State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

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

David R. Catanach, 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: 8-14-14
Well information;
Operator Encana, Well Name and Number Gallo Canyon Unit P14 2306 #1H
API# 30-039-31264, Section 14, Township 23 (N)S Range 6 E(W)

Conditions of Approval:
(See the below checked and handwritten conditions)

- [x] Notify Aztec OCD 24hrs prior to casing & cement.
- [x] Hold C-104 for directional survey & "As Drilled" Plat + 5.9 Compliance
- [x] Hold C-104 for NSL, NSP, DHC
- [ ] o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- [ ] o 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
- [ ] o 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
- [x] Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- [x] 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.
- [x] 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.

Charlie Perrin
NMOCD Approved by Signature

3-20-2015 KC
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

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MAR 04 2015
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RECEIVED
AUG 15 2014
Farmington Field Office
Bureau of Land Management

Form 3160-3
(August 2007)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM 17009

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

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NMNM 131017X

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

8. Lease Name and Well No.
Gallo Canyon Unit P14-2306 01H

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

9. API Well No.
30-039-31264

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

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

10. Field and Pool, or Exploratory
Counselors Gallup-Dakota

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 49' FSL and 675' FEL Section 14, T23N, R6W
At proposed prod. zone 1700' FNL and 330' FEL Section 25, T23N, R6W

11. Sec., T. R. M. or Blk. and Survey or Area
Section 14, T23N, R6W NMPM

KP

14. Distance in miles and direction from nearest town or post office*
+/- 57 miles southeast of the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM

12. County or Parish
Rio Arriba

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
BHL is 330' from east lease line Section 25, T23N, R6W	NMNM 17009 - 2,560 ac.	5,120 acres - Sections 22-26 and 33-36
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
Gallo Canyon Unit P14 02H is +/- 30' from SHL	5,518' TVD/15,695' MD	COB-000235
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
6,856' GL, 6,872' KB	02/07/2015	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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Katie Wegner	Katie Wegner	8/14/14

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Maryellen Mankiewicz	AFM	2/27/15
Title	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.

*(Instructions on page 2)

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

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

NMOCD

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

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AUG 15 2014
Farmington Field Office
Bureau of Land Management

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-31264	13379	COUNSELORS GALLUP-DAKOTA

[4] Property Code	[5] Property Name	[6] Well Number
314241	GALLO CANYON UNIT P14-2306	01H

[7] OGRID No.	[8] Operator Name	[9] Elevation
282327	ENCANA OIL & GAS (USA) INC.	6856

[10] Surface Location

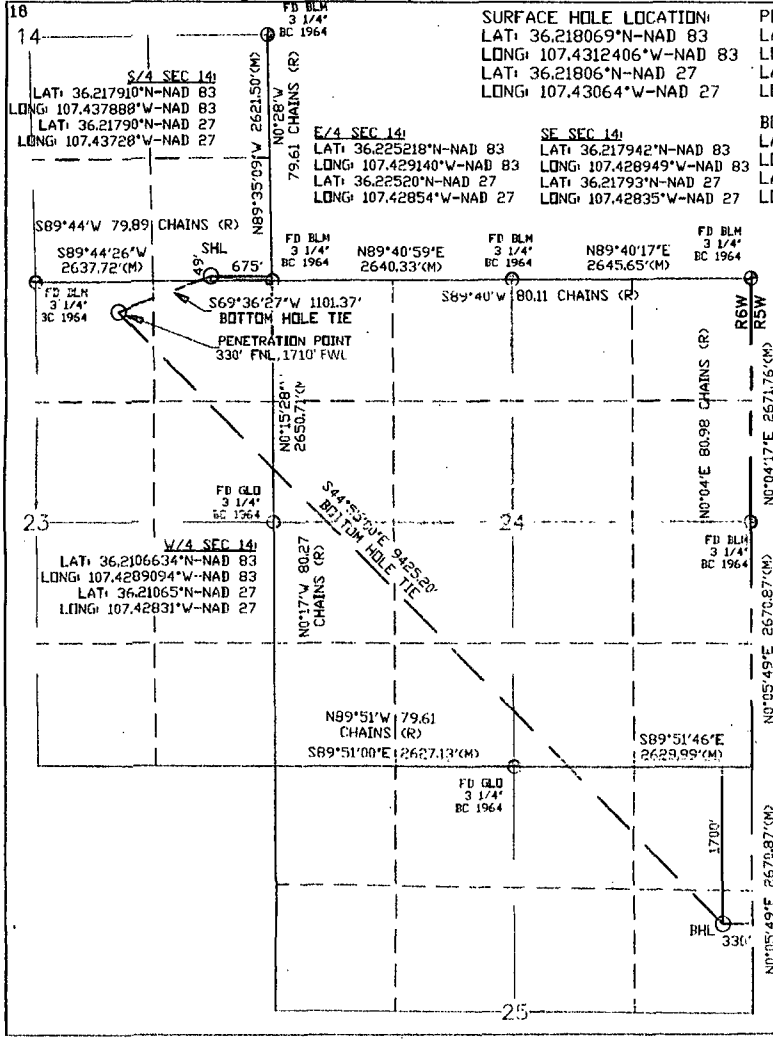
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	23-N	6-W		49'	SOUTH	675'	EAST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	25	23-N	6-W		1700'	NORTH	330'	EAST	SANDOVAL

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
5,120 Acres Sec. 22-26, 34-36 - Undivided Unit Penetrated Spacing Units: S2 & NW4 Sec 24; NE4 Sec 23: NW4 Sec 25 (800 acres)			R-13718-A (5,120 acres)

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



SURFACE HOLE LOCATION:
LAT: 36.218069°N-NAD 83
LONG: 107.4312406°W-NAD 83
LAT: 36.21806°N-NAD 27
LONG: 107.43064°W-NAD 27

PENETRATION POINT:
LAT: 36.217015°N-NAD 83
LONG: 107.434739°W-NAD 83
LAT: 36.21700°N-NAD 27
LONG: 107.43414°W-NAD 27

E/4 SEC 14:
LAT: 36.225218°N-NAD 83
LONG: 107.429140°W-NAD 83
LAT: 36.22520°N-NAD 27
LONG: 107.42854°W-NAD 27

SE SEC 14:
LAT: 36.217942°N-NAD 83
LONG: 107.428949°W-NAD 83
LAT: 36.21793°N-NAD 27
LONG: 107.42835°W-NAD 27

BOTTOM HOLE:
LAT: 36.198685°N-NAD 83
LONG: 107.412193°W-NAD 83
LAT: 36.19867°N-NAD 27
LONG: 107.41159°W-NAD 27

[17] OPERATOR CERTIFICATION

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

Signature — Date: 8/14/14

Katie Wegner
Printed Name

Katie.Wegner@encana.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

OCT 7, 2013
Date of Survey

Signature and Seal of Professional Surveyor:

WILLIAM E. MAHNKE II
NEW MEXICO
8466
REGISTERED PROFESSIONAL SURVEYOR

WILLIAM E. MAHNKE II
Certificate Number: 8466

Sheet A-1

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Submit one copy to appropriate District Office

☐ AMENDED REPORT

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BOTTOM HOLE:
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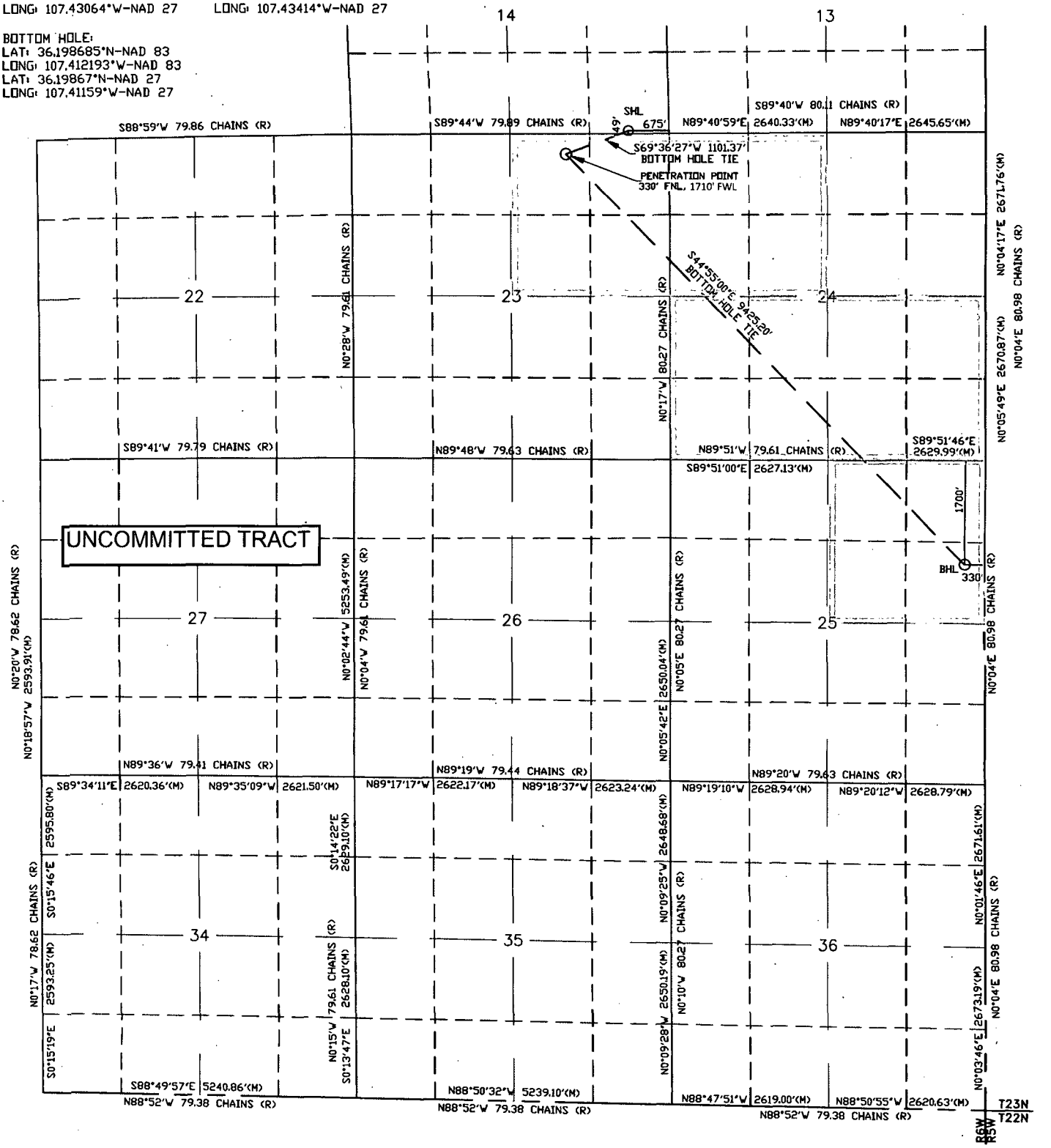
ENCANA OIL & GAS (USA) INC.
GALLO CANYON UNIT P14-2306 01H



GCU P14-2306 01H
SHL: SE/4 SE/4 Sec 14 T23N R6W,
49' FSL, 675' FEL
BHL: SE/4 NE/4 Sec 25 T23N R6W,
1700' FNL, 330' FEL
Rio Arriba, New Mexico

Encana Oil & Gas (USA) Inc.
Drilling Plan

1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)

The estimated tops of important geologic markers are as follows:

Formation	Depth (TVD) units = feet
Ojo Alamo	1,467
Kirtland Shale	1,648
Fruitland Coal	1,884
Pictured Cliffs Ss.	2,000
Lewis Shale	2,131
Cliffhouse Ss.	2,839
Menefee Fn.	3,551
Point Lookout Ss.	4,268
Mancos Shale	4,479
Mancos Silt	5,064
Gallup Fn.	5,296
Horizontal Target	5,541
Base Gallup	5,609

The referenced surface elevation is 6856', KB 6872'

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

Substance	Formation	Depth (TVD) units = feet
Water/Gas	Fruitland Coal	1,884
Oil/Gas	Pictured Cliffs Ss.	2,000
Oil/Gas	Cliffhouse Ss.	2,839
Gas	Menefee Fn.	3,551
Oil/Gas	Point Lookout Ss.	4,268
Oil/Gas	Mancos Shale	4,479
Oil/Gas	Mancos Silt	5,064
Oil/Gas	Gallup Fn.	5,296

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

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).
l) The choke and manifold shall contain two adjustable chokes.
m) Hand wheels shall be installed on all ram preventers.
n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all
o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

4. CASING & CEMENTING PROGRAM

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

a) The proposed casing design is as follows:

Casing	Depth (MD)	Hole Size	Csg Size	Weight	Grade
Conductor	0'-60'	30"	20"	94#	
Surface	0'-500'	12 1/4"	9 5/8"	36#	J55, STC New
Intermediate	0'-6273'	8 3/4"	7"	26#	J55, LTC New
Production Liner	6073'-15695'	6 1/8"	4 1/2"	11.6#	B80*, LTC New

Casing String				Casing Strength Properties			Minimum Design Factors		
Size	Weight (ppf)	Grade	Connection	Collapse (psi)	Burst (psi)	Tensile (1000lbs)	Collapse	Burst	Tension
9 5/8"	36	J55	STC	2020	3520	394	1.125	1.1	1.5
7"	26	J55	LTC	4320	4980	367	1.125	1.1	1.5
4.5"	11.6	B80	LTC	6350	7780	201	1.125	1.1	1.5

*B80 pipe specifications are attached

Casing design is subject to revision based on geologic conditions encountered

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

b) The proposed cementing program is as follows

Casing	Depth (MD)	Cement Volume (sacks)	Cement Type & Yield	Designed TOC	Centralizers
Conductor	0'-60'	100 sks	Type I Neat 16 ppg	Surface	None
Surface	0'-500'	247 sks	HALCEM ™ SYSTEM + 2% CaCl2 + 0.125lbm/sk Poly-E-Flake. 15.8 ppg, 1.174 cuft/sk	Surface	1 per joint on bottom 3 joints
Intermediate	0'-6273'	100% open hole excess Stage 1 Lead: 700 sks Stage 1 Tail: 350 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	6073'-15695'	None - External Casing Packers	N/A	N/A	N/A

*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 1900'. Directional plans are attached.

Description	Proposed Depth (TVD/MD)	Formation
Horizontal Lateral TD	5518'/15695'	Gallup

6. DRILLING FLUIDS PROGRAM

a) Surface through Intermediate Casing Point:

Holie Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
30"	0-60'/60'	Fresh Water	8.3-9.2	38-100	4-28
12 1/4"	0'-500'/500'	Fresh Water	8.3-10	60-70	NC
8 3/4"	500'/500'-5602'/6273'	Fresh Water LSND	8.3-10	40-50	8-10

b) Intermediate Casing Point to TD:

Holie Size (in)	Depth (TVD/MD)	Mud Type	Density (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
6 1/8"	5602'/6273'-5518'/15695'	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.

✓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. 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 +/- 2593 psi based on a 9.0 ppg at 5541' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H_2S 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 February 7, 2015. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

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

LOC: SE/4 SE/4 Sec 14 T23N R6W, 49' FS
County: Rio Arriba
WELL: GCU P14-2306 01H

Encana Natural Gas

WELL SUMMARY

ENG: 0
RIG: Aztec 950
GLE: 6856
RKBE: 6872

8/11/14

MWD LWD	OPEN HOLE LOGGING	FORM	DEPTH TVD	DEPTH MD	HOLE SIZE	CASING SPECS	MW MUD TYPE	DEVIATION INFORMATION
			60	60'	30	**16" 42#** **100sx Type I Neat 16.0ppg cmt**	Fresh wtr 8.3-9.2	
Multi-Well pad - take survey every stand and run anti-collision report prior to spud	None	Nacimiento	0		12 1/4	**9 5/8" 36ppf J55 STC** TOC Surface - 247 sks of Type III Cement	Fresh wtr 8.3-10	Vertical <1°
		9 5/8" Csg	500	500.00				
		Ojo Alamo	1,467					
		Kirtland Shale	1,648			**7" 26ppf J55 LTC**	Fresh Wtr	
	No OH logs	Fruitland Coal	1,884					Vertical
Survey Every 60'-120', updating anticollision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5		Pictured Cliffs Ss.	2,000			TOC @ surface	8.3-10	<1°
		Lewis Shale	2,131		8 3/4	(100% OH excess - 70% Lead 30% Tail) Stage 1 Total: 1050sks		
		Cliffhouse Ss.	2,839					
		Menefee Fn.	3,551			Stage 1 Lead: 700 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk.		
		Point Lookout Ss.	4,268					
		Mancos Shale	4,479					
	Mud logger onsite	**KOP**	**1,900**	**1,900**		Stage 1 Tail: 350 sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk.		
Surveys every 30' through the curve		Mancos Silt	5,064					
		Gallup Fn.	5,296					
		7" Csg	**5,602**	**6,273'**				
					6 1/8	200' overlap at liner top		Horz Inc/TVD 90.5 degdeg/5541ft
Surveys every stand to TD unless directed otherwise by Geologist MWD Gamma Directional		Horizontal Target	5,541					
		TD	5,518	15,695		9423' Drilled Lateral		TD = 15695.4 MD
	No OH Logs	Base Gallup	5,609			**4 1/2" 11.6ppf SB80 LTC** Running external swellable csg packers for isolation of prod string	**WBM** 8.3-10	

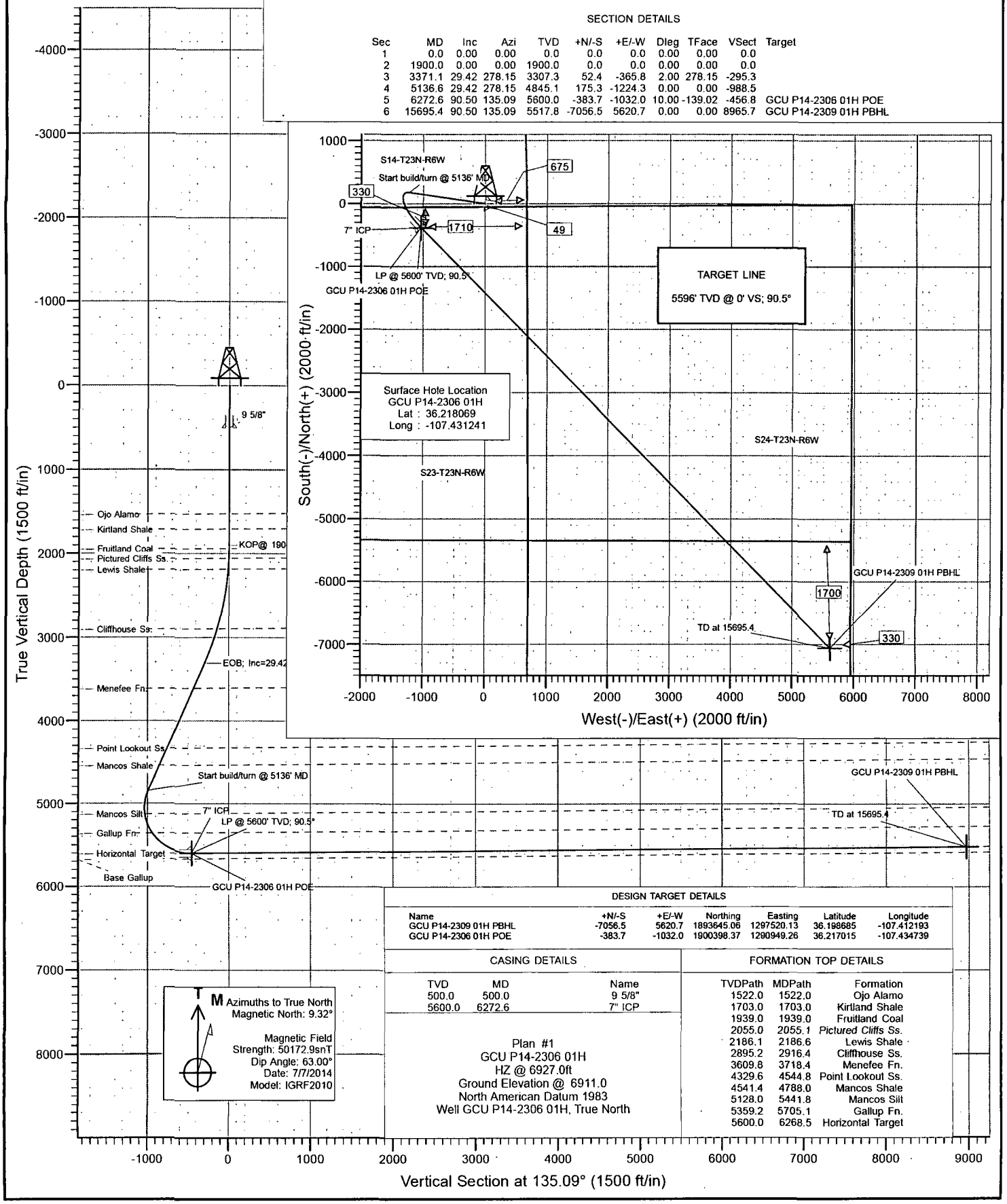
encana natural gas

Project: Rio Arriba County, NM
Site: S14-T23N-R6W
Well: GCU P14-2306 01H
Wellbore: HZ
Design: Plan #1

CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	
3	3371.1	29.42	278.15	3307.3	52.4	-365.8	2.00	278.15	-295.3	
4	5136.6	29.42	278.15	4845.1	175.3	-1224.3	0.00	0.00	-988.5	
5	6272.6	90.50	135.09	5600.0	-383.7	-1032.0	10.00	-139.02	-456.8	GCU P14-2306 01H POE
6	15695.4	90.50	135.09	5517.8	-7056.5	5620.7	0.00	0.00	8965.7	GCU P14-2309 01H PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
GCU P14-2309 01H PBHL	-7056.5	5620.7	1893645.06	1297520.13	36.198685	-107.412193
GCU P14-2306 01H POE	-383.7	-1032.0	1900398.37	1290949.26	36.217015	-107.434739

CASING DETAILS

TVD	MD	Name
500.0	500.0	9 5/8"
5600.0	6272.6	7" ICP

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1522.0	1522.0	Ojo Alamo
1703.0	1703.0	Kirtland Shale
1939.0	1939.0	Fruitland Coal
2055.0	2055.1	Pictured Cliffs Ss.
2186.1	2186.6	Lewis Shale
2895.2	2916.4	Cliffhouse Ss.
3609.8	3718.4	Menefee Fn.
4329.6	4544.8	Point Lookout Ss.
4541.4	4788.0	Mancos Shale
5128.0	5441.8	Mancos Silt
5359.2	5705.1	Gallup Fn.
5600.0	6268.5	Horizontal Target

Azimuths to True North
Magnetic North: 9.32°

Magnetic Field
Strength: 50172.9snT
Dip Angle: 63.00°
Date: 7/7/2014
Model: IGRF2010

Plan #1
GCU P14-2306 01H
HZ @ 6927.0ft
Ground Elevation @ 6911.0
North American Datum 1983
Well GCU P14-2306 01H, True North

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

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

Site	S14-T23N-R6W				
Site Position:		**Northing:**	1,900,796.67 ft	**Latitude:**	36.218032
From:	Lat/Long	**Easting:**	1,288,664.11 ft	**Longitude:**	-107.442501
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-0.70 °

Well	GCU P14-2306 01H					
Well Position	**+N/-S**	0.0 ft	**Northing:**	1,900,769.48 ft	**Latitude:**	36.218069
	+E/-W	0.0 ft	**Easting:**	1,291,985.81 ft	**Longitude:**	-107.431241
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	0.0 ft	**Ground Level:**	6,911.0 ft

Wellbore	HZ				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	7/7/2014	9.32	63.00	50,173

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	135.09	

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	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,371.1	29.42	278.15	3,307.3	52.4	-365.8	2.00	2.00	0.00	278.15	
5,136.6	29.42	278.15	4,845.1	175.3	-1,224.3	0.00	0.00	0.00	0.00	
6,272.6	90.50	135.09	5,600.0	-383.7	-1,032.0	10.00	5.38	-12.59	-139.02	GCU P14-2306 01H F
15,695.4	90.50	135.09	5,517.8	-7,056.5	5,620.7	0.00	0.00	0.00	0.00	GCU P14-2309 01H F

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	
1,522.0	0.00	0.00	1,522.0	0.0	0.0	0.0	0.00	0.00	Ojo Alamo
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	
1,703.0	0.00	0.00	1,703.0	0.0	0.0	0.0	0.00	0.00	Kirtland 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	KOP@ 1900'
1,939.0	0.78	278.15	1,939.0	0.0	-0.3	-0.2	2.00	2.00	Fruitland Coal
2,000.0	2.00	278.15	2,000.0	0.2	-1.7	-1.4	2.00	2.00	
2,055.1	3.10	278.15	2,055.0	0.6	-4.2	-3.4	2.00	2.00	Pictured Cliffs Ss.
2,100.0	4.00	278.15	2,099.8	1.0	-6.9	-5.6	2.00	2.00	
2,186.6	5.73	278.15	2,186.1	2.0	-14.2	-11.4	2.00	2.00	Lewis Shale
2,200.0	6.00	278.15	2,199.5	2.2	-15.5	-12.5	2.00	2.00	
2,300.0	8.00	278.15	2,298.7	4.0	-27.6	-22.3	2.00	2.00	
2,400.0	10.00	278.15	2,397.5	6.2	-43.1	-34.8	2.00	2.00	
2,500.0	12.00	278.15	2,495.6	8.9	-62.0	-50.0	2.00	2.00	
2,600.0	14.00	278.15	2,593.1	12.1	-84.2	-68.0	2.00	2.00	
2,700.0	16.00	278.15	2,689.6	15.7	-109.9	-88.7	2.00	2.00	
2,800.0	18.00	278.15	2,785.3	19.9	-138.8	-112.1	2.00	2.00	
2,900.0	20.00	278.15	2,879.8	24.5	-171.0	-138.1	2.00	2.00	
2,916.4	20.33	278.15	2,895.2	25.3	-176.6	-142.6	2.00	2.00	Cliffhouse Ss.
3,000.0	22.00	278.15	2,973.2	29.6	-206.5	-166.7	2.00	2.00	
3,100.0	24.00	278.15	3,065.2	35.1	-245.2	-198.0	2.00	2.00	
3,200.0	26.00	278.15	3,155.8	41.1	-287.0	-231.7	2.00	2.00	
3,300.0	28.00	278.15	3,244.9	47.5	-331.9	-268.0	2.00	2.00	
3,371.1	29.42	278.15	3,307.3	52.4	-365.8	-295.3	2.00	2.00	EOB; Inc=29.42°
3,400.0	29.42	278.15	3,332.5	54.4	-379.8	-306.7	0.00	0.00	
3,500.0	29.42	278.15	3,419.6	61.3	-428.4	-345.9	0.00	0.00	
3,600.0	29.42	278.15	3,506.7	68.3	-477.1	-385.2	0.00	0.00	
3,700.0	29.42	278.15	3,593.8	75.3	-525.7	-424.4	0.00	0.00	
3,718.4	29.42	278.15	3,609.8	76.5	-534.6	-431.7	0.00	0.00	Menefee Fn.
3,800.0	29.42	278.15	3,680.9	82.2	-574.3	-463.7	0.00	0.00	
3,900.0	29.42	278.15	3,768.0	89.2	-623.0	-503.0	0.00	0.00	
4,000.0	29.42	278.15	3,855.1	96.2	-671.6	-542.2	0.00	0.00	
4,100.0	29.42	278.15	3,942.2	103.1	-720.2	-581.5	0.00	0.00	
4,200.0	29.42	278.15	4,029.3	110.1	-768.8	-620.8	0.00	0.00	
4,300.0	29.42	278.15	4,116.4	117.0	-817.5	-660.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,400.0	29.42	278.15	4,203.5	124.0	-866.1	-699.3	0.00	0.00	
4,500.0	29.42	278.15	4,290.6	131.0	-914.7	-738.5	0.00	0.00	
4,544.8	29.42	278.15	4,329.6	134.1	-936.5	-756.1	0.00	0.00	Point Lookout Ss.
4,600.0	29.42	278.15	4,377.7	137.9	-963.4	-777.8	0.00	0.00	
4,700.0	29.42	278.15	4,464.8	144.9	-1,012.0	-817.1	0.00	0.00	
4,788.0	29.42	278.15	4,541.4	151.0	-1,054.8	-851.6	0.00	0.00	Mancos Shale
4,800.0	29.42	278.15	4,551.9	151.8	-1,060.6	-856.3	0.00	0.00	
4,900.0	29.42	278.15	4,639.0	158.8	-1,109.2	-895.6	0.00	0.00	
5,000.0	29.42	278.15	4,726.1	165.8	-1,157.9	-934.9	0.00	0.00	
5,100.0	29.42	278.15	4,813.2	172.7	-1,206.5	-974.1	0.00	0.00	
5,136.6	29.42	278.15	4,845.1	175.3	-1,224.3	-988.5	0.00	0.00	Start build/turn @ 5136' MD
5,200.0	24.96	268.27	4,901.5	177.1	-1,253.1	-1,010.1	10.00	-7.05	
5,300.0	19.92	245.37	4,994.1	169.3	-1,289.8	-1,030.5	10.00	-5.04	
5,400.0	19.06	215.19	5,088.6	148.8	-1,314.7	-1,033.6	10.00	-0.85	
5,441.8	20.17	203.15	5,128.0	136.6	-1,321.5	-1,029.7	10.00	2.64	Mancos Silt
5,500.0	22.87	189.04	5,182.1	116.2	-1,327.2	-1,019.3	10.00	4.64	
5,600.0	29.58	172.09	5,271.9	72.5	-1,326.9	-988.1	10.00	6.71	
5,700.0	37.67	161.40	5,355.2	18.9	-1,313.7	-940.9	10.00	8.09	
5,705.1	38.11	160.97	5,359.2	16.0	-1,312.7	-938.1	10.00	8.51	Gallup Fn.
5,800.0	46.43	154.15	5,429.4	-42.8	-1,288.1	-879.1	10.00	8.77	
5,900.0	55.52	148.77	5,492.3	-110.8	-1,250.8	-804.6	10.00	9.09	
6,000.0	64.80	144.47	5,542.1	-183.1	-1,203.1	-719.7	10.00	9.28	
6,100.0	74.19	140.79	5,577.1	-257.3	-1,146.2	-627.0	10.00	9.39	
6,200.0	83.63	137.43	5,596.3	-331.4	-1,082.0	-529.2	10.00	9.44	
6,268.5	90.12	135.22	5,600.0	-380.8	-1,034.8	-460.9	10.00	9.46	Horizontal Target
6,272.6	90.50	135.09	5,600.0	-383.7	-1,032.0	-456.8	10.00	9.47	LP @ 5600' TVD; 90.5°
6,300.0	90.50	135.09	5,599.8	-403.1	-1,012.6	-429.4	0.00	0.00	
6,400.0	90.50	135.09	5,598.9	-474.0	-942.0	-329.4	0.00	0.00	
6,500.0	90.50	135.09	5,598.0	-544.8	-871.4	-229.4	0.00	0.00	
6,600.0	90.50	135.09	5,597.1	-615.6	-800.8	-129.4	0.00	0.00	
6,700.0	90.50	135.09	5,596.3	-686.4	-730.2	-29.4	0.00	0.00	
6,800.0	90.50	135.09	5,595.4	-757.2	-659.6	70.6	0.00	0.00	
6,900.0	90.50	135.09	5,594.5	-828.0	-589.0	170.6	0.00	0.00	
7,000.0	90.50	135.09	5,593.7	-898.8	-518.4	270.6	0.00	0.00	
7,100.0	90.50	135.09	5,592.8	-969.7	-447.8	370.6	0.00	0.00	
7,200.0	90.50	135.09	5,591.9	-1,040.5	-377.2	470.6	0.00	0.00	
7,300.0	90.50	135.09	5,591.0	-1,111.3	-306.6	570.6	0.00	0.00	
7,400.0	90.50	135.09	5,590.2	-1,182.1	-236.0	670.6	0.00	0.00	
7,500.0	90.50	135.09	5,589.3	-1,252.9	-165.4	770.6	0.00	0.00	
7,600.0	90.50	135.09	5,588.4	-1,323.7	-94.8	870.6	0.00	0.00	
7,700.0	90.50	135.09	5,587.5	-1,394.5	-24.2	970.6	0.00	0.00	
7,800.0	90.50	135.09	5,586.7	-1,465.4	46.4	1,070.6	0.00	0.00	
7,900.0	90.50	135.09	5,585.8	-1,536.2	117.0	1,170.6	0.00	0.00	
8,000.0	90.50	135.09	5,584.9	-1,607.0	187.6	1,270.6	0.00	0.00	
8,100.0	90.50	135.09	5,584.1	-1,677.8	258.2	1,370.6	0.00	0.00	
8,200.0	90.50	135.09	5,583.2	-1,748.6	328.9	1,470.6	0.00	0.00	
8,300.0	90.50	135.09	5,582.3	-1,819.4	399.5	1,570.6	0.00	0.00	
8,400.0	90.50	135.09	5,581.4	-1,890.2	470.1	1,670.6	0.00	0.00	
8,500.0	90.50	135.09	5,580.6	-1,961.1	540.7	1,770.6	0.00	0.00	
8,600.0	90.50	135.09	5,579.7	-2,031.9	611.3	1,870.6	0.00	0.00	
8,700.0	90.50	135.09	5,578.8	-2,102.7	681.9	1,970.5	0.00	0.00	
8,800.0	90.50	135.09	5,577.9	-2,173.5	752.5	2,070.5	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,900.0	90.50	135.09	5,577.1	-2,244.3	823.1	2,170.5	0.00	0.00	
9,000.0	90.50	135.09	5,576.2	-2,315.1	893.7	2,270.5	0.00	0.00	
9,100.0	90.50	135.09	5,575.3	-2,386.0	964.3	2,370.5	0.00	0.00	
9,200.0	90.50	135.09	5,574.5	-2,456.8	1,034.9	2,470.5	0.00	0.00	
9,300.0	90.50	135.09	5,573.6	-2,527.6	1,105.5	2,570.5	0.00	0.00	
9,400.0	90.50	135.09	5,572.7	-2,598.4	1,176.1	2,670.5	0.00	0.00	
9,500.0	90.50	135.09	5,571.8	-2,669.2	1,246.7	2,770.5	0.00	0.00	
9,600.0	90.50	135.09	5,571.0	-2,740.0	1,317.3	2,870.5	0.00	0.00	
9,700.0	90.50	135.09	5,570.1	-2,810.8	1,387.9	2,970.5	0.00	0.00	
9,800.0	90.50	135.09	5,569.2	-2,881.7	1,458.5	3,070.5	0.00	0.00	
9,900.0	90.50	135.09	5,568.3	-2,952.5	1,529.1	3,170.5	0.00	0.00	
10,000.0	90.50	135.09	5,567.5	-3,023.3	1,599.7	3,270.5	0.00	0.00	
10,100.0	90.50	135.09	5,566.6	-3,094.1	1,670.3	3,370.5	0.00	0.00	
10,200.0	90.50	135.09	5,565.7	-3,164.9	1,740.9	3,470.5	0.00	0.00	
10,300.0	90.50	135.09	5,564.8	-3,235.7	1,811.5	3,570.5	0.00	0.00	
10,400.0	90.50	135.09	5,564.0	-3,306.5	1,882.1	3,670.5	0.00	0.00	
10,500.0	90.50	135.09	5,563.1	-3,377.4	1,952.7	3,770.5	0.00	0.00	
10,600.0	90.50	135.09	5,562.2	-3,448.2	2,023.3	3,870.5	0.00	0.00	
10,700.0	90.50	135.09	5,561.4	-3,519.0	2,093.9	3,970.5	0.00	0.00	
10,800.0	90.50	135.09	5,560.5	-3,589.8	2,164.5	4,070.5	0.00	0.00	
10,900.0	90.50	135.09	5,559.6	-3,660.6	2,235.1	4,170.5	0.00	0.00	
11,000.0	90.50	135.09	5,558.7	-3,731.4	2,305.7	4,270.5	0.00	0.00	
11,100.0	90.50	135.09	5,557.9	-3,802.2	2,376.3	4,370.5	0.00	0.00	
11,200.0	90.50	135.09	5,557.0	-3,873.1	2,446.9	4,470.5	0.00	0.00	
11,300.0	90.50	135.09	5,556.1	-3,943.9	2,517.5	4,570.5	0.00	0.00	
11,400.0	90.50	135.09	5,555.2	-4,014.7	2,588.1	4,670.4	0.00	0.00	
11,500.0	90.50	135.09	5,554.4	-4,085.5	2,658.7	4,770.4	0.00	0.00	
11,600.0	90.50	135.09	5,553.5	-4,156.3	2,729.3	4,870.4	0.00	0.00	
11,700.0	90.50	135.09	5,552.6	-4,227.1	2,799.9	4,970.4	0.00	0.00	
11,800.0	90.50	135.09	5,551.8	-4,297.9	2,870.5	5,070.4	0.00	0.00	
11,900.0	90.50	135.09	5,550.9	-4,368.8	2,941.1	5,170.4	0.00	0.00	
12,000.0	90.50	135.09	5,550.0	-4,439.6	3,011.7	5,270.4	0.00	0.00	
12,100.0	90.50	135.09	5,549.1	-4,510.4	3,082.3	5,370.4	0.00	0.00	
12,200.0	90.50	135.09	5,548.3	-4,581.2	3,152.9	5,470.4	0.00	0.00	
12,300.0	90.50	135.09	5,547.4	-4,652.0	3,223.5	5,570.4	0.00	0.00	
12,400.0	90.50	135.09	5,546.5	-4,722.8	3,294.1	5,670.4	0.00	0.00	
12,500.0	90.50	135.09	5,545.6	-4,793.6	3,364.7	5,770.4	0.00	0.00	
12,600.0	90.50	135.09	5,544.8	-4,864.5	3,435.3	5,870.4	0.00	0.00	
12,700.0	90.50	135.09	5,543.9	-4,935.3	3,505.9	5,970.4	0.00	0.00	
12,800.0	90.50	135.09	5,543.0	-5,006.1	3,576.5	6,070.4	0.00	0.00	
12,900.0	90.50	135.09	5,542.2	-5,076.9	3,647.1	6,170.4	0.00	0.00	
13,000.0	90.50	135.09	5,541.3	-5,147.7	3,717.7	6,270.4	0.00	0.00	
13,100.0	90.50	135.09	5,540.4	-5,218.5	3,788.3	6,370.4	0.00	0.00	
13,200.0	90.50	135.09	5,539.5	-5,289.3	3,858.9	6,470.4	0.00	0.00	
13,300.0	90.50	135.09	5,538.7	-5,360.2	3,929.5	6,570.4	0.00	0.00	
13,400.0	90.50	135.09	5,537.8	-5,431.0	4,000.1	6,670.4	0.00	0.00	
13,500.0	90.50	135.09	5,536.9	-5,501.8	4,070.7	6,770.4	0.00	0.00	
13,600.0	90.50	135.09	5,536.0	-5,572.6	4,141.3	6,870.4	0.00	0.00	
13,700.0	90.50	135.09	5,535.2	-5,643.4	4,211.9	6,970.4	0.00	0.00	
13,800.0	90.50	135.09	5,534.3	-5,714.2	4,282.5	7,070.4	0.00	0.00	
13,900.0	90.50	135.09	5,533.4	-5,785.0	4,353.1	7,170.4	0.00	0.00	
14,000.0	90.50	135.09	5,532.6	-5,855.9	4,423.7	7,270.3	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,100.0	90.50	135.09	5,531.7	-5,926.7	4,494.3	7,370.3	0.00	0.00	
14,200.0	90.50	135.09	5,530.8	-5,997.5	4,564.9	7,470.3	0.00	0.00	
14,300.0	90.50	135.09	5,529.9	-6,068.3	4,635.5	7,570.3	0.00	0.00	
14,400.0	90.50	135.09	5,529.1	-6,139.1	4,706.1	7,670.3	0.00	0.00	
14,500.0	90.50	135.09	5,528.2	-6,209.9	4,776.7	7,770.3	0.00	0.00	
14,600.0	90.50	135.09	5,527.3	-6,280.8	4,847.3	7,870.3	0.00	0.00	
14,700.0	90.50	135.09	5,526.4	-6,351.6	4,917.9	7,970.3	0.00	0.00	
14,800.0	90.50	135.09	5,525.6	-6,422.4	4,988.5	8,070.3	0.00	0.00	
14,900.0	90.50	135.09	5,524.7	-6,493.2	5,059.1	8,170.3	0.00	0.00	
15,000.0	90.50	135.09	5,523.8	-6,564.0	5,129.7	8,270.3	0.00	0.00	
15,100.0	90.50	135.09	5,523.0	-6,634.8	5,200.3	8,370.3	0.00	0.00	
15,200.0	90.50	135.09	5,522.1	-6,705.6	5,270.9	8,470.3	0.00	0.00	
15,300.0	90.50	135.09	5,521.2	-6,776.5	5,341.5	8,570.3	0.00	0.00	
15,400.0	90.50	135.09	5,520.3	-6,847.3	5,412.1	8,670.3	0.00	0.00	
15,500.0	90.50	135.09	5,519.5	-6,918.1	5,482.7	8,770.3	0.00	0.00	
15,600.0	90.50	135.09	5,518.6	-6,988.9	5,553.3	8,870.3	0.00	0.00	
15,695.4	90.50	135.09	5,517.8	-7,056.5	5,620.7	8,965.7	0.00	0.00	TD at 15695.4

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
GCU P14-2306 01H PO - plan hits target center - Point	0.00	0.00	5,600.0	-383.7	-1,032.0	1,900,398.37	1,290,949.26	36.217015	-107.434739
GCU P14-2309 01H PBI - plan hits target center - Point	0.00	0.00	5,517.8	-7,056.5	5,620.7	1,893,645.06	1,297,520.13	36.198685	-107.412193

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,522.0	1,522.0	Ojo Alamo		-0.50	135.09
1,703.0	1,703.0	Kirtland Shale		-0.50	135.09
1,939.0	1,939.0	Fruitland Coal		-0.50	135.09
2,055.1	2,055.0	Pictured Cliffs Ss.		-0.50	135.09
2,186.6	2,186.0	Lewis Shale		-0.50	135.09
2,916.4	2,894.0	Cliffhouse Ss.		-0.50	135.09
3,718.4	3,606.0	Menefee Fn.		-0.50	135.09
4,544.8	4,323.0	Point Lookout Ss.		-0.50	135.09
4,788.0	4,534.0	Mancos Shale		-0.50	135.09
5,441.8	5,119.0	Mancos Silt		-0.50	135.09
5,705.1	5,351.0	Gallup Fn.		-0.50	135.09
6,268.5	5,596.0	Horizontal Target		-0.50	135.09

Database:	USA EDM 5000 Multi Users DB	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	HZ @ 6927.0ft
Project:	Rio Arriba County, NM	**MD Reference:**	HZ @ 6927.0ft
Site:	S14-T23N-R6W	**North Reference:**	True
Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,900.0	1,900.0	0.0	0.0	KOP@ 1900'
3,371.1	3,307.3	52.4	-365.8	EOB; Inc=29.42°
5,136.6	4,845.1	175.3	-1,224.3	Start build/turn @ 5136' MD
6,272.6	5,600.0	-383.7	-1,032.0	LP @ 5600' TVD; 90.5°
15,695.4	5,517.8	-7,056.5	5,620.7	TD at 15695.4

EnCana Oil & Gas (USA) Inc

Rio Arriba County, NM
S14-T23N-R6W
GCU P14-2306 01H
HZ
Plan #1

Anticollision Report

08 July, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Project:	Rio Arriba County, NM	**TVD Reference:**	HZ @ 6927.0ft
Reference Site:	S14-T23N-R6W	**MD Reference:**	HZ @ 6927.0ft
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 7/8/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	15,695.4	Plan #1 (HZ)	Geolink MWD	Geolink MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S14-T23N-R6W						
GCU M14-2306 01H - HZ - Plan #1						Out of range
GCU P14-2306 02H - HZ - Plan #1	1,900.0	1,900.0	30.1	23.5	4.577	CC, ES, SF
GCU P14-2306 03H - HZ - Plan #1	1,800.0	1,800.0	60.2	54.0	9.667	CC, ES
GCU P14-2306 03H - HZ - Plan #1	1,900.0	1,897.9	61.9	55.3	9.417	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Project:	Rio Arriba County, NM	**TVD Reference:**	HZ @ 6927.0ft
Reference Site:	S14-T23N-R6W	**MD Reference:**	HZ @ 6927.0ft
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S14-T23N-R6W - GCU P14-2306 02H - HZ - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-Geolink MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	88.61	0.7	30.1	30.1				
100.0	100.0	100.0	100.0	0.1	0.1	88.61	0.7	30.1	30.1	29.8	0.29	102.653	
200.0	200.0	200.0	200.0	0.3	0.3	88.61	0.7	30.1	30.1	29.5	0.64	46.864	
300.0	300.0	300.0	300.0	0.5	0.5	88.61	0.7	30.1	30.1	29.1	0.99	30.362	
400.0	400.0	400.0	400.0	0.7	0.7	88.61	0.7	30.1	30.1	28.8	1.34	22.455	
500.0	500.0	500.0	500.0	0.8	0.8	88.61	0.7	30.1	30.1	28.4	1.69	17.816	
600.0	600.0	600.0	600.0	1.0	1.0	88.61	0.7	30.1	30.1	28.1	2.04	14.765	
700.0	700.0	700.0	700.0	1.2	1.2	88.61	0.7	30.1	30.1	27.7	2.39	12.607	
800.0	800.0	800.0	800.0	1.4	1.4	88.61	0.7	30.1	30.1	27.4	2.74	10.999	
900.0	900.0	900.0	900.0	1.5	1.5	88.61	0.7	30.1	30.1	27.0	3.09	9.754	
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	88.61	0.7	30.1	30.1	26.7	3.43	8.763	
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	88.61	0.7	30.1	30.1	26.3	3.78	7.955	
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	88.61	0.7	30.1	30.1	26.0	4.13	7.283	
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	88.61	0.7	30.1	30.1	25.6	4.48	6.716	
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	88.61	0.7	30.1	30.1	25.3	4.83	6.230	
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	88.61	0.7	30.1	30.1	24.9	5.18	5.811	
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	88.61	0.7	30.1	30.1	24.6	5.53	5.444	
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	88.61	0.7	30.1	30.1	24.2	5.88	5.120	
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	88.61	0.7	30.1	30.1	23.9	6.23	4.833	
1,900.0	1,900.0	1,900.0	1,900.0	3.3	3.3	88.61	0.7	30.1	30.1	23.5	6.58	4.577	CC, ES, SF
2,000.0	2,000.0	2,000.0	2,000.0	3.5	3.5	170.98	0.7	30.1	31.8	24.9	6.92	4.597	
2,100.0	2,099.8	2,098.5	2,098.5	3.6	3.6	171.78	1.0	31.8	38.7	31.4	7.26	5.329	
2,200.0	2,199.5	2,197.7	2,197.7	3.8	3.8	172.48	1.6	35.3	50.8	43.2	7.59	6.693	
2,300.0	2,298.7	2,296.5	2,296.4	4.0	4.0	173.27	2.2	38.7	66.4	58.5	7.92	8.384	
2,400.0	2,397.5	2,394.7	2,394.5	4.3	4.2	174.00	2.8	42.2	85.4	77.2	8.24	10.368	
2,500.0	2,495.6	2,492.1	2,491.9	4.5	4.3	174.63	3.4	45.6	107.8	99.2	8.54	12.616	
2,600.0	2,593.1	2,588.7	2,588.4	4.8	4.5	175.15	3.9	49.0	133.6	124.7	8.84	15.106	
2,700.0	2,689.6	2,684.4	2,684.0	5.2	4.7	175.59	4.5	52.4	162.7	153.6	9.13	17.820	
2,800.0	2,785.3	2,779.0	2,778.5	5.6	4.8	175.96	5.1	55.7	195.2	185.8	9.41	20.742	
2,900.0	2,879.8	2,872.3	2,871.8	6.1	5.0	176.27	5.6	59.0	230.9	221.3	9.68	23.861	
3,000.0	2,973.2	2,964.4	2,963.8	6.6	5.2	176.53	6.2	62.2	269.9	260.0	9.94	27.167	
3,100.0	3,065.2	3,055.1	3,054.4	7.3	5.3	176.74	6.7	65.4	312.1	301.9	10.18	30.654	
3,200.0	3,155.8	3,144.2	3,143.5	8.0	5.5	176.93	7.3	68.6	357.4	347.0	10.42	34.315	
3,300.0	3,244.9	3,231.7	3,231.0	8.7	5.7	177.09	7.8	71.7	405.8	395.2	10.64	38.148	
3,400.0	3,332.5	3,317.5	3,316.7	9.6	5.8	177.24	8.3	74.7	457.1	446.2	10.88	42.006	
3,500.0	3,419.6	3,402.9	3,402.1	10.4	6.0	177.40	8.8	77.7	509.1	497.9	11.20	45.445	
3,600.0	3,506.7	3,488.3	3,487.4	11.3	6.1	177.53	9.3	80.7	561.2	549.7	11.53	48.692	
3,700.0	3,593.8	3,573.7	3,572.7	12.2	6.3	177.64	9.8	83.7	613.2	601.4	11.85	51.765	
3,800.0	3,680.9	3,659.0	3,658.0	13.1	6.4	177.73	10.3	86.7	665.3	653.1	12.17	54.677	
3,900.0	3,768.0	3,744.4	3,743.3	14.0	6.6	177.80	10.9	89.7	717.4	704.9	12.49	57.441	
4,000.0	3,855.1	3,829.8	3,828.7	14.9	6.8	177.87	11.4	92.7	769.4	756.6	12.81	60.067	
4,100.0	3,942.2	3,915.2	3,914.0	15.9	6.9	177.93	11.9	95.7	821.5	808.4	13.13	62.566	
4,200.0	4,029.3	4,000.5	3,999.3	16.8	7.1	177.98	12.4	98.7	873.6	860.1	13.45	64.948	
4,300.0	4,116.4	4,085.9	4,084.6	17.7	7.2	178.03	12.9	101.7	925.6	911.8	13.77	67.219	
4,400.0	4,203.5	4,171.3	4,170.0	18.7	7.4	178.07	13.4	104.7	977.7	963.6	14.09	69.388	

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Project:	Rio Arriba County, NM	**TVD Reference:**	HZ @ 6927.0ft
Reference Site:	S14-T23N-R6W	**MD Reference:**	HZ @ 6927.0ft
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design S14-T23N-R6W - GCU P14-2306 03H - HZ - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-Geolink MWD — **Offset Well Error:** 0.0 ft

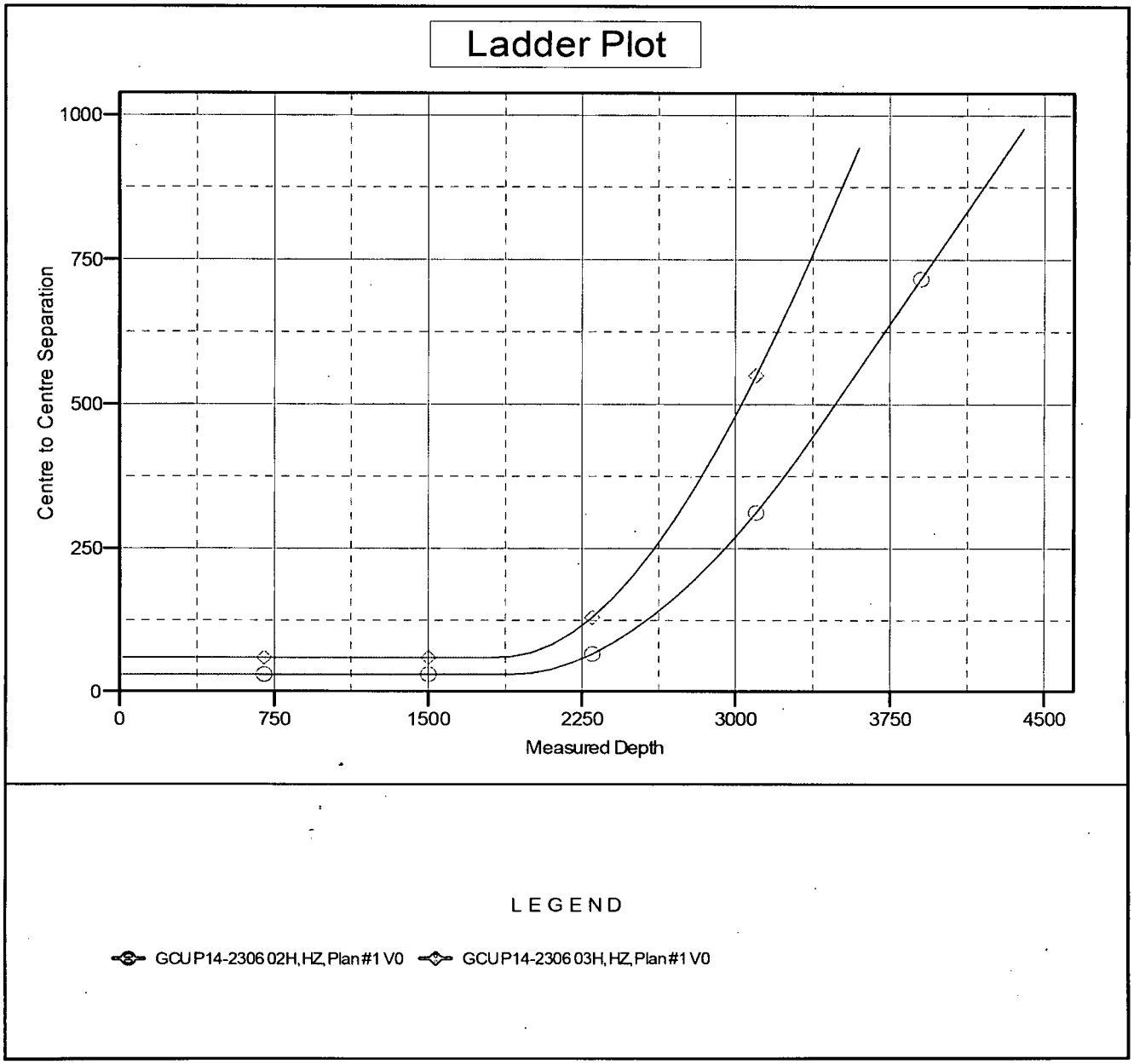
Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	88.61	1.5	60.2	60.2				
100.0	100.0	100.0	100.0	0.1	0.1	88.61	1.5	60.2	60.2	59.9	0.29	205.307	
200.0	200.0	200.0	200.0	0.3	0.3	88.61	1.5	60.2	60.2	59.6	0.64	93.727	
300.0	300.0	300.0	300.0	0.5	0.5	88.61	1.5	60.2	60.2	59.2	0.99	60.725	
400.0	400.0	400.0	400.0	0.7	0.7	88.61	1.5	60.2	60.2	58.9	1.34	44.911	
500.0	500.0	500.0	500.0	0.8	0.8	88.61	1.5	60.2	60.2	58.5	1.69	35.632	
600.0	600.0	600.0	600.0	1.0	1.0	88.61	1.5	60.2	60.2	58.2	2.04	29.530	
700.0	700.0	700.0	700.0	1.2	1.2	88.61	1.5	60.2	60.2	57.8	2.39	25.213	
800.0	800.0	800.0	800.0	1.4	1.4	88.61	1.5	60.2	60.2	57.5	2.74	21.997	
900.0	900.0	900.0	900.0	1.5	1.5	88.61	1.5	60.2	60.2	57.1	3.09	19.509	
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	88.61	1.5	60.2	60.2	56.8	3.43	17.526	
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	88.61	1.5	60.2	60.2	56.4	3.78	15.909	
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	88.61	1.5	60.2	60.2	56.1	4.13	14.566	
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	88.61	1.5	60.2	60.2	55.7	4.48	13.431	
1,400.0	1,400.0	1,400.0	1,400.0	2.4	2.4	88.61	1.5	60.2	60.2	55.4	4.83	12.461	
1,500.0	1,500.0	1,500.0	1,500.0	2.6	2.6	88.61	1.5	60.2	60.2	55.0	5.18	11.621	
1,600.0	1,600.0	1,600.0	1,600.0	2.8	2.8	88.61	1.5	60.2	60.2	54.7	5.53	10.887	
1,700.0	1,700.0	1,700.0	1,700.0	2.9	2.9	88.61	1.5	60.2	60.2	54.3	5.88	10.241	
1,800.0	1,800.0	1,800.0	1,800.0	3.1	3.1	88.61	1.5	60.2	60.2	54.0	6.23	9.667	CC, ES
1,900.0	1,900.0	1,897.9	1,897.9	3.3	3.3	88.78	1.3	61.8	61.9	55.3	6.57	9.417	SF
2,000.0	2,000.0	1,995.5	1,995.3	3.5	3.5	171.27	0.9	66.8	68.7	61.8	6.91	9.937	
2,100.0	2,099.8	2,092.0	2,091.5	3.6	3.6	172.31	0.2	75.0	82.3	75.1	7.25	11.359	
2,200.0	2,199.5	2,186.8	2,185.6	3.8	3.8	173.36	-0.7	86.2	102.7	95.1	7.57	13.560	
2,300.0	2,298.7	2,279.4	2,277.1	4.0	4.0	174.26	-1.8	100.1	129.6	121.7	7.88	16.438	
2,400.0	2,397.5	2,369.1	2,365.3	4.3	4.3	174.96	-3.2	116.3	162.9	154.7	8.18	19.906	
2,500.0	2,495.6	2,455.4	2,449.7	4.5	4.5	175.48	-4.7	134.6	202.3	193.8	8.47	23.894	
2,600.0	2,593.1	2,538.1	2,530.0	4.8	4.8	175.87	-6.3	154.4	247.5	238.8	8.73	28.341	
2,700.0	2,689.6	2,616.8	2,605.7	5.2	5.1	176.16	-8.1	175.4	298.3	289.3	8.99	33.197	
2,800.0	2,785.3	2,691.1	2,676.8	5.6	5.4	176.37	-9.9	197.2	354.3	345.1	9.22	38.421	
2,900.0	2,879.8	2,761.1	2,743.1	6.1	5.7	176.52	-11.7	219.3	415.2	405.7	9.44	43.978	
3,000.0	2,973.2	2,826.5	2,804.6	6.6	6.1	176.63	-13.5	241.5	480.6	470.9	9.64	49.838	
3,100.0	3,065.2	2,887.3	2,861.4	7.3	6.4	176.70	-15.3	263.4	550.2	540.4	9.83	55.974	
3,200.0	3,155.8	2,943.6	2,913.5	8.0	6.8	176.73	-17.1	284.7	623.6	613.6	10.00	62.364	
3,300.0	3,244.9	3,000.0	2,965.2	8.7	7.1	176.75	-18.9	307.0	700.7	690.5	10.16	68.946	
3,400.0	3,332.5	3,042.9	3,004.3	9.6	7.4	176.76	-20.4	324.7	780.8	770.5	10.33	75.571	
3,500.0	3,419.6	3,087.8	3,044.9	10.4	7.7	176.86	-22.0	343.8	862.4	851.8	10.58	81.499	
3,600.0	3,506.7	3,130.8	3,083.5	11.3	8.1	176.95	-23.6	362.7	944.9	934.1	10.83	87.261	

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well GCU P14-2306 01H
Project:	Rio Arriba County, NM	**TVD Reference:**	HZ @ 6927.0ft
Reference Site:	S14-T23N-R6W	**MD Reference:**	HZ @ 6927.0ft
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	GCU P14-2306 01H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	HZ	**Database:**	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to HZ @ 6927.0ft	Coordinates are relative to: GCU P14-2306 01H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Central Zone
Central Meridian is -106.250000 °	Grid Convergence at Surface is: -0.70°



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 24.4 feet on the southeast corner (corner 6) and the maximum fill will be approximately 11.7 feet on the northwest corner (corner 3).

4. As determined during the onsite on March 11, 2014, the following best management practices will be implemented:

   Water will be diverted around the well 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 3 weeks.

C. Pipeline
See the final Standard SF-299 Application for authorization to construct, operate, maintain and terminate a 1,561 foot, up to 6-inch outside diameter, buried steel well connect pipeline that was submitted to the Bureau of Land Management on Feb 11, 2014.

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.

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.

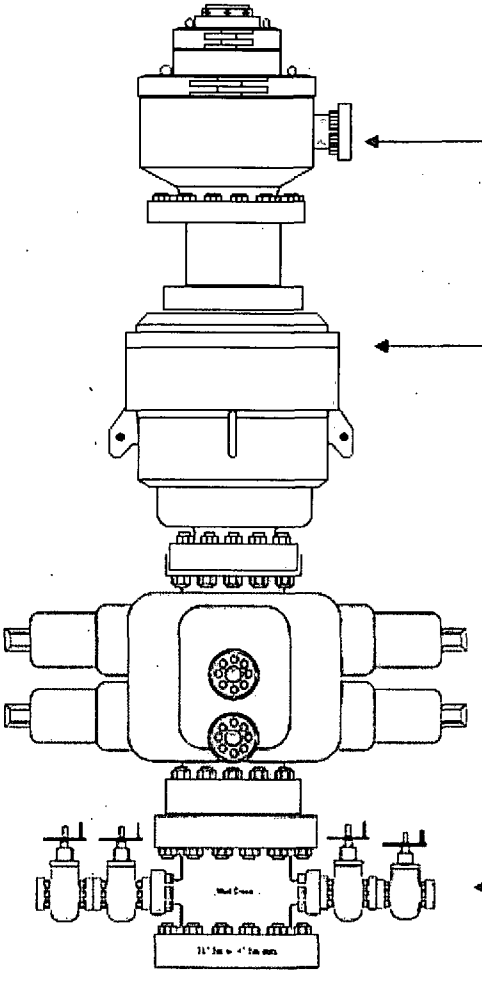
Driving Directions:

1. From the intersection of US Hwy 64 and US Hwy 550 in Bloomfield N.M. travel south 53.6 miles on US Hwy 550.
2. Turn right at MP 197.7.
3. Turn Left at intersection of US Hwy 550 and Rio Arriba CO RD 379.
4. Travel north on Rio Arriba CO Road 379 for 0.89 miles.
5. Turn right and travel east at intersection 1.8 miles.
6. Turn right and travel south at intersection.
7. Travel south 0.2 miles to intersection,
8. Turn left and travel east and south along two track and staked access road 0.5 miles to well pad

WELLHEAD BLOWOUT CONTROL SYSTEM

encana

Well Name and Number:
GCU P14-2306 01H



11" 3K Rotating Head

11" 3K Annular

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

3K Mud Cross 3" gate valves