

JUN 15 2015

Form C-102

Revised August 1, 2011

DISTRICT I1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720**DISTRICT II**811 S. First St., Artesia, N.M. 88210
Phone: (505) 334-1283 Fax: (505) 748-9720**DISTRICT III**1000 Rio Brazos Rd., Aztec, N.M. 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) 476-3462State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505Submit one copy to appropriate
District Office☐ AMENDED REPORT☒ AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21233	² Pool Code 13379	³ Pool Name COUNSELORS GALLUP-DAKOTA
⁴ Property Code 313412	⁵ Property Name GALLO CANYON UNIT H33-2306	⁶ Well Number 01H
⁷ OGRID No. 282327	⁸ Operator Name ENCANA OIL & GAS (USA) INC.	⁹ Elevation 7152.8'

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
H	33	23N	6W		1466'	NORTH	60'	EAST	SANDOVAL

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
O	34	23N	6W		349'	SOUTH	2252'	EAST	SANDOVAL
¹² Dedicated Acres PROJECT AREA 5,120 Acres Sec. 22-26, 34-36 - Undivided Unit Penetrated Spacing Units; NW & S/2 Sec. 34 - 480 Acres			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No. R-13718-A (5,120 Acres) Committed		

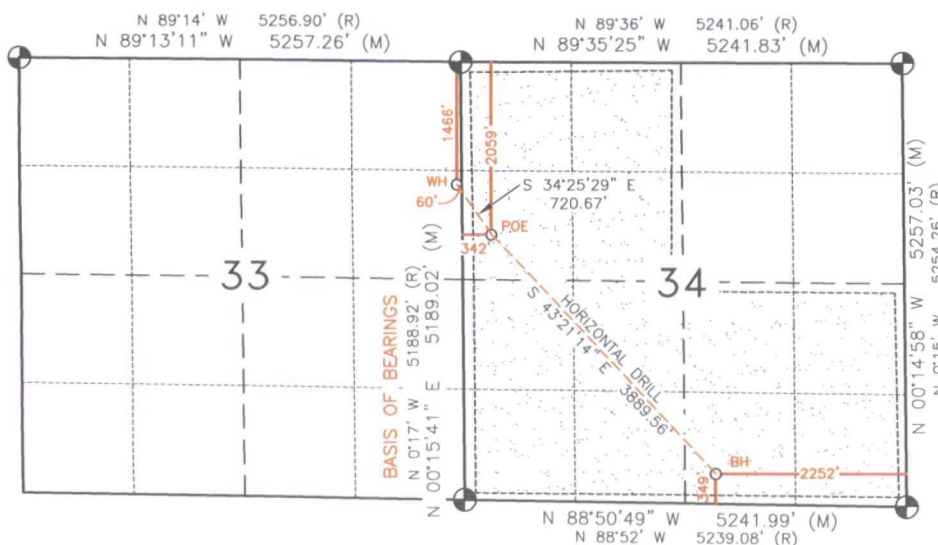
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

FND 3 1/4" BC
BLM 1948

OIL CONS. DIV DIST. 3

JUN 15 2015

WELL FLAGLAT. 36.185094° N (NAD83)
LONG. 107.464608° W (NAD83)
LAT. 36.185080° N (NAD27)
LONG. 107.464004° W (NAD27)**POINT OF ENTRY**LAT. 36.183456° N (NAD83)
LONG. 107.463233° W (NAD83)
LAT. 36.183441° N (NAD27)
LONG. 107.462629° W (NAD27)**BOTTOM HOLE**LAT. 36.175658° N (NAD83)
LONG. 107.454225° W (NAD83)
LAT. 36.175644° N (NAD27)
LONG. 107.453621° W (NAD27)

17 OPERATOR CERTIFICATION

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

Katie Wegner 6/2/15
Signature Date

Katie Wegner

Printed Name

Katie.Wegner@encana.com

E-mail Address

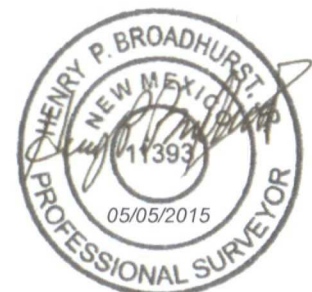
SURVEYOR CERTIFICATION

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.

APRIL 8, 2015

Date of Survey

Signature and Seal of Professional Surveyor:



AV

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State of New Mexico
Energy, Minerals & Natural Resources Department

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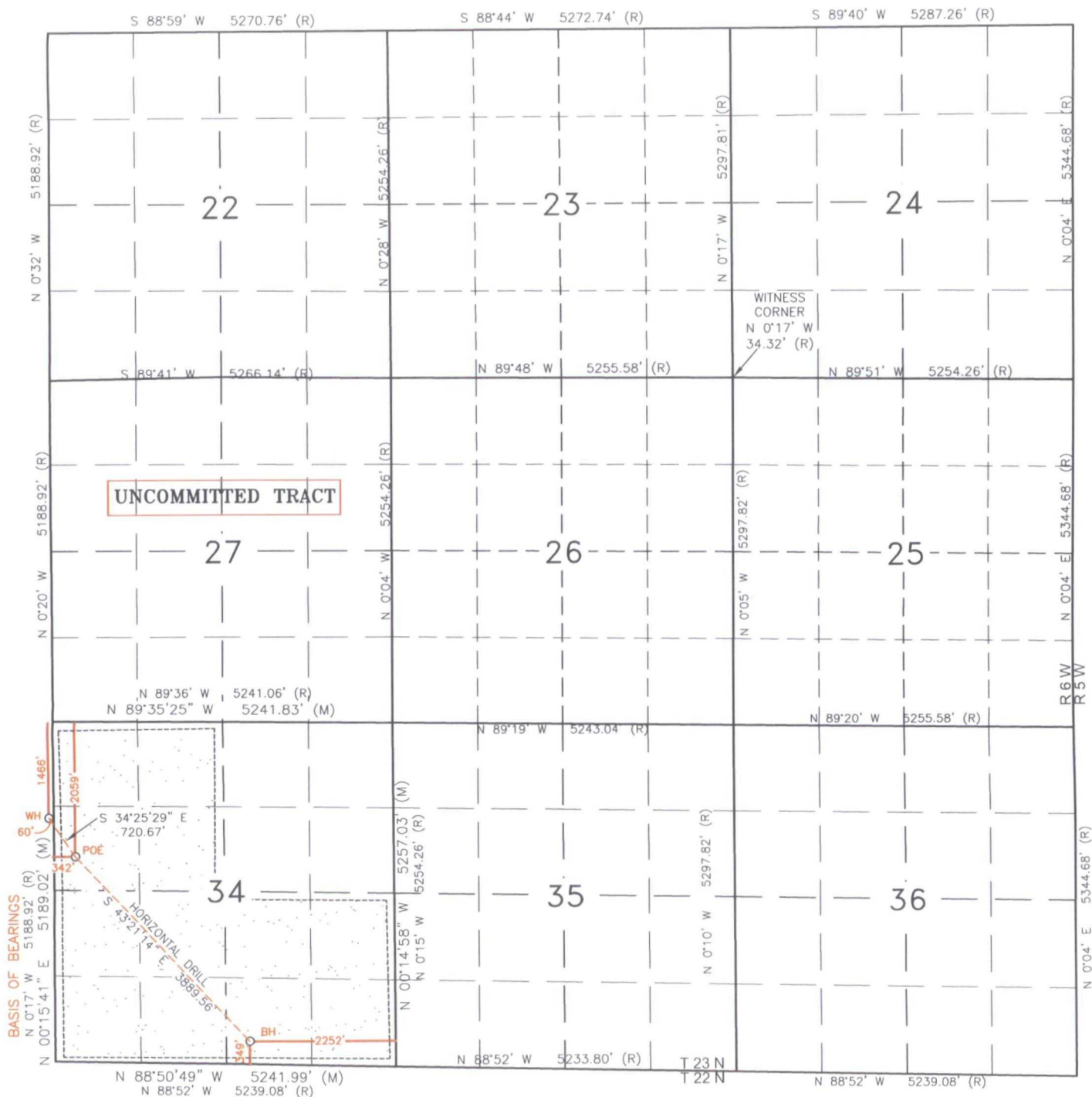
OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

☒ AS DRILLED

ENCANA OIL & GAS (USA) INC.
GALLO CANYON UNIT H33-2306 #01H

**WELL FLAG**

LAT. 36.185094° N (NAD83)
LONG. 107.464608° W (NAD83)
LAT. 36.185080° N (NAD27)
LONG. 107.464004° W (NAD27)

POINT OF ENTRY

LAT. 36.183456° N (NAD83)
LONG. 107.463233° W (NAD83)
LAT. 36.183441° N (NAD27)
LONG. 107.462629° W (NAD27)

BOTTOM HOLE

LAT. 36.175658° N (NAD83)
LONG. 107.454225° W (NAD83)
LAT. 36.175644° N (NAD27)
LONG. 107.453621° W (NAD27)

DEVIATION SURVEYS
Gallo Canyon Unit H33-2306 01H
30-043-21233

CONFIDENTIAL

MD (Feet)	Inclination (Degree)
298'	0.60
632'	0.50
947'	0.40
1254'	0.30
1561'	0.20
1869'	0.30
2176'	0.40
2488'	0.30
2804'	0.60
3120'	0.40
3436'	0.30
3752'	0.30
4068'	3.80
4384'	5.30
4700'	5.10
4953'	7.30

OIL CONS. DIV DIST. 3

JUN 15 2015

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Cristi Bauer

Cristi Bauer, Regulatory Analyst

6/10/15
Date

ACKNOWLEDGMENT

State of Colorado
City and County of Denver

This instrument was acknowledged before me on this 10th day of June, 2015 by Cristi Bauer as Regulatory Analyst of Encana Oil & Gas (USA) Inc., authorized agent for Encana Oil & Gas (USA) Inc., on behalf of said corporation.

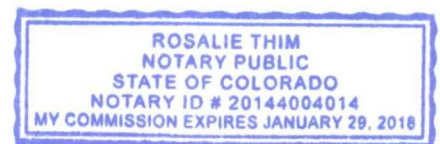
In witness whereof, I hereunto set my hand and official seal.

Notary Public:

Rosalie Thim

My Commission Expires:

1/29/18

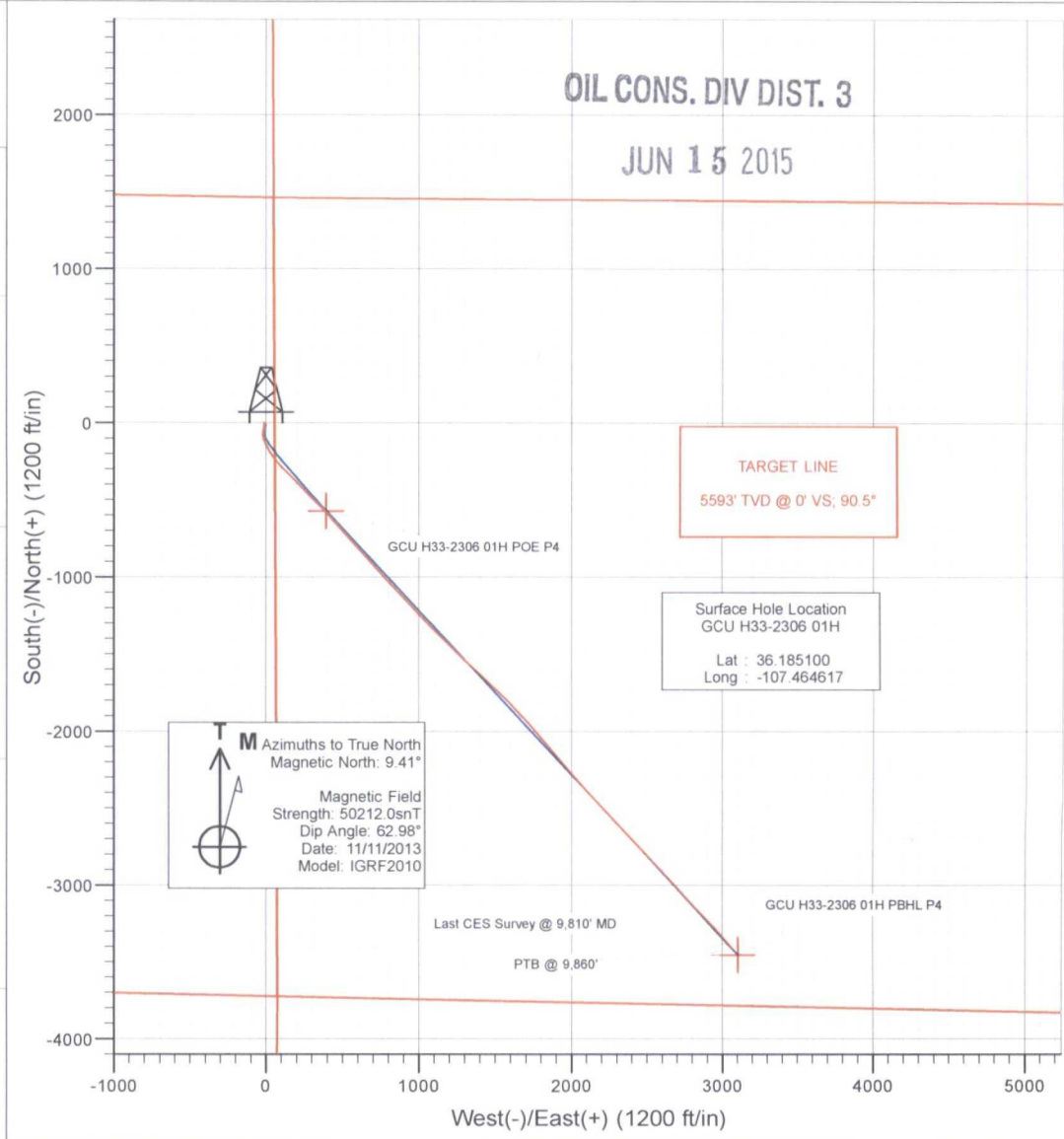
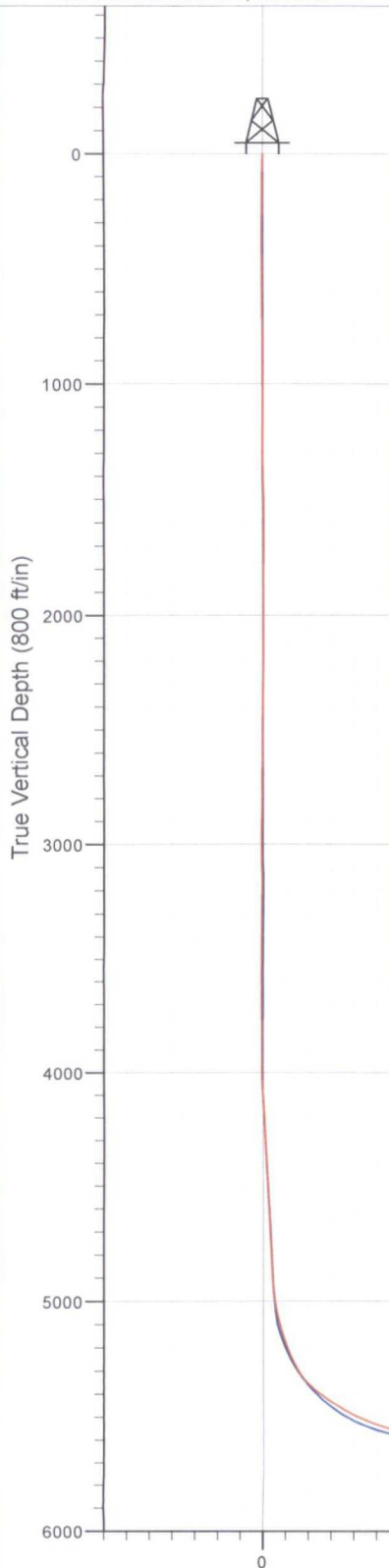




Project: Sandoval County, NM
 Site: GCU
 Well: GCU H33-2306 01H
 Wellbore: Hz
 Design: FINAL



FINAL
 GCU H33-2306 01H
 145500/338755; LR
 WELL @ 7173.0ft (A950)
 Ground Elevation @ 7157.0
 North American Datum 1983
 Well GCU H33-2306 01H, True North



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
GCU H33-2306 01H PBHL P4	-3454.8	3104.9	1885395.69	1285051.46	36.175610	-107.454098
GCU H33-2306 01H POE P4	-573.4	397.0	1888310.78	1282379.81	36.183525	-107.463272

Vertical Section at 136.78° (800 ft/in)

JUN 15 2015

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: GCU
Well: GCU H33-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well GCU H33-2306 01H
TVD Reference: WELL @ 7173.0ft (A950)
MD Reference: WELL @ 7173.0ft (A950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Project Sandoval County, NM

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Central Zone

System Datum: Mean Sea Level

Site GCU

Site Position:
From: Lat/Long
Position Uncertainty: 0.0 ft

Northing: 1,888,889.10 ft
Easting: 1,281,990.06 ft
Slot Radius: 13.200 in

Latitude: 36.185100
Longitude: -107.464617
Grid Convergence: -0.72 °

Well GCU H33-2306 01H

Well Position +N/-S 0.0 ft
 +E/-W 0.0 ft
Position Uncertainty 0.0 ft

Northing: 1,888,889.10 ft
Easting: 1,281,990.06 ft
Wellhead Elevation: ft

Latitude: 36.185100
Longitude: -107.464617
Ground Level: 7,157.0 ft

Wellbore Hz

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/11/2013	9.41	62.98	50,212

Design FINAL

Audit Notes:

Version: 1.0
Phase: ACTUAL
Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	136.78

Survey Program Date 12/26/2014

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
108.0	9,860.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
108.0	1.00	318.00	108.0	0.7	-0.6	-0.9	0.93	0.93	
168.0	0.60	292.90	168.0	1.2	-1.3	-1.8	0.87	-0.67	
235.0	0.50	278.80	235.0	1.4	-1.9	-2.3	0.25	-0.15	
298.0	0.60	255.00	298.0	1.3	-2.5	-2.7	0.39	0.16	
362.0	0.60	220.70	362.0	1.0	-3.0	-2.8	0.55	0.00	
425.0	0.70	200.10	425.0	0.4	-3.4	-2.6	0.40	0.16	
474.0	0.80	162.90	474.0	-0.2	-3.4	-2.2	1.00	0.20	
569.0	0.40	108.70	569.0	-1.0	-2.9	-1.3	0.69	-0.42	
632.0	0.50	99.30	632.0	-1.1	-2.4	-0.9	0.20	0.16	
696.0	0.30	111.90	696.0	-1.2	-1.9	-0.5	0.34	-0.31	
759.0	0.40	99.30	759.0	-1.3	-1.6	-0.2	0.20	0.16	
822.0	0.30	108.60	822.0	-1.4	-1.2	0.2	0.18	-0.16	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: GCU
Well: GCU H33-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well GCU H33-2306 01H
TVD Reference: WELL @ 7173.0ft (A950)
MD Reference: WELL @ 7173.0ft (A950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
885.0	0.20	115.30	885.0	-1.5	-0.9	0.4	0.17	-0.16	
947.0	0.40	111.10	947.0	-1.6	-0.6	0.7	0.32	0.32	
1,008.0	0.40	112.70	1,008.0	-1.7	-0.3	1.1	0.02	0.00	
1,070.0	0.40	122.00	1,070.0	-1.9	0.1	1.5	0.10	0.00	
1,131.0	0.40	137.90	1,131.0	-2.2	0.5	1.9	0.18	0.00	
1,193.0	0.40	130.80	1,193.0	-2.5	0.8	2.4	0.08	0.00	
1,254.0	0.30	105.30	1,254.0	-2.7	1.1	2.7	0.30	-0.16	
1,315.0	0.20	61.00	1,315.0	-2.7	1.3	2.9	0.34	-0.16	
1,377.0	0.30	71.30	1,377.0	-2.6	1.6	3.0	0.18	0.16	
1,438.0	0.30	7.10	1,438.0	-2.4	1.7	2.9	0.52	0.00	
1,500.0	0.30	2.60	1,499.9	-2.0	1.8	2.7	0.04	0.00	
1,561.0	0.20	311.10	1,560.9	-1.8	1.7	2.5	0.39	-0.16	
1,623.0	0.30	320.90	1,622.9	-1.6	1.5	2.2	0.17	0.16	
1,684.0	0.40	294.30	1,683.9	-1.4	1.2	1.9	0.31	0.16	
1,746.0	0.30	262.90	1,745.9	-1.3	0.9	1.6	0.34	-0.16	
1,807.0	0.40	291.80	1,806.9	-1.3	0.5	1.3	0.33	0.16	
1,869.0	0.30	273.60	1,868.9	-1.2	0.1	1.0	0.24	-0.16	
1,930.0	0.50	261.30	1,929.9	-1.2	-0.3	0.7	0.35	0.33	
1,992.0	0.50	244.60	1,991.9	-1.4	-0.8	0.5	0.23	0.00	
2,053.0	0.20	239.70	2,052.9	-1.5	-1.1	0.4	0.49	-0.49	
2,114.0	0.30	246.30	2,113.9	-1.7	-1.4	0.3	0.17	0.16	
2,176.0	0.40	208.40	2,175.9	-1.9	-1.6	0.3	0.40	0.16	
2,237.0	0.40	183.40	2,236.9	-2.3	-1.7	0.5	0.28	0.00	
2,298.0	0.70	245.50	2,297.9	-2.7	-2.1	0.5	1.02	0.49	
2,361.0	0.40	196.70	2,360.9	-3.1	-2.5	0.5	0.84	-0.48	
2,425.0	0.40	190.30	2,424.9	-3.5	-2.6	0.8	0.07	0.00	
2,488.0	0.30	33.60	2,487.9	-3.6	-2.5	0.9	1.09	-0.16	
2,551.0	0.70	18.20	2,550.9	-3.1	-2.3	0.6	0.66	0.63	
2,614.0	0.70	2.10	2,613.9	-2.3	-2.2	0.2	0.31	0.00	
2,677.0	0.60	10.10	2,676.9	-1.6	-2.1	-0.3	0.21	-0.16	
2,741.0	0.60	357.30	2,740.9	-0.9	-2.1	-0.7	0.21	0.00	
2,804.0	0.60	358.30	2,803.9	-0.3	-2.1	-1.2	0.02	0.00	
2,867.0	0.40	343.70	2,866.9	0.3	-2.2	-1.7	0.37	-0.32	
2,930.0	0.50	4.70	2,929.9	0.7	-2.2	-2.1	0.30	0.16	
2,993.0	0.50	10.10	2,992.9	1.3	-2.1	-2.4	0.07	0.00	
3,057.0	0.50	345.70	3,056.9	1.8	-2.2	-2.8	0.33	0.00	
3,120.0	0.40	305.70	3,119.9	2.2	-2.4	-3.3	0.51	-0.16	
3,183.0	0.40	267.30	3,182.9	2.3	-2.8	-3.6	0.42	0.00	
3,246.0	0.50	265.10	3,245.9	2.3	-3.3	-3.9	0.16	0.16	
3,310.0	0.60	258.40	3,309.9	2.2	-3.9	-4.3	0.19	0.16	
3,373.0	0.50	267.10	3,372.9	2.1	-4.5	-4.6	0.21	-0.16	
3,436.0	0.30	184.80	3,435.9	2.0	-4.8	-4.7	0.87	-0.32	
3,499.0	0.10	154.60	3,498.9	1.7	-4.8	-4.6	0.35	-0.32	
3,562.0	0.20	222.00	3,561.9	1.6	-4.8	-4.5	0.30	0.16	
3,625.0	0.50	215.60	3,624.9	1.3	-5.1	-4.4	0.48	0.48	
3,689.0	0.50	225.60	3,688.9	0.9	-5.4	-4.4	0.14	0.00	
3,752.0	0.30	123.10	3,751.9	0.6	-5.5	-4.2	1.01	-0.32	
3,815.0	0.10	68.40	3,814.9	0.5	-5.3	-4.0	0.41	-0.32	
3,878.0	0.10	99.30	3,877.9	0.5	-5.2	-4.0	0.08	0.00	
3,942.0	0.50	145.90	3,941.9	0.3	-5.0	-3.6	0.68	0.62	
4,005.0	1.60	185.90	4,004.9	-0.8	-4.9	-2.8	2.00	1.75	
4,068.0	3.80	189.40	4,067.8	-3.7	-5.4	-0.9	3.50	3.49	
4,131.0	5.00	190.20	4,130.6	-8.5	-6.2	2.0	1.91	1.90	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: GCU
Well: GCU H33-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well GCU H33-2306 01H
TVD Reference: WELL @ 7173.0ft (A950)
MD Reference: WELL @ 7173.0ft (A950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
4,194.0	4.80	188.70	4,193.4	-13.8	-7.1	5.2	0.38	-0.32	
4,257.0	4.40	185.70	4,256.2	-18.8	-7.7	8.4	0.74	-0.63	
4,321.0	5.00	185.40	4,320.0	-24.0	-8.2	11.9	0.94	0.94	
4,384.0	5.30	188.00	4,382.7	-29.6	-8.9	15.5	0.60	0.48	
4,447.0	5.40	189.80	4,445.4	-35.4	-9.8	19.1	0.31	0.16	
4,511.0	4.90	191.40	4,509.2	-41.1	-10.8	22.5	0.81	-0.78	
4,574.0	4.60	191.20	4,572.0	-46.2	-11.9	25.6	0.48	-0.48	
4,637.0	5.10	188.70	4,634.7	-51.5	-12.8	28.7	0.86	0.79	
4,700.0	5.10	190.40	4,697.5	-57.0	-13.7	32.1	0.24	0.00	
4,764.0	4.30	191.60	4,761.3	-62.1	-14.7	35.2	1.26	-1.25	
4,827.0	4.40	186.70	4,824.1	-66.8	-15.5	38.1	0.61	0.16	
4,890.0	5.70	187.00	4,886.8	-72.3	-16.1	41.7	2.06	2.06	
4,922.0	6.20	188.10	4,918.7	-75.6	-16.6	43.8	1.60	1.56	
4,953.0	7.30	181.00	4,949.5	-79.3	-16.8	46.2	4.45	3.55	
4,985.0	9.10	173.10	4,981.1	-83.8	-16.6	49.7	6.62	5.62	
5,017.0	11.10	168.40	5,012.6	-89.3	-15.6	54.4	6.75	6.25	
5,048.0	12.90	164.50	5,043.0	-95.6	-14.1	60.0	6.37	5.81	
5,080.0	14.90	161.20	5,074.0	-102.9	-11.8	66.9	6.72	6.25	
5,111.0	16.40	159.90	5,103.9	-110.8	-9.0	74.6	4.97	4.84	
5,143.0	18.20	157.30	5,134.4	-119.7	-5.6	83.4	6.12	5.62	
5,175.0	20.10	155.10	5,164.6	-129.3	-1.3	93.3	6.35	5.94	
5,206.0	22.10	153.50	5,193.6	-139.3	3.5	103.9	6.71	6.45	
5,238.0	23.90	151.50	5,223.0	-150.4	9.3	116.0	6.13	5.62	
5,271.0	25.80	150.90	5,253.0	-162.6	16.0	129.4	5.81	5.76	
5,302.0	28.70	149.90	5,280.5	-174.9	23.0	143.2	9.47	9.35	
5,334.0	33.90	149.20	5,307.9	-189.2	31.4	159.4	16.29	16.25	
5,366.0	39.90	148.10	5,333.4	-205.6	41.4	178.2	18.86	18.75	
5,397.0	45.30	143.40	5,356.2	-222.9	53.3	198.9	20.21	17.42	
5,429.0	49.60	140.60	5,377.9	-241.5	67.8	222.4	14.90	13.44	
5,461.0	52.70	140.10	5,398.0	-260.6	83.7	247.3	9.76	9.69	
5,492.0	55.30	139.30	5,416.2	-279.8	99.9	272.3	8.64	8.39	
5,524.0	56.40	135.60	5,434.1	-299.3	117.8	298.8	10.17	3.44	
5,555.0	58.40	133.40	5,450.8	-317.6	136.5	324.9	8.80	6.45	
5,587.0	59.40	133.30	5,467.4	-336.4	156.4	352.2	3.14	3.12	
5,619.0	61.50	134.00	5,483.2	-355.6	176.5	380.0	6.83	6.56	
5,637.0	63.20	135.00	5,491.5	-366.8	187.9	395.9	10.65	9.44	
5,657.0	65.10	136.50	5,500.2	-379.7	200.4	413.9	11.65	9.50	
5,689.0	67.50	137.20	5,513.1	-401.0	220.5	443.2	7.76	7.50	
5,721.0	69.10	136.70	5,524.9	-422.8	240.8	473.0	5.21	5.00	
5,752.0	71.30	136.20	5,535.4	-443.9	260.9	502.1	7.26	7.10	
5,784.0	73.50	134.80	5,545.1	-465.7	282.3	532.6	8.04	6.87	
5,815.0	74.20	135.10	5,553.7	-486.7	303.3	562.4	2.44	2.26	
5,845.0	75.40	135.00	5,561.6	-507.2	323.8	591.3	4.01	4.00	
5,876.0	77.70	135.70	5,568.8	-528.6	345.0	621.5	7.74	7.42	
5,907.0	79.50	135.80	5,574.9	-550.4	366.2	651.8	5.82	5.81	
5,937.0	81.80	136.90	5,579.8	-571.8	386.6	681.4	8.48	7.67	
5,968.0	83.70	137.60	5,583.7	-594.4	407.5	712.2	6.53	6.13	
5,999.0	85.50	137.20	5,586.6	-617.1	428.4	743.1	5.95	5.81	
6,030.0	87.80	137.60	5,588.4	-639.9	449.3	774.0	7.53	7.42	
6,060.0	89.50	137.70	5,589.1	-662.1	469.5	804.0	5.68	5.67	
6,091.0	90.00	138.20	5,589.3	-685.1	490.3	835.0	2.28	1.61	
6,152.0	89.20	137.60	5,589.7	-730.3	531.2	896.0	1.64	-1.31	
6,214.0	89.60	137.80	5,590.4	-776.2	572.9	957.9	0.72	0.65	

Survey Report

Company: EnCana Oil & Gas (USA) Inc
Project: Sandoval County, NM
Site: GCU
Well: GCU H33-2306 01H
Wellbore: Hz
Design: FINAL

Local Co-ordinate Reference: Well GCU H33-2306 01H
TVD Reference: WELL @ 7173.0ft (A950)
MD Reference: WELL @ 7173.0ft (A950)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,275.0	89.90	138.10	5,590.6	-821.5	613.8	1,018.9	0.70	0.49	
6,337.0	89.90	137.50	5,590.7	-867.4	655.4	1,080.9	0.97	0.00	
6,398.0	90.20	137.30	5,590.7	-912.3	696.7	1,141.9	0.59	0.49	
6,460.0	90.40	137.00	5,590.4	-957.8	738.9	1,203.9	0.58	0.32	
6,521.0	90.80	136.80	5,589.7	-1,002.3	780.5	1,264.9	0.73	0.66	
6,583.0	91.00	136.70	5,588.7	-1,047.5	823.0	1,326.9	0.36	0.32	
6,644.0	90.10	136.70	5,588.2	-1,091.8	864.8	1,387.9	1.48	-1.48	
6,706.0	90.60	137.10	5,587.8	-1,137.1	907.2	1,449.9	1.03	0.81	
6,767.0	91.00	136.60	5,586.9	-1,181.6	948.9	1,510.9	1.05	0.66	
6,829.0	90.40	136.50	5,586.2	-1,226.6	991.5	1,572.9	0.98	-0.97	
6,890.0	90.90	136.70	5,585.5	-1,270.9	1,033.5	1,633.9	0.88	0.82	
6,952.0	91.50	136.80	5,584.2	-1,316.1	1,075.9	1,695.9	0.98	0.97	
7,013.0	89.80	135.10	5,583.5	-1,359.9	1,118.3	1,756.9	3.94	-2.79	
7,074.0	89.70	134.30	5,583.7	-1,402.8	1,161.7	1,817.8	1.32	-0.16	
7,135.0	90.10	134.10	5,583.9	-1,445.4	1,205.4	1,878.8	0.73	0.66	
7,197.0	90.80	134.10	5,583.4	-1,488.5	1,249.9	1,940.7	1.13	1.13	
7,260.0	90.40	133.80	5,582.7	-1,532.2	1,295.3	2,003.6	0.79	-0.63	
7,323.0	90.70	133.90	5,582.1	-1,575.9	1,340.7	2,066.5	0.50	0.48	
7,386.0	90.20	132.60	5,581.6	-1,619.0	1,386.6	2,129.4	2.21	-0.79	
7,449.0	89.90	131.40	5,581.6	-1,661.2	1,433.4	2,192.2	1.96	-0.48	
7,513.0	89.40	132.10	5,581.9	-1,703.8	1,481.2	2,255.9	1.34	-0.78	
7,576.0	90.10	134.50	5,582.2	-1,747.0	1,527.0	2,318.8	3.97	1.11	
7,639.0	90.70	136.50	5,581.8	-1,791.9	1,571.2	2,381.8	3.31	0.95	
7,702.0	90.90	136.50	5,580.9	-1,837.6	1,614.5	2,444.8	0.32	0.32	
7,766.0	90.00	135.20	5,580.4	-1,883.5	1,659.1	2,508.8	2.47	-1.41	
7,829.0	89.30	135.80	5,580.8	-1,928.5	1,703.3	2,571.7	1.46	-1.11	
7,892.0	90.10	138.60	5,581.1	-1,974.7	1,746.1	2,634.7	4.62	1.27	
7,955.0	91.50	140.20	5,580.2	-2,022.5	1,787.1	2,697.7	3.37	2.22	
8,018.0	91.80	139.50	5,578.4	-2,070.7	1,827.7	2,760.5	1.21	0.48	
8,081.0	92.50	139.10	5,576.1	-2,118.4	1,868.7	2,823.4	1.28	1.11	
8,145.0	92.10	139.20	5,573.5	-2,166.8	1,910.6	2,887.3	0.64	-0.62	
8,208.0	90.50	139.40	5,572.1	-2,214.5	1,951.6	2,950.3	2.56	-2.54	
8,271.0	90.90	140.00	5,571.3	-2,262.6	1,992.4	3,013.2	1.14	0.63	
8,334.0	89.90	138.00	5,570.8	-2,310.1	2,033.7	3,076.1	3.55	-1.59	
8,397.0	90.00	137.50	5,570.9	-2,356.7	2,076.1	3,139.1	0.81	0.16	
8,461.0	90.70	138.10	5,570.5	-2,404.1	2,119.0	3,203.1	1.44	1.09	
8,524.0	90.50	137.90	5,569.9	-2,451.0	2,161.2	3,266.1	0.45	-0.32	
8,587.0	90.40	137.10	5,569.4	-2,497.4	2,203.8	3,329.1	1.28	-0.16	
8,650.0	90.40	136.30	5,568.9	-2,543.3	2,247.0	3,392.1	1.27	0.00	
8,714.0	90.90	135.90	5,568.2	-2,589.4	2,291.3	3,456.1	1.00	0.78	
8,777.0	89.90	136.50	5,567.8	-2,634.8	2,334.9	3,519.1	1.85	-1.59	
8,840.0	90.40	136.20	5,567.6	-2,680.4	2,378.4	3,582.0	0.93	0.79	
8,903.0	90.90	136.50	5,566.9	-2,726.0	2,421.9	3,645.0	0.93	0.79	
8,966.0	90.20	135.70	5,566.3	-2,771.4	2,465.6	3,708.0	1.69	-1.11	
9,029.0	89.10	136.90	5,566.7	-2,816.9	2,509.1	3,771.0	2.58	-1.75	
9,093.0	89.40	137.30	5,567.5	-2,863.8	2,552.7	3,835.0	0.78	0.47	
9,156.0	90.10	137.60	5,567.8	-2,910.2	2,595.3	3,898.0	1.21	1.11	
9,219.0	89.10	136.70	5,568.2	-2,956.4	2,638.1	3,961.0	2.14	-1.59	
9,282.0	89.00	137.00	5,569.2	-3,002.4	2,681.2	4,024.0	0.50	-0.16	
9,346.0	89.00	136.60	5,570.4	-3,049.0	2,725.0	4,088.0	0.62	0.00	
9,409.0	89.30	136.10	5,571.3	-3,094.6	2,768.5	4,151.0	0.93	0.48	
9,472.0	89.20	135.30	5,572.1	-3,139.7	2,812.5	4,214.0	1.28	-0.16	
9,535.0	89.90	135.00	5,572.6	-3,184.3	2,856.9	4,276.9	1.21	1.11	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
9,598.0	89.20	136.20	5,573.1	-3,229.3	2,901.0	4,339.9	2.21	-1.11	
9,662.0	89.60	136.30	5,573.8	-3,275.6	2,945.2	4,403.9	0.64	0.62	
9,725.0	91.60	138.40	5,573.1	-3,321.9	2,987.9	4,466.9	4.60	3.17	
9,810.0	92.40	138.20	5,570.2	-3,385.3	3,044.4	4,551.8	0.97	0.94	Last CES Survey @ 9,810' MD
9,860.0	92.40	138.20	5,568.1	-3,422.6	3,077.7	4,601.8	0.00	0.00	PTB @ 9,860'

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 H33-2306 01H PO - actual wellpath misses target center by 9.5ft at 5946.2ft MD (5581.1 TVD, -578.5 N, 392.8 E) - Point	0.00	0.00	5,588.0	-573.4	397.0	1,888,310.78	1,282,379.81	36.183525	-107.463272
GCU H33-2306 01H PBI - actual wellpath misses target center by 42.5ft at 9860.0ft MD (5568.1 TVD, -3422.6 N, 3077.7 E) - Point	0.00	0.00	5,573.8	-3,454.8	3,104.9	1,885,395.69	1,285,051.46	36.175610	-107.454098
GCU H33-2306 01H PBI - actual wellpath misses target center by 43.1ft at 9860.0ft MD (5568.1 TVD, -3422.6 N, 3077.7 E) - Point	0.00	0.00	5,576.8	-3,454.8	3,104.9	1,885,395.69	1,285,051.46	36.175610	-107.454098
GCU H33-2306 01H PO - actual wellpath misses target center by 11.6ft at 5946.5ft MD (5581.1 TVD, -578.7 N, 393.0 E) - Point	0.00	0.00	5,590.6	-573.4	397.0	1,888,310.78	1,282,379.81	36.183525	-107.463272
GCU H33-2306 01H PO - actual wellpath misses target center by 8.8ft at 5946.0ft MD (5581.0 TVD, -578.4 N, 392.7 E) - Point	0.00	0.00	5,586.9	-573.4	397.0	1,888,310.78	1,282,379.81	36.183525	-107.463272
GCU H33-2306 01H PBI - actual wellpath misses target center by 45.0ft at 9860.0ft MD (5568.1 TVD, -3422.6 N, 3077.7 E) - Point	0.00	0.00	5,552.5	-3,454.8	3,104.9	1,885,395.69	1,285,051.46	36.175610	-107.454098

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,810.0	5,570.2	-3,385.3	3,044.4	Last CES Survey @ 9,810' MD
9,860.0	5,568.1	-3,422.6	3,077.7	PTB @ 9,860'

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

Sandoval County, NM

GCU

GCU H33-2306 01H

Hz

Design: FINAL

Survey Report - Geographic

26 December, 2014

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	Sandoval 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	GCU				
Site Position:		Northing:	1,888,889.11 ft	Latitude:	36.185100
From:	Lat/Long	Easting:	1,281,990.05 ft	Longitude:	-107.464617
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-0.72 °

Well	GCU H33-2306 01H					
Well Position	+N/-S	0.0 ft	Northing:	1,888,889.11 ft	Latitude:	36.185100
	+E/-W	0.0 ft	Easting:	1,281,990.05 ft	Longitude:	-107.464617
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,157.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/11/2013	9.41	62.98	50,212

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	136.78	

Survey Program	Date	12/26/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
108.0	9,860.0	Survey #1 (Hz)	Geolink MWD	Geolink MWD

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,888,889.11	1,281,990.05	36.185100	-107.464617
108.0	1.00	318.00	108.0	0.7	-0.6	1,888,889.81	1,281,989.43	36.185102	-107.464619
168.0	0.60	292.90	168.0	1.2	-1.3	1,888,890.33	1,281,988.80	36.185103	-107.464622
235.0	0.50	278.80	235.0	1.4	-1.9	1,888,890.52	1,281,988.19	36.185104	-107.464624
298.0	0.60	255.00	298.0	1.3	-2.5	1,888,890.49	1,281,987.60	36.185104	-107.464626
362.0	0.60	220.70	362.0	1.0	-3.0	1,888,890.15	1,281,987.05	36.185103	-107.464627
425.0	0.70	200.10	425.0	0.4	-3.4	1,888,889.54	1,281,986.70	36.185101	-107.464629
474.0	0.80	162.90	474.0	-0.2	-3.4	1,888,888.94	1,281,986.69	36.185100	-107.464629
569.0	0.40	108.70	569.0	-1.0	-2.9	1,888,888.19	1,281,987.19	36.185097	-107.464627
632.0	0.50	99.30	632.0	-1.1	-2.4	1,888,888.07	1,281,987.67	36.185097	-107.464625
696.0	0.30	111.90	696.0	-1.2	-1.9	1,888,887.96	1,281,988.10	36.185097	-107.464624
759.0	0.40	99.30	759.0	-1.3	-1.6	1,888,887.85	1,281,988.46	36.185097	-107.464623

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
822.0	0.30	108.60	822.0	-1.4	-1.2	1,888,887.76	1,281,988.84	36.185096	-107.464621
885.0	0.20	115.30	885.0	-1.5	-0.9	1,888,887.66	1,281,989.09	36.185096	-107.464620
947.0	0.40	111.10	947.0	-1.6	-0.6	1,888,887.53	1,281,989.39	36.185096	-107.464619
1,008.0	0.40	112.70	1,008.0	-1.7	-0.3	1,888,887.37	1,281,989.78	36.185095	-107.464618
1,070.0	0.40	122.00	1,070.0	-1.9	0.1	1,888,887.16	1,281,990.16	36.185095	-107.464617
1,131.0	0.40	137.90	1,131.0	-2.2	0.5	1,888,886.89	1,281,990.48	36.185094	-107.464616
1,193.0	0.40	130.80	1,193.0	-2.5	0.8	1,888,886.58	1,281,990.79	36.185093	-107.464615
1,254.0	0.30	105.30	1,254.0	-2.7	1.1	1,888,886.40	1,281,991.10	36.185093	-107.464614
1,315.0	0.20	61.00	1,315.0	-2.7	1.3	1,888,886.40	1,281,991.35	36.185093	-107.464613
1,377.0	0.30	71.30	1,377.0	-2.6	1.6	1,888,886.51	1,281,991.60	36.185093	-107.464612
1,438.0	0.30	7.10	1,438.0	-2.4	1.7	1,888,886.71	1,281,991.77	36.185094	-107.464611
1,500.0	0.30	2.60	1,499.9	-2.0	1.8	1,888,887.04	1,281,991.80	36.185094	-107.464611
1,561.0	0.20	311.10	1,560.9	-1.8	1.7	1,888,887.27	1,281,991.73	36.185095	-107.464612
1,623.0	0.30	320.90	1,622.9	-1.6	1.5	1,888,887.47	1,281,991.55	36.185096	-107.464612
1,684.0	0.40	294.30	1,683.9	-1.4	1.2	1,888,887.68	1,281,991.26	36.185096	-107.464613
1,746.0	0.30	262.90	1,745.9	-1.3	0.9	1,888,887.76	1,281,990.90	36.185096	-107.464614
1,807.0	0.40	291.80	1,806.9	-1.3	0.5	1,888,887.82	1,281,990.55	36.185097	-107.464616
1,869.0	0.30	273.60	1,868.9	-1.2	0.1	1,888,887.91	1,281,990.18	36.185097	-107.464617
1,930.0	0.50	261.30	1,929.9	-1.2	-0.3	1,888,887.89	1,281,989.76	36.185097	-107.464618
1,992.0	0.50	244.60	1,991.9	-1.4	-0.8	1,888,887.74	1,281,989.25	36.185096	-107.464620
2,053.0	0.20	239.70	2,052.9	-1.5	-1.1	1,888,887.57	1,281,988.91	36.185096	-107.464621
2,114.0	0.30	246.30	2,113.9	-1.7	-1.4	1,888,887.46	1,281,988.67	36.185096	-107.464622
2,176.0	0.40	208.40	2,175.9	-1.9	-1.6	1,888,887.21	1,281,988.42	36.185095	-107.464623
2,237.0	0.40	183.40	2,236.9	-2.3	-1.7	1,888,886.81	1,281,988.30	36.185094	-107.464623
2,298.0	0.70	245.50	2,297.9	-2.7	-2.1	1,888,886.45	1,281,987.94	36.185093	-107.464624
2,361.0	0.40	196.70	2,360.9	-3.1	-2.5	1,888,886.08	1,281,987.53	36.185092	-107.464626
2,425.0	0.40	190.30	2,424.9	-3.5	-2.6	1,888,885.65	1,281,987.42	36.185091	-107.464626
2,488.0	0.30	33.60	2,487.9	-3.6	-2.5	1,888,885.57	1,281,987.47	36.185090	-107.464626
2,551.0	0.70	18.20	2,550.9	-3.1	-2.3	1,888,886.07	1,281,987.69	36.185092	-107.464625
2,614.0	0.70	2.10	2,613.9	-2.3	-2.2	1,888,886.82	1,281,987.83	36.185094	-107.464625
2,677.0	0.60	10.10	2,676.9	-1.6	-2.1	1,888,887.53	1,281,987.91	36.185096	-107.464624
2,741.0	0.60	357.30	2,740.9	-0.9	-2.1	1,888,888.19	1,281,987.96	36.185098	-107.464624
2,804.0	0.60	358.30	2,803.9	-0.3	-2.1	1,888,888.85	1,281,987.94	36.185099	-107.464624
2,867.0	0.40	343.70	2,866.9	0.3	-2.2	1,888,889.39	1,281,987.88	36.185101	-107.464625
2,930.0	0.50	4.70	2,929.9	0.7	-2.2	1,888,889.88	1,281,987.85	36.185102	-107.464625
2,993.0	0.50	10.10	2,992.9	1.3	-2.1	1,888,890.42	1,281,987.92	36.185104	-107.464625
3,057.0	0.50	345.70	3,056.9	1.8	-2.2	1,888,890.97	1,281,987.91	36.185105	-107.464625
3,120.0	0.40	305.70	3,119.9	2.2	-2.4	1,888,891.36	1,281,987.67	36.185106	-107.464625
3,183.0	0.40	267.30	3,182.9	2.3	-2.8	1,888,891.49	1,281,987.27	36.185107	-107.464627
3,246.0	0.50	265.10	3,245.9	2.3	-3.3	1,888,891.46	1,281,986.78	36.185106	-107.464628
3,310.0	0.60	258.40	3,309.9	2.2	-3.9	1,888,891.38	1,281,986.17	36.185106	-107.464631
3,373.0	0.50	267.10	3,372.9	2.1	-4.5	1,888,891.30	1,281,985.57	36.185106	-107.464633
3,436.0	0.30	184.80	3,435.9	2.0	-4.8	1,888,891.13	1,281,985.28	36.185105	-107.464634
3,499.0	0.10	154.60	3,498.9	1.7	-4.8	1,888,890.91	1,281,985.29	36.185105	-107.464633
3,562.0	0.20	222.00	3,561.9	1.6	-4.8	1,888,890.78	1,281,985.24	36.185105	-107.464634
3,625.0	0.50	215.60	3,624.9	1.3	-5.1	1,888,890.48	1,281,985.00	36.185104	-107.464634
3,689.0	0.50	225.60	3,688.9	0.9	-5.4	1,888,890.06	1,281,984.63	36.185103	-107.464636
3,752.0	0.30	123.10	3,751.9	0.6	-5.5	1,888,889.78	1,281,984.57	36.185102	-107.464636
3,815.0	0.10	68.40	3,814.9	0.5	-5.3	1,888,889.71	1,281,984.76	36.185102	-107.464635
3,878.0	0.10	99.30	3,877.9	0.5	-5.2	1,888,889.72	1,281,984.86	36.185102	-107.464635
3,942.0	0.50	145.90	3,941.9	0.3	-5.0	1,888,889.48	1,281,985.07	36.185101	-107.464634
4,005.0	1.60	185.90	4,004.9	-0.8	-4.9	1,888,888.37	1,281,985.12	36.185098	-107.464634
4,068.0	3.80	189.40	4,067.8	-3.7	-5.4	1,888,885.44	1,281,984.65	36.185090	-107.464635
4,131.0	5.00	190.20	4,130.6	-8.5	-6.2	1,888,880.69	1,281,983.77	36.185077	-107.464638
4,194.0	4.80	188.70	4,193.4	-13.8	-7.1	1,888,875.40	1,281,982.82	36.185062	-107.464641

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,257.0	4.40	185.70	4,256.2	-18.8	-7.7	1,888,870.40	1,281,982.12	36.185048	-107.464643
4,321.0	5.00	185.40	4,320.0	-24.0	-8.2	1,888,865.18	1,281,981.54	36.185034	-107.464645
4,384.0	5.30	188.00	4,382.7	-29.6	-8.9	1,888,859.58	1,281,980.81	36.185019	-107.464647
4,447.0	5.40	189.80	4,445.4	-35.4	-9.8	1,888,853.79	1,281,979.83	36.185003	-107.464650
4,511.0	4.90	191.40	4,509.2	-41.1	-10.8	1,888,848.15	1,281,978.70	36.184987	-107.464654
4,574.0	4.60	191.20	4,572.0	-46.2	-11.9	1,888,843.05	1,281,977.62	36.184973	-107.464657
4,637.0	5.10	188.70	4,634.7	-51.5	-12.8	1,888,837.82	1,281,976.64	36.184959	-107.464661
4,700.0	5.10	190.40	4,697.5	-57.0	-13.7	1,888,832.31	1,281,975.64	36.184944	-107.464664
4,764.0	4.30	191.60	4,761.3	-62.1	-14.7	1,888,827.17	1,281,974.58	36.184929	-107.464667
4,827.0	4.40	186.70	4,824.1	-66.8	-15.5	1,888,822.47	1,281,973.76	36.184917	-107.464670
4,890.0	5.70	187.00	4,886.8	-72.3	-16.1	1,888,816.97	1,281,973.03	36.184901	-107.464672
4,922.0	6.20	188.10	4,918.7	-75.6	-16.6	1,888,813.69	1,281,972.55	36.184892	-107.464673
4,953.0	7.30	181.00	4,949.5	-79.3	-16.8	1,888,810.06	1,281,972.24	36.184882	-107.464674
4,985.0	9.10	173.10	4,981.1	-83.8	-16.6	1,888,805.52	1,281,972.45	36.184870	-107.464673
5,017.0	11.10	168.40	5,012.6	-89.3	-15.6	1,888,799.97	1,281,973.30	36.184855	-107.464670
5,048.0	12.90	164.50	5,043.0	-95.6	-14.1	1,888,793.70	1,281,974.75	36.184838	-107.464665
5,080.0	14.90	161.20	5,074.0	-102.9	-11.8	1,888,786.33	1,281,976.94	36.184817	-107.464657
5,111.0	16.40	159.90	5,103.9	-110.8	-9.0	1,888,778.41	1,281,979.63	36.184796	-107.464648
5,143.0	18.20	157.30	5,134.4	-119.7	-5.6	1,888,769.52	1,281,983.00	36.184771	-107.464636
5,175.0	20.10	155.10	5,164.6	-129.3	-1.3	1,888,759.87	1,281,987.12	36.184745	-107.464622
5,206.0	22.10	153.50	5,193.6	-139.3	3.5	1,888,749.76	1,281,991.84	36.184717	-107.464605
5,238.0	23.90	151.50	5,223.0	-150.4	9.3	1,888,738.60	1,281,997.48	36.184687	-107.464586
5,271.0	25.80	150.90	5,253.0	-162.6	16.0	1,888,726.37	1,282,004.01	36.184654	-107.464563
5,302.0	28.70	149.90	5,280.5	-174.9	23.0	1,888,713.94	1,282,010.87	36.184620	-107.464539
5,334.0	33.90	149.20	5,307.9	-189.2	31.4	1,888,699.52	1,282,019.12	36.184580	-107.464511
5,366.0	39.90	148.10	5,333.4	-205.6	41.4	1,888,683.00	1,282,028.92	36.184535	-107.464477
5,397.0	45.30	143.40	5,356.2	-222.9	53.3	1,888,665.55	1,282,040.53	36.184488	-107.464437
5,429.0	49.60	140.60	5,377.9	-241.5	67.8	1,888,646.81	1,282,054.82	36.184437	-107.464388
5,461.0	52.70	140.10	5,398.0	-260.6	83.7	1,888,627.43	1,282,070.48	36.184384	-107.464334
5,492.0	55.30	139.30	5,416.2	-279.8	99.9	1,888,608.10	1,282,086.47	36.184332	-107.464279
5,524.0	56.40	135.60	5,434.1	-299.3	117.8	1,888,588.38	1,282,104.13	36.184278	-107.464218
5,555.0	58.40	133.40	5,450.8	-317.6	136.5	1,888,569.85	1,282,122.53	36.184228	-107.464155
5,587.0	59.40	133.30	5,467.4	-336.4	156.4	1,888,550.79	1,282,142.21	36.184176	-107.464087
5,619.0	61.50	134.00	5,483.2	-355.6	176.5	1,888,531.33	1,282,162.11	36.184123	-107.464019
5,637.0	63.20	135.00	5,491.5	-366.8	187.9	1,888,520.01	1,282,173.34	36.184093	-107.463981
5,657.0	65.10	136.50	5,500.2	-379.7	200.4	1,888,506.96	1,282,185.74	36.184057	-107.463938
5,689.0	67.50	137.20	5,513.1	-401.0	220.5	1,888,485.34	1,282,205.50	36.183999	-107.463870
5,721.0	69.10	136.70	5,524.9	-422.8	240.8	1,888,463.36	1,282,225.53	36.183939	-107.463801
5,752.0	71.30	136.20	5,535.4	-443.9	260.9	1,888,441.97	1,282,245.35	36.183881	-107.463733
5,784.0	73.50	134.80	5,545.1	-465.7	282.3	1,888,419.95	1,282,266.46	36.183821	-107.463661
5,815.0	74.20	135.10	5,553.7	-486.7	303.3	1,888,398.65	1,282,287.27	36.183763	-107.463590
5,845.0	75.40	135.00	5,561.6	-507.2	323.8	1,888,377.91	1,282,307.46	36.183707	-107.463520
5,876.0	77.70	135.70	5,568.8	-528.6	345.0	1,888,356.20	1,282,328.38	36.183648	-107.463448
5,907.0	79.50	135.80	5,574.9	-550.4	366.2	1,888,334.17	1,282,349.31	36.183588	-107.463377
5,937.0	81.80	136.90	5,579.8	-571.8	386.6	1,888,312.50	1,282,369.47	36.183529	-107.463307
5,968.0	83.70	137.60	5,583.7	-594.4	407.5	1,888,289.66	1,282,390.06	36.183467	-107.463237
5,999.0	85.50	137.20	5,586.6	-617.1	428.4	1,888,266.68	1,282,410.66	36.183405	-107.463166
6,030.0	87.80	137.60	5,588.4	-639.9	449.3	1,888,243.64	1,282,431.32	36.183342	-107.463095
6,060.0	89.50	137.70	5,589.1	-662.1	469.5	1,888,221.23	1,282,451.24	36.183282	-107.463026
6,091.0	90.00	138.20	5,589.3	-685.1	490.3	1,888,197.95	1,282,471.72	36.183218	-107.462956
6,152.0	89.20	137.60	5,589.7	-730.3	531.2	1,888,152.18	1,282,512.04	36.183094	-107.462818
6,214.0	89.60	137.80	5,590.4	-776.2	572.9	1,888,105.81	1,282,553.19	36.182968	-107.462676
6,275.0	89.90	138.10	5,590.6	-821.5	613.8	1,888,060.01	1,282,593.48	36.182844	-107.462538
6,337.0	89.90	137.50	5,590.7	-867.4	655.4	1,888,013.56	1,282,634.54	36.182718	-107.462397
6,398.0	90.20	137.30	5,590.7	-912.3	696.7	1,887,968.14	1,282,675.27	36.182594	-107.462257

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude Longitude		
6,460.0	90.40	137.00	5,590.4	-957.8	738.9	1,887,922.17	1,282,716.86	36.182469	-107.462114	
6,521.0	90.80	136.80	5,589.7	-1,002.3	780.5	1,887,877.11	1,282,757.98	36.182347	-107.461973	
6,583.0	91.00	136.70	5,588.7	-1,047.5	823.0	1,887,831.43	1,282,799.88	36.182223	-107.461829	
6,644.0	90.10	136.70	5,588.2	-1,091.8	864.8	1,887,786.52	1,282,841.16	36.182101	-107.461687	
6,706.0	90.60	137.10	5,587.8	-1,137.1	907.2	1,887,740.72	1,282,882.95	36.181977	-107.461544	
6,767.0	91.00	136.60	5,586.9	-1,181.6	948.9	1,887,695.70	1,282,924.10	36.181854	-107.461402	
6,829.0	90.40	136.50	5,586.2	-1,226.6	991.5	1,887,650.17	1,282,966.17	36.181731	-107.461258	
6,890.0	90.90	136.70	5,585.5	-1,270.9	1,033.5	1,887,605.33	1,283,007.52	36.181609	-107.461116	
6,952.0	91.50	136.80	5,584.2	-1,316.1	1,075.9	1,887,559.65	1,283,049.43	36.181485	-107.460972	
7,013.0	89.80	135.10	5,583.5	-1,359.9	1,118.3	1,887,515.29	1,283,091.28	36.181365	-107.460828	
7,074.0	89.70	134.30	5,583.7	-1,402.8	1,161.7	1,887,471.84	1,283,134.10	36.181247	-107.460681	
7,135.0	90.10	134.10	5,583.9	-1,445.4	1,205.4	1,887,428.77	1,283,177.29	36.181130	-107.460533	
7,197.0	90.80	134.10	5,583.4	-1,488.5	1,249.9	1,887,385.07	1,283,221.27	36.181011	-107.460382	
7,260.0	90.40	133.80	5,582.7	-1,532.2	1,295.3	1,887,340.78	1,283,266.08	36.180891	-107.460229	
7,323.0	90.70	133.90	5,582.1	-1,575.9	1,340.7	1,887,296.58	1,283,310.96	36.180771	-107.460075	
7,386.0	90.20	132.60	5,581.6	-1,619.0	1,386.6	1,887,252.84	1,283,356.30	36.180653	-107.459919	
7,449.0	89.90	131.40	5,581.6	-1,661.2	1,433.4	1,887,210.10	1,283,402.58	36.180537	-107.459761	
7,513.0	89.40	132.10	5,581.9	-1,703.8	1,481.2	1,887,166.90	1,283,449.79	36.180420	-107.459599	
7,576.0	90.10	134.50	5,582.2	-1,747.0	1,527.0	1,887,123.12	1,283,495.09	36.180301	-107.459444	
7,639.0	90.70	136.50	5,581.8	-1,791.9	1,571.2	1,887,077.64	1,283,538.68	36.180178	-107.459294	
7,702.0	90.90	136.50	5,580.9	-1,837.6	1,614.5	1,887,031.41	1,283,581.47	36.180052	-107.459147	
7,766.0	90.00	135.20	5,580.4	-1,883.5	1,659.1	1,886,984.94	1,283,625.47	36.179926	-107.458996	
7,829.0	89.30	135.80	5,580.8	-1,928.5	1,703.3	1,886,939.45	1,283,669.06	36.179803	-107.458846	
7,892.0	90.10	138.60	5,581.1	-1,974.7	1,746.1	1,886,892.70	1,283,711.27	36.179676	-107.458701	
7,955.0	91.50	140.20	5,580.2	-2,022.5	1,787.1	1,886,844.37	1,283,751.66	36.179545	-107.458563	
8,018.0	91.80	139.50	5,578.4	-2,070.7	1,827.7	1,886,795.73	1,283,791.66	36.179412	-107.458425	
8,081.0	92.50	139.10	5,576.1	-2,118.4	1,868.7	1,886,747.49	1,283,832.12	36.179281	-107.458286	
8,145.0	92.10	139.20	5,573.5	-2,166.8	1,910.6	1,886,698.60	1,283,873.33	36.179148	-107.458144	
8,208.0	90.50	139.40	5,572.1	-2,214.5	1,951.6	1,886,650.34	1,283,913.80	36.179017	-107.458005	
8,271.0	90.90	140.00	5,571.3	-2,262.6	1,992.4	1,886,601.79	1,283,953.94	36.178885	-107.457867	
8,334.0	89.90	138.00	5,570.8	-2,310.1	2,033.7	1,886,553.73	1,283,994.67	36.178755	-107.457727	
8,397.0	90.00	137.50	5,570.9	-2,356.7	2,076.1	1,886,506.57	1,284,036.45	36.178627	-107.457584	
8,461.0	90.70	138.10	5,570.5	-2,404.1	2,119.0	1,886,458.63	1,284,078.84	36.178496	-107.457438	
8,524.0	90.50	137.90	5,569.9	-2,451.0	2,161.2	1,886,411.29	1,284,120.40	36.178368	-107.457295	
8,587.0	90.40	137.10	5,569.4	-2,497.4	2,203.8	1,886,364.31	1,284,162.38	36.178240	-107.457151	
8,650.0	90.40	136.30	5,568.9	-2,543.3	2,247.0	1,886,317.93	1,284,205.00	36.178114	-107.457005	
8,714.0	90.90	135.90	5,568.2	-2,589.4	2,291.3	1,886,271.26	1,284,248.80	36.177987	-107.456854	
8,777.0	89.90	136.50	5,567.8	-2,634.8	2,334.9	1,886,225.25	1,284,291.83	36.177863	-107.456707	
8,840.0	90.40	136.20	5,567.6	-2,680.4	2,378.4	1,886,179.12	1,284,334.74	36.177737	-107.456559	
8,903.0	90.90	136.50	5,566.9	-2,726.0	2,421.9	1,886,133.00	1,284,377.65	36.177612	-107.456412	
8,966.0	90.20	135.70	5,566.3	-2,771.4	2,465.6	1,886,087.07	1,284,420.76	36.177487	-107.456264	
9,029.0	89.10	136.90	5,566.7	-2,816.9	2,509.1	1,886,040.98	1,284,463.71	36.177362	-107.456117	
9,093.0	89.40	137.30	5,567.5	-2,863.8	2,552.7	1,885,993.56	1,284,506.68	36.177234	-107.455969	
9,156.0	90.10	137.60	5,567.8	-2,910.2	2,595.3	1,885,946.62	1,284,548.70	36.177106	-107.455825	
9,219.0	89.10	136.70	5,568.2	-2,956.4	2,638.1	1,885,899.90	1,284,590.96	36.176979	-107.455679	
9,282.0	89.00	137.00	5,569.2	-3,002.4	2,681.2	1,885,853.41	1,284,633.46	36.176853	-107.455534	
9,346.0	89.00	136.60	5,570.4	-3,049.0	2,725.0	1,885,806.22	1,284,676.68	36.176725	-107.455385	
9,409.0	89.30	136.10	5,571.3	-3,094.6	2,768.5	1,885,760.10	1,284,719.59	36.176600	-107.455238	
9,472.0	89.20	135.30	5,572.1	-3,139.7	2,812.5	1,885,714.47	1,284,763.01	36.176476	-107.455089	
9,535.0	89.90	135.00	5,572.6	-3,184.3	2,856.9	1,885,669.25	1,284,806.88	36.176353	-107.454938	
9,598.0	89.20	136.20	5,573.1	-3,229.3	2,901.0	1,885,623.69	1,284,850.39	36.176229	-107.454789	
9,662.0	89.60	136.30	5,573.8	-3,275.6	2,945.2	1,885,576.92	1,284,894.06	36.176102	-107.454639	
9,725.0	91.60	138.40	5,573.1	-3,321.9	2,987.9	1,885,530.06	1,284,936.16	36.175975	-107.454495	
9,810.0	92.40	138.20	5,570.2	-3,385.3	3,044.4	1,885,465.93	1,284,991.87	36.175801	-107.454303	
Last CES Survey @ 9,810' MD										

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GCU H33-2306 01H
Project:	Sandoval County, NM	TVD Reference:	WELL @ 7173.0ft (A950)
Site:	GCU	MD Reference:	WELL @ 7173.0ft (A950)
Well:	GCU H33-2306 01H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
9,860.0	92.40	138.20	5,568.1	-3,422.6	3,077.7	1,885,428.27	1,285,024.70	36.175699	-107.454190
PTB @ 9,860'									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
GCU H33-2306 01H PBI	0.00	0.00	5,552.5	-3,454.8	3,104.9	1,885,395.70	1,285,051.46	36.175610	-107.454098
- actual wellpath misses target center by 45.0ft at 9860.0ft MD (5568.1 TVD, -3422.6 N, 3077.7 E)									
- Point									
GCU H33-2306 01H PO	0.00	0.00	5,586.9	-573.4	397.0	1,888,310.78	1,282,379.81	36.183525	-107.463272
- actual wellpath misses target center by 8.8ft at 5946.0ft MD (5581.0 TVD, -578.4 N, 392.7 E)									
- Point									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
9,810.0	5,570.2	-3,385.3	3,044.4	Last CES Survey @ 9,810' MD	
9,860.0	5,568.1	-3,422.6	3,077.7	PTB @ 9,860'	

Checked By: _____ Approved By: _____ Date: _____