	0.00	0.00	
-									
8,000.0	90.20	269.60	5,142.0	984.7	-2,579.6	2,572.7	0.00	0.00	
8,100.0	90.20	269.60	5,141.6	984.0	-2,679.6	2,672.7	0.00	0.00	
8,200.0	90.20	269.60	5,141.3	983.2	-2,779.6	2,772.7	0.00	0.00	
8,300.0	90.20	269.60	5,140.9 5.140.6	982.5	-2,879.6	2,872.7 2,972.7	0.00	0.00	
8,400.0	90.20	269.60	5,140.6	981.8	-2,979.6	•	0.00		
8,500.0	90.20	269.60	5,140.2	981.1	-3,079.6	3,072.7	0.00	0.00	
0,000.0					0 470 0	0.470.7	0.00	0.00	
8,600.0	90.20	269.60 269.60	5,139.9	980.4 979.7	-3,179.6 -3,279.6	3,172.7 3,272.7	0.00 0.00	0.00 0.00	

Database:

USA EDM 5000 Multi Users DB

Company:

EnCana Oil & Gas (USA) Inc San Juan County, NM

Project: Site:

Well:

S25-T24N-R10W Good Times P25-2410 01H

Wellbore: Design:

Hz Plan #2

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

Well Good Times P25-2410 01H

16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

North Reference:

. True

Survey Calculation Method:

Minimum Curvature

leasured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft	Build Rate (°/100u	Comments / Formations
8,900.0	90.20	269.60	5,138.8	978.3	-3,479.6	3,472.7	0.00	0.00	The second resolution of the second s
9,000.0	90.20	269.60	5,138.5	977.6	-3,579.6	3,572.7	0.00	0.00	
9,100.0	90.20	269.60	5,138.1	976.9	-3,679.6	3,672.7	0.00	0.00	
9,200.0	90.20	269.60	5,137.8	976.2	-3,779.6	3,772.7	0.00	0.00	
9,300.0	90.20	269.60	5,137.4	975.5	-3,879.6	3,872.7	0.00	0.00	
9,400.0	90.20	269.60	5,137.1	974.8	-3,979.6	3,972.7	0.00	0.00	
9,500.0	90.20	269.60	5,136.7	974.1	-4,079.6	4,072.7	0.00	0.00	
9,600.0	90.20	269.60	5,136.4	973.4	-4,179.6	4,172.7	0.00	0.00	
9,700.0	90.20	269.60	5,136.0	972.6	-4,279.6	4,272.7	0.00	0.00	
9,800.0	90.20	269.60	5,135.7	971.9	-4,379.6	4,372.7	0.00	0.00	
9,900.0	90.20	269.60	5,135.3	971.2	-4,479.6	4,472.7	0.00	0.00	
10,000.0	90.20	269.60	5,135.0	970.5	-4,579.6	4,572.7	0.00	0.00	
10,100.0	90.20	269.60	5,134.6	969.8	-4,679.6	4,672.7	0.00	0.00	
10,200.0	90.20	269.60	5,134.3	969.1	-4,779.6	4,772.7	0.00	0.00	
10,256.8	90.20	269.60	5,134.1	968.7	-4,836.4	4,829.5	0.00	0.00	TD at 10256.8 - GT P25-2410 01H PBHL

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GT P25-2410 01H PBHL - plan hits target cent - Point	0.00 er	0.00	5,134.1	968.7	-4,836.4	1,922,552.33	2,716,455.45	36.283660	-107.855850
GT P25-2410 01H POE - plan hits target cente - Point	0.00 er	0.00	5,150.1	1,001.1	-256.4	1,922,584.39	2,721,035.47	36.283750	-107.840310
	500.0	500.0	9 5/8"					0	0
:	5,294.5	5,036.9	7" ICP @ 55	0				0	0

ormations			= · ·			
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
,	713.0	713.0	Ojo Alamo Ss.	the second secon	-0.20	269.60
	901.0	901.0	Kirtland Shale		-0.20	269.60
	1,213.0	1,213.0	Fruitland Coal		-0.20	269.60
	1,494.0	1,494.0	Pictured Cliffs Ss.		-0.20	269.60
	1,647.0	1,647.0	Lewis Shale		-0.20	269.60
	2,204.2	2,204.0	Cliffhouse Ss.		-0.20	269.60
	2,950.6	2,933.0	Menefee Fn.		-0.20	269.60
	3,976.6	3,880.0	Point Lookout Ss.		-0.20	269.60
	4,187.3	4,074.0	Mancos Shale		-0.20	269.60
	4,796.9	4,636.0	Mancos Silt		-0.20	269.60
	5,117.1	4,916.0	Gallup Fn.		-0.20	269.60

Database:

USA EDM 5000 Multi Users DB

Company: Project:

EnCana Oil & Gas (USA) Inc San Juan County, NM S25-T24N-R10W

Site: Well:

Good Times P25-2410 01H

Wellbore:

Hz Plan #2 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method:

Well Good Times P25-2410 01H

16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

Minimum Curvature

Plan Annotation	ns	en and an office			en e
	Measured	Vertical	Local Coor	dinates	
	Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
	2,000.0	2,000.0	0.0	0.0	KOP @ 2000'
	3,145.6	3,115.3	209.1	85.7	EOB; Inc=22.91°
	4,688.4	4,536.4	764.9	313.6	Start build/turn @ 4688' MD
	5,676.7	5,150.1	1,001.1	-256.4	LP @ 5150' TVD; 90.2°
	10,256.8	5,134.1	968.7	-4,836.4	TD at 10256.8

## EnCana Oil & Gas (USA) Inc

San Juan County, NM S25-T24N-R10W Good Times P25-2410 01H Hz Plan #2

### **Anticollision Report**

10 September, 2014

#### Anticollision Report

Company:

, and it was not a proper to the contract of

EnCana Oil & Gas (USA) Inc

Project:

San Juan County, NM

Reference Site:

S25-T24N-R10W

Site Error:

0.0usft

Reference Well: Good Times P25-2410 01H

Well Error:

0.0usft Reference Wellbore Ηz Plan #2 Reference Design:

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference: 16' KB @ 6963.0usft (Aztec)

Survey Calculation Method:

Output errors are at

Minimum Curvature 2.00 sigma

Database:

The second secon

Offset TVD Reference:

USA EDM 5000 Multi Users DB

Well Good Times P25-2410 01H

16' KB @ 6963.0usft (Aztec)

Offset Datum

Plan #2 Reference

Filter type: Interpolation Method: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Stations

Error Model:

Systematic Ellipse

Depth Range:

Unlimited

Scan Method:

Closest Approach 3D

Results Limited by: Warning Levels Evaluated at:

2.00 Sigma

Maximum center-center distance of 1,000.0usft

Error Surface:

Elliptical Conic

Survey Tool Program Date 9/10/2014

> From (usft)

To

(usft) Survey (Wellbore) Tool Name

Description

0.0 10,256.8 Plan #2 (Hz) Geolink MWD

Geolink MWD

Su	m	ma	rv

	Reference	Offset	Dista	nce		
Site Name Offset Well - Wellbore - Design	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
S25-T24N-R10W Good Times P25-2410 02H - Hz - Plan #2	2,000.0	2,000.0	30.4	23.5	4.395 (	CC, ES, SF

#### Anticollision Report

EnCana Oil & Gas (USA) Inc Company:

San Juan County, NM Project: S25-T24N-R10W Reference Site:

Site Error:

0.0usft

Reference Well: 0.0usft Well Error: Reference Wellbore Hz Reference Design:

Good Times P25-2410 01H

Database: Plan #2

Local Co-ordinate Reference:

**TVD Reference:** MD Reference:

Well Good Times P25-2410 01H 16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

North Reference: True

**Survey Calculation Method:** 

Output errors are at

Minimum Curvature 2.00 sigma

USA EDM 5000 Multi Users DB

Offset TVD Reference: Offset Datum

urvey Program: 0-Geolink MWD													Offset Well Error:	0.0 usf
Reference Offset				Semi Major			Distance							
leasured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface	Offset Wellbor	+E/-W	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor	Warning	
						(*)	(usft)	(usft)	(usft)	(usft)	Axis			
0.0		0.0	0.0	0.0	0.0	-163.11	-29.1	-8.8	30.4					
100.0		100.0	100.0	0.1	0.1	-163.11	-29.1	-8.8	30.4	30.1	0.29	103.796		
200.0		200.0	200.0	0.3	0.3	-163.11	-29,1	-8.8	30.4	29.8	0.64	47.385		
300.0		300.0	300.0	0.5	0.5	-163.11	-29,1	-8.8	30.4	29.4	0.99	30.700		
400.0	400.0	400.0	400.0	0.7	0.7	-163.11	-29.1	-8.8	30.4	29.1	1.34	22.705		
500.0	500.0	500.0	500.0	0.8	8.0	-163.11	-29.1	-8.8	30.4	28.7	1.69	18.014		
600.0	600.0	600.0	600.0	1.0	1.0	-163.11	-29.1	-8.8	30.4	28.4	2.04	14.930		
700.0	700.0	700.0	700.0	1.2	1.2	-163.11	-29.1	-8.8	30.4	28.0	2.39	12.747		
800.0	800.0	0.008	0,008	1.4	1.4	-163.11	-29.1	-8.8	30.4	27.7	2.74	11.121		
900.0	900.0	900.0	900.0	1.5	1.5	-163.11	-29.1	-8.8	30.4	27.3	3.09	9.863		
1,008.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-163.11	-29.1	-8.8	30.4	27.0	3.43	8.861		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-163.11	-29.1	-8.8	30.4	26.7	3.78	8.043		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-163.11	-29.1	-8.8	30.4	26.3	4.13	7.364		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-163.11	-29.1	-8.8	30.4	26.0	4.48	6.790		
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	-163.11	-29.1	-8.8	30.4	25.6	4.83	6.300		
1,500.0	1,500.0	1,500.0	1,500.0	. 2.6	2.6	-163.11	-29.1	-8.8	30.4	25.3	5.18	5.875		
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	-163.11	-29.1	-8.8	30.4	24.9	5.53	5.504		
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	-163.11	-29.1	8.8-	30.4	24.6	5.88	5.177		
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	-163.11	-29.1	-8.8	30.4	24.2	6.23	4.887		
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	-163.11	-29.1	-8.8	30.4	23.9	6.58	4.628		
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	-163.11	-29.1	-8.8	30.4	23.5	6.93	4.395 CC, E	S, SF	
2,100.0	2,100.0	2,100.0	2,100.0	3.6	3.6	174.89	-29.1	-8.8	32.2	24.9	7.27	4.424		
2,200.0	2,199.8	2,199.8	2,199.8	3.8	3.8	175.59	-29.1	-8.8	37.4	29.8	7.61	4.912		
2,300.0	2,299.5	2,299.5	2,299.5	4.0	4.0	176.41	-29.1	-8.8	46.1	38.1	7.94	5.801		
2,400.0	2,398.7	2,398.7	2,398.7	4.2	4.2	177.15	-29.1	-8.8	58.2	50.0	8.27	7.044		
2,500.0	2,497.5	2,497.5	2,497.5	4.4	4.3	177.74	-29.1	-8.8	73.9	65.3	8.59	8.604		
2,600.0	2,595.6	2,595.6	2,595.6	4.7	4.5	178.19	-29.1	-8.8	92.9	84.1	8.89	10.450		
2,700.0	2,693.1	2,693,1	2,693.1	5.0	4.7	178.53	-29.1	-8.8	115.4	106,2	9.19	12.556		
2,800.0	2,789.6	2,789.6	2,789.6	5.3	4.8	178.79	-29.1	-8.8	141.3	131.8	9.48	14.902		
2,900.0	2,885.3	2,885.0	2,885.0	5.7	5.0	178.91	-29.2	-8.7	170.6	160.8	9.76	17.475		
3,000.0	2,979.8	2,978.5	2,978.5	6.2	5.0	178.27	-29.2	-6.3	203.5	193.5	10.03	20.292		
	3,073.2	3,070.3	3,070.1	67		177.06	-33.3							
3,100.0	3,073.2	3,111.5	3,070.1	6.7 7.0	5.3	177.06	-35.3 -35.0	-1.4 1.7	240.2	229.9	10.29	23.343		
3,145.6					5.4			1.7	258.2	247.8	10.41	24.809		
3,200.0	3,165.4	3,160.3	3,159.6	7.3	5.5 6.7	175.59	-37.4	6.0	280.3	269.7	10.60	26.442		
3,300.0 3,400.0	3,257.5 3,349.6	3,249.2 3,337.0	3,247.8 3,334.6	7.8 8.5	5.7 5.9	173.97 172.27	-42.8 -49.4	15.7 27.6	321.4 363.3	310.4 352.0	10.96 11.35	29.315 32.016		
				9.1		170.52								
3,500.0	3,441.7	3,423.6 3,508.9	3,419.7 3,503.0	9.1	6.1 6.3	170.52	-57.2 -66.2	41.7 57.7	406.2	394.5	11.76	34.539		
3,600.0	3,533.9							57.7	450.2	438.0	12.21	36.875		
3,700.0	3,626.0	3,592.8	3,584.3	10.3	6.5	167.03	-76.1	75.7	495.4	482.7	12.70	39.014		
3,800.0	3,718.1	3,675.0	3,663.5	11.0	6.8	165.32	-87.0	95.3	541.7	528.5	13.23	40.949		
3,900.0	3,810.2	3,758.6	3,743.3	11.7	7.1	163.62	-99.1	117.0	589.3	575.5	13.81	42.686		
4,000.0	3,902.3	3,845.1	3,825.7	12.3	7.4	162.09	-111.8	139.8	637.4	623.0	14.42	44.197		
4,100.0	3,994.4	3,931.5	3,908.1	13.0	7.8	160.76	-124.5	162.5	685.9	670.8	15.06	45.545		
4,200.0	4,086.5	4,018.0	3,990.6	13.7	8.2	159.61	-137.1	185.3	734.5	718.8	15.71	46.749		
4,300.0	4,178.6	4,104.4	4,073.0	14.3	8.5	158.60	-149.8	208.0	783.4	767.0	16.38	47.828		
4,400.0	4,270.7	4,190.9	4,155.4	15.0	8.9	157.70	-162.4	230.8	832.4	815.4	17.06	48.795		
4,500.0	4,362.9	4,277.3	4,237.9	15.7	9.3	156.91	-175.1	253.5	881.6	863.8	17.75	49.666		
4,600.0	4,455.0	4,363.8	4,320.3	16.4	9.7	156.19	-187.7	276.3	930.9	912.4	18.45	50.453		
4,688.4	4,536.4	4,440.2	4,393.2	17.0	10.1	155.62	-198.9	296.4	974.5	955.5	19,07	51.091		
4,700.0	4,547.1	4,450.2	4,402.7	17.1	10.2	158.81	-200.4	299.0	980.3	961.2	19.08	51.390		

#### Anticollision Report

TVD Reference:

MD Reference:

North Reference:

EnCana Oil & Gas (USA) Inc Company:

Project: San Juan County, NM Reference Site: S25-T24N-R10W

Site Error: 0.0usft

Good Times P25-2410 01H Reference Well:

Well Error: 0.0usft Hz Reference Wellbore Plan #2 Reference Design:

Output errors are at Database:

Survey Calculation Method:

Local Co-ordinate Reference:

Well Good Times P25-2410 01H

16' KB @ 6963.0usft (Aztec) 16' KB @ 6963.0usft (Aztec)

True

Minimum Curvature

2:00 sigma

USA EDM 5000 Multi Users DB

Offset TVD Reference: Offset Datum

Reference Depths are relative to 16' KB @ 6963.0usft (Aztec)

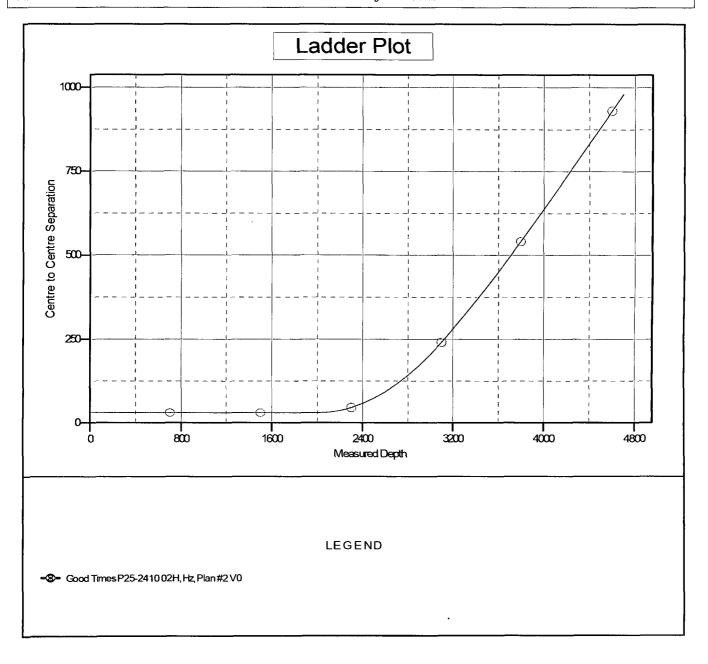
Offset Depths are relative to Offset Datum

Central Meridian is -107.833333 °

Coordinates are relative to: Good Times P25-2410 01H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.00°



SHL: SESE Section 25, T24N, R10W

1177 FSL and 78 FEL

BHL: NWSW Section 25, T24N, R10W

2180 FSL and 330 FWL San Juan County, New Mexico

Lease Number: NM 5991

2. After removal of vegetation, topsoil will be segregated and windrowed on the edge of the well pad. 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.

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 15 feet on the northeast corner (corner 2) and the maximum fill will be approximately 12 feet on the southwest corner (corner 5).

- 4. As determined during the onsite on August 8, 2013, the following best management practices will be implemented:
  - a. The southwestern corner (corner 5) and northeastern corner (corner 2) of the well pad will be rounded.
  - b. Water will be diverted around the pad and silt traps installed as needed upon interim reclamation.
  - c. Fishhook Cactus identified at the onsite will be transplanted prior to commencement of construction activities and a cactus monitoring program will be required.
- 9. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, blade, mulcher, and dozer. Construction of the access road and well pad will take approximately 3 to 4 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 4,115.6 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

- 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 aboveground 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.

SHL: SESE Section 25, T24N, R10W

1177 FSL and 78 FEL

BHL: NWSW Section 25, T24N, R10W

2180 FSL and 330 FWL San Juan County, New Mexico

Lease Number: NM 5991

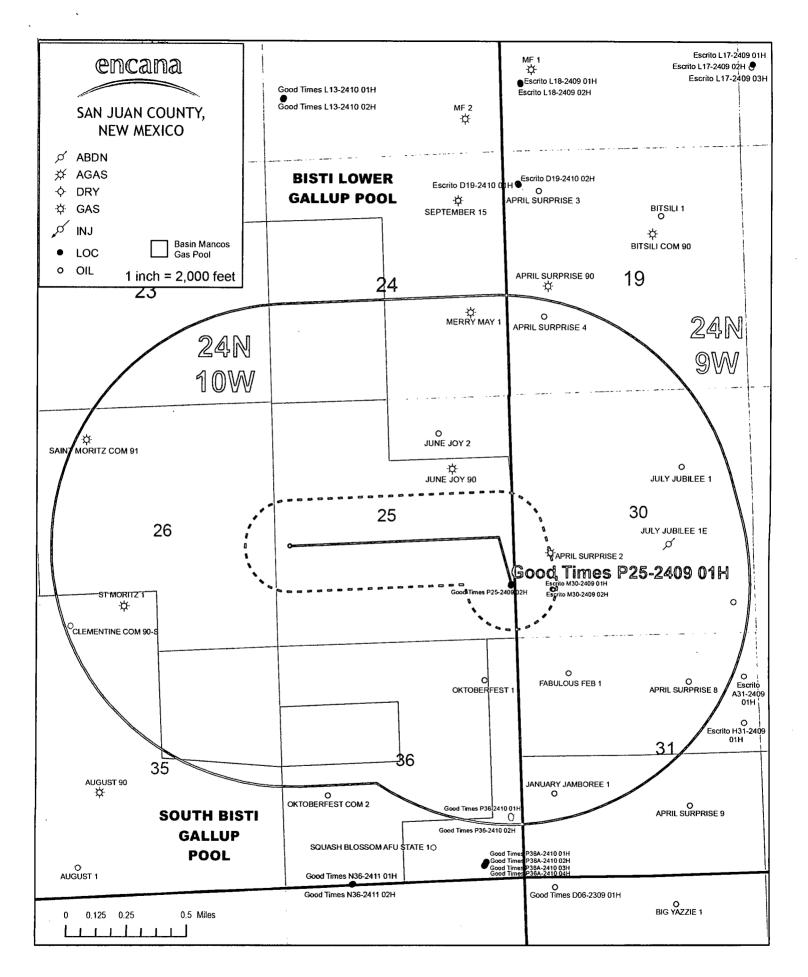
3. A 20-mil liner will be installed under tanks, pumps, ancillary facilities, and truck loading/unloading areas associated with the closed-loop system.

#### B. Drilling Fluids

- 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.
- 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.



# Directions from the Intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM to Encana Oil & Gas (USA) Inc. Good Times P25-2410 01H 1177' FSL & 78' FEL, Section 25, T24N, R10W, N.M.P.M., San Juan County, NM

Latitude: 36.28100°N Longitude: 107.83944°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 27.9 miles to State Hwy #57 @ Mile Marker 123.4;

Go right (South-westerly) on State Hwy #57 for 3.1 miles to fork in road;

Go left (South-westerly) remaining on State Hwy #57 for 4.0 miles to fork in road;

Go left (North-easterly) for 0.4 miles to fork in road;

Go left (Easterly) which is straight for 1.0 miles to fork in road;

Go left (North-easterly) for 0.1 miles to new access on left-hand side of existing roadway which continues for 139' to staked Encana Good Times P25-2410 01H location.

## WELLHEAD BLOWOUT CONTROL SYSTEM Well Name and Number: Good Times P25-2410 01H 11" 3K Rotating Head 11" 3K Annular **ሐ**տտտ(16 3K Double Ram <del>யமமம</del>ம் Top: Pipe Ram Bottom: Blind Ram 3" Outlets Below Ram 3K Mud Cross 3" gate valves ADJUSTABLE CHORE ADDISTABLE CHOICE